

U.S. 101/Prado Road Interchange Project NES



Natural Environment Study

City of San Luis Obispo

[05]-[SLO]-[101]-[26.5/27.3]

Project ID: 0516000105

January 2020

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STATE OF CALIFORNIA
Department of Transportation

CITY OF SAN LUIS OBISPO
Department of Public Works

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Table of Contents

Summary	1
1 - Introduction	2
Project Purpose and Need	2
Project Description.....	3
Alternatives	3
Build Alternatives	3
2 - Study Methods.....	10
Regulatory Requirements.....	10
Studies Required	14
Agency Coordination and Professional Contacts	16
Limitations That May Influence Results.....	17
3 - Results: Environmental Setting	18
Description of the Existing Biological and Physical Conditions.....	18
Regional Species and Habitats and Natural Communities of Concern.....	24
4 - Results: Biological Resources, Discussion of Impacts & Mitigation.....	54
Habitats and Natural Communities of Special Concern	54
Discussion of Natural Communities	54
Special Status Plant Species.....	58
Special Status Animal Species Occurrences.....	58
Discussion of California red-legged frog.....	58
Discussion of Coast Range Newt.....	60
Discussion of Western Pond Turtle	61
Discussion of Steelhead – South-Central California Coast DPS	62
Discussion of Designated Critical Habitat for the South-C entral California Coast DPS steelhead.....	64
Discussion of ferruginous hawk, Cooper’s hawk, Purple martin, loggerhead shrike, white- tailed kite, and other nesting birds	65
Trees.....	67
Invasive Species.....	68
5 - Conclusions & Regulatory Determination	71
California Endangered Species Act Consultation Summary	72
Essential Fish Habitat Consultation Summary	72
Wetlands and Other Waters Coordination Summary.....	72

Trees.....	73
Invasive Species.....	73
Migratory Bird Treaty Act and California Fish and Game Code Protecting Avian Species.....	73
References.....	74
Appendix A1. Design Concepts	77
Appendix A2. Project Plans.....	78
Appendix B. USFWS and NMFS Official Species Lists.....	85
Appendix C. Plants and Animals Identified in the BSA.....	101
Appendix D. Representative Photographs	105

Summary

The City of San Luis Obispo (City) proposes to extend Prado Road over U.S. Route 101 (U.S. 101) to connect Prado Road with Dalidio Drive and reconstruct the existing U.S. 101 northbound on- and off-ramp connections to Prado Road. The interchange is located in the City at U.S. 101 post mile (PM) 26.8. The project limits extend from PM 26.5 to PM 27.3. U.S. 101 through the project area is currently a 4-lane divided freeway with auxiliary lanes provided between Madonna Road and Marsh Street. The purpose of the project is to improve overall circulation and accessibility in the project area for all transportation modes. There is a need to provide better community connectivity between the existing and planned neighborhoods east and west of U.S. 101 and to resolve forecasted operational deficiencies on State and City facilities. The connectivity needs extend to all transportation modes.

The Area of Potential Impacts (API) for this project is defined as the maximum amount of potential disturbance areas for both temporary and permanent impacts and is extensive enough to include all project components, including traffic, lane, and shoulder modifications, subject roads, and City and California Department of Transportation (Caltrans) rights-of-way. The Biological Study Area (BSA) for this project was established based upon an aerial review of the API and includes the API plus a 50-foot buffer.

The majority of the project area occurs on anthropogenic habitats, consisting of agricultural land and developed, disturbed, and ornamentally landscaped areas, and will not result in any impacts to the majority of special-status species, sensitive habitats, or natural communities known to occur regionally. However, San Luis Obispo Creek and its associated arroyo willow thicket enter the northeastern side of the BSA.

A number of special status species have potential to occur within the BSA during construction based on the habitats found on site. These species include the federally threatened and state species of special concern California red-legged frog (*Rana draytonii*) and federally endangered South-central California coast Distinct Population Segment of steelhead (*Oncorhynchus mykiss*). Implementation of the proposed project is not expected to result in direct or indirect impacts to California red-legged frog. Direct impacts to water quality would be avoided through use of spill prevention and erosion control measures that are suitable for the proposed project. South-central California coast Distinct Population Segment of steelhead federally designated critical habitat is present within San Luis Obispo Creek. Implementation of the project is not expected to result in any significant loss or fragmentation of South-central California coast Distinct Population Segment of steelhead habitat. No work will occur within the banks of San Luis Obispo Creek and no overhanging vegetation will be removed. As such, direct impacts to this species would not occur. Direct impacts to water quality would be avoided through the use of spill prevention and erosion control measures designed for the proposed project. The habitats within the project site also have potential to support additional state species of special concern, including: coast range newt (*Taricha torosa*) and southwestern pond turtle (*Actinemys pallida*). Habitats on site are suitable for use by a variety of common and special-status nesting bird and raptor species. Potential impacts to the aforementioned wildlife species will be minimized and/or avoided to the maximum extent feasible with implementation of recommended avoidance and minimization measures described in Section 4.

None of the special-status plant species known to occur in the region were detected within the BSA during the field surveys. Suitable habitat occurs within the BSA for two special status plant

species: Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) and black-flowered figwort (*Scrophularia atrata*). Both species would have been identifiable during at least one of the field surveys (i.e., survey timing coincided with blooming periods for the plants), but neither plant species was observed within the BSA. Based on the lack of suitable habitat for the remaining species evaluated, no special-status plant species are expected to occur within the BSA.

The proposed project will be subject to the permit requirements of the California Department of Fish and Wildlife pursuant to Section 1600 et seq. of the California Fish and Game Code for permanent impacts to riparian vegetation associated with San Luis Obispo Creek.

Both non-native landscape trees and native trees are present within the BSA. Some of these trees within the API are expected to be removed or impacted, with the final number dependent on the final design of the project and construction access needs. Certain trees are afforded certain protections pursuant to City ordinances. The City regulates tree removal within its jurisdiction (Tree Ordinance No. 1544 2010 Series). If removal of qualifying trees is required, a tree removal permit will be obtained, and a tree protection and replacement plan will be implemented to meet the requirements of the City ordinance.

There is potential for the project to result in the spread of invasive plant species. However, with implementation of the recommended avoidance and minimization measures outlined in Section 4, potential impacts would be reduced.

1 - Introduction

The project has oversight by Caltrans as the lead agency for the California Environmental Quality Act (CEQA). At this time, the project does not have federal funding from the Federal Highway Administration (FHWA). However, if the project does receive FHWA funding in the future, as part of its National Environmental Policy Act (NEPA) assignment of federal responsibility by the FHWA, effective October 1, 2012, updated March 2017, and pursuant to 23 U.S. Code (USC) 326, Caltrans may become the lead federal agency for consultation under Section 7 of the Endangered Species Act, if necessary.

Project Purpose and Need

The purpose of the project is to:

- Improve overall operations of U.S. 101 and adjacent interchanges;
- Improve safety and mobility for bicyclists and pedestrians; and
- Improve transit performance and enhance transit opportunities.

The need for the project involves providing better community connectivity by improving current and future operations of U.S. 101 and adjacent interchanges, improving safety and mobility for bicyclists and pedestrians, improving transit performance, and enhancing transit opportunities.

Project Description

This section describes the proposed project and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts.

The City proposes to extend Prado Road over U.S. 101 to connect with Dalidio Drive and reconstruct the existing U.S. 101 northbound ramp on- and off-ramp connections to Prado Road to provide congestion relief, operational efficiency, and multimodal connectivity. The interchange is located in the City of San Luis Obispo on U.S. 101 PM 26.8. The project limits extend from PM 26.5 to PM 27.3.

The area surrounding the project includes commercial uses northwest of the intersection of Prado Road and U.S. 101, commercial and residential uses northeast of said intersection, the City-owned corporation yard and City Water Resource Recovery Facility (WRRF) southeast of the intersection, and the San Luis Ranch property west of U.S. 101. The San Luis Ranch property is currently in the initial phases of development, with approved commercial, residential, recreational, and agricultural land uses under the San Luis Ranch Specific Plan, adopted by the City in 2017 (City of San Luis Obispo 2017a). On the eastern end of the Prado Road alignment the project abuts the western limits of the San Luis Obispo Creek Bridge Widening Project, which has independent utility from the proposed project and is currently being reviewed by the City of San Luis Obispo. The proposed project does not contemplate any impacts to or activity within San Luis Obispo Creek or the riparian area associated with San Luis Obispo Creek at the location of the San Luis Obispo Creek Bridge Widening Project on Prado Road.

The project is located within Caltrans District 5 in the City of San Luis Obispo, San Luis Obispo County. The project area is located within Township 31 South, Range 12 East, on the U.S. Geological Survey (USGS) San Luis Obispo, California 7.5-minute quadrangle. Figure 1 depicts the regional location of the project.

ALTERNATIVES

Four preliminary build alternatives, Alternatives A1, A3, A4, and A7 have been identified by the Project Development Team (PDT) as viable and to be further studied in the Project Approval/Environmental Document (PA/ED) phase. Each of the viable build alternatives includes a partial interchange with the proposed Prado Road overcrossing constructed over U.S. 101 and new U.S. 101 northbound off-ramp and U.S. 101 northbound on-ramp from Prado Road. Alternatives A1 and A4 also include two intersection control options: traffic signal control, or roundabout control. The roundabout control option for Alternative A3 would be the same as provided for Alternative A1. Finally, a roundabout-only option at the Prado Road/Elks Lane/U.S. 101 northbound ramps is considered with Alternative A7. The design concepts for each of these alternatives are presented in Appendix A1.

Build Alternatives

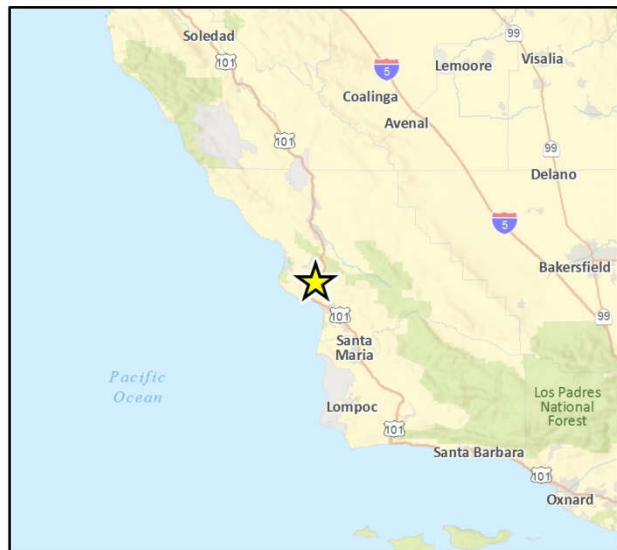
This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project.

Figure 1 Project Location Map



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★ Project Location



NESM Fig 1 Regional Location

U.S. 101 through the study area is currently a 4-lane divided freeway with auxiliary lanes provided between Madonna Road and Marsh Street. The Ultimate Concept Facility (beyond 2035) for U.S. 101 within the study area is identified as a freeway with capacity of up to 6 lanes though there is no funding currently identified for providing a 6-lane freeway section. Though not funded, each viable build alternative will accommodate the Ultimate Concept Facility through the proposed Prado Road overcrossing.

Common Design Features of the Build Alternatives

The project would include construction of a new continuous northbound U.S. 101 auxiliary lane between the Prado Road northbound on-ramp and the Madonna Road northbound off-ramp. This auxiliary lane is proposed for all project alternatives. The auxiliary lane will be constructed adjacent to the existing U.S. 101 northbound travel lane and will require removal of the existing outside shoulder. The auxiliary lane will be constructed to a 12-foot paved width with a new 10-foot paved outside shoulder along the entire length. A summary of impacts to arroyo willow thicket from the construction of the auxiliary lane can be found in Appendix A2.

Prado Road (Dalidio Drive) would be extended west of U.S. 101 to the intersection with the Froom Ranch Road/Dalidio Drive intersection. The extension of Prado Road would have a minimum 4-lane divided arterial section through and adjacent to the interchange with a separate sidewalk/Class IV bikeway and 5-foot wide shoulder.

A Midwest Guardrail System is proposed to be placed adjacent to the proposed northbound U.S. 101 auxiliary lanes outside shoulder to mitigate nonstandard Clear Recovery Zone clearances between the outside U.S. 101 northbound travel lane and adjacent trees within the riparian corridor associated with San Luis Obispo Creek. Placement of the guardrail system at this location is proposed for all project alternatives.

The project would require take of a portion of the City-owned corporation yard located south of Prado Road and east of U.S. 101 (APN 053-051-045), which would result in the need for the City to relocate some or all operations from this facility to another location. The potential effect on the corporation yard operations would vary based on the area of take required for each project alternative and is described below under Unique Features of the Build Alternatives. No off-site relocation of corporation yard buildings is currently proposed as part of this action.

The project would require realignment of Elks Lane east of U.S. 101. The specific future alignment of Elks Lane would depend on the requirements of the individual build alternatives.

The City has an independent project to widen Prado Road from the planned Elks Lane realignment connection with Prado Road east to the western limits of the San Luis Obispo Creek Bridge Widening Project. The project will transition Prado Road between the proposed interchange and San Luis Obispo Creek Bridge project improvements.

Construction is anticipated to commence during the spring of 2025 and be completed in the spring of 2028.

Unique Features of the Build Alternatives

Alternative A1

The Alternative A1 geometric concept assumes traffic signal control provided at the U.S. 101 northbound ramp intersection with Prado Road. Other preliminary geometric design elements presented for Alternative A1 include the following:

- The interchange configuration is consistent with a Type L-1 tight diamond configuration to the east of U.S. 101.
- Retaining walls are proposed on the inside of both the U.S. 101 northbound off-ramp to Prado Road and the Prado Road northbound on-ramp to U.S. 101.
- Side slopes are proposed on the outside of both the U.S. 101 northbound off-ramp to Prado Road and the Prado Road northbound on-ramp to U.S. 101 and along both sides of Prado Road.
- An approximately 1,200-foot auxiliary lane is provided between the Prado Road northbound on-ramp and the Madonna Road northbound off-ramp.

Alternative A1 would encroach into the current floodplain located both to the east and west of U.S. 101. Potential improvements to reduce this encroachment include placing a portion of the U.S. 101 northbound off-ramp and northbound on-ramp and a majority of the Prado Road (Dalidio Drive) extension west of U.S. 101 to the intersection with the future Froom Ranch Road/Dalidio Drive intersection on structures raised above the floodplain.

Alternative A1 would result in a take of approximately 2.2 acres of the City-owned corporation yard located on APN 053-051-045.

Alternative A1 would require relocating Elks Lane around the east side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 2 for both the side slope option and the structure option.

Alternative A1R – Roundabout Option

The Alternative A1R geometric concept includes a roundabout provided at the U.S. 101 northbound ramp intersection with Prado Road. The other preliminary geometric design elements are consistent with the traffic signal option (Alternative A1).

Alternative A1R would encroach into the current floodplain located both to the east and west of U.S. 101. Potential improvements to reduce this encroachment include placing a portion of both the U.S. 101 northbound off-ramp and northbound on-ramp and a majority of the Prado Road (Dalidio Drive) extension west of U.S. 101 to the intersection with the future Froom Ranch Road/Dalidio Drive intersection on structure.

Alternative A1R would result in a take of approximately 1.7 acre of the City-owned corporation yard located on APN 053-051-045.

Alternative A1R would require relocating Elks Lane around the east side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 2 for both the side slope option and the structure option.

Alternative A3

The Alternative A3 geometric concept assumes traffic signal control provided at the U.S. 101 northbound ramp intersection with Prado Road. Other preliminary geometric design elements presented for Alternative A3 include the following:

- The interchange configuration is consistent with a Type L-1 tight diamond configuration on the east side of U.S. 101.
- Retaining walls are proposed on the inside of both the northbound off-ramp and the northbound on-ramp.
- Side slopes are proposed on the outside of both the U.S. 101 northbound off-ramp to Prado Road and the Prado Road northbound on-ramp to U.S. 101 and along both sides of Prado Road.
- An approximately 1,060-foot auxiliary lane is provided between the Prado Road northbound on-ramp and the Madonna Road northbound off-ramp.

Alternative A3 would encroach into the current floodplain located both to the east and west of U.S. 101. Potential improvements to reduce this encroachment include placing a portion of both the U.S. 101 northbound off-ramp and northbound on-ramp and a majority of the Prado Road (Dalidio Drive) extension west of U.S. 101 to the intersection with the future Froom Ranch Road/Dalidio Drive intersection on structures raised above the floodplain.

Alternative A3 would result in a take of approximately 1.6 acres of the City-owned corporation yard located on APN 053-051-045.

Note: The roundabout option for this alternative would be the same as described for Alternative A1R.

Alternative A3 would require relocating Elks Lane around the east side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 2 for the side slope option. The structure option would retain the alignment of Elks Lane around the west side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 1.

Alternative A4

The Alternative A4 geometric concept assumes traffic signal control provided at the U.S. 101 northbound ramp intersection with Prado Road. Other preliminary geometric design elements presented for Alternative A4 include the following:

- The interchange configuration is consistent with a Type L-7 partial cloverleaf configuration on the east side of U.S. 101.
- Side slopes are proposed on both the inside and the outside of both the U.S. 101 northbound off-ramp to Prado Road and the Prado Road northbound on-ramp to U.S. 101 and along both sides of Prado Road.
- An approximately 2,280-foot auxiliary lane is provided between the Prado Road northbound on-ramp and the Madonna Road northbound off-ramp.

Alternative A4 would encroach into the current floodplain located to the west of U.S. 101. Potential improvements to reduce this encroachment include placing a portion of both the U.S. 101 northbound off-ramp and northbound on-ramp and a majority of the Prado Road (Dalidio Drive) extension west of U.S. 101 to the intersection with the future Froom Ranch Road/Dalidio Drive intersection on structures raised above the floodplain.

Alternative A4 would result in a take of approximately 8.9 acres of the City-owned corporation yard located on APN 053-051-045.

Alternative A4 would retain the alignment of Elks Lane around the west side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 1.

Alternative A4R – Roundabout Option

The Alternative A4R geometric concept with a roundabout provided at the U.S. 101 northbound ramp intersection with Prado Road. The other preliminary geometric design elements are consistent with the traffic signal option Alternative A4.

Alternative A4R would encroach into the current floodplain located both to the east and west of U.S. 101. Potential improvements to reduce this encroachment include placing a portion of both the U.S. 101 northbound off-ramp and northbound on-ramp and a majority of the Prado Road (Dalidio Drive) extension west of U.S. 101 to the intersection with the future Froom Ranch Road/Dalidio Drive intersection on structures raised above the floodplain.

Alternative A4R would result in a take of approximately 9.0 acres of the City-owned corporation yard located on APN 053-051-045.

Alternative A4R would retain the alignment of Elks Lane around the west side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 1.

Alternative A7

The Alternative A7 geometric concept assumes roundabout control provided at the Prado Road/Elks Lane/U.S. 101 northbound ramp intersection with Prado Road. Other preliminary geometric design elements presented for Alternative A7 include the following:

- The interchange configuration is similar in concept to a Type L-6 configuration on the east side of U.S. 101. The exception though is instead of the ramps connecting with a frontage road, the off-ramp is merged with eastbound (EB) Prado Road prior to the roundabout while the on-ramp diverges from westbound (WB) Prado Road after the roundabout.
- Side slopes are proposed on the outside of both the U.S. 101 northbound off-ramp to Prado Road and the Prado Road northbound on-ramp to U.S. 101 and along both sides of Prado Road.
- An approximately 1,120-foot auxiliary lane is provided between the Prado Road northbound on-ramp and the Madonna Road northbound off-ramp.

Alternative A7 would encroach into the current floodplain located to the west of U.S. 101. Potential improvements to reduce this encroachment include placing a portion of both the U.S. 101 northbound off-ramp and northbound on-ramp and a majority of the Prado Road (Dalidio

Natural Environment Study

Drive) extension west of U.S. 101 to the intersection with the future Froom Ranch Road/Dalidio Drive intersection on structures raised above the floodplain.

Alternative A7 would result in a take of approximately 1.1 acre of the City-owned corporation yard located on APN 053-051-045.

Alternative A7 would require relocating Elks Lane around the east side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 2 for the side slope option. The structure option would retain the alignment of Elks Lane around the west side of the Sunset Drive-In as shown with the Elks Lane Realignment Option 1.

2 - Study Methods

The NES prepared for the project consists of a review of relevant literature, two field surveys, and an impact analysis. The evaluation of special-status species, sensitive habitats, and natural communities is based on a literature review to determine resources known from the region. Field surveys were also performed to evaluate site conditions, assess habitat suitability for special-status species and determine presence/absence of sensitive habitats and natural communities. The evaluation analyzed the potential presence of such species and whether impacts may occur to special-status species and sensitive natural communities. The findings and opinions conveyed in this report are based upon this methodology and are described in further detail below.

Regulatory Requirements

Federal Endangered Species Act of 1973, as amended

Federal agencies that fund, authorize, or carry out actions that "may affect" a listed species and its habitat, must consult with the United States Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) according to the provision in Section 7(a) of the federal Endangered Species Act (FESA) for federal actions. Provisions of the 1982 amendments to the FESA authorize the USFWS and NMFS to permit the taking of listed species, if such taking is "incidental to, and not the purpose of, carrying out otherwise lawful activities [16 USC 1539 and Section 10(a)(1)(B) of the FESA] pursuant to Section 7 of the FESA for federal actions." As part of Caltrans' NEPA assignment of federal responsibilities by the FHWA effective October 1, 2012, updated in March 2017, and pursuant to 23 USC 327 as amended by Moving Ahead for Progress in the 21st Century Act (MAP-21), Caltrans has assumed the role of lead federal agency for Section 7 of the FESA. As part of the process of compliance with the FESA (Section 7(c)), this NES was prepared to provide Caltrans, the lead NEPA agency, with adequate information to determine the project's impacts to federally listed and proposed species, and their habitat, including any federally designated Critical Habitat, and whether consultation is necessary with the USFWS and/or NMFS.

Clean Water Act

The United States Army Corps of Engineers (USACE) has jurisdiction over placement of fill materials in water bodies and wetlands subject to the Clean Water Act (CWA). Section 404 of the CWA establishes a permit program for the discharge of dredge or fill material into waters of the U.S. All federal agencies are to avoid impacts to wetlands whenever there is a practicable alternative. The proposed project is not anticipated to require a Section 404 Permit under the CWA from the USACE.

Section 401 requires any applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the CWA. This is most frequently required in tandem with a Section 404 permit request (see above). A Section 401 Water Quality Certification from the Central Coast Regional Water Quality Control Board (CCRWQCB) is not anticipated to be required for the proposed project.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) assures water quality and waste management is a high priority in the state of California. This law requires that anyone who is discharging waste or proposing to discharge waste which could affect the quality of the state's water must file a "report of waste discharge" with the local Regional Water Quality Control Board (RWQCB). This act also requires a person who discharges waste into the waters of the state in violation of waste discharge requirements or other order or prohibition issued by a California RWQCB or the State Water Resources Control Board (SWRCB) to clean up the waste or to abate the effects of the waste. The regional board is authorized to expend available funds to perform any cleanup, abatement, or remedial work required under those circumstances. The Porter-Cologne Act is also used to regulate discharges to isolated, waters of the state (i.e., features not subject to Clean Water Act regulations) through the issuance of a Waste Discharge Requirements (WDRs) permit. A WDRs permit for impacts to waters of the State is not anticipated for this project.

Executive Order 13112 – Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Invasive species on the U.S. Department of Agriculture Federal Noxious Weed List (2018), California Department of Food and Agriculture Noxious Weed List (2016), and California Invasive Plant Council (Cal-IPC) Inventory (2018) were reviewed and compared to those non-native species documented within the BSA.

Migratory Bird Treaty Act

This treaty with Canada, Mexico, and Japan makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The California Fish and Game Code (CFGC; Section 3500) also prohibits the destruction of any nest, egg, or nestling (see below).

California Fish and Game Code

CFGC Sections 1600-1616 specify that the protection and conservation of the fish and wildlife resources of the state are of utmost public interest and identifies the process through which lake and streambed alteration agreements are administered. Section 1602 requires notification to the California Department of Fish and Wildlife (CDFW) prior to any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW jurisdiction includes the entire bed, banks, and channel of the stream, and is not limited by the ordinary high-water mark. In practice, the term "bank" is interpreted to encompass the physical stream bank and all riparian vegetation associated with the stream. The proposed project is anticipated to require a Streambed Alteration Agreement from the CDFW for permanent impacts to riparian vegetation associated with San Luis Obispo Creek.

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of endangered and threatened species (CFGC Section 2070). Sections 2050 through 2098 of the CFGC outline the protection provided to California's rare, endangered, and threatened species. Section 2080 of the CFGC prohibits the taking of plants and animals listed under the CESA. Section 2081 established an incidental take permit program for state-listed species. The CDFW maintains a list of "candidate species," which it formally notices as being under review for addition to the list of endangered or threatened species. To comply with the requirements of the CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project area and determine whether the project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any project that may impact a candidate species. Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. "Take" of protected species incidental to otherwise lawful management activities may be authorized under CFGC Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

The CDFW maintains lists of "Species of Special Concern." Species with this status have limited distribution or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and thereby warrant specific protection measures.

The CDFW also manage a Watch List that includes "Taxa to Watch" (Shuford and Gardali, 2008), which includes: 1) species not on the current Special Concern list but were on previous lists and they have not been State listed under CESA; 2) species that were previously State or federally listed and now are on neither list; or 3) species are on the list of Fully Protected species.

Sensitive species qualifying for listing, but not currently listed, are afforded protection under CEQA. The CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. The CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species with California Rare Plant Ranks (CRPR) 1A, 1B, 2A, or 2B are typically considered under CEQA review.

Sections 3500 to 5500 of the CFGC outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses authorizing the take of any fully protected species, except under certain circumstances such as scientific research and live capture, and relocation of such species pursuant to a permit for the protection of livestock.

Under Section 3503.5 of the CFGC, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

City of San Luis Obispo

The proposed project is located within the City and is thus subject to City codes and regulations. The City regulates tree removal within its jurisdiction (Tree Ordinance No. 1544 2010 Series). The City tree ordinance requires permits from the City for the removal of any street tree, trees within 25 feet of a creek, all trees with greater than 12 inches diameter at breast height (DBH), and all native trees with greater than 10 inches DBH. According to the tree ordinance, native trees include coast live oak (*Quercus agrifolia*), California laurel (*Umbellularia californica*), California sycamore (*Platanus racemosa*), Southern California black walnut (*Juglans californica*), arroyo willow (*Salix lasiolepis*), black cottonwood (*Populus trichocarpa*), toyon (*Heteromeles arbutifolia*), big leaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), and valley oak (*Quercus lobata*).

A tree removal application is required; however, a permit from public works is not required for the following circumstances: the tree is an imminent hazard to life or property, and removing it is the only feasible way to eliminate the hazard; the tree is dead or dying or damaged beyond reclamation; the tree's roots are causing severe damage to public or private property, and removing the tree is the only feasible way to eliminate the damage.

Other Regulations

The SWRCB has been designated by the U.S. EPA to enforce certain requirements of the federal Clean Water Act as part of the National Pollutant Discharge Elimination System (NPDES). The State Order requires covered construction projects to use the "best available technology economically achievable," and the "best conventional pollution control technology." Each construction project subject to the Construction General Permit is required to have Stormwater Pollution Prevention Plan (SWPPP) prepared. A SWPPP identifies likely sources of sediment and pollution and incorporates measures to minimize sediment and pollution in runoff water. These objectives are established based on the designated beneficial uses for the receiving water. Under Phase II of the NPDES, the County was required to seek coverage under SWRCB's General Permit for Municipal Separate Storm Sewer Systems (MS4s). The City of San Luis Obispo NPDES Phase II Program submitted their stormwater management plan to the Central Coast RWQCB in July 2013 under the NPDES Phase II program. The City requires strict accordance with the program, including new treatment and retention requirements for developments.

The protection of water quality in San Luis Obispo Creek and its tributaries is under the jurisdiction of the RWQCB. The City also has the responsibility for regulating water quality under its NPDES MS4 permits program. The RWQCB establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses for a particular surface water or groundwater. Within the City limits, the jurisdiction for the water quality of the San Luis Obispo Creek watershed overlaps with the City Public Works and Utilities Departments due to the implementation of the MS4.

Within the Caltrans right-of-way, the project must adhere to the Statewide stormwater NPDES permit (Caltrans permit). This permit contains regulations pertaining to stormwater and non-stormwater discharges from Caltrans properties and facilities as well as discharges associated with operation and maintenance of the State highway system. Construction BMPs would be implemented in accordance with the Construction General Permit (Order No. 2009-0009-DWQ), which requires development and implementation of a SWPPP.

Studies Required

To support preparation of this NES and to provide the level of information necessary to analyze potential project impacts to biological resources pursuant to CEQA and NEPA for the project, a review of relevant biological literature and databases was performed and field surveys of the BSA were conducted.

Literature Search

Queries of the USFWS *Information for Planning and Consultation* (IPaC) system, CDFW *California Natural Diversity Database* (CNDDDB), NMFS species lists, and California Native Plant Society (CNPS) *Online Inventory of Rare and Endangered Plants* were conducted to obtain comprehensive information regarding state and federally listed and other special-status species considered to have potential to occur within the BSA, the *San Luis Obispo, California* USGS 7.5-minute topographic quadrangle, and the surrounding eight quadrangles (*Morro Bay North, Atascadero, Santa Margarita, Morro Bay South, Lopez Mtn., Port San Luis, Pismo Beach, and Arroyo Grande NE, California*). The resultant lists were compiled and summarized into a table that is presented as Table 1. Note that plant species recognized as CRPR 3 and 4 are considered a “Watch List” and generally are not considered under NEPA or CEQA.

The initial query of the USFWS IPaC site was conducted on April 9, 2018 for federally listed species that may be affected by the project. The IPaC species list was updated on November 20, 2019 and again on October 13, 2021. On November 15, 2019 an official species list was requested from NMFS to confirm the species under NMFS jurisdiction that may occur within the vicinity of the project. The USFWS IPaC letter and NMFS email are included in Appendix B of this report. An analysis of the potential for special-status species to occur within the BSA is presented in Section 4. This analysis is based upon the habitat requirements of each special-status species produced from the aforementioned sources in comparison to the type and quality of habitats observed onsite during the field surveys.

Field Reviews

Reconnaissance level field surveys of the BSA and immediate vicinity were conducted to document the existing baseline conditions, existing biological resources onsite, and to further evaluate the potential for presence of special status species and/or their habitats. All plant and wildlife species observed within the BSA were identified to the lowest possible taxonomic level. A compendium of species observed during site surveys is provided in Appendix C. Survey dates, survey type and location, and personnel who completed surveys are summarized below.

Survey Methods

Rincon Consultants, Inc. (Rincon) associate biologist, Jamie Deutsch conducted a field survey on July 27, 2018, between the hours of 0900 and 1130. Weather conditions during the survey were cool, with temperatures between 56 and 67 degrees Fahrenheit (°F), with winds between 0 and 5 miles per hour and 20 percent cloud cover.

Following updates to project plan alternatives that resulted in a new API, a second field survey of the additional API areas was conducted by Rincon biologist Heather Price Curran on April 7, 2021. The survey was conducted between the hours of 0900 and 1200 and weather conditions

were mild, with temperatures ranging from 54 to 64 °F, winds of 5 miles per hour and 50 to 80 percent cloud cover.

Following further updates to the API, Rincon biologist Heather Price Curran conducted a survey of the additional area on Prado Road on August 4, 2021. The survey was conducted between 1000 and 1100 and weather conditions were mild, with temperatures between 70 and 72 °F, winds of 5 miles per hour and 0 percent cloud cover.

The survey areas included the outer disturbance limits of the project (API) plus a 50-foot buffer. The surveys were designed to assess habitat suitability for special-status species, characterize and map habitats, natural communities and land cover types, map potentially jurisdictional features, and to develop an inventory of all plant and animal species detected within the BSA. The field surveys documented existing site conditions and the potential presence of special-status or sensitive biological resources.

All potentially jurisdictional features within the BSA were inspected to record existing conditions and determine limits of jurisdiction. The extent of potential CDFW jurisdiction was delineated by reviewing the topography and morphology of potentially jurisdictional features to determine the outer limit of riparian vegetation, where present, or the top of banks for stream features lacking riparian vegetation, to identify streams potentially subject to Section 1600 et seq. of the CFGC. Additionally, Mr. Deutsch reviewed the topography and morphology of potentially jurisdictional features to determine the outer limit of the top of the stream banks for additional areas that the RWQCB may regulate under the Porter-Cologne Act.

A list of all plant species encountered was generated at the time of the surveys (Appendix C). Survey data were collected in notebooks, on color aerial maps of the BSA, using a digital camera, and a Trimble R1 sub-meter global positioning system (GPS) data collection unit. All pertinent spatial data was later transferred into a Geographic Information System (GIS) and has been incorporated into this report.

Botanical surveys were conducted along intuitively controlled transects within the BSA to achieve 100% visual inspection. During the field surveys, an inventory of all plant species observed was compiled and the general site conditions were documented. The surveys were conducted in accordance with current recommendations from USFWS and CDFW for botanical surveys. Surveys followed Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (U.S. Fish and Wildlife Service 2000) and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (California Department of Fish and Wildlife 2018). The surveys included a directed search for special-status plants that would have been apparent during the time of each survey, and also evaluated habitat suitability for species that do not typically bloom during the survey periods. Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) and the *Jepson eFlora* (Jepson Flora Project eds. 2018). All plant species encountered were noted and identified to the lowest taxonomic level possible given the condition of the materials during the site visit. The vegetation classification system used for this analysis is based on *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009) and *Preliminary Descriptions of the Terrestrial Communities of California* (Holland 1986), but has been modified as needed to accurately describe the existing habitats observed on site.

Wildlife identification and nomenclature followed standard reference texts, including *Sibley Birds West: Field Guide to Birds of Western North America* (Sibley 2016), *Field Guide to Western*

Reptiles and Amphibians (Stebbins 2003), and *Mammals of North America* (Bowers et al. 2004). The habitat requirements for each regionally occurring special status species were assessed and compared to the type and quality of the habitats observed within the BSA during the field surveys. Several sensitive species were eliminated from consideration as having potential to occur on site due to lack of suitable habitat, lack of suitable soils/substrate, and/or knowledge that the site is fully outside regional distribution of the species. The relative density of fossorial mammal burrows and soil characteristics throughout the site were also noted.

Personnel and Survey Dates

On July 27, 2018, Rincon Associate Biologist, Jamie Deutsch conducted a reconnaissance-level field survey within the BSA. Mr. Deutsch has over nine years of professional experience providing biological resources services and has served as project manager and field lead for numerous small to large scale construction projects throughout California. He has conducted compliance monitoring, agency coordination, and regulatory permitting for several projects, including FESA Section 7 consultations with USFWS and NMFS; U.S. Army Corps of Engineers (USACE) Section 404 Nationwide Permits, RWQCB Section 401 Water Quality Certifications, CDFW Section 1602 Lake and Streambed Alteration Agreements and Section 2081(b) Incidental Take Permits, and California Coastal Commission Coastal Development Permits. He has experience with special-status species surveys, floristic surveys, fish and amphibian handling and relocation, and small mammal trapping as well as an extensive background in CEQA and NEPA compliance, vegetation surveys, and sensitive species monitoring and mitigation planning. Mr. Deutsch's combined education and professional background provide a wide range of experience in ecology, biological resource assessment, and habitat restoration, primarily in central and southern California.

On April 7 and August 4, 2021, Rincon Biologist Heather Price Curran conducted reconnaissance-level field surveys of the revised BSA. Ms. Curran holds both a B.S. and M.S. in Biological Sciences and has over 15 years of experience studying and conducting biological research on the central coast of California. Ms. Curran has served as a biologist for a wide range of projects throughout California, from large-scale utility construction to groundwater sustainability plans. Ms. Curran has extensive experience with surveying for special-status species in terrestrial, aquatic, and marine habitats. This experience includes intertidal surveys, nesting bird surveys, botanical surveys, fish handling and relocation, and vegetation mapping, as well as sensitive species monitoring and mitigation planning.

Agency Coordination and Professional Contacts

On April 9, 2018, an official species list was requested and received from the USFWS Ventura Field Office through the online IPaC site. On November 20, 2019, an updated official species list was requested due to the time elapsed since analysis was initiated. On October 13, 2021, another updated USFWS species list was requested and received through IPaC; this most recent species list can be found in Appendix B. On April 20, 2018, an email was sent to NMFS requesting an official list of species under NMFS jurisdiction that may occur in the San Luis Obispo USGS 7.5-minute quadrangle. On October 18, 2021, another email was sent to NMFS requesting an updated official species list. This email, and the list of species under NMFS jurisdiction within the San Luis Obispo quadrangle, are included in Appendix B. No other agency coordination has occurred to date.

Limitations That May Influence Results

All plant species observed within the survey area were documented; however, the surveys were conducted outside the blooming season for many locally occurring species. Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors, such as timing of the surveys versus typical blooming period for many regionally occurring, spring-blooming annual species. However, habitat conditions for earlier flowering species were evaluated during the field surveys for this project to determine the potential for special status species to occur in the API.

The detection of wildlife species was limited by seasonal and temporal factors. As the surveys were performed during the day, identification of nocturnal animals was limited to sign if present onsite. Sensitive wildlife species with the potential to occur in the BSA may be generally difficult to detect and may include transient or migratory species. The population sizes and locations of sensitive wildlife species may fluctuate throughout the year. As a result of these factors, the data collected for this NES represents a “snapshot” in time and may not comprehensively reflect all conditions that may be present. Climatic conditions during the field surveys were generally mild and favorable for the identification of typical wildlife species that are active during the daytime.

3 - Results: Environmental Setting

This section provides a general description of current environmental conditions in the BSA and in the project area vicinity. The approximate center of the project site occurs at latitude 35°15'25.83"N and longitude 120°40'29.39"W (WGS-84 datum). The project site is depicted on the *San Luis Obispo, California* USGS 7.5-minute topographic quadrangle. The Public Land Survey System depicts the project site within Township 31 South, Range 12 East, Section 03, Mt. Diablo Meridian.

Description of the Existing Biological and Physical Conditions

Biological Study Area (BSA)

The northern and southern project limits of the BSA are at approximately PM 27.4 and PM 26.5 on U.S. 101, respectively. As previously noted, the BSA includes the API plus a 50-foot buffer (Figure 2). The BSA extends west of U.S. 101 for approximately 0.15 mile to the future intersection of Froom Ranch Road and Dalidio Drive intersection and extends east of U.S. 101 for approximately 0.30 mile on Prado Road, until the bridge that crosses San Luis Obispo Creek. The BSA also encompasses a small portion of the Bob Jones Trail that runs southeast from the Prado Road bridge. The BSA includes the U.S. 101 northbound off-ramp to Prado Road and the Prado Road northbound on-ramp to U.S. 101, as well as portions of City and privately owned properties adjacent to U.S. 101 and Prado Road. The BSA consists primarily of developed, ornamental, agricultural, and disturbed areas, with a small portion of arroyo willow thicket associated with San Luis Obispo Creek.

Climate

The Mediterranean climate of the San Luis Obispo region is characterized by long, dry summers and short, wet winters. The majority of rainfall occurs during the winter months.

Physical Conditions

The BSA is within the South Coast Ranges (SCoR) geographic subregion of California. Within this subregion, the BSA occurs within the Outer South Coast Range (SCoRO) district. The SCoR subregion is a component of the larger Central Western California geographic region, which occurs within the even larger California Floristic Province (Baldwin et al. 2012).

The topography of the BSA is generally flat but slopes gently towards to the south. Onsite elevations range from approximately 129 to 140 feet (ft) above mean sea level. Based upon the most recent U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) *Web Soil Survey for San Luis Obispo County, California* (USDA, NRCS 2021a), the BSA is mapped as Cropley clay, 0 to 2 percent slopes, and Salinas silty clay loam, 0 to 2 percent slopes. The *Soil Data Access (SDA) Hydric Soils List* lists these two soils as hydric; however, the *NRCS Web Soil Survey* is more accurate. Therefore, the *NRCS Web Soil Survey* is used to designate hydric soils.

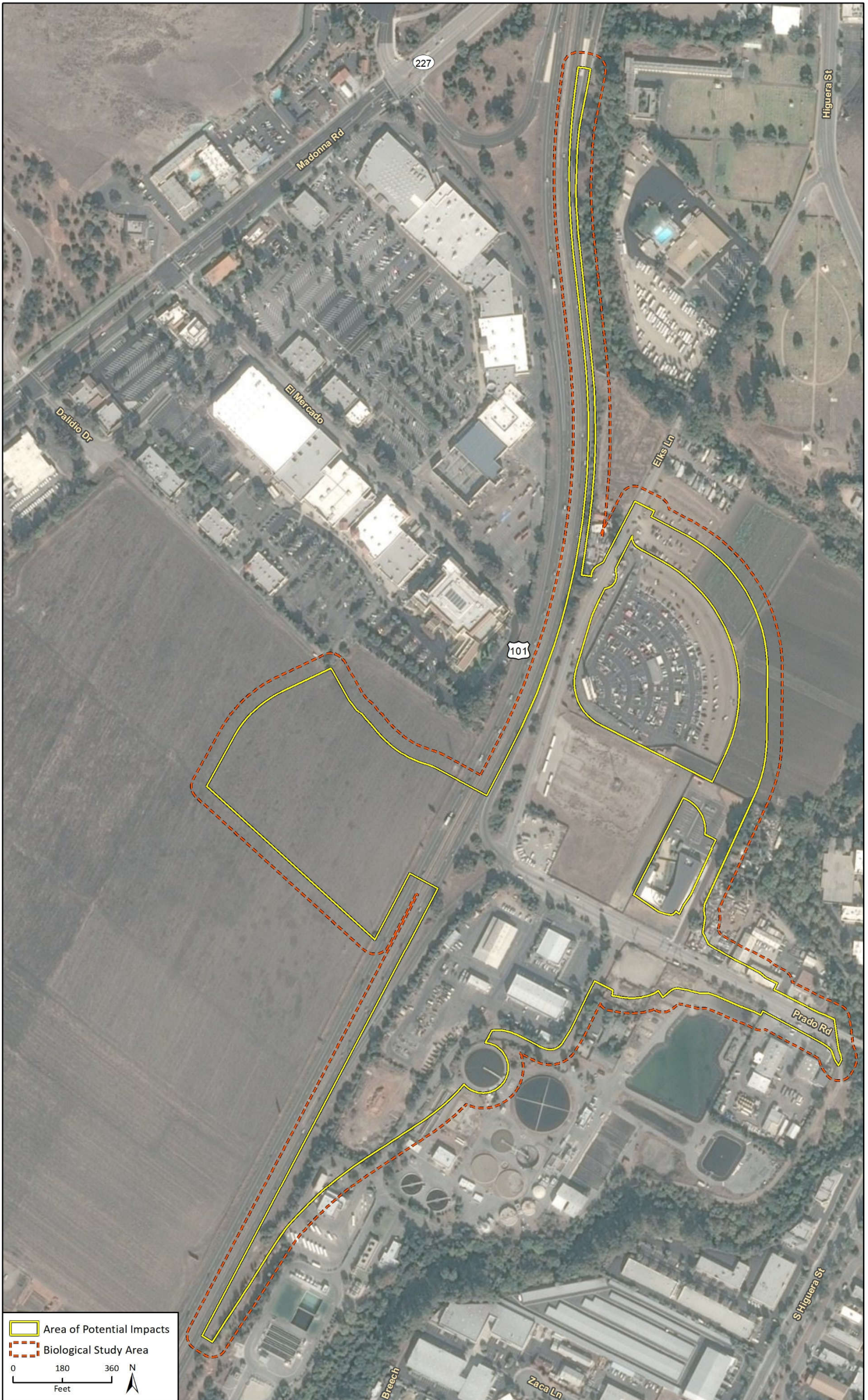
Cropley clay is a moderately well drained soil that occurs on alluvial fans and alluvial flats. It is formed in alluvium derived from sedimentary rock. A typical soil profile has clay textures to at least 36 inches' depth, and then silty clay loam to at least 60 inches. Cropley clay, 0 to 2 percent slopes, is not designated as a hydric soil in San Luis Obispo County (USDA, NRCS 2021a).

Natural Environment Study

Salinas silty clay loam is well drained soil that occurs on alluvial fans and alluvial flats. It is formed in alluvium derived from sedimentary rock. A typical soil profile has silty clay loam textures to at least 29 inches' depth, and stratified loam to silty clay loam to at least 72 inches. Salinas silty clay loam, 0 to 2 percent slopes is not designated as a hydric soil in San Luis Obispo County (USDA, NRCS 2021a).

The BSA has been heavily modified through past development and active agricultural operations, and a large portion of the site has been paved. Soil conditions have been altered in the majority of the BSA.

Figure 2 Project Biological Study Area (BSA)



Biological Conditions in the BSA

Five vegetation communities and land cover types were identified within the BSA during the reconnaissance level field surveys: developed areas, ornamental areas, agricultural areas, disturbed areas, and arroyo willow thicket associated with San Luis Obispo Creek (Figure 3). A *Manual of California Vegetation, Second Edition* ([MCV2] Sawyer et al. 2009) and a *Preliminary Description of Terrestrial Natural Communities of California* (Holland 1986) were referenced to determine if any areas of the BSA are consistent with vegetation communities described in these systems. Heavily modified areas dominated by landscaped plants and/or agriculture are not classified under these systems. Representative photographs of the BSA are included in Appendix D.

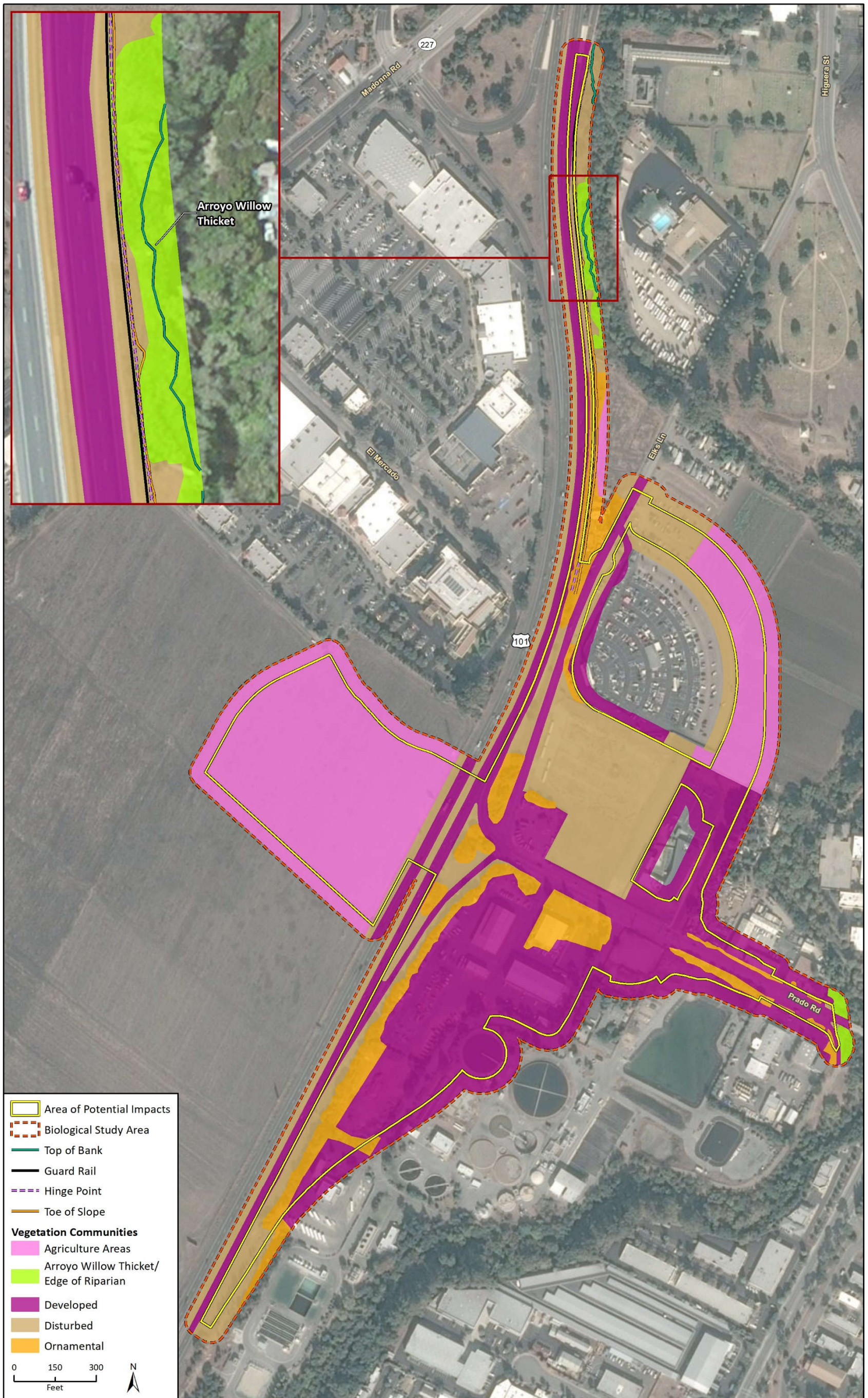
Developed. A substantial portion of the BSA consists of existing development, including roads, structures, storage areas, and parking lots. These areas within the BSA include portions of U.S. 101, Prado Road, Elks Road, the San Luis Obispo City Corporation Yard and WWRF, the 40 Prado Homeless Services Center parking lot, the Regional Transit Authority Bus Maintenance Facility construction site, and parking and storage areas associated with PCL Construction. Developed areas cover approximately 29.66 acres of the BSA and are largely devoid of vegetation, save for some overlap with ornamental plantings.

Developed areas are not classified in the MCV2 classification system (Sawyer et al. 2009) or the Holland classification system (Holland 1986) but are included in the CDFW California Wildlife Habitat Relationships System (CWHR) as Urban (Mayer and Laudenslayer 1988).

Ornamental. Ornamental areas consisting of planted native and introduced trees and shrubs cover approximately 6.01 acres of the BSA. This land cover type includes vegetation screens along perimeters of the WWRF and U.S. 101. Vegetation in this category includes a mix of trees native to San Luis Obispo, such as coast live oak (*Quercus agrifolia*), southern California black walnut, California sycamore (*Platanus racemosa*), and Fremont cottonwood (*Populus fremontii*), as well as other species native to California but not known to occur naturally in the vicinity of the BSA, such as Monterey pine (*Pinus radiata*), hollyleaf cherry (*Prunus ilicifolia*), coast redwood (*Sequoia sempervirens*), incense cedar (*Calocedrus decurrens*), and Monterey cypress (*Hesperocyparis macrocarpa*). Non-native tree and shrub species include scattered individuals of Peruvian pepper tree (*Schinus molle*), blue gum eucalyptus (*Eucalyptus globulus*), milkflower cotoneaster (*Cotoneaster lacteus*), golden wattle (*Acacia longifolia*), and acacia trees (*Acacia* sp.). The trees and shrubs within this habitat type provide suitable nesting habitat for raptors and a variety of passerine bird species. This community also provides foraging habitat for birds and small mammals.

Ornamental vegetation is not classified in the MCV2 classification system (Sawyer et al. 2009) or the Holland classification system (Holland 1986) but does provide small areas of wildlife habitat within the BSA, particularly for nesting birds.

Figure 3 Vegetation Communities and Land Cover Types



Imagery provided by Microsoft Bing, ESRI, and their licensors © 2021.

NESMtr Fig 3 Veg Comm and Land Cover 11x17

Agricultural Area. Agricultural fields exist in the eastern and westernmost portions of the BSA and cover approximately 17.02 acres. Agricultural areas are an anthropogenic, frequently disturbed habitat, and in the BSA, these areas include irrigated row crops that are usually monotypic. During the survey on July 27, 2018, agricultural fields west of U.S. 101 had been recently tilled and no vegetables were in production. During the survey on April 7, 2021, agricultural fields east of U.S. 101 were under active production. Regular cultivation, tilling, and other agricultural practices generally eliminate habitat for burrowing animals such as small mammals and the many associated amphibian and reptile species that utilize small mammal burrows. Frequent tilling also eliminates habitat for special-status plants on agricultural land.

Given that this community type is not naturally occurring, it is not described in either the MCV2 (Sawyer et al. 2009) or Holland classification systems (Holland 1986).

Disturbed. This habitat type covers approximately 15.52 acres of the BSA and occurs within the Regional Transit Authority Bus Maintenance Facility construction site, the southern portion of the San Luis Obispo City Corporation Yard and WWRF, an open area east of Elks Road (north of the Sunset Drive-In theatre, and along roadsides throughout the BSA. Soils within this land cover type are highly modified by past and ongoing disturbance and vegetation within these areas is primarily ruderal and non-native. Plant species within disturbed portions of the BSA include: mustards (*Brassica nigra*, *Hirschfeldia incana*), ripgut brome (*Bromus diandrus*), red brome (*Bromus rubens*), slim oat (*Avena barbata*), foxtail barley (*Hordeum murinum*), red-stemmed filaree (*Erodium cicutarium*), spiny sowthistle (*Sonchus asper*) and bull mallow (*Malva nicaeensis*).

This vegetation type within the project area most closely corresponds to Non-native Grassland (Holland 1986) and to *Brassica nigra* and Other Mustards Herbaceous Semi-Natural Alliance in the MCV2 (Sawyer et al. 2009).

Arroyo Willow Thicket. This habitat type occurs along the west bank of San Luis Obispo Creek and enters the northern portion of the BSA along U.S. 101, covering approximately 0.56 acre. This habitat type is also present along the easternmost boundary of the BSA, where Prado Road crosses San Luis Obispo Creek. Approximately 0.23 acre of arroyo willow thicket occur within the BSA at the edge of Prado Road, but no impacts to this habitat type will occur at this location based on the project design. Vegetation within this habitat type is dominated by riparian vegetating on the terrace above San Luis Obispo Creek; the creek channel does not enter the BSA. The upper canopy is dominated by arroyo willow (*Salix lasiolepis*). Occasional coast live oak (*Quercus agrifolia*), California sycamore (*Platanus racemosa*) and Southern California black walnut are also present. Understory species within this habitat type include California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), sow thistle (*Sonchus oleraceus*) and rabbitsfoot grass (*Polypogon monspeliensis*).

This vegetation type within the project area most closely corresponds to Central Coast arroyo willow riparian forest (Holland 1986) and to *Salix lasiolepis* Shrubland Alliance in the MCV2 (Sawyer et al. 2009).

Habitat Connectivity

San Luis Obispo Creek runs alongside the eastern side of the project site, and its associated riparian woodland overhangs into the BSA on one side. The creek and its riparian corridor provide a suitable small-scale corridor for wildlife to travel locally. As noted above, the BSA is almost entirely urban, managed, and developed. The ornamental areas are small in size,

discontinuous and not connected with larger expanses of native habitat. Major transportation corridors are present on and near the BSA, including Prado Road as well as U.S. 101 and associated on and off ramps. These roads constrain opportunities for wildlife movement through the BSA. No Natural Landscape Blocks or Essential Connectivity Areas occur within the BSA (Spencer et al. 2010). A large Essential Connectivity Area exists approximately 2 miles northeast of the BSA (Spencer et al. 2010).

Regional Species and Habitats and Natural Communities of Concern

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS or NMFS under the FESA; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under CESA; those recognized as Watch List and/or Species of Special Concern (SSC) by the CDFW or Fully Protected under the CFGC; and plants and lichens ranked as CRPR 1, 2, or 3 in the CRPR system (formerly known as the CNPS Lists) in accordance with the following definitions:

- CRPR 1A = Plants presumed extinct in California;
- CRPR 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- CRPR 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);
- CRPR 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);
- CRPR 2 = Rare, threatened or endangered in California, but more common elsewhere

Table 1 below lists 76 special-status plant species and 46 special-status animal species that were identified in the database searches as having the potential to occur in the vicinity of the BSA. Of these, eleven species (two plants and nine animals) have some potential to occur within the project site.

One species under NMFS jurisdiction, south-central California coast Distinct Population Segment (DPS) steelhead (SCCC steelhead) (*Oncorhynchus mykiss*), was identified as occurring in the *San Luis Obispo* quadrangle (35120-C6). Federally designated critical habitat for SCCC steelhead is present within the adjacent San Luis Obispo Creek. The northeastern corner of the BSA extends below the western bank of San Luis Obispo Creek; however, the creek occurs outside the API. The BSA does not provide suitable habitat for any other species under NMFS jurisdiction.

Table 1 Special Status Species Known to Occur in the Regional Vicinity of the BSA

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Plants and Lichens					
Hoover's bent grass	<i>Agrostis hooveri</i>	None/None G2 / S2 1B.2	Chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland. Sandy sites. 60-765 m. Perennial herb. Blooms Apr-Jul	HA	Not detected in BSA during bloom period. Oak woodland is not found on site.
Arroyo de la Cruz manzanita	<i>Arctostaphylos cruzensis</i>	None/None G1G2 / S1S2 1B.2	Broad-leaved upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, & valley and foothill grassland. On sandy soils in several different habitat types from chaparral to coastal scrub to woodland. 5-150 m. Perennial evergreen shrub. Blooms Dec-Mar	HA	Not detected in BSA. Appropriate bluff habitat is not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.
Santa Lucia manzanita	<i>Arctostaphylos luciana</i>	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. On shale (one site says serpentine) outcrops, on slopes, in chaparral. 105-825 m. Perennial evergreen shrub. Blooms Dec-Mar	HA	Not detected in BSA. Appropriate habitat is not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.
Morro manzanita	<i>Arctostaphylos morroensis</i>	FT/None G1 / S1 1B.1	Chaparral, cismontane woodland, coastal dunes, coastal scrub. On Baywood sands, usually with chaparral associates. 30-125 m. Perennial evergreen shrub. Blooms Dec-Mar	HA	Not detected in BSA. Dune habitat is not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey. The project is expected to have no effect to Morro manzanita. See Chapter 4 for more information.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Oso manzanita	<i>Arctostaphylos osoensis</i>	None/None G1 / S1 1B.2	Chaparral, cismontane woodland. Usually occurs in openings within oak woodland on dacite porphyry buttes. 180-275 m. Perennial evergreen shrub. Blooms Feb-Mar	HA	Not detected in BSA. Appropriate habitat is not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.
Pecho manzanita	<i>Arctostaphylos pechoensis</i>	None/None G2 / S2 1B.2	Closed-cone coniferous forest, chaparral, coastal scrub. Grows on siliceous shale with other chaparral associates. 60-855 m. Perennial evergreen shrub. Blooms Nov-Mar	HA	Not detected in BSA. Appropriate habitat is not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.
Santa Margarita manzanita	<i>Arctostaphylos pilosula</i>	None/None G2? / S2? 1B.2	Closed-cone coniferous forest, chaparral, broad-leafed upland forest, cismontane woodland. Shale outcrops & slopes; reported growing on decomposed granite or sandstone. 60-1220 m. Perennial evergreen shrub. Blooms Dec-May	HA	Not detected in BSA. Appropriate habitat is not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.
sand mesa manzanita	<i>Arctostaphylos rudis</i>	None/None G2 / S2 1B.2	Chaparral, coastal scrub. On sandy soils in Lompoc/Nipomo area. 20-335 m. Perennial evergreen shrub. Blooms Nov-Feb	HA	Not detected in BSA. Appropriate sandy soils and habitat are not found on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.
dacite manzanita	<i>Arctostaphylos tomentosa</i> ssp. <i>daciticola</i>	None/None G4T1 / S1 1B.1	Chaparral, cismontane woodland. Only known from one site in SLO County on dacite porphyry buttes. About 120m. perennial evergreen shrub. Blooms Mar-May	HA	Not detected in BSA. Chaparral is not present on site. No species of the <i>Arctostaphylos</i> genus were detected in the BSA during the field survey.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
marsh sandwort	<i>Arenaria paludicola</i>	FE/SE G1 / S1 1B.1	Marshes and swamps. Growing up through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc. in freshwater marsh. Sandy soil. 3-170 m. perennial stoloniferous herb. Blooms May-Aug	HA	Appropriate wetland habitat is not found on site. The project is expected to have no effect to marsh sandwort. See Chapter 4 for more information.
Miles' milk-vetch	<i>Astragalus didymocarpus</i> var. <i>milesianus</i>	None/None G5T2 / S2 1B.2	Coastal scrub. Clay soils. 50-385 m. Annual herb. Blooms Mar-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate habitat is not found on site.
Coulter's saltbush	<i>Atriplex coulteri</i>	None/None G3 / S1S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m. Perennial herb. Blooms Mar-Oct	HA	Not detected in BSA during bloom period. Appropriate habitat is not found on site.
twisted horsehair lichen	<i>Bryoria spiralifera</i>	None/None G3 / S1S2 1B.1	North coast coniferous forest. Usually on conifers. 0-30 m. fruticose lichen (epiphytic).	HA	Not detected in BSA. Coniferous forest habitat is not found on site.
San Luis mariposa-lily	<i>Calochortus obispoensis</i>	None/None G2 / S2 1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Often in serpentine grassland. 15-550 m. Perennial bulbiferous herb. Blooms May-Jul	HA	Appropriate serpentine soils are not found on site.

Natural Environment Study

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La Panza mariposa-lily	<i>Calochortus simulans</i>	None/None G2 / S2 1B.3	Valley and foothill grassland, cismontane woodland, chaparral, lower montane coniferous forest. Decomposed granite. 50-1160 m. Perennial bulbiferous herb. Blooms Apr-Jun.	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate soils and habitat are not found on site.
dwarf calycadenia	<i>Calycadenia villosa</i>	None/None G3 / S3 1B.1	Chaparral, cismontane woodland, valley and foothill grassland, meadows and seeps. Open, dry meadows, hillsides, gravelly outwashes. 240-1350 m. Annual herb. Blooms May-Oct.	HA	Appropriate habitat is not found on site and site is outside the elevation range for this species.
Hardham's evening-primrose	<i>Camissoniopsis hardhamiae</i>	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Sandy, decomposed carbonate. 140-945 m. Annual herb. Blooms Mar-May	HA	Not detected in BSA during bloom period. Appropriate soils and habitat are not found on site.
bristly sedge	<i>Carex comosa</i>	None/None G5/S2 2B.1	Coastal prairie, marshes and swamps (lake margins), and valley and foothill grassland. 0 - 625 m. Perennial rhizomatous herb. Blooms May-Sep.	HA	Not detected in BSA. Appropriate habitat for the species does not occur within the BSA.
San Luis Obispo sedge	<i>Carex obispoensis</i>	None/None G3? / S3? 1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Usually in transition zone on sand, clay, serpentine, or gabbro. In seeps. 5-845 m. Perennial herb. Blooms Apr-Jun	HA	Not detected in BSA during bloom period. Appropriate serpentine soils and habitat are not found on site.

Natural Environment Study

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San Luis Obispo owl's-clover	<i>Castilleja densiflora</i> var. <i>obispoensis</i>	None/None G5T2 / S2 1B.2	Valley and foothill grassland, meadows and seeps. Sometimes on serpentine. 10-485 m. Annual herb (hemiparasitic). Blooms Mar-May	HA	The BSA does not contain suitable habitat for this species. Species is hemiparasitic and native grasses with which the roots interact are not present. Natural habitats within the project site are routinely disturbed and/or mowed.
Nipomo Mesa ceanothus	<i>Ceanothus impressus</i> var. <i>nipomensis</i>	None/None G3T2/S2 1B.2	Chaparral. sandy. 30 - 245 m. perennial shrub. Blooms Feb-Apr	HA	The BSA does not contain appropriate chaparral habitat.
San Luis Obispo ceanothus	<i>Ceanothus thyrsoiflorus</i> var. <i>obispoensis</i>	None/None G5T1/S1 1B.1	Chaparral, Cismontane woodland. Dacite. 140 - 225 m. perennial shrub. Blooms Jun	HA	The BSA does not contain appropriate chaparral or woodland habitat.
Congdon's tarplant	<i>Centromadia parryi</i> ssp. <i>congdonii</i>	None/None G3T2 / S2 1B.1	Valley and foothill grassland; occasionally disturbed areas where soils are suitable. Clay soils, alkaline soils, sometimes described as heavy white clay. 0-230 m. Annual herb. Blooms May-Oct (Nov)	HP	Not detected in BSA during bloom period. Although clay soils are present, Vernal moist soils not found on site and no grasslands are present.
coastal goosefoot	<i>Chenopodium littoreum</i>	None/None G2 / S2 1B.2	Coastal dunes. 10-30 m. Annual herb. Blooms Apr-Aug	HA	Not detected in BSA during bloom period. Appropriate coastal dune habitat not found onsite.
dwarf soaproot	<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	None/None G5T3 / S3 1B.2	Chaparral. Serpentine. 120-1220 m. Perennial bulbiferous herb. Blooms May-Aug	HA	Appropriate serpentine soils and chaparral habitat are not found on site.
salt marsh bird's-beak	<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	FE/SE G4?T1 / S1 1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m. Annual herb (hemiparasitic). Blooms May-Oct (Nov).	HA	Salt marsh habitat is not found on site. The project is expected to have no effect to salt marsh bird's-beak. See Chapter 4 for more information.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Irish Hills spineflower	<i>Chorizanthe aphanantha</i>	None/None G1/S1 1B.1	chaparral (edges, openings), coastal scrub. serpentinite, rocky to gravelly. 100 - 370 m. annual herb. Blooms Apr- Jun	HA	The BSA does not contain chaparral or coastal scrub habitats or serpentine soils.
Brewer's spineflower	<i>Chorizanthe breweri</i>	None/None G3 / S3 1B.3	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest. Rocky or gravelly serpentine sites; usually in barren areas. 45-765 m. Annual herb. Blooms Apr-Aug	HA	Not detected in BSA during bloom period. Appropriate serpentine soils and habitat are not found on site.
straight-awned spineflower	<i>Chorizanthe rectispina</i>	None/None G2 / S2 1B.3	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. 45-1040 m. Annual herb. Blooms Apr-Jul	HA	Not detected in BSA during bloom period. Appropriate habitat not found onsite.
San Luis Obispo fountain thistle	<i>Cirsium fontinale var. obispoense</i>	FE/SE G2T2 / S2 1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Serpentine seeps. 5-385 m. Perennial herb. Blooms Feb- Jul (Aug-Sep)	HA	Not detected in BSA during bloom period. Serpentine soils are not found on site. The project is expected to have no effect to San Luis Obispo fountain thistle. See Chapter 4 for more information.
Cuesta Ridge thistle	<i>Cirsium occidentale var. lucianum</i>	None/None G3G4T2 / S2 1B.2	Chaparral. Openings; on serpentinite. Often on steep rocky slopes and along disturbed roadsides. 485-765 m. Perennial herb. Blooms Apr-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate soils and habitat are not found on site.
surf thistle	<i>Cirsium rhotophilum</i>	None/SE G1 / S1 1B.2	Coastal dunes, coastal bluff scrub. Open areas in central dune scrub; usually in coastal dunes. 3-60 m. Perennial herb. Blooms Apr-Jun	HA	Not detected in BSA during bloom period. Appropriate dune habitat is not found on site.

Natural Environment Study

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La Graciosa thistle	<i>Cirsium scariosum</i> var. <i>loncholepis</i>	FE/ST G5T1 / S1 1B.1	Coastal dunes, coastal scrub, brackish marshes, valley and foothill grassland, cismontane woodland. Lake edges, riverbanks, other wetlands; often in dune areas. Mesic, sandy sites. 4-220 m. Perennial herb. Blooms May-Aug	HA	Appropriate wetland habitat is not found on site. The project is expected to have no effect to La Graciosa thistle. See Chapter 4 for more information.
popcorn lichen	<i>Cladonia firma</i>	None/None G4 / S1 2B.1	Coastal dunes, coastal scrub. On soil and detritus on stabilized sand dunes, in pure stands or intermixed with other lichens and mosses forming biotic soil crusts, covering areas up to several meters. 30-80 m. squamulose lichen (terricolous).	HA	Appropriate soils and habitat are not found on site.
Pismo clarkia	<i>Clarkia speciosa</i> ssp. <i>immaculata</i>	FE/SR G4T1 / S1 1B.1	Chaparral, cismontane woodland, valley and foothill grassland. On ancient sand dunes not far from the coast. Sandy soils; openings. 30-185 m. Annual herb. Blooms May-Jul	HA	Not detected in BSA during bloom period. Appropriate sandy soils and habitat are not found on site. The project is expected to have no effect to Pismo clarkia. See Chapter 4 for more information.
dune larkspur	<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	None/None G4T2 / S2 1B.2	Chaparral, coastal dunes (maritime). On rocky areas and dunes. 18-305 m. Perennial herb. Blooms Apr-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate soils and habitat are not found on site.
Eastwood's larkspur	<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	None/None G4T2 / S2 1B.2	Chaparral, valley and foothill grassland. Serpentine. Openings. 60-640 m. Perennial herb. Blooms (Feb)Mar-Mar	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Serpentine soils are not found on site.

Natural Environment Study

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umbrella larkspur	<i>Delphinium umbracolorum</i>	None/None G3 / S3 1B.3	Cismontane woodland, chaparral. Mesic sites. 215-2075 m. Perennial herb. Blooms Apr-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. BSA is outside of the known elevation range for this species.
beach spectaclepod	<i>Dithyrea maritima</i>	None/ST G1 / S1 1B.1	Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. 3-65 m. Perennial rhizomatous herb. Blooms Mar-May	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Dune habitat is not found on site and species is only known from the immediate coast.
Betty's dudleya	<i>Dudleya abramsii</i> ssp. <i>bettinae</i>	None/None G4T2 / S2 1B.2	Coastal scrub, valley and foothill grassland, chaparral. On rocky, barren exposures of serpentine within scrub vegetation. 20-250 m. Perennial herb. Blooms May-Jul	HA	Not detected in BSA during bloom period. Serpentine soils are not found on site.
mouse-gray dudleya	<i>Dudleya abramsii</i> ssp. <i>murina</i>	None/None G4T2 / S2 1B.3	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops. 25-535 m. Perennial leaf succulent. Blooms May-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Serpentine soils are not found on site.
Blochman's dudleya	<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	None/None G3T2 / S2 1B.1	Coastal scrub, coastal bluff scrub, chaparral, valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. 5-450 m. Perennial herb. Blooms Apr-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate habitat is not found on site.

Natural Environment Study

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yellow-flowered eriastrum	<i>Eriastrum luteum</i>	None/None G2 / S2 1B.2	Broadleafed upland forest, cismontane woodland, chaparral. On bare sandy decomposed granite slopes. 240-580 m. Annual herb. Blooms May-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate habitat and sandy soils are not found on site. Not expected to occur.
Blochman's leafy daisy	<i>Erigeron blochmaniae</i>	None/None G2 / S2 1B.2	Coastal dunes, coastal scrub. Sand dunes and hills. 0-185 m. Perennial rhizomatous herb. Blooms Jun-Aug	HA	Not detected in BSA during bloom period. Sandy soils are not found on site.
Indian Knob mountainbalm	<i>Eriodictyon altissimum</i>	FE/SE G1 / S1 1B.1	Chaparral (maritime), cismontane woodland, coastal scrub. Ridges in open, disturbed areas within chaparral on Pismo sandstone. 90-270 m. Perennial evergreen shrub. Blooms Mar-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate soils and habitat are not found on site. The project is expected to have no effect to Indian Knob mountainbalm. See Chapter 4 for more information.
Hoover's button- celery	<i>Eryngium aristulatum</i> var. <i>hooveri</i>	None/None G5T1 / S1 1B.1	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 1- 50 m. Annual / Perennial herb. Blooms (Jun) July (Aug)	HA	Not detected in BSA during bloom period. Appropriate vernal pool habitat and roadside ditches is not found on site.
San Joaquin spearscale	<i>Extriplex joaquinana</i>	None/None G2 / S2 1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. 0-840 m. Annual herb. Blooms Apr-Oct	HA	Not detected in BSA during bloom period. Alkaline soils and suitable habitats are not found on site.

Natural Environment Study

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Ojai fritillary	<i>Fritillaria ojaiensis</i>	None/None G2? / S2? 1B.2	Broad-leaved upland forest (mesic), chaparral, lower montane coniferous forest, cismontane woodland. Usually loamy soil. Sometimes on serpentine. 100-1140 m. Perennial bulbiferous herb. Blooms Feb-May	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate habitat is not found on site and site is outside the elevation range for this species.
San Benito fritillary	<i>Fritillaria viridea</i>	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Serpentine slopes. Sometimes on rocky streambanks. 365-1360 m. Perennial bulbiferous herb. Blooms Mar-May	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Serpentine soil is not found on site.
mesa horkelia	<i>Horkelia cuneata</i> <i>var. puberula</i>	None/None G4T1 / S1 1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m. Perennial herb. Blooms Feb-Jul (Sep)	HA	Not detected in BSA during bloom period. Appropriate sandy/gravelly soils and habitat are not found on site.
Kellogg's horkelia	<i>Horkelia cuneata</i> <i>var. sericea</i>	None/None G4T1? / S1? 1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sand hills; openings. Sandy or gravelly soils. 5-430 m. Perennial herb. Blooms Apr-Sep	HA	Not detected in BSA during bloom period. Appropriate sandy soils and habitat are not found on site.
perennial goldfields	<i>Lasthenia californica</i> ssp. <i>macrantha</i>	None/None G3T2 / S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. 5-185 m. Perennial herb. Blooms Jan-Nov	HA	Not detected in BSA during bloom period. Appropriate habitat is not found on site.

Natural Environment Study

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Coulter's goldfields	<i>Lasthenia glabrata</i> <i>ssp. coulteri</i>	None/None G4T2 / S2 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m. Annual herb. Blooms Feb-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate habitat is not found on site.
Jones' layia	<i>Layia jonesii</i>	None/None G2 / S2 1B.2	Chaparral, valley and foothill grassland. Clay soils and serpentine outcrops. 5-245 m. Annual herb. Blooms Mar-May	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate serpentine outcrops are not found on site.
San Luis Obispo County lupine	<i>Lupinus ludovicianus</i>	None/None G1 / S1 1B.2	Chaparral, cismontane woodland. Open areas in sandy soil, Santa Margarita formation. 85-525 m. Perennial herb. Blooms Apr-Jul	HA	Not detected in BSA during bloom period. Oak woodland habitat is not found on site.
slender bush-mallow	<i>Malacothamnus gracilis</i>	None/None G1Q / S1 1B.1	Chaparral. Dry, rocky slopes. 150-335 m. Perennial deciduous shrub. Blooms May-Oct	HA	Not detected in BSA during bloom period. Appropriate habitat in the form of dry rocky slopes is not found on site.
Carmel Valley bush-mallow	<i>Malacothamnus palmeri</i> var. <i>involutus</i>	None/None G3T2Q / S2 1B.2	Cismontane woodland, chaparral, coastal scrub. Talus hilltops and slopes, sometimes on serpentine. Fire dependent. 5-520 m. Perennial deciduous shrub. Blooms Apr-Oct	HA	Not detected in BSA during bloom period. Appropriate habitat is not found on site.
Santa Lucia bush-mallow	<i>Malacothamnus palmeri</i> var. <i>palmeri</i>	None/None G3T2Q / S2 1B.2	Chaparral. Dry rocky slopes, mostly near summits, but occasionally extending down canyons to the sea. 3-670 m. Perennial deciduous shrub. Blooms May-Jul	HA	Not detected in BSA during bloom period. Appropriate habitat is not found on site.

Natural Environment Study

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Palmer's monardella	<i>Monardella palmeri</i>	None/None G2 / S2 1B.2	Cismontane woodland, chaparral. On serpentine, often found associated with Sargent cypress forests. 90-945 m. Perennial rhizomatous herb. Blooms Jun-Aug	HA	Not detected in BSA during bloom period. Serpentine soils are not found on site.
southern curly-leaved monardella	<i>Monardella sinuata</i> ssp. <i>sinuata</i>	None/None G3T2 / S2 1B.2	Coastal dunes, coastal scrub, chaparral, cismontane woodland. Sandy soils. 20-305 m. Annual herb. Blooms Apr-Sep	HA	Not detected in BSA during bloom period. Appropriate sandy soils and habitat are not found on site.
San Luis Obispo monardella	<i>Monardella undulata</i> ssp. <i>undulata</i>	None/None G2 / S2 1B.2	Coastal dunes, coastal scrub. Stabilized sand of the immediate coast. 5-200 m. Perennial rhizomatous herb. Blooms May-Sep	HA	Not detected in BSA during bloom period. Appropriate sandy soils and habitat are not found on site.
woodland woollythreads	<i>Monolopia gracilens</i>	None/None G3 / S3 1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broad-leaved upland forest, North Coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m. Annual herb. Blooms (Feb)Mar-Jul	HA	Not detected in BSA during bloom period. Appropriate sandy soils and habitat are not found on site.

Natural Environment Study

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aparejo grass	<i>Muhlenbergia utilis</i>	None/None G4/S2S3 2B.2	Meadows and seeps, marshes and swamps, chaparral, coastal scrub, cismontane woodland. sometimes alkaline, sometimes serpentinite. 25 - 2325 m. perennial rhizomatous herb. Blooms Mar-Oct.	HA	Appropriate habitat is not found within the BSA.
shining navarretia	<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	None/None G4T2 / S2 1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland, and not necessarily in vernal pools. 60-975 m. Annual herb. Blooms (Mar)Apr-Jul	HA	Not detected in BSA during bloom period. Appropriate habitat is not found on site.
coast woolly-heads	<i>Nemacaulis denudata</i> var. <i>denudata</i>	None/None G3G4T2 / S2 1B.2	Coastal dunes. 0-100 m. Annual herb. Blooms Apr-Sep	HA	Not detected in BSA during bloom period. Dune habitat is not found on site.
hooked popcorn flower	<i>Plagiobothrys uncinatus</i>	None/None G2 / S2 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Sandstone outcrops and canyon sides; often in burned or disturbed areas. 210-855 m. Annual herb. Blooms Apr-May	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate sandstone substrate is not found on site.
Diablo Canyon blue grass	<i>Poa diaboli</i>	None/None G2 / S2 1B.2	Chaparral (mesic sites), cismontane woodland, coastal scrub, closed-cone coniferous forest. Shale, sometimes burned areas. 115-400 m. Perennial rhizomatous herb. Blooms Mar-Apr	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate habitat is not found on site.

Natural Environment Study

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adobe sanicle	<i>Sanicula maritima</i>	None/SR G2 / S2 1B.1	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or ultramafic soils. 15-215 m. Perennial herb. Blooms Feb-May	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate wet meadow habitat is not found on site.
black-flowered figwort	<i>Scrophularia atrata</i>	None/None G2? / S2? 1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Sand, diatomaceous shales, and soils derived from other parent material; around swales and in sand dunes. 10-445 m. Perennial herb. Blooms Mar-Jul	HP	Suitable habitat present within arroyo willow thicket. This species was not detected in the small area of suitable habitat within the BSA during the field survey. Survey was conducted during bloom period and this species would have been identifiable. Not expected to occur.
chaparral ragwort	<i>Senecio aphanactis</i>	None/None G3 / S2 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m. Annual herb. Blooms Jan-Apr (May)	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate soils and habitat are not found on site.
Cuesta Pass checkerbloom	<i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	None/SR G3T1 / S1 1B.2	Closed-cone coniferous forest, chaparral Rocky serpentine soil; associated with Sargent cypress forest. 600-800 m. Perennial herb. Blooms May-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Appropriate serpentine soils and coniferous forest habitat are not found on site.
most beautiful jewelflower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	None/None G2T2 / S2 1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 90-1040 m. Annual herb. Blooms (Mar)Apr-Sep (Oct)	HA	Not detected in BSA during bloom period. Serpentine soils are not found on site.

Natural Environment Study

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California seablite	<i>Suaeda californica</i>	FE/None G1 / S1 1B.1	Marshes and swamps. Margins of coastal salt marshes. 0-5 m. Perennial evergreen shrub. Blooms Jul-Oct	HA	Salt marsh habitat is not found on site. The project is expected to have no effect to California seablite. See Chapter 4 for more information.
splitting yarn lichen	<i>Sulcaria isidiifera</i>	None/None G1 / S1 1B.1	Coastal scrub. On branches of oaks and shrubs in old growth coastal scrub. 20-55 m. Fruticose lichen (epiphytic).	HA	Not detected in BSA. Appropriate habitat is not found on site.
saline clover	<i>Trifolium hydrophilum</i>	None/None G2 / S2 1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1-335 m. Annual herb. Blooms Apr-Jun	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Natural habitats within the project site are routinely disturbed. Appropriate habitat is not found on site.
caper-fruited tropidocarpum	<i>Tropidocarpum capparideum</i>	None/None G1 / S1 1B.1	Valley and foothill grassland. Alkaline clay. 0-360 m. Annual herb. Blooms Mar-Apr	HA	Not detected in BSA although field surveys were not during the bloom period for this species. Alkaline clay soil is not found on site.
Birds					
Cooper's hawk	<i>Accipiter cooperii</i>	None/None G5 / S4 WL; Locally sensitive	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	HP	Trees within the BSA contain moderately suitable nesting habitat for this species. No suitable foraging habitat is present within the BSA. Species was not observed during site survey.
tricolored blackbird	<i>Agelaius tricolor</i>	None/SE G2G3 / S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	HA	The BSA does not contain suitable breeding or foraging habitat for this species. Species was not observed during site survey. There are no occurrences documented by CNDDDB within 5 miles of the BSA.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
grasshopper sparrow	<i>Ammodramus savannarum</i>	None/None G5 / S3 SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	HA	The BSA does not contain suitable grasslands appropriate for nesting or foraging habitat. Species was not observed during site survey. There are no documented occurrences by CNDDDB within 5 miles of the BSA.
golden eagle	<i>Aquila chrysaetos</i>	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	HA	The species has potential to flyover the BSA, but suitable foraging and nesting habitat for the species are absent.
great blue heron	<i>Ardea herodias</i>	None/None G5 / S4 -- *Colonial nest sites are protected by CDFW	Colonial nester in tall trees, cliff sides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	HA	The BSA does not contain suitable breeding or foraging habitat for this species. Species was not observed during site survey.
burrowing owl	<i>Athene cunicularia</i>	None/None G4 / S3 SSC	Open, dry annual or grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	HA	Not detected in BSA. Minimal ground squirrel presence on site.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
ferruginous hawk	<i>Buteo regalis</i>	None/None G4 / S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	HP	Trees onsite may provide nesting habitat. Suitable habitat in vicinity for foraging. No nests were documented in the BSA during the survey
western snowy plover	<i>Charadrius alexandrinus nivosus</i>	FT/None G3T3 / S2S3 SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	HA	Site is substantially inland of known local coastal populations. Appropriate beaches, levees, or alkali lakes are not present within the BSA. Species was not observed during site survey. The project is expected to have no effect to western snowy plover. See Chapter 4 for more information.
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FT/SE G5T2T3 / S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	HA	Not detected in BSA. Appropriate dense riparian habitat is not present on the site. The project is expected to have no effect to western yellow-billed cuckoo. See Chapter 4 for more information.
white-tailed kite	<i>Elanus leucurus</i>	None/None G5 / S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	HP	Trees onsite may provide nesting habitat. Suitable habitat in vicinity for foraging. No nests were documented in the BSA during the survey.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE/SE G5T2 / S1 --	Riparian woodlands in Southern California.	HA	No suitable willow riparian scrub is present in the BSA. Suitably dense understory shrubs for nesting are not present within the BSA. There are no documented occurrences by CNDDDB within 5 miles of the BSA. Not known to occur in area. The project is expected to have no effect to southwestern willow flycatcher. See Chapter 4 for more information.
California horned lark	<i>Eremophila alpestris actia</i>	None/None G5T4Q / S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	HA	Not detected in BSA. Appropriate habitat is not present on site.
merlin	<i>Falco columbarius</i>	None/None G5 / S3S4 WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.	HA	Not detected in BSA and no roosting habitat present. Not expected to occur. There are no documented CNDDDB occurrences within 5 miles of the BSA.
prairie falcon	<i>Falco mexicanus</i>	None/None G5 / S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	HA	Suitable breeding habitat is not present within the BSA. Species was not observed during site survey. There are no documented CNDDDB occurrences within 5 miles of the BSA.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
California condor	<i>Gymnogyps californianus</i>	FE/SE G1 / S1 FP	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	HA	Suitable breeding and foraging habitats are not present within the BSA. Species was not observed during site survey. There are no documented CNDDB occurrences within 5 miles of the BSA. The project is expected to have no effect to California condor. See Chapter 4 for more information.
loggerhead shrike	<i>Lanius ludovicianus</i>	None/None G4 / S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	HP	Appropriate nesting habitat present within BSA. Foraging habitat is present in vicinity of site. Also, known to occur in vicinity.
California black rail	<i>Laterallus jamaicensis coturniculus</i>	None/ST G3G4T1 / S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	HA	Appropriate marshes and meadows are not present within the BSA. Species was not observed during site survey.
purple martin	<i>Progne subis</i>	None/None G5 / S3 SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	HP	Not detected in BSA. No woodlands or coniferous forests present within the BSA. There are no documented CNDDB occurrences within 5 miles of the BSA. Human structures, such as wood power poles and isolated trees may provide nesting habitat for this species. Species has a low potential to occur.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
California Ridgway's rail	<i>Rallus obsoletus obsoletus</i>	FE/SE G5T1 / S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	HA	Not detected in BSA. Appropriate habitat is not present on site. The project is expected to have no effect to California clapper rail. See Chapter 4 for more information.
least Bell's vireo	<i>Vireo bellii pusillus</i>	FE/SE G5T2 / S2 --	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	HA	No suitable nesting habitat is present within the BSA. Species was not observed during site survey. There are no documented CNDDDB occurrences within 5 miles of the BSA. The project is expected to have no effect to least Bell's vireo. See Chapter 4 for more information.
Amphibians					
California tiger salamander	<i>Ambystoma californiense</i>	FT/ST G2G3 / S2S3 SSC	Restricted to vernal pools and seasonal ponds, including constructed stock ponds, in grassland and oak savannah plant communities, predominantly from sea level to 2,000 feet, in Central California. Sonoma and Santa Barbara Counties and Central California	HA	BSA is outside the range for this species. Not expected to occur. The project is expected to have no effect to California tiger salamander. See Chapter 4 for more information.
lesser slender salamander	<i>Batrachoseps minor</i>	None/None G1/S1 SSC	South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore & laurel. Shaded slopes with abundant leaf litter.	HA	Coast live oaks are present within the BSA. However, no shaded slopes with abundant leaf litter are present within the site and the species is not expected to occur.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
foothill yellow-legged frog	<i>Rana boylei</i>	None/SCT G3 / S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	HA	The BSA does not contain suitable breeding habitat for this species. Adjacent San Luis Obispo Creek does not contain suitable substrate for egg-laying. There are no documented CNDDDB occurrences within 5 miles of the BSA.
California red-legged frog	<i>Rana draytonii</i>	FT/None G2G3 / S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	HP	<p>Potential CRLF breeding habitat may occur within San Luis Obispo Creek which borders the northeastern side of the BSA. San Luis Obispo Creek and its associated riparian corridor may also serve as a dispersal and foraging corridor for CRLF as they move through the region.</p> <p>The API does not contain suitable breeding, foraging or dispersal habitat for CRLF due to existing conditions of the highway. The project is expected to have no effect to CRLF. See Chapter 4 for more information.</p>
western spadefoot	<i>Spea hammondi</i>	None/None G3 / S3 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	HA	The BSA does not contain aquatic features. Suitable breeding habitat is not within or near the BSA, and the project is not within dispersal range of the species.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Coast Range newt	<i>Taricha torosa</i>	None/None G4 / S4 SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats & will migrate over 1 km to breed in ponds, reservoirs & slow moving streams.	HP	The proposed project will not result in impacts to vegetation or substrate within the banks of San Luis Obispo Creek. The project will not result in impacts to potentially suitable breeding habitat. There is a low potential for this species to forage within the riparian vegetation above the banks of San Luis Obispo Creek.
Mammals					
pallid bat	<i>Antrozous pallidus</i>	None/None G5 / S3 SSC	Deserts, grasslands, shrub lands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	HA	BSA does not contain rocky areas suitable for roosting or foraging habitat for this species.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None/None G3G4 / S2 SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	HA	BSA does not contain open sites suitable for roosting or foraging habitat for this species.
Morro Bay kangaroo rat	<i>Dipodomys heermanni morroensis</i>	FE/SE G3G4TH / SH FP	Coastal sage scrub on the south side of Morro Bay. Needs sandy soil, but not active dunes, prefers early seral stages.	HA	Not detected in BSA. Appropriate dune habitat is not present on site. The project is expected to have no effect to Morro Bay kangaroo rat. See Chapter 4 for more information.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Giant kangaroo rat	<i>Dipodomys ingens</i>	FE/SE G1G2 / S1S2	Occur in annual grassland communities with few or no shrubs, well drained, sandy-loam soils located on gentle slopes (less than 11 percent) in areas with about 6.3 inches or less of annual precipitation.	HA	BSA is outside the range of this species. Not expected to occur. The project is expected to have no effect to giant kangaroo rat. See Chapter 4 for more information.
western mastiff bat	<i>Eumops perotis californicus</i>	None/None G5T4 / S3S4 SSC	Suitable habitat consists of extensive open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	HA	Not detected in BSA. The BSA does not contain suitable extensive open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, or chaparral. There is a low potential for this species to roost in buildings over 9.8 feet tall within the vicinity of the BSA. Project will not result in removal of roosting habitat. Species may forage within BSA.
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	None/None G5T3T4 / S3S4 SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	HA	Not detected in BSA. Appropriate habitat is not present on site.
big free-tailed bat	<i>Nyctinomops macrotis</i>	None/None G5 / S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	HA	No cliffs or rocky outcrops occur within the BSA. The BSA does not contain suitable roosting or foraging habitat for this species.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
American badger	<i>Taxidea taxus</i>	None/None G5 / S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	HA	Not detected in BSA. Soils in the BSA are not ideal for badger and grassland habitat onsite is highly disturbed and not suitable for burrowing.
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/ST G4T2 / S2	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	HA	BSA is outside the range of this species. Not expected to occur. The project is expected to have no effect to San Joaquin kit fox. See Chapter 4 for more information.
Invertebrates					
Crotch bumble bee	<i>Bombus crotchii</i>	None/SCE G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	HA	Due to the disturbed nature of the site, no suitable habitat occurs in the BSA.
western bumble bee	<i>Bombus occidentalis</i>	None/SCE G2G3/S1	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease. Require suitable nesting sites, overwintering sites for the queens, and nectar and pollen resources throughout the spring, summer, and fall.	HA	Not observed within the BSA and not expected to occur, due to the disturbed nature of the site.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT/None G3 / S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassland swale, earth slump, or basalt-flow depression pools.	HA	Suitable vernal pools, swales, and depression pools are not present in the BSA. Not expected to occur. The project is expected to have no effect to vernal pool fairy shrimp. See Chapter 4 for more information.
monarch - California overwintering population	<i>Danaus plexippus</i> (pop.1)	FC/None G4T2T3 / S2S3 SA (overwintering); Locally sensitive	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Breeding habitat includes a variety of milkweed (<i>Asclepias</i> spp.) species for monarchs to lay their eggs.	HA	The BSA does not contain suitable wintering roosting habitat. Suitable microhabitat requirements are not met in the ornamental and landscape trees. No monarch butterflies were observed during the survey. Not detected in BSA during bloom period. No species of the host plant (<i>Asclepias</i> spp.) were observed within the BSA during the survey. The survey occurred during the blooming period for all (<i>Asclepias</i> spp.) known to occur within San Luis Obispo County.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Kern primrose sphinx moth	<i>Euproserpinus euterpe</i>	FT/None G1G2 / S1	Occurs in gently sloping sandy washes consisting of coarse to fine textured, decomposed granite soil, and dominant vegetation that includes red-stemmed stork's beak (<i>Erodium cicutarium</i>), baby blue-eyes (<i>Nemophila menziesii</i>), rabbit brush (<i>Chrysothamnus nauseosus</i>), gold fields (<i>Lasthenia chrysostoma</i>), and brome grass (<i>Bromus arenarius</i>). Essential to the survival of the Kern primrose sphinx moth is the presence of its primary food plant, the sun cup or evening primrose <i>Camissonia contorta</i>	HA	Not expected to occur on site. No suitable habitat occurs on site and no observations were made during the survey. Species is not known to occur this close to the coast. Host plant (<i>Camissonia contorta epilobiodes</i>) was not detected on the site. The project is expected to have no effect to Kern primrose sphinx moth. See Chapter 4 for more information.
Reptiles					
northern California legless lizard	<i>Anniella pulchra</i>	None/None G3 / S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	HA	No sandy or loamy soils with adequate moisture in the BSA. Not expected to occur.
southwestern pond turtle	<i>Actinemys pallida</i>	None/None G3G4 / S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	HP	San Luis Obispo Creek contains suitable habitat for this species. The surrounding upland habitat within the BSA may also provide potential nesting and basking sites. No sandy banks for basking were observed during the field survey. This species may occur.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	FE/SE G1 / S1 FP	Occur in semiarid grasslands, alkali flats, and washes. Prefer flat areas with open space for running, avoiding densely vegetated areas. Elevation: 30-730 meters.	HA	Not expected to occur on site. No suitable habitat occurs on site and no observations were made during the surveys. BSA outside the range for this species. The project is expected to have no effect to blunt-nosed leopard lizard. See Chapter 4 for more information.
coast horned lizard	<i>Phrynosoma blainvillii</i>	None/None G3G4 / S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	HA	BSA does not contain suitable habitat, including sandy washes or open areas.
Fish					
tidewater goby	<i>Eucyclogobius newberryi</i>	FE/None G3 / S3 SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	HA	The BSA does not contain any aquatic areas and habitat requirements for this species are not present in the BSA. The project is expected to have no effect to tidewater goby. See Chapter 4 for more information.

Natural Environment Study

Common Name	Scientific Name	ESA/CESA Status G-rank/S-Rank CRPR, CDFW, or Local Designation	General Habitat Description	Habitat Present/ Absent	Rationale
Steelhead – South-central California Coast DPS	<i>Oncorhynchus mykiss irideus</i> pop.9	FT/None G5T1Q/S1	Fresh water, fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools; small streams with high elevation headwaters close to the ocean that have no impassible barriers; spawning: high elevation headwaters.	HP	San Luis Obispo Creek is federally designated critical habitat for this species. The API occurs outside the banks of San Luis Obispo Creek; however, a portion of the riparian canopy associated with the terrace above San Luis Obispo Creek extends into the API. The project will result in the removal of an individual riparian tree well outside the banks of the creek. The project is not anticipated to result in temporary or permanent impacts within the banks of San Luis Obispo Creek or to suitable habitat for steelhead. The project is expected to have no effect to steelhead. See Chapter 4 for more information.

Regional Vicinity refers to the nine USGS quadrangles surrounding the project site.

Absent [HA] - no habitat present and no further work needed. Habitat Present [HP] -habitat is or may be present. The species may be present.

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); State Candidate Threatened (SCT); State Candidate Endangered (SCE); Fully Protected (FP); State Rare (SR); State Special Animal (SA); State Species of Special Concern (SSC); California Native Plant Society (CNPS)

Table 2 Special Status Natural Communities in the Regional Vicinity of the Project Site

Sensitive Natural Communities			
Plant Community	G-Rank/S-Rank	Potential for Impact	Rationale
Central dune scrub	None/None G2/S2.2	None	Not Present in BSA
Central foredunes	None/None G1/S1.2	None	Not Present in BSA
Central maritime chaparral	None/None G2/S2.2	None	Not Present in BSA
Coastal and valley freshwater marsh	None/None G3/S2.1	None	Not Present in BSA
Coastal brackish marsh	None/None G2/S2.1	None	Not Present in BSA
Northern coastal salt marsh	None/None G3/S3.2	None	Not Present in BSA
Northern interior cypress forest	None/None G2/S2.2	None	Not Present in BSA
Serpentine bunchgrass	None/None G2/S2.2	None	Not Present in BSA
Valley needlegrass grassland	None/None G3/S2.1	None	Not Present in BSA

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDDB RareFind5.

4 - Results: Biological Resources, Discussion of Impacts & Mitigation

Habitats and Natural Communities of Special Concern

Habitats are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on site. Federal, state, and local governments have passed laws protecting certain natural communities, particularly wetlands, streams and rivers and the riparian habitats associated with them, and/or habitat areas known to contain special-status plant or animal species. Federally designated critical habitat areas are considered areas of special concern and are defined as those areas essential to the conservation of a federally listed species. Not all federally listed species have designated critical habitat (USFWS 2018).

Plant communities are also considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened". Sensitive natural communities were previously tracked in the CNDDDB, although the system is not currently updated for sensitive natural communities. Additionally, vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive by CDFW, as well as certain additional associations identified in the current CDFW Sensitive Natural Communities List (2018c).

DISCUSSION OF NATURAL COMMUNITIES

The BSA was evaluated for the presence of sensitive natural communities, as recognized by the CDFW (2018). The BSA was also evaluated to determine the approximate location, type, and areal extent of waters, including wetlands, and riparian habitats that would likely be subject to the jurisdiction of the USACE, RWQCB, and CDFW. Final jurisdictional determinations are made by each agency, typically at the time that authorizations to impact such features are requested.

Survey Results

No evidence of jurisdictional wetlands was observed within the Area of Potential Impacts during the site visits. Other waters subject to USACE and RWQCB jurisdictions are confined to the reach of San Luis Obispo Creek bordering the northeastern side of the BSA. The San Luis Obispo streambed and streambank habitats up to the top of bank, as well as riparian vegetation to the outer dripline of the riparian community, are subject to the jurisdiction of the CDFW pursuant to Section 1600 et seq. of the CFGC. San Luis Obispo Creek has a defined bed and banks, supports wildlife within and outside the BSA, and maintains a direct connection to the Pacific Ocean and therefore, falls under the jurisdiction of the CDFW. The bed and banks associated with San Luis Obispo Creek occur outside the BSA; however, approximately 0.79 acre of riparian habitat subject to the CDFW's permitting authority under Section 1600 et seq. of the CFGC occurs within the BSA.

Project Impacts

Impacts to jurisdictional areas from implementation of the proposed project would include removal of one arroyo willow tree with a DBH of three inches. The removal is necessary to

accommodate work associated with the northbound U.S. 101 auxiliary lane. This activity would result in a permanent impact to 0.02 acre of CDFW jurisdiction (Figure 4). The proposed project also has potential to result in accidental sediment release into San Luis Obispo Creek or accidental release of construction-related chemicals to the creek.

Avoidance and Minimization Efforts/Compensatory Mitigation

The project will require a Streambed Alteration Agreement because tree removal activities will take place within CDFW jurisdiction. The permit would include a variety of measures to avoid, minimize, and mitigate for any potential impacts to riparian habitat resulting from the project. In addition, a Habitat Mitigation and Monitoring Plan (HMMP) will be prepared which will provide for a 2:1 restoration ratio for permanent impacts, unless otherwise directed by regulatory agencies. The project will permanently impact approximately 0.02 acre of arroyo willow thicket habitat. The permanently impacted area will be replaced at a 2:1 mitigation ratio (2 acres of mitigation for every 1 acre of impacts) for the permanent impact, unless otherwise approved by pertinent regulatory agencies. Mitigation activities associated with replacement of this sensitive habitat resource should occur in the designated sensitive habitat mitigation portion of the BSA and would not inadvertently result in additional impacts to sensitive plant or wildlife species. In addition, all areas of temporary disturbance shall be stabilized and revegetated with an assemblage of native vegetation suitable for the area. Anticipated activities that are associated with implementation of the HMMP include application of native willow/ riparian seed mix and removal of non-native weedy species within the habitat mitigation area. The final HMMP will be implemented immediately after project completion.

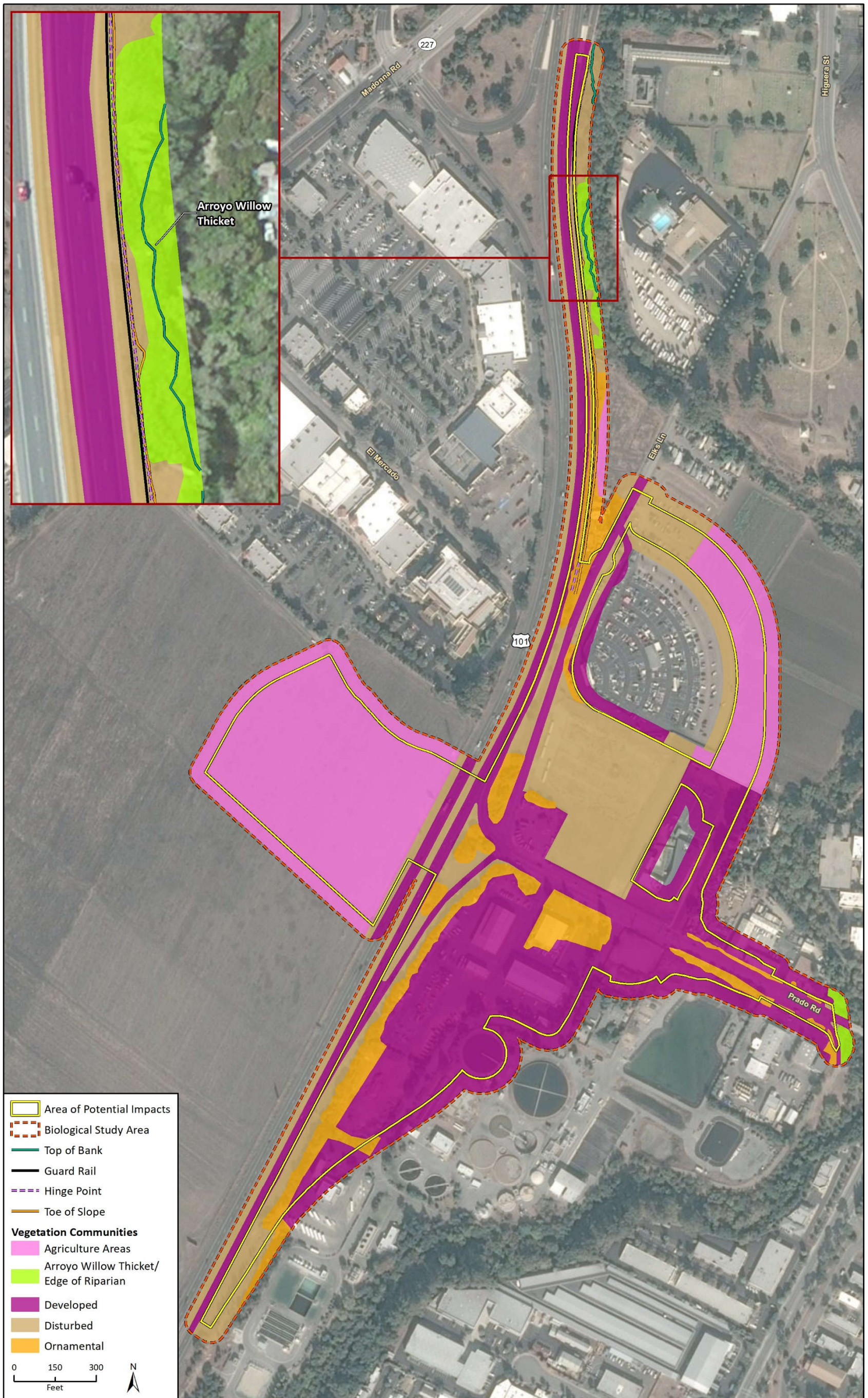
The project will be required to follow the guidelines within the Statewide stormwater NPDES permit (Caltrans permit). This permit contains regulations pertaining to stormwater and non-stormwater discharges from Caltrans properties and facilities as well as discharges associated with operation and maintenance of the State highway system. Construction BMPs would be implemented in accordance with the Construction General Permit (Order No. 2009-0009-DWQ), which requires development and implementation of a SWPPP. The following Avoidance and Minimization Efforts are also recommended to avoid impacts to San Luis Obispo Creek and the riparian corridor surrounding the creek.

- AM-1. All refueling, maintenance, and staging of equipment and vehicles will occur at least 100 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.
- AM-2. Raw cement, concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic species resulting from project-related activities, shall be prevented from contaminating the soil and/or entering jurisdictional areas.
- AM-3. To control sedimentation during and after project implementation, appropriate erosion control best management practices (i.e., installation of straw wattle, jute netting, etc.) shall be implemented to minimize adverse effects on San Luis Obispo Creek. Plastic monofilament erosion control matting will not be implemented onsite.

Natural Environment Study

- AM-4. Prior to the initiation of construction activities, high-visibility orange construction fencing will be installed along the limits of proposed disturbance outside of the top of the western bank of San Luis Obispo Creek and its associated riparian habitat to minimize potential for disturbance of this sensitive resource.
- AM-5. If feasible, project activities within 60 feet of San Luis Obispo Creek shall occur during the dry season (e.g., between May 1 and November 1) in any given year.

Figure 4 Northbound U.S. 101 Auxiliary Lane Impacts



Special Status Plant Species

The 76 plants listed in Table 1 were considered based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring on site. The presence-absence column in Table 1 refers to suitable habitat within the BSA and does not necessarily indicate the presence of the species. Of the 76 special status plant species listed in Table 1, two were determined to have the potential to exist within the BSA based on their biological requirements compared to existing site conditions and the range of each species. These species include Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) and black-flowered figwort (*Scrophularia atrata*). Both species would have been readily identifiable during at least one of the field surveys (i.e., survey timing coincided with blooming periods for these plants) but were not observed. No federal or state listed endangered, threatened, or rare plant species were observed within the BSA during the field survey. Therefore, no impacts to special status plant species are expected to occur and avoidance, minimization, or mitigation measures are not required for project implementation. In addition, no cumulative impacts are expected to occur.

Special Status Animal Species Occurrences

No state or federally listed or otherwise sensitive animal species were observed within the BSA during the field survey.

The 46 animals listed in Table 1 were considered based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on site. Of the 46 animal species evaluated to occur within the BSA from Table 1, nine special-status animal species have potential to occur onsite based on the presence of suitable habitat. These species include: California red-legged frog (*Rana draytonii*), which is federally threatened and state species of special concern; SCCC steelhead (*Oncorhynchus mykiss irideus*), which is federally endangered; white-tailed kite (*Elanus leucurus*), which is a fully protected species; ferruginous hawk (*Buteo regalis*) and Cooper's hawk (*Accipiter cooperii*), which are state watch list species; and purple martin (*Progne subis*), loggerhead shrike (*Lanius ludovicianus*), Coast Range newt (*Taricha torosa*), and southwestern pond turtle (*Actinemys pallida*), which are state SSC. A discussion of these special-status animal species with regard to the type and quality of habitat, the potential for occurrence, potential project impacts and presentation of measures to avoid and minimize potential project-related impacts are discussed below.

In addition to special-status wildlife species, the BSA has suitable habitat for a variety of common nesting bird species and raptors that are afforded protection under the CFGC and MBTA. As such, measures are also provided to avoid, minimize, and/or mitigate potential project-related impacts to raptors and nesting birds should they be present during project activities.

DISCUSSION OF CALIFORNIA RED-LEGGED FROG

California red-legged frog (CRLF) is listed as threatened under the FESA and is a state species of special concern throughout its range. CRLF has been documented in the CNDDDB approximately 0.50 mile south of the BSA, just north of the confluence of Prefumo Creek and San Luis Obispo Creek.

CRLF inhabits quiet pools of streams, marshes, and ponds. All life history stages are most likely to be encountered in and around breeding sites, which include coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. CRLF also utilize upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat (75 FR 12816). Upland habitat may include including various vegetation types such as grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance for the California red-legged frog. Dispersal habitat for CRLF includes accessible upland or riparian habitat within and between occupied or previously occupied sites that are located within 1.7 mi (2.8 km) of occupied sites that support movement between such sites.

Survey Results

The BSA was assessed for the potential to support CRLF based on the habitats present within and adjacent to the BSA, as well as an occurrence approximately 0.50 mile south of the BSA. The project site is located within the known range of CRLF in San Luis Obispo County based upon the current range depicted in the USFWS Recovery Plan for the California Red-legged Frog (USFWS, 2002). Federally designated critical habitat for the CRLF has also been identified in the vicinity and is located approximately 0.65 mile north of the BSA

San Luis Obispo Creek within the northeast corner of the BSA contains potentially suitable breeding habitat for CRLF and arroyo willow thicket lining the creek is considered suitable habitat for juvenile dispersal and for foraging adults. However, the western bank is heavily incised limiting access for dispersal. In addition, steep concrete slope protection was observed along the western bank of the creek in the northeastern corner of the BSA. The slope protection runs from the ordinary high-water mark to the top of bank. The western side of San Luis Obispo Creek within the BSA is also not suitable dispersal habitat due to the presence of the highway, lack of vegetation cover, compacted road shoulder and pavement, and heavy, fast-moving vehicular traffic. The only areas with suitable dispersal habitat for CRLF are lower on the bank where there may be sufficient vegetation cover and soil moisture. The BSA does not currently contain suitable breeding habitat for CRLF. Currently, no areas of potential pooling of standing water of sufficient depth to support CRLF breeding are present within the BSA. However, potential CRLF breeding habitat may occur further upstream or downstream in the creek.

One human-made pond associated with the WWRF occurs in the southeastern portion of the API. While water within the pond could provide potentially suitable habitat for CRLF, the cement wall surrounding the pond creates a barrier that would prevent CRLF from entering. Therefore, it is unlikely that the pond would provide habitat for CRLF or that the species would occur within it. A photograph of the WWRF pond and surrounding wall are included in Appendix D.

Project Impacts

Direct impacts to water quality would be avoided through use of spill prevention and erosion control measures that are suitable for the proposed project. Although the project will remove one 3-inch DBH arroyo willow and will be adding an auxiliary lane adjacent to the west bank of San Luis Obispo Creek, the project will not impact CRLF because the work areas are not considered suitable breeding, foraging or dispersal habitat, as described above. The tree occurs up on a terrace along the outmost extent of the riparian corridor adjacent to U.S. 101. Between the tree and U.S. 101 lies a frequently disturbed narrow strip of ruderal vegetation. No dispersing juveniles or foraging adults are anticipated to occur where the tree removal is

proposed; therefore, no direct impacts to CRLF individuals are anticipated. Direct impacts to aquatic habitat water quality and suitable upland and dispersal habitat would be avoided and/or minimized through implementation of the measures (AM-1 through AM-5) previously described above. Additional measures are proposed below to avoid any potential direct or indirect impacts to CRLF.

Avoidance and Minimization Efforts/Compensatory Mitigation

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related effects to CRLF. The following Avoidance and Minimization Efforts are recommended to ensure that no direct or indirect impacts to CRLF from this project occur.

- AM-6. A pre-construction survey of the proposed disturbance footprint for California red-legged frog shall be conducted by a qualified biologist within 48 hours prior to the start of project construction, including guard rail and erosion control installation, to confirm this species are not present in the work area.
- AM-7. In the event the pre-construction survey identifies the presence of individuals of CRLF or if individuals of these species are encountered during construction, then work shall stop work and comply with all relevant requirements of the federal Endangered Species Act prior to resuming project activities.
- AM-8. No power equipment will enter the arroyo willow thicket. Tree removal will utilize hand tools only.
- AM-9 . Prior to tree removal, a qualified biologist shall conduct a training session for tree removal crew. At a minimum, the training shall include a description of the CRLF and its habitat, the specific measures that are being implemented to conserve the CRLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
- AM-10. A biological monitor familiar with semi-aquatic species that have potential to occur will monitor arroyo willow tree removal. If CRLF are observed in the work area, all shall stop work until the applicant complies with all relevant requirements of the federal Endangered Species Act prior to resuming project activities.
- AM -11. Project sites will be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project.

DISCUSSION OF COAST RANGE NEWT

The Coast Range newt is considered a SSC by the CDFW. As previously discussed, the BSA contains suitable habitat for Coast Range newt. This species occurs along the coast and within the Coast Range Mountains from Mendocino County south to San Diego County. A disjunct population occurs in the southern Sierra Nevada. Coast Range newt utilizes wet forests, oak

woodlands, chaparral, and rolling grassland communities, but requires permanent or aquatic habitats such as ponds, reservoirs, and sluggish pools in streams for breeding. The Coast Range newt breeding season typically occurs during late December through February.

Survey Results

The BSA occurs within the known range of Coast Range newt; however, this species was not observed within the BSA during the field surveys. The arroyo willow thicket on the terrace above the west bank of San Luis Obispo Creek is considered suitable upland habitat for foraging and aestivation. One occurrence of Coast Range newt has been documented within a three-mile radius of the BSA.

Project Impacts

Implementation of the proposed project will not result in any significant loss or fragmentation of Coast Range newt habitat. Direct impacts to this species could occur if it is present on-site during construction activities. Given that this species is an amphibian that utilizes similar habitats to CRLF; implementation of the Avoidance and Minimization Measures provided for CRLF are suitable and appropriate for this species as well. Potential direct impacts to this species resulting from implementation of the proposed project will be avoided through execution of measures (AM-1 through AM-11) previously described above.

DISCUSSION OF SOUTHWESTERN POND TURTLE

The southwestern pond turtle is considered a SSC by the CDFW. The species inhabits coastal California south of the San Francisco Bay area to the Mexican border. Southwestern pond turtles utilize ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches and requires exposed banks, logs, rocks, or vegetative mats for basking. The species needs loose friable soils to bury its eggs and will aestivate underwater in muddy substrates during summer droughts and extreme cold temperatures. Southwestern pond turtles typically breed April through May and are considered to be most active during the months of February through November.

Survey Results

No southwestern pond turtles were observed during the site surveys. The BSA occurs within the known range of the southwestern pond turtle and there are four occurrences of this species documented by the CNDDDB records within a three-mile radius of the BSA. The BSA contains suitable habitats for this species.

Project Impacts

Implementation of the proposed project will not result in any significant loss or fragmentation of western pond turtle habitat. San Luis Obispo Creek provides suitable habitat as it supports aquatic vegetation and exposed banks for basking. The arroyo willow thicket lining San Luis Obispo Creek provides suitable nesting habitat for this species. Habitat for this species is not anticipated to be affected as both channels and arroyo willow thicket immediately lining the channels occur outside the disturbance footprint. Due to the adjacent freeway and ground disturbance, this species is not anticipated to occur on the western edge of the thicket where the individual tree will be removed. In addition, due to the high degree of disturbance associated

with the remainder of the site, this species is not expected to overwinter within the proposed disturbance area. This species is only expected to occur incidentally, if at all, during construction activities, if individuals move through the site during the wet season, due to its proximity to potentially suitable aquatic habitat. Potential direct and indirect impacts to southern western pond turtle resulting from implementation of the proposed project shall be minimized and/or avoided through execution of the measures described below.

Avoidance and Minimization Efforts/Compensatory Mitigation

The following Avoidance and Minimization Efforts are recommended to ensure that impacts to western pond turtles from this project are reduced as much as practicable:

AM-12. A pre-construction survey of the proposed disturbance footprint for western pond turtle shall be conducted by a qualified biologist within 48 hours prior to the start of project construction, including guard rail and erosion control installation, to confirm this species is not present in the work area.

AM-13. If western pond turtles are found within the project site, the qualified biologist shall capture and relocate the animals the shortest distance possible to a location that contains suitable habitat not likely to be affected by activities associated with the proposed project.

AM-14. Before initiating construction activities, a qualified biologist(s) shall conduct a training session for all construction personnel conducting vegetation removal activities, including a description of western pond turtle, its habitat and legal status, and the need for conservation of the species.

DISCUSSION OF STEELHEAD – SOUTH-CENTRAL CALIFORNIA COAST DPS

The SCCC steelhead is a federally threatened species and CDFW SSC that requires shaded pools within cool low-flow streams and warm water habitats below some dams or pipeline outfalls where summer releases provide high flows and fast-waters. This species requires gravel substrates with sufficient flow velocities to clean and oxygenate the substrates for spawning. Juveniles typically frequent streams that provide cover from overhanging banks within willow and/or cottonwood riparian forests, woodlands, and scrubs. SCCC Steelhead tend to spawn when winter rains have been substantial enough to raise stream flows and breach any sandbars that formed in the dry season. Migration and spawning occur during the months of December through May. The portion of San Luis Obispo Creek within the BSA is considered suitable habitat for this species.

Survey Results

No SCCC steelhead were observed within the BSA during the reconnaissance field surveys; however, determinant-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with the most recent guidance provided by the NMFS. Suitable habitat for SCCC steelhead within the BSA includes the San Luis Obispo Creek stream channel.

Project Impacts

Implementation of the project is not expected to result in direct take of SCCC steelhead, including harm or harassment. Construction within the stream channel itself is not a component of the proposed project. Direct impacts to SCCC steelhead could result from accidental release of sediment or spills of wet concrete, chemicals or oil if the spills reach occupied habitat. Direct impacts would be avoided through the use of spill prevention and erosion control measures designed for the proposed project.

All potential indirect project-related impacts to this species will be avoided and/or minimized through implementation of the measures described below.

Avoidance and Minimization Efforts/Compensatory Mitigation

Avoidance and Minimization Efforts (AM-15 through AM-20) listed below for SCCC steelhead are recommended to ensure that potential direct and indirect impacts to SCCC steelhead from this project are avoided.

- AM-15. Before any activities begin on a project, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of SCCC steelhead and its habitat, the specific measures that are being implemented to conserve this species for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
- AM-16. Prior to the initiation of construction activities, high-visibility orange construction fencing will be installed outside of the tops of the banks of San Luis Obispo Creek along the limits of proposed disturbance to minimize disturbance to SCCC steelhead and its federally designated critical habitat.
- AM-17. During the duration of project activities, all trash that may attract predators will be properly contained and secured, promptly removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from the work areas.
- AM-18. The work schedule work within the immediate vicinity of San Luis Obispo Creek will occur when potential effects to SCCC steelhead would be minimal. If feasible, project activities within 60 feet of San Luis Obispo Creek shall occur during the dry season (e.g., between May 1 and November 1) in any given year.
- AM-19. Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws concerning pollution abatement shall be complied with.
- AM-20. During construction, in order to prevent sedimentation and debris from entering San Luis Obispo Creek during construction, appropriate best management practices shall be implemented, and silt fencing shall be installed along the top of the banks of the channel prior to the onset of construction activities planned for the project.

In addition to the avoidance and minimization measures identified above, execution of measures (AM-1 through AM-5) previously described above would also ensure that potential indirect impacts to SCCC steelhead from this project are avoided.

DISCUSSION OF DESIGNATED CRITICAL HABITAT FOR THE SOUTH-CENTRAL CALIFORNIA COAST DPS STEELHEAD

As previously mentioned, San Luis Obispo Creek enters the northeastern side of the BSA. Federally designated critical habitat for SCCC steelhead occurs within San Luis Obispo Creek.

The critical habitat rule for the steelhead (Federal Register 70: 52488-52627) lists the following PCEs:

- (1) Freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation and larval development.
- (2) Freshwater rearing sites with:
 - (i) Water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility;
 - (ii) Water quality and forage supporting juvenile development; and
 - (iii) Natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.
- (3) Freshwater migration corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival.
- (4) Estuarine areas free of obstruction and excessive predation with:
 - (i) Water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater;
 - (ii) Natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels; and
 - (iii) Juvenile and adult forage.

Survey Results

The BSA was assessed for the potential to support this species in accordance with the most recent guidance provided by the NMFS. Suitable habitat for SCCC steelhead within the BSA includes the San Luis Obispo Creek stream channel.

According to the guidance provided in the NMFS Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California, the BSA does contain several of the PCEs for steelhead that have been

identified (Federal Register Volume 70, No. 170-52488). Specifically, San Luis Obispo Creek is considered suitable spawning habitat for SCCC steelhead because it supports overhanging vegetation in certain regions and has a suitable gravel substrate. Within the BSA, flowing water was observed at the base of the concrete slope protection within the northeastern corner of the BSA.

Project Impacts

Implementation of the project is not expected to result in any significant loss or fragmentation of SCCC steelhead federally designated critical habitat. All project related disturbance will occur outside the banks of the creek and no overhanging vegetation will be impacted. As such, direct impacts to federally designated critical habitat would not occur and the project will not result in permanent shading of SCCC federally designated steelhead critical habitat within San Luis Obispo Creek. Indirect impacts to SCCC steelhead critical habitat could occur as result of general project-related disturbance, water quality issues, or if a spill occurs within the BSA during implementation of the project. However, all potential indirect project-related impacts to this species will be avoided through implementation of the measures described above for SCCC steelhead.

Avoidance and Minimization Efforts/Compensatory Mitigation

As previously mentioned, the proposed project does not include work within the San Luis Obispo Creek channel. To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to SCCC steelhead and its federally designated critical habitat. Additionally, execution of measures (AM-1 through AM-6) and (AM -16 through 21) previously described above will be implemented to also avoid impacts to steelhead critical habitat.

DISCUSSION OF FERRUGINOUS HAWK, COOPER'S HAWK, PURPLE MARTIN, LOGGERHEAD SHRIKE, WHITE-TAILED KITE, AND OTHER NESTING BIRDS

Ferruginous hawk is a state watch list species. This large hawk prefers open fields, grasslands, and shrublands in western North America. It preys primarily on ground squirrels (*Otospermophilus beecheyi*) and prairie dogs (*Cynomys* spp.). Two records of Ferruginous hawk wintering sites have been recorded by the CNDDDB in the vicinity, one approximately 0.75 mile east, and one approximately 1.0 mile west of the BSA. The larger trees within and adjacent to the BSA may provide wintering habitat for this species. This species is not reported to nest in coastal San Luis Obispo County.

Cooper's hawk is a state watch list species. This crow-sized hawk feeds primarily on small birds and some small mammals in fragmented woodland habitats. Breeding habitat includes forested areas of hardwood, mixed and evergreen forests, and deciduous stands of riparian forest. This species has become increasingly tolerant to human environments and habitat fragmentation (Curtis et al. 2006). Cooper's hawk has not been documented by the CNDDDB within the vicinity; however, the adjacent riparian woodland and larger trees within the BSA may provide suitable nesting habitat for this species.

The loggerhead shrike is a state SSC. This species forages in grasslands, agricultural areas, and other semi-open habitats. Nesting is in coastal scrub and riparian habitats. They breed in southern Canada, and throughout the United States and Mexico. They winter in southern

Oregon eastward to Virginia and into southern Mexico. They are present year-round in San Luis Obispo County. This species has been documented by the CNDDDB within five miles of the BSA and is known to occur in the regional vicinity. The ornamental trees and shrubs within and adjacent to the BSA provide suitable nesting habitat for this species.

Purple Martin is a state SSC. This species inhabits forests and woodlands throughout California and nests in tree cavities, bridges, utility poles, and buildings. This species has not been documented by the CNDDDB within five miles of the BSA. Nonetheless, the larger trees/snags and manmade structures within the BSA provide nesting opportunities for this species.

The white-tailed kite is recognized as a Fully Protected species by the CDFW. This species nests in trees at low elevations. Kites are known for distinctive hovering flight when foraging. This species has been documented by the CNDDDB approximately five miles northwest of the BSA. The intermittent larger trees within the BSA and larger trees associated with the bordering San Luis Obispo Creek may provide suitable nest sites.

In general, many nesting birds are protected by the MBTA and/or CFGC (Section 3500). Birds nest in a variety of habitats, from ground burrows, upland grasslands, wetlands, shrubs and large trees of various species. Birds differ in their disturbance tolerance based on how accustomed they become to a given disturbance or type of disturbance. Birds in urban areas may be more tolerant of noise and traffic than birds in rural areas, where ambient noise and activity levels are generally lower. Most birds will not flush if approached by a slow moving vehicle at a nominal distance, whereas a human on foot will flush birds at a much greater distance. Once a bird has been flushed from its nest, the incubating eggs or fledglings are at increased risk of mortality from thermal stress, nest predation and starvation. The longer the duration during which the adult remains away from the nest after flushing, the greater the risk.

Survey Results

Suitable habitats for birds protected by the MBTA and raptors protected under CFGC (as discussed above) occur within and adjacent to the BSA. No avian nests were detected during the field surveys conducted on July 27, 2018 and April 7, 2021. No ferruginous hawk, Cooper's hawk, loggerhead shrike, or white-tailed kite individuals were observed during the surveys. Although potentially suitable nesting habitat is present for raptors, foraging habitat is limited within the BSA due to existing development and transportation corridors. Regular cultivation and other agricultural practices within the western portion of the BSA generally eliminate habitat for burrowing animals such as small mammals, which are a common prey base for raptors.

Project Impacts

Implementation of the project is not expected to result in any significant loss or fragmentation of nesting bird habitat. Potential impacts could occur to resident, migratory, and raptor species if present at the time of project construction. Direct impacts to these species could occur if nests are present within the BSA during construction through injury/death and through harassment if disturbed by the project. Minimal direct permanent impacts to nesting bird habitat would occur as a result of project development. Indirect impacts to nesting birds could result from general project-related disturbance and noise if nesting pairs are present within the BSA during implementation. However, all potential direct and indirect project-related impacts to nesting bird species will be avoided and/or minimized through implementation of the measures described below.

Avoidance and Minimization Efforts/Compensatory Mitigation

Implementation of the following avoidance and minimization measures would reduce impacts to raptors and other nesting birds protected under the MBTA and/or CFGC:

AM-21. For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the CFGC and/or MBTA shall be conducted by a qualified biologist no more than 3 days prior to vegetation removal. The surveys shall include the disturbance area plus a 500-foot buffer around the site, where feasible, accounting for private property right-of-entry constraints. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 250 feet for non-raptor bird species and 500 feet for raptor species unless there is a compelling biologically valid reason for a smaller buffer (e.g. a physical barrier, such as a hill or large building, between the nest and the site, blocks line of site and reduces noise). Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. Readily visible exclusion zones shall be established in areas where nests must be avoided. Nests, eggs, or young of birds covered by the MBTA and/or CFGC would not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time.

AM-22. If feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to occur in the fall and winter (between September 16 and January 31), after fledging and before the initiation of the nesting season.

AM-23. The City shall be immediately notified if any nesting white-tailed kites are observed during surveys. White-tailed kite nests shall be fully avoided. The City shall coordinate with CDFW regarding appropriate avoidance measures while the nest is active.

No compensatory mitigation is required with the implementation of avoidance and minimization measures described above.

Trees

Certain trees are afforded certain protections pursuant to City ordinances. The City regulates tree removal within its jurisdiction (Tree Ordinance No. 1544 2010 Series). Implementation of the proposed project may require removal of qualifying trees. If qualifying tree removal is required, a tree removal permit will be obtained and a tree protection and replacement plan will be implemented to meet the requirements of the City ordinance. As a component of a tree protection and replacement plan required for the project, a supplemental impact analysis will be completed when land survey and associated design refinements are available to determine the exact number of trees to be affected and to identify areas requiring tree protection measures.

Survey Results

Native and non-native trees were documented within the BSA during the field surveys. The majority of which are native and introduced trees planted for ornamental purposes. Several of the trees are either greater than 12 inches DBH, and/or are native species greater than 10 inches DBH.

Project Impacts

The project could remove or impact many of these trees. Depending upon the final design, additional trees may be impacted through pruning or root compaction. Impacts to trees within the disturbance footprint from construction of the project include trimming, disturbance within the critical root zones from work within the tree's dripline, or complete removal. However, the exact number of trees to be removed, trimmed and/or critical root zones impacted from the project is not known at this time, with the final number dependent on the final design of the project and construction access needs.

Implementation of the following avoidance and minimization measure would reduce impacts to trees within and adjacent to the BSA.

Avoidance and Minimization Efforts/Compensatory Mitigation

AM-24. A Tree Protection and Replacement Plan would be prepared before any tree impacts or removals occur and would be consistent with requirements of the City tree ordinances. The Tree Protection and Replacement Plan would be based upon the final grading and building plans. The plan would outline policies specifically required in the City portion of the site, and the number of replacement trees required to offset tree impacts. An appropriate replacement/replanting program would be required to offset removals at a minimum ratio of one tree replanted for each qualifying tree removed.

AM-25. All qualifying trees within 25 feet of proposed ground disturbances that will be retained shall be temporarily fenced with chain-link or other material throughout all grading and construction activities. The fencing shall be installed outside the dripline of each tree or as far from the trunk as is feasible while accommodating project construction, i.e., every effort shall be made to retain trees that are in good health where removal is not required to construct the project. No construction equipment shall be staged, parked, or stored within the dripline of any qualifying tree dripline. If project construction requires activities within the dripline of a tree that is proposed to be retained, an arborist shall be present during ground-disturbing work under the dripline.

Implementation of the above avoidance, minimization, and tree replacement measures would reduce impacts to trees within and adjacent to the BSA and would fully mitigate the significant impact associated with the lost biological resource value of the trees removed so that the net project impact is less than significant.

Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. Invasive species on the U.S. Department of Agriculture Federal Noxious Weed List (2021), California Department of Food

and Agriculture Noxious Weed List (2021), and Cal-IPC Inventory (2021) were reviewed and compared to those documented within the BSA. Pursuant to Executive Order 13112, measures must be taken to prevent the spread or infestation of invasive species.

Survey Results

Table 3 below lists the invasive plant species recorded during the field surveys. Note that several of these species are also commonly planted ornamental plants that were present in the BSA as part of planted landscapes.

Table 3 Invasive Exotic Plant Species Occurring in the BSA

Scientific name	Common name	Cal-IPC Status
<i>Acacia longifolia</i>	golden wattle	Cal-IPC Watch
<i>Avena barbata</i>	slim oat	Cal-IPC Moderate
<i>Brassica nigra</i>	black mustard	Cal-IPC Moderate
<i>Bromus diandrus</i>	ripgut brome	Cal-IPC Moderate
<i>Bromus rubens</i>	red brome	Cal-IPC High
<i>Carpobrotus edulis</i>	iceplant	Cal-IPC High
<i>Centaurea solstitialis</i>	yellow star thistle	Cal-IPC High
<i>Erodium cicutarium</i>	red stemmed filaree	Cal-IPC Limited
<i>Eucalyptus globulus</i>	blue gum eucalyptus	Cal-IPC Limited
<i>Helminthotheca echioides</i>	bristly ox-tongue	Cal-IPC Limited
<i>Hirschfeldia incana</i>	summer mustard	Cal-IPC Moderate
<i>Hordeum murinum</i>	foxtail barley	Cal-IPC Moderate
<i>Phoenix canariensis</i>	Canary Island date palm	Cal-IPC Limited
<i>Ricinus communis</i>	castor bean	Cal-IPC Limited
<i>Schinus molle</i>	Peruvian pepper tree	Cal-IPC Limited
<i>Washingtonia robusta</i>	Mexican fan palm	Cal-IPC Moderate

California Invasive Plant Council Inventory Categories (Cal-IPC 2021):

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent – but generally not severe – ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Watch: These species have been assessed as posing a high risk of becoming invasive in the future in California.

Project Impacts

Although many of the invasive species identified in Table 3 are present as part of intentionally planted landscaping, once established, such species can proliferate and spread into natural areas. Some species can also regenerate from root and stem fragments. Ground disturbance in the BSA and removal of existing, invasive, non-native plant species could result in spread of these species into new areas. Non-native plants can out-compete native species and/or alter habitat towards a state that is unsuitable for special-status species. For example, the spread of certain weed species can reduce the biodiversity of native habitats through displacement of vital pollinators, potentially eliminating special-status plant species. There is potential for the proposed project to result in the spread of invasive plant species.

Avoidance and Minimization Efforts/Compensatory Mitigation

With implementation of the following recommended avoidance and minimization measures invasive plant species will not be spread.

- AM-26. Prior to construction, a qualified botanist/biologist shall provide invasive plant prevention training and an appropriate identification/instruction guide to staff and contractors. A list of target species shall be included, along with measures for early detection and eradication.
- AM-27. Prior to construction, specific areas shall be designated for cleaning of tools, vehicles, equipment, clothing and footwear, and other gear.
- AM-28. Before entering and exiting the work site, any and all tools, equipment, vehicles, clothing and footwear, and other gear shall be cleaned to remove soil, seeds, and other plant parts.
- AM-29. The reproductive parts of any invasive plants in impact areas, such as seeds, mature flowers, and roots/shoots of species that can reproduce vegetatively, shall be contained in sealed containers and removed from the site to a licensed landfill.
- AM-30. If necessary, suitable receiving areas shall be designated for invasive plant waste disposal prior to their transport to a certified landfill and 100 percent containment of invasive plant materials during transport shall be achieved.
- AM-31. All disturbed areas that are not converted to hardscape or formally landscaped shall be hydro-seeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydro-seeding shall occur where no construction activities have occurred prior to winter rains. If exotic species invade these areas prior to hydro-seeding, weed removal shall occur in consultation with a qualified botanist/ biologist. Alternatively, in areas not suitable for hydroseeding, areas that are not hardscaped and are planned for formal landscaping shall be mulched to reduce potential for invasive species to colonize. Mulch shall be at least four inches thick and shall be weed free.

With these plans in place, no other compensatory mitigation is required with the implementation of avoidance and minimization measures described above.

5 - Conclusions & Regulatory Determination

Federal Endangered Species Act Consultation Summary

Implementation of the proposed action will have no effect on species protected by the FESA because either suitable habitat for these species does not occur within the disturbance footprint or other avoidance and minimization measures are being implemented as part of the project to ensure that direct and/or indirect effects would not occur. None of these species were observed on-site during the field surveys conducted for the project. Furthermore, implementation of the proposed action would not adversely modify or destroy any federally designated critical habitat.

Table 4 Federal Endangered Species Act Effects Determination.

Common Name	Scientific Name	Legal Status	Effects
Critical Habitats			
South California Coast steelhead DPS	<i>Oncorhynchus mykiss irideus</i>	Critical Habitat	No effect
Plants			
Morro manzanita	<i>Arctostaphylos morroensis</i>	Threatened	No effect
marsh sandwort	<i>Arenaria paludicola</i>	Endangered	No effect
California jewelflower	<i>Caulanthus californicus</i>	Endangered	No effect
Salt marsh bird's beak	<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>	Endangered	No effect
San Luis Obispo fountain thistle	<i>Cirsium fontinale</i> var. <i>obispoense</i>	Endangered	No effect
La Graciosa thistle	<i>Cirsium scariosum</i> var. <i>loncholepis</i>	Endangered	No effect
Pismo clarkia	<i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Endangered	No effect
Indian Knob mountainbalm	<i>Eriodictyon altissimum</i>	Endangered	No effect
Spreading navarretia	<i>Navarretia fossalis</i>	Threatened	No effect
California seablite	<i>Suaeda californica</i>	Endangered	No effect
Invertebrates			
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Threatened	No effect
Kern primrose sphinx moth	<i>Euproserpinus euterpe</i>	Threatened	No effect
Fish			
Steelhead – South-central California Coast DPS	<i>Oncorhynchus mykiss irideus</i>	Endangered	No effect
Tidewater goby	<i>Eucyclogobius newberryi</i>	Endangered	No effect

Common Name	Scientific Name	Legal Status	Effects
Amphibians			
California red-legged frog	<i>Rana draytonii</i>	Threatened	No effect
California tiger salamander	<i>Ambystoma californiense</i>	Threatened	No effect
Birds			
western snowy plover	<i>Charadrius nivosus</i> ssp. <i>nivosus</i>	Threatened	No effect
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Threatened	No effect
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered	No effect
California condor	<i>Gymnogyps californianus</i>	Endangered	No effect
California clapper rail	<i>Rallus longirostris obsoletus</i>	Endangered	No effect
least Bell's vireo	<i>Vireo bellii pusillus</i>	Endangered	No effect
Mammals			
Morro Bay kangaroo rat	<i>Dipodomys heermanni morroensis</i>	Endangered	No effect
giant kangaroo rat	<i>Dipodomys ingens</i>	Endangered	No effect
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Endangered	No effect
Reptiles			
blunt-nosed leopard lizard	<i>Gambelia silus [=G. sila]</i>	Endangered	No effect

California Endangered Species Act Consultation Summary

Implementation of the proposed project is not anticipated to require consultation with CDFW to address potential effects to listed species pursuant to the CESA. As such, an Incidental Take Permit issued from CDFW is not expected to be required for implementation of the project.

Essential Fish Habitat Consultation Summary

This project is not located within essential fish habitat (EFH) for species managed pursuant to the Magnuson-Stevens Fishery Conservation and Management Act and thus, no adverse impacts to EFH are anticipated.

Wetlands and Other Waters Coordination Summary

The proposed project is anticipated to require a CDFW Streambed Alteration Agreement for permanent impacts to riparian vegetation associated with San Luis Obispo Creek. However, coordination with CDFW will be necessary to determine whether the Streambed Alteration Agreement will be required.

No construction activities are anticipated to take place below the San Luis Obispo Creek banks. As such, a Section 404 authorization pursuant to the Clean Water Act issued by the USACE and Section 401 Water Quality Certification and/or Waste Discharge Requirements issued by the CCRWQCB are not anticipated to be required for the proposed project.

Trees

Implementation of the recommended minimization and avoidance measures discussed in Chapter 4 would reduce impacts to trees to less than significant levels.

Invasive Species

With implementation of the recommended minimization and avoidance measures discussed in Chapter 4, invasive plant species will not be spread.

Migratory Bird Treaty Act and California Fish and Game Code Protecting Avian Species

Because construction disturbance could result in the destruction of active nests, the incidental loss of fertile eggs or nestlings or the abandonment of nests of bird species protected under the MBTA and/or CFGC, minimization and avoidance measures discussed in Chapter 4 will be implemented.

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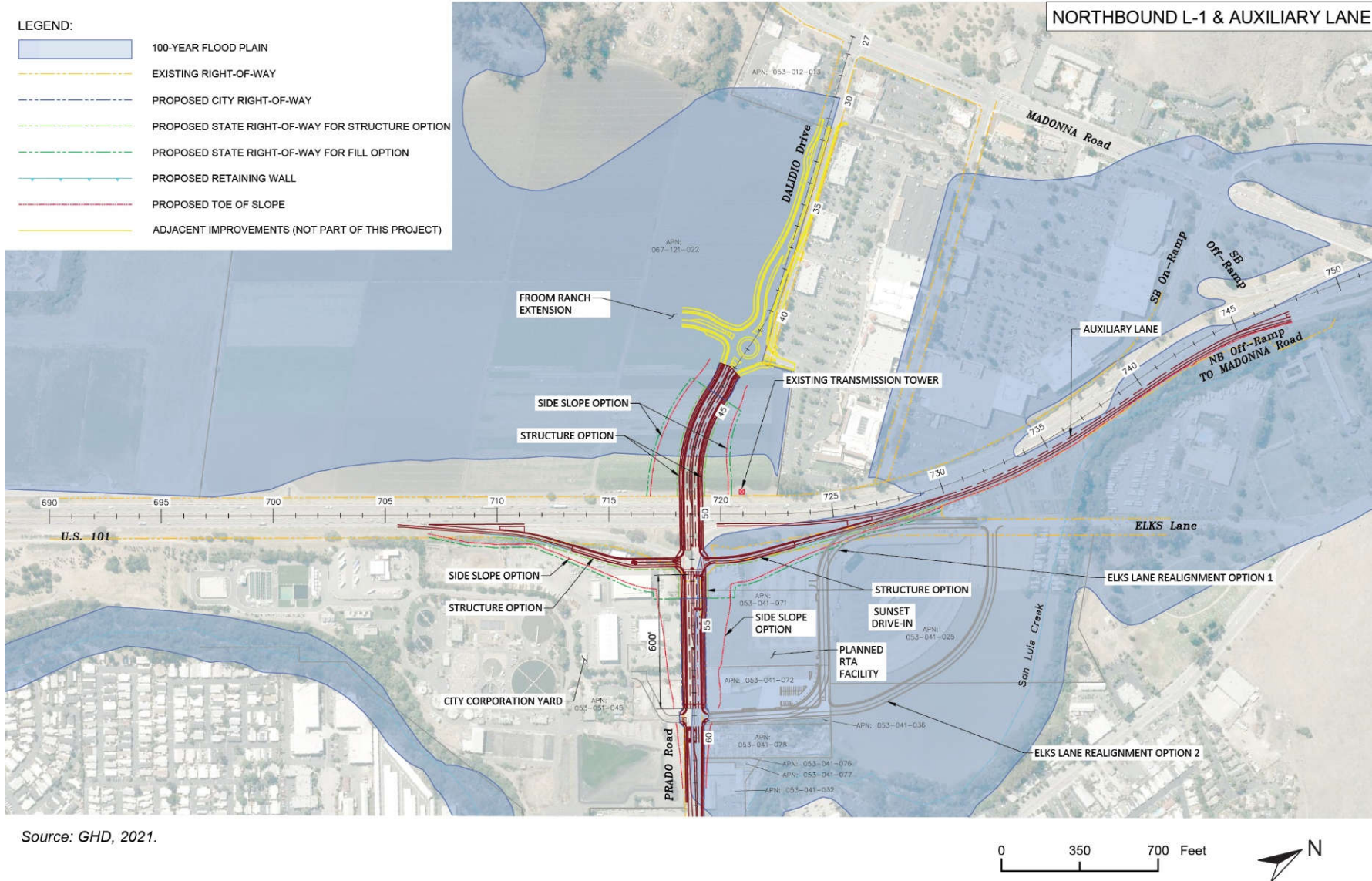
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Appendix A1. Design Concepts

Alternative A1 Concept

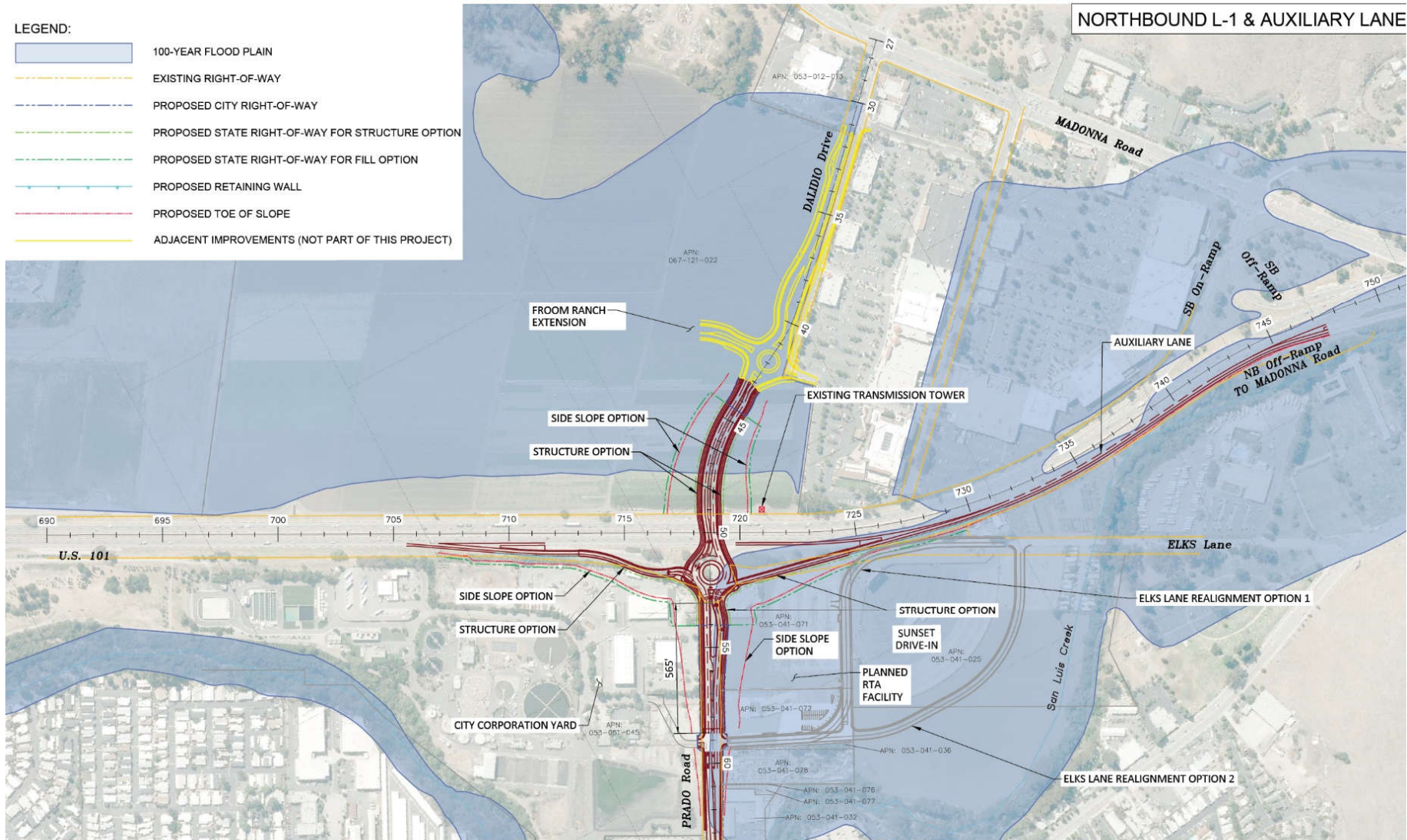


Source: GHD, 2021.

Alternative A1R Concept

LEGEND:

- 100-YEAR FLOOD PLAIN
- EXISTING RIGHT-OF-WAY
- PROPOSED CITY RIGHT-OF-WAY
- PROPOSED STATE RIGHT-OF-WAY FOR STRUCTURE OPTION
- PROPOSED STATE RIGHT-OF-WAY FOR FILL OPTION
- PROPOSED RETAINING WALL
- PROPOSED TOE OF SLOPE
- ADJACENT IMPROVEMENTS (NOT PART OF THIS PROJECT)

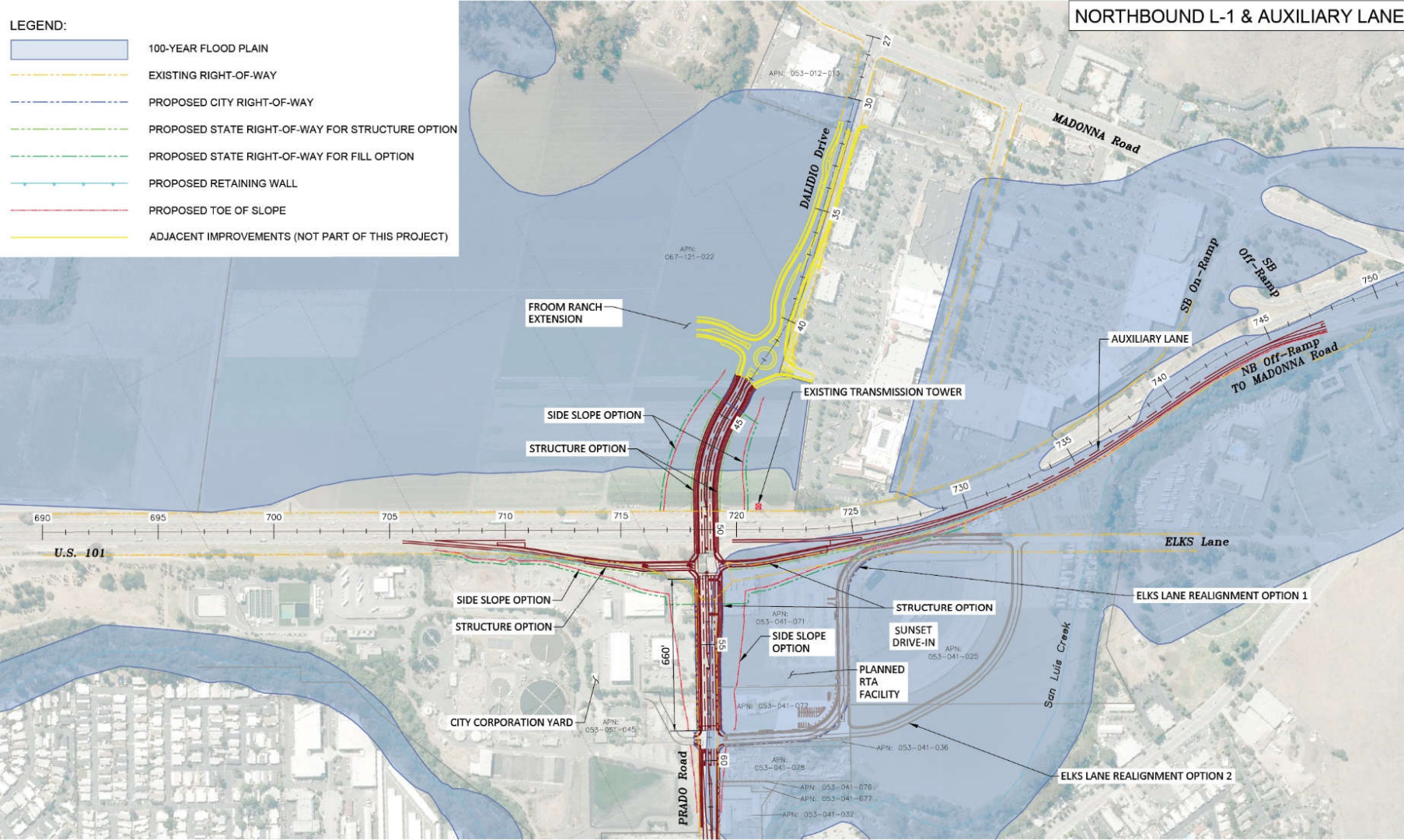


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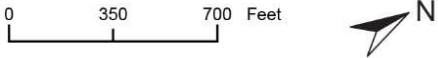


Alternative A3 Concept

- LEGEND:
- 100-YEAR FLOOD PLAIN
 - EXISTING RIGHT-OF-WAY
 - PROPOSED CITY RIGHT-OF-WAY
 - PROPOSED STATE RIGHT-OF-WAY FOR STRUCTURE OPTION
 - PROPOSED STATE RIGHT-OF-WAY FOR FILL OPTION
 - PROPOSED RETAINING WALL
 - PROPOSED TOE OF SLOPE
 - ADJACENT IMPROVEMENTS (NOT PART OF THIS PROJECT)



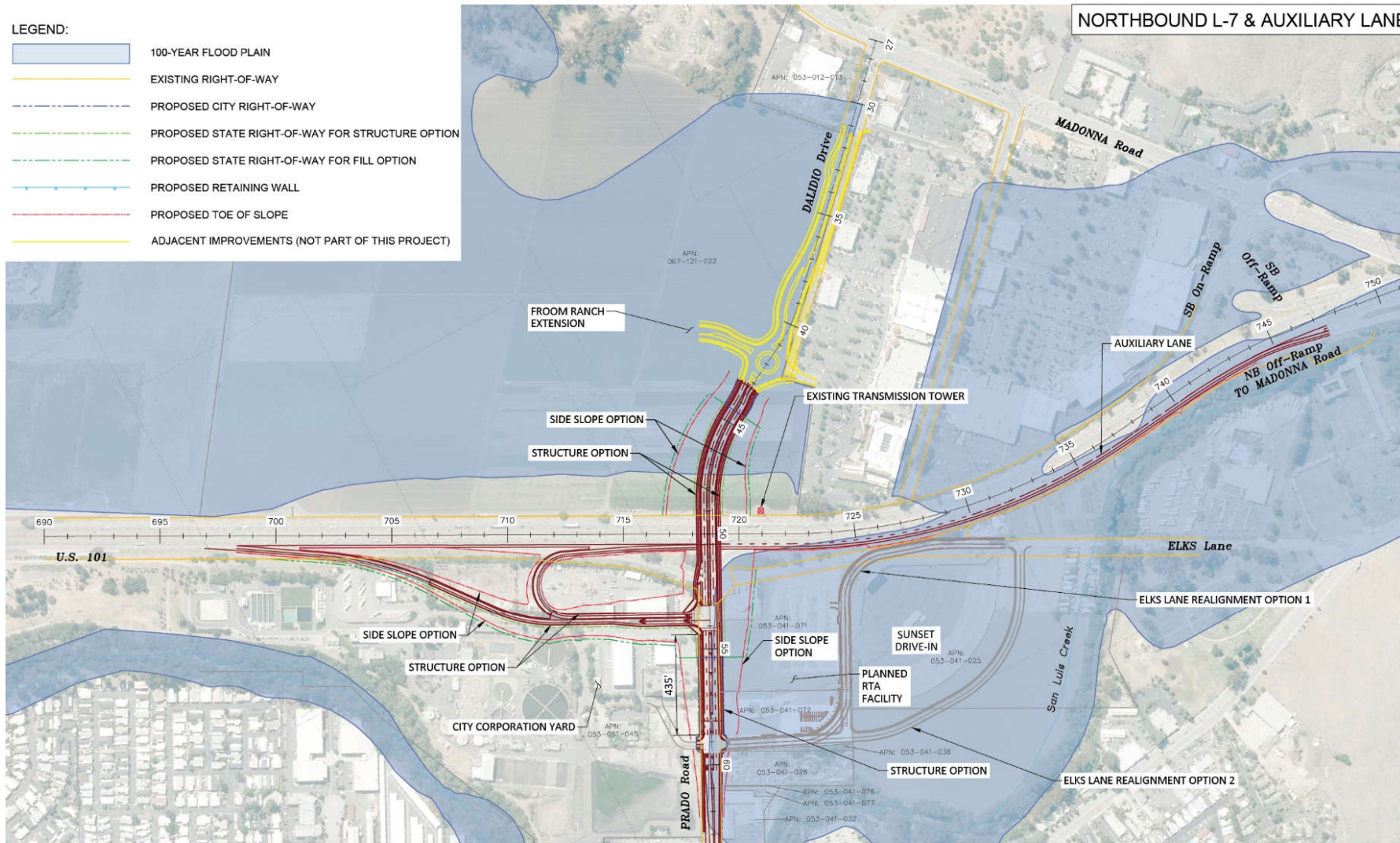
Source: GHD, 2021.



Alternative A4 Concept

LEGEND:

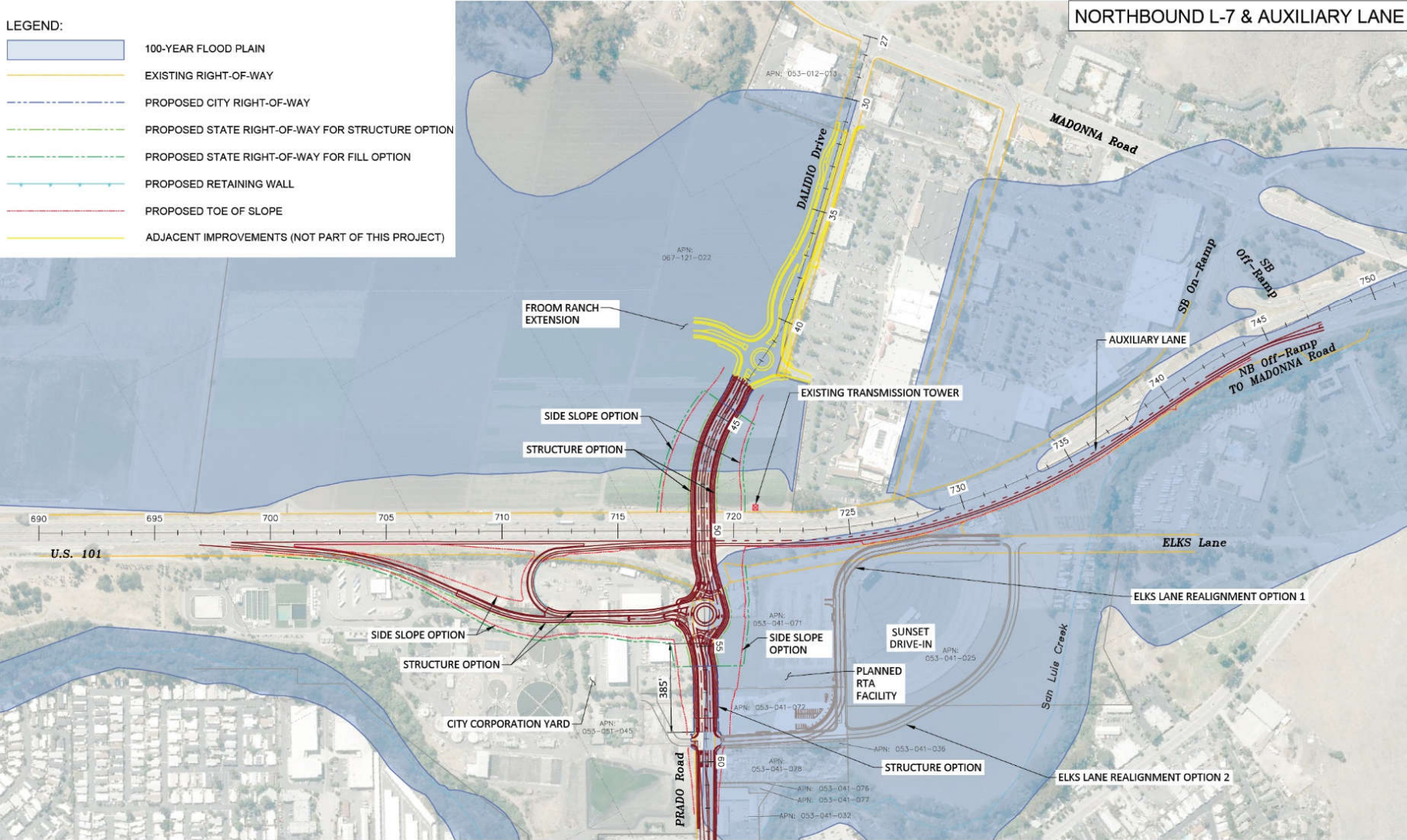
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-  EXISTING RIGHT-OF-WAY
-  PROPOSED CITY RIGHT-OF-WAY
-  PROPOSED STATE RIGHT-OF-WAY FOR STRUCTURE OPTION
-  PROPOSED STATE RIGHT-OF-WAY FOR FILL OPTION
-  PROPOSED RETAINING WALL
-  PROPOSED TOE OF SLOPE
-  ADJACENT IMPROVEMENTS (NOT PART OF THIS PROJECT)



Source: GHD, 2021.

Alternative A4R Concept

- LEGEND:
- 100-YEAR FLOOD PLAIN
 - EXISTING RIGHT-OF-WAY
 - PROPOSED CITY RIGHT-OF-WAY
 - PROPOSED STATE RIGHT-OF-WAY FOR STRUCTURE OPTION
 - PROPOSED STATE RIGHT-OF-WAY FOR FILL OPTION
 - PROPOSED RETAINING WALL
 - PROPOSED TOE OF SLOPE
 - ADJACENT IMPROVEMENTS (NOT PART OF THIS PROJECT)

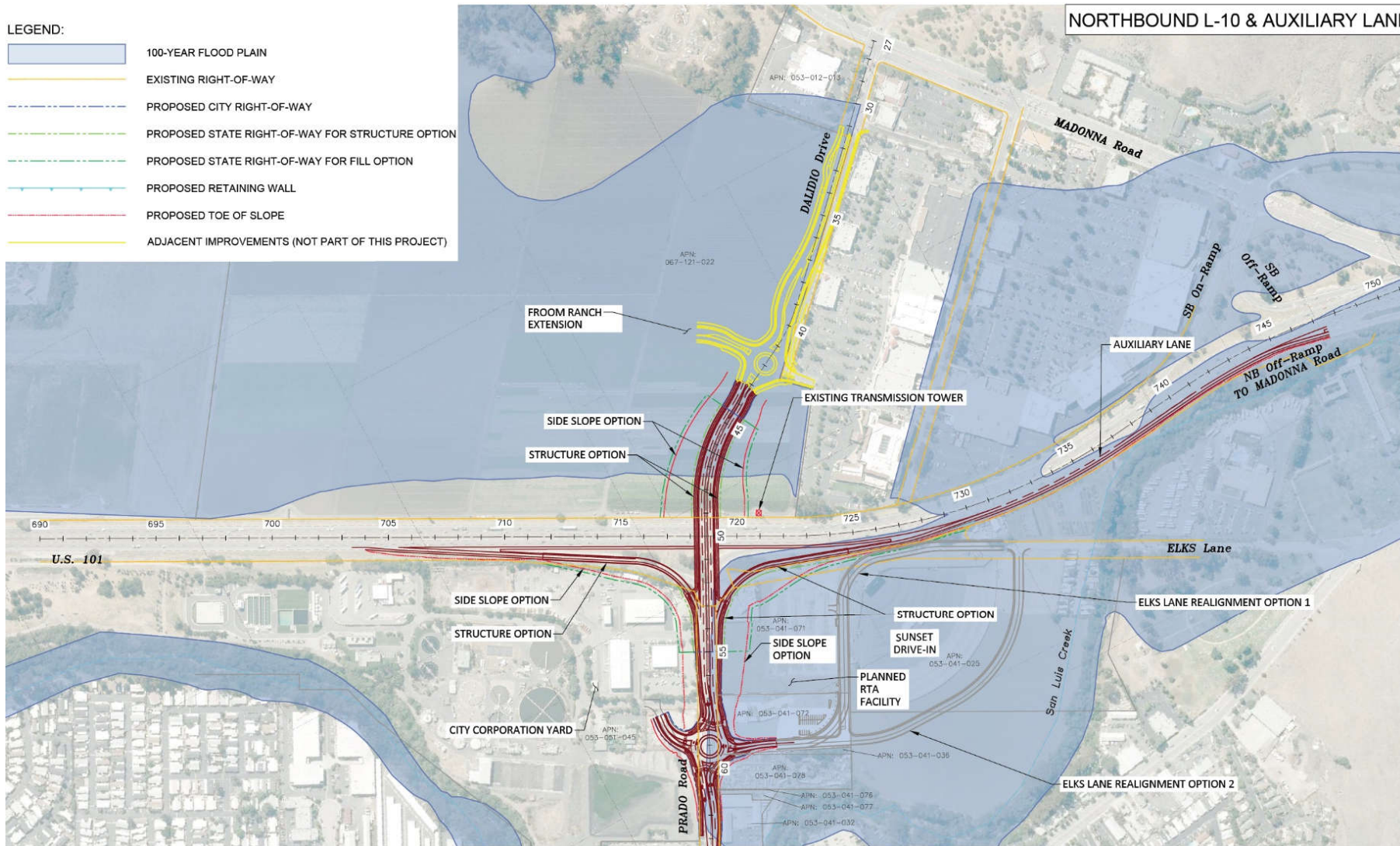


Source: GHD, 2021.

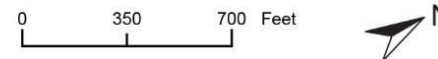
Alternative A7 Concept

LEGEND:

- 100-YEAR FLOOD PLAIN
- EXISTING RIGHT-OF-WAY
- PROPOSED CITY RIGHT-OF-WAY
- PROPOSED STATE RIGHT-OF-WAY FOR STRUCTURE OPTION
- PROPOSED STATE RIGHT-OF-WAY FOR FILL OPTION
- PROPOSED RETAINING WALL
- PROPOSED TOE OF SLOPE
- ADJACENT IMPROVEMENTS (NOT PART OF THIS PROJECT)

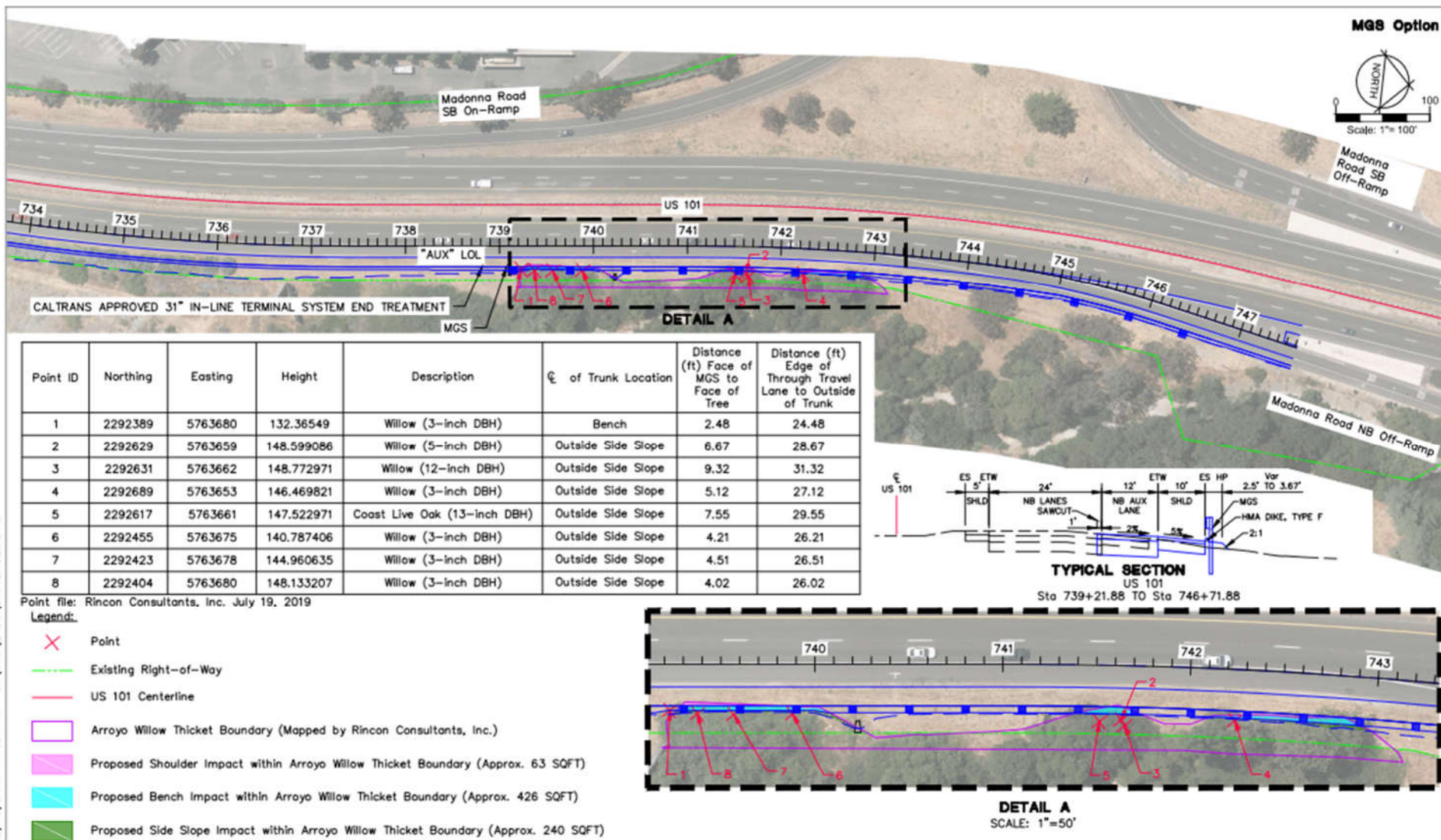


Source: GHD, 2021.



Appendix A2. Project Plans

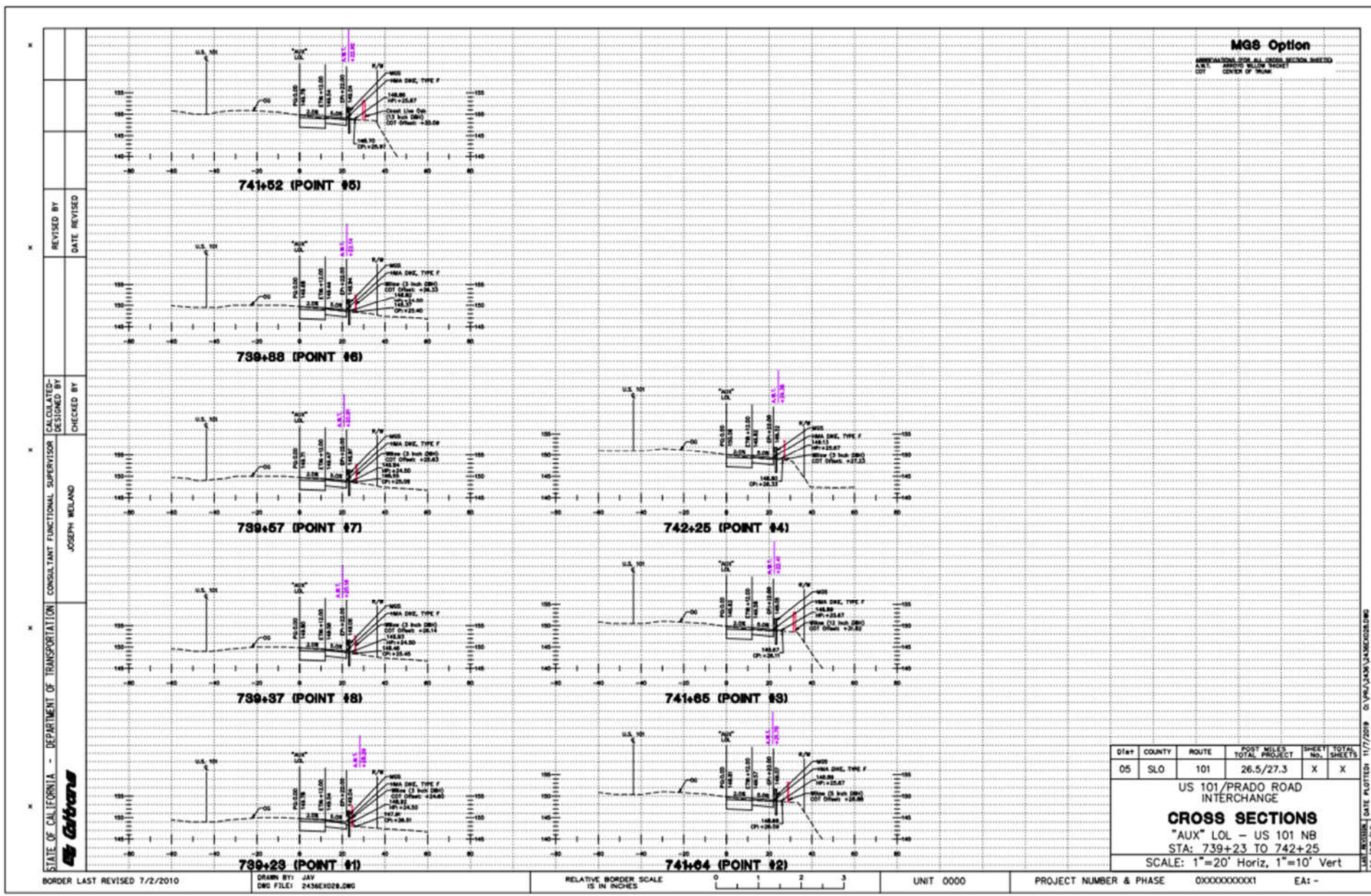
US 101 Northbound Auxiliary Lane Impact to Arroyo Willow Thicket



US 101/Prado Road IC PA/ED San Luis Obispo, California

Exhibit 1





DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	26.5/27.3	X	X

US 101/PRADO ROAD INTERCHANGE

CROSS SECTIONS
 "AUX" LOL - US 101 NB
 STA: 739+23 TO 742+25
 SCALE: 1"=20' Horiz, 1"=10' Vert

BORDER LAST REVISED 7/2/2010 DRAWN BY: JAV RELATIVE BORDER SCALE IS IN INCHES UNIT 0000 PROJECT NUMBER & PHASE 0000000001 EA: -
 DWG FILE: 2436X029.DWG

DATE PLOTTED: 11/7/2019 11:07:19 AM
 TIME PLOTTED: 11:08:44 AM
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Appendix B. USFWS and NMFS Official Species Lists



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958

In Reply Refer To:
Consultation Code: 08EVEN00-2020-SLI-0121
Event Code: 08EVEN00-2022-E-00037
Project Name: U.S. 101/Prado Road Interchange Project

October 13, 2021

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office

2493 Portola Road, Suite B

Ventura, CA 93003-7726

(805) 644-1766

Project Summary

Consultation Code: 08EVEN00-2020-SLI-0121

Event Code: Some(08EVEN00-2022-E-00037)

Project Name: U.S. 101/Prado Road Interchange Project

Project Type: TRANSPORTATION

Project Description: The City proposes to extend Prado Road over U.S. 101 and connect Prado Road with Dalidio Drive. The project includes the reconstruction of the existing U.S. 101 northbound on- and off-ramp connections to Prado Road to provide congestion relief, operational efficiency and multimodal connectivity. The interchange is located in the City of San Luis Obispo on U.S. 101 PM 26.8. The project limits extend from PM 26.5 to PM 27.3. Four preliminary build alternatives, Alternatives A1, A3, A4, and A7, have been identified by the Project Development Team as viable and to be further studied. Each of the viable build alternatives include a partial interchange with the proposed Prado Road overcrossing constructed over U.S. 101 and new U.S. 101 northbound off-ramp to and on-ramp from Prado Road. Alternatives A1 and A4 also include two intersection control options, traffic signal control or roundabout control. The roundabout control option for Alternative A3 would be the same as provided for Alternative A1. Finally, only a roundabout option at the Prado Road/Elks Lane/U.S. 101 northbound ramps is considered with Alternative A7. The area surrounding the project includes commercial uses northwest of the intersection of Prado Road and the U.S. 101, commercial and residential uses northeast of said intersection, a San Luis Obispo County corporate yard and wastewater treatment plant southeast of the intersection, and a large agricultural property west of U.S. 101. The project is located within Caltrans District 5 in the City of San Luis Obispo, San Luis Obispo County. The project area is located within Township 31 South, Range 12 East, on the U.S. Geological Survey (USGS) San Luis Obispo, California 7.5-minute quadrangle.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@35.2578498,-120.6728362,1682068,14z>



Counties: San Luis Obispo County, California

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Giant Kangaroo Rat <i>Dipodomys ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
Chorro Creek Bog Thistle <i>Cirsium fontinale</i> var. <i>obispoense</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5991	Endangered
Marsh Sandwort <i>Arenaria paludicola</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2229	Endangered
Morro Manzanita <i>Arctostaphylos morroensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2934	Threatened
Pismo Clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5936	Endangered
Spreading Navarretia <i>Navarretia fossalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Heather Curran

From: Heather Curran
Sent: Monday, October 18, 2021 9:32 AM
To: nmfs.wcrca.specieslist@noaa.gov
Cc: Chris Bersbach; Michael Tom
Subject: Federal Highway Administration - U.S. 101/Prado Road Interchange Connection Project (Caltrans Project ID: 0516000105; EA: 1H640K)

To NMFS Staff,

On behalf of the California Department of Transportation District 5, I hereby request an Official Species List for the U.S. 101/Prado Road Interchange Connection Project in the City of San Luis Obispo, California.

Point-of-Contact: Heather Price Curran, hcurran@rinconconsultants.com, 805-706-2793

Federal agency: California Department of Transportation (Caltrans)

Address: 50 Higuera Street, San Luis Obispo, CA 93401

Project title: U.S. 101/Prado Road Interchange Connection Project

Brief Project Description: The City of San Luis Obispo Public Works Department, in conjunction with Caltrans, proposes to extend Prado Road over U.S. 101 to connect with Dalidio Drive and reconstruct the existing U.S. 101 northbound on and off ramp connections to Prado Road in order to provide congestion relief, operational efficiency and multimodal connectivity. The interchange is located in the City of San Luis Obispo on U.S. 101 post mile 26.78.

Please refer to the NMFS West Coast Region Google Earth output for the *San Luis Obispo* USGS quadrangle, provided below.

Quad Name: **San Luis Obispo**

Quad Number **35120-C6**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - **X**

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - X
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Best regards,

Heather Price Curran, M.S.

Biologist

Rincon Consultants, Inc.
Environmental Scientists | Planners | Engineers
805-706-2793
rinconconsultants.com



Heather Curran

From: NMFS SpeciesList - NOAA Service Account <nmfs.wcrca.specieslist@noaa.gov>
Sent: Monday, October 18, 2021 9:33 AM
To: Heather Curran
Subject: [EXT] Federal ESA - - NOAA Fisheries Species List Re: Federal Highway Administration - U.S. 101/Prado Road Interchange Connection Project (Caltrans Project ID: 0516000105; EA: 1H640K)

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

Please retain a copy of each email request that you send to NOAA at nmfs.wcrca.specieslist@noaa.gov as proof of your official Endangered Species Act SPECIES LIST. The email you send to NOAA should include the following information: your first and last name; email address; phone number; federal agency name (or delegated state agency such as Caltrans); mailing address; project title; brief description of the project; and a copy of a list of threatened or endangered species identified within specified geographic areas derived from the NOAA Fisheries, West Coast Region, California Species List Tool. You may only receive this instruction once per week. If you have questions, contact your local NOAA Fisheries liaison.

Appendix C. Plants and Animals Identified in the BSA

**Plant Species Observed Within the BSA during Field Surveys
(July 27, 2018, April 7, 2021, and August 4, 2021)**

Scientific Name	Common Name	Origin**
<i>Acacia longifolia</i>	Golden wattle	Non-native Cal-IPC Watch
<i>Acacia</i> sp.	Acacia trees	Non-native - planted
<i>Agave americana</i>	American century plant	Non-native - planted
<i>Arbutus unedo</i>	Strawberry tree	Non-native - planted
<i>Avena barbata</i>	Slim oat	Non-native; Cal-IPC Moderate
<i>Baccharis pilularis</i>	Coyote brush	Native
<i>Brassica nigra</i>	Black mustard	Non-native; Cal-IPC Moderate
<i>Bromus diandrus</i>	Ripgut brome	Non-native; Cal-IPC Moderate
<i>Bromus rubens</i>	Red brome	Non-native; Cal-IPC High
<i>Callistemon citrinus</i>	Bottlebrush	Non-native - planted
<i>Calocedrus decurrens</i>	Incense cedar	Native - planted
<i>Carpobrotus edulis</i>	iceplant	Non-native; Cal-IPC High
<i>Centaurea solstitialis</i>	Yellow star thistle	Non-native; Cal-IPC High
<i>Cotoneaster lacteus</i>	Milkflower cotoneaster	Non-native - planted
<i>Erodium cicutarium</i>	Red stemmed filaree	Non-native; Cal-IPC Limited
<i>Eschscholzia californica</i>	California poppy	Native
<i>Eucalyptus globulus</i>	blue gum eucalyptus	Non-native - planted; Cal-IPC Limited
<i>Hesperocyparis macrocarpa</i>	Monterey cypress	Native - planted
<i>Heteromeles arbutifolia</i>	Toyon	Native
<i>Helminthotheca echioides</i>	Bristly ox-tongue	Non-native; Cal-IPC Limited
<i>Hirschfeldia incana</i>	Summer mustard	Non-native; Cal-IPC Moderate
<i>Hordeum murinum</i>	Foxtail barley	Non-native; Cal-IPC Moderate
<i>Jasminum polyanthum</i>	Pink jasmine	Non-native - planted
<i>Juglans californica</i>	Southern California black walnut	Native - planted
<i>Juncus</i> sp.	Rush	Native - planted
<i>Juniperus</i> sp.	Juniper	Non-native - planted
<i>Malva nicaeensis</i>	Bull mallow	Non-native
<i>Opuntia ficus-indica</i>	Prickly pear	Non-native
<i>Phoenix canariensis</i>	Canary Island date palm	Non-native - planted; Cal-IPC Limited
<i>Populus fremontii</i>	Fremont cottonwood	Native - planted
<i>Persea americana</i>	Avocado	Non-native - planted
<i>Pinus radiata</i>	Monterey Pine	Native - planted
<i>Platanus racemosa</i>	California sycamore	Native - planted
<i>Prunus ilicifolia</i>	Hollyleaf cherry	Native - planted
<i>Quercus agrifolia</i>	Coast live oak	Native - planted
<i>Raphanus sativus</i>	Wild radish	Non-native; Cal-IPC Limited

Scientific Name	Common Name	Origin**
<i>Ricinus communis</i>	Castor bean	Non-native; Cal-IPC Limited
<i>Rubus ursinus</i>	California blackberry	Native
<i>Salix laevigata</i>	Red willow	Native
<i>Salix lasiolepis</i>	Arroyo willow	Native
<i>Salvia leucantha</i>	Mexican sage	Non-native - planted
<i>Schinus molle</i>	Peruvian pepper tree	Non-native - planted; Cal-IPC Limited
<i>Schinus terebinthifolius</i>	Brazilian pepper tree	Non-native - planted; Cal-IPC Limited
<i>Sequoia sempervirens</i>	Coast redwood	Native - planted
<i>Tropaeolum majus</i>	Nasturtium	Non-native
<i>Washingtonia robusta</i>	Mexican fan palm	Non-native - planted; Cal-IPC Moderate

** Cal-IPC is the California Invasive Plant Council. “High”, “Moderate”, “Limited” and “Watch” refer to ratings by Cal-IPC.

**Animal Species Observed Within the BSA during Field Surveys
(July 27, 2018, April 7, 2021, and August 4, 2021)**

Family	Scientific Name	Common Name	Origin
Birds			
Accipitridae	<i>Buteo jamaicensis</i>	red-tailed hawk	native
Aegithalidae	<i>Psaltriparus minimus</i>	bushtit	native
Anatidae	<i>Anas platyrhynchos</i>	mallard	native
Anatidae	<i>Spatula clypeata</i>	northern shoveler	native
Anatidae	<i>Spatula cyanoptera</i>	cinnamon teal	native
Cathartidae	<i>Cathartes aura</i>	turkey vulture	native
Columbidae	<i>Columba livia</i>	rock pigeon	introduced
Columbidae	<i>Streptopelia decaocto</i>	Eurasian collared-dove	introduced
Corvidae	<i>Aphelocoma californica</i>	California scrub-jay	native
Corvidae	<i>Corvus brachyrhynchos</i>	American crow	native
Fringillidae	<i>Haemorhous mexicanus</i>	house finch	native
Icteridae	<i>Quiscalus mexicanus</i>	great-tailed grackle	native
Laridae	<i>Larus californicus</i>	California gull	native
Laridae	<i>Larus occidentalis</i>	western gull	native
Paridae	<i>Poecile rufescens</i>	chestnut-backed chickadee	native
Sturnidae	<i>Sturnus vulgaris</i>	European starling	introduced
Trochilidae	<i>Calypte anna</i>	Anna’s hummingbird	native
Troglodytidae	<i>Troglodytes aedon</i>	house wren	native
Tyrannidae	<i>Sayornis nigricans</i>	black phoebe	native

Natural Environment Study

Mammals			
Sciuridae	<i>Otospermophilus beecheyi</i>	California ground squirrel	native
Sciuridae	<i>Sciurus griseus</i>	western grey squirrel	native
Reptiles			
Phrynosomatidae	<i>Sceloporus occidentalis</i>	western fence lizard	native

Appendix D. Representative Photographs



Photograph 1. View of tilled agricultural area on western side of BSA, west of US Highway 101, facing east.



Photograph 2. View of eucalyptus screen on east side of US Highway 101 northbound, facing north.



Photograph 3. View of screen plantings in background along east side of US Highway 101 northbound, facing south.



Photograph 4. View of planted screen vegetation along US Highway 101 northbound on-ramp, facing north.



Photograph 5. View of Prado Road and landscaped plantings, facing southeast.



Photograph 6. View of isolated patch of disturbed vegetation on the corner of Prado Road and Elks Lane, facing west.



Photograph 7. View of construction associated with new development along Prado Road, facing east.



Photograph 8. View of Prado Road near the eastern boundary of the BSA, facing east.



Photograph 9. View of bank stabilization along western bank of San Luis Obispo Creek in the northeastern corner of the BSA, facing north.



Photograph 10. View of the disturbed area near the northeastern portion of the BSA, east of Elk's Road and north of the Sunset Drive-In theatre, facing east.



Photograph 11. View of the agricultural fields in the northeastern portion of the BSA, east of Elk's Road and north of the Sunset Drive-In theatre, facing south.



Photograph 12. View of a pond within the San Luis Obispo Water Resource Recovery Facility that falls within the southeastern portion of the BSA, facing northwest. The cement barrier surrounding the pond would likely preclude California red-legged frogs from entering the water.



Photograph 13. View of the Bob Jones Trail within the eastern portion of the BSA, facing north. Arroyo willow thickets associated with San Luis Obispo Creek exist along the eastern perimeter of the BSA, near the Prado Road bridge, but will not be impacted by project activities.