# 2.3 Biological Environment

## 2.3.1 Natural Communities

### 2.3.1.1 Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section [Section 2.3.5]. Wetlands and other waters are also discussed below [Section 2.3.2].

### 2.3.1.2 Affected Environment

The primary source used in the preparation of this section is the *Natural Environment Study* (June 2018) prepared for this Project.

The Project is predominately confined to developed lands that have been disturbed by human activities, contain public infrastructure, and contain non-native habitats for plants and wildlife. The project area also includes the Santa Ana River, which is a Water of the United States (WoUS) and Water of the State (WoS). The Santa Ana River is a flood control channel with minimal vegetation along the segment that passes through the project area. For the analysis of biological resources within the project site, a Biological Study Area (BSA) was established. This area includes the Project's proposed ground disturbance footprint and an approximate 500-foot buffer to include nearby areas that are not merely adjacent to the project footprint but that may be impacted directly and indirectly as a result of the Project. The BSA consists of three vegetation communities and land cover types as determined by a qualified biologist through pedestrian field surveys: Developed and Disturbed, Open Water/River, and Ornamental Landscaping (see **Table 2-60**: **Vegetation Communities and Land Cover Types Observed within the BSA**). Included in the BSA is a portion of the Santa Ana River (see **Table 2-61: Permanent and Temporary Site Impacts by Alternative and Vegetation Communities / Land Cover Type**).

None of the vegetation communities and land cover types detected within the Project are characterized as sensitive or unique natural communities. It is worth noting that Natural Communities of Special Concern are those locales that include rare plant and animal species or are habitats with unique biological functions and values.

**Table 2-60: Vegetation Communities and Land Cover Types Observed within the BSA**

| Vegetation Community/ Land Cover Type | Total Acres within the BSA | Percentage of Type within the BSA |
|---|---|---|
| Developed and Disturbed | 118.1 | 76% |
| Open Water/River | 16.7 | 11% |
| Ornamental | 20.0 | 13% |
| Total | 154.8 | 100.00% |

Source: NES 2018.

**Table 2-61: Permanent and Temporary Site Impacts by Alternative and Vegetation Communities / Land Cover Type**

| Vegetation Community and Land Cover Type | Alternative 2 (Preferred Alternative) | | Alternative 2A | | Alternative 2B | |
|---|---|---|---|---|---|---|
| | Permanent Loss (acres) | Temporary Disturbance (acres) | Permanent Loss (acres) | Temporary Disturbance (acres) | Permanent Loss (acres) | Temporary Disturbance (acres) |
| Developed / Disturbed | 3.76 | 1.13 | 4.33 | 1.11 | 4.25 | 1.13 |
| Open Water/River | 0.02 | 4.87 | 0.02 | 4.88 | 0.02 | 4.88 |
| Ornamental | 4.86 | 2.06 | 4.64 | 2.17 | 3.79 | 3.17 |
| Total | 8.64 | 8.06 | 8.99 | 8.16 | 8.06 | 9.18 |

Source: NES 2018.

### 2.3.1.3 Environmental Consequences

## Temporary Impacts

#### *Alternative 1 - No Build*

No impacts to the natural communities would occur under the No Build Alternative because no changes to the existing environment would be made in association with the Project.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

Greater than 90% of the Project's ground disturbance will directly affect Developed lands and Ornamental landscaping (i.e., landscaping that is dominated by plants which were cultivated or grown to serve decorative purposes) for the majority of the Project. No natural communities of special concern are located within the BSA. The presence of the Santa Ana River within the BSA suggest that there is a potential, even though very small, for the Project to affect the movement and dispersal of flora and fauna within the regions. The Santa Ana River is known to connect large areas of nature open space that is considered essential for long-term plant and wildlife

viability in Southern California; however the Santa Ana River within the BSA is composed entirely of trapezoidal flood control channel with minimal vegetation. Furthermore, within the BSA there exists some low quality but suitable nesting, roosting, refuge, flyway/movement, and foraging habitats for avian species and small mammals. Potential impacts to these habitats are temporary in nature and this Project will not cause permanent impacts to these habitats. Landscape replacement and other best management standard measures will be applied where resources are identified. It is not anticipated that the Project will result in impacts to natural communities as a result of construction activities.

### Permanent Impacts

#### *Alternative 1 - No Build*

No impacts to the natural communities would occur under the No Build Alternative because no changes to the existing environment would be made in association with the Project.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

It is anticipated that this Project will not result in the permanent loss of any native habitats, sensitive, or unique natural communities since they do not occur in the BSA.

#### 2.3.1.4 Avoidance, Minimization, and/or Mitigation Measures

Impacts to native habitats, sensitive, or unique natural communities have been avoided and minimized to the greatest extent practicable with the incorporation of standardized measures. No measures are required specifically to mitigate for the loss of natural communities.

### 2.3.2 Wetlands and Other Waters

#### 2.3.2.1 Regulatory Setting

Wetlands and other waters are protected under several laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA; 33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (i.e. water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative that is less damaging to the aquatic environment exists or if the nation's waters would be significantly degraded. The Section 404 permit program is regulated by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional General and Nationwide. Regional General permits (RGP) are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits (NWP) are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for an RGP or NWP may be permitted under one of USACE's Individual permits (IP). There are two types of IPs: Standard permits and Letters of Permission. For IPs, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, to allow the discharge of dredged or fill material into the aquatic system (i.e. waters of the U.S.) only if there is no practicable alternative that would have a less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on WoUS, and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies regarding wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction, and (2) the proposed Project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs), and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission, the Bay Conservation and Development Commission, or the Tahoe Regional Planning Agency may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of

the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to WoUS. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section [2.2.2] for more details.

#### 2.3.2.2 Affected Environment

The primary source used in the preparation of this section is the Natural Environment Study (NES) (June 2018) and the Delineation of Waters and Wetlands report which may be found as an appendix to the NES. As a result of early coordination, USACE and OCTA decided that a Programmatic IP would be sought for the overall Program which establishes Letter of Permission (LOP) procedures, thereby streamlining the approval of each individual project, as well as providing approval of the compensatory mitigation types and locations provided at Aliso Creek, Agua Chinon, and Ferber Ranch to offset unavoidable impacts to Waters of the United States (WoUS).

A routine field determination was conducted within the study area for USACE-defined wetland and non-wetland WoUS and Waters of the State (WoS) using methods derived from the USACE and other published guidelines. The study area was surveyed on March 17 and 18, April 11 and 12, and May 2, 2017, to determine the presence/absence and boundaries of potential special aquatic resources (i.e., WoS, WoUS, and sensitive riparian vegetation communities) that were identified in the literature review as well as through field observations. Areas that were determined to have an OHWM and/or defined bed/bank and suspected of being WoS, WoUS or sensitive riparian communities were further analyzed as to whether they met the USACE definition of a jurisdictional wetland by having a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology.

**Wetlands and Other Waters**

For the purposes of this document, the "study area" is defined as the project footprint and its surrounding localized watershed. The Project is located within an urban setting, which has been heavily influenced by past and current human activities. Existing conditions include SR 57, ubiquitous residential and commercial developments and infrastructure accessories (e.g. electrical distribution, highway interchanges, flood control facilities, paved roads, etc.).

No wetlands were identified in the BSA, but roughly 16.5-acres of WoUS and WoS have been mapped within the BSA, as shown in **Figure 2-24: Waters of the U.S. and Waters of the State**. This WoUS included relatively permanent waters (RPWs) that flow directly or indirectly into Traditional Navigable Waters (TNWs).

**Figure 2-24: Waters of the U.S. and Waters of the State**


Table 1. Waters of the U.S. and State

| Feature ID | Waters of the U.S. Acres | Waters of the State Acres | Ordinary High Water Mark Average Width | Length | Center Latitude/Longitude |
|---|---|---|---|---|---|
| Feature 1 (Santa Ana River) | 16.536 | 20.771 | 260 ft. | 3,775 ft. | 33.796965, -117.878645 |
| Total | 16.536 | 20.771 | | | |

Table 2. Data Point Location

| Number | Latitude/Longitude |
|---|---|
| 1 | 33.800209, -117.877413 |

Table 3. Photograph Locations

| Number | Direction | Latitude/Longitude |
|---|---|---|
| 1 | NE | 33.801287, -117.877587 |
| 2 | NE | 33.795548, -117.879684 |
| 3 | SE | 33.795140, -117.879856 |
| 4 | SE | 33.805727, -117.879821 |
| 5 | NE | 33.806185, -117.879936 |
| 6 | S | 33.800324, -117.877413 |

Source: NES, 2018

### *Santa Ana River*

The Santa Ana River is a relatively permanent (i.e. flowing for more than three months), riverine water feature that exhibits a clear and well-defined OHWM, and has a significant nexus to the Pacific Ocean, which is a traditional navigable water (TNW). (See **Table 2-62: Summary of Jurisdiction Pursuant to Section 404 and 401 of the CWA and Pursuant to Section 1600 (et seq.) of the CFGC**.) It is a tributary of the Pacific Ocean and drains a vast upstream watershed that extends into Riverside County. The Santa Ana River within the study area is composed entirely of a concrete, trapezoidal flood control channel with little or no vegetation. No characteristic wetland vegetation or wetland indicators were observed within this portion of the Santa Ana River, and therefore, no USACE-defined wetlands were identified.

The Santa Ana River receives storm water flows from seasonal precipitation events as well as from surface water runoff from excess landscape irrigation. Point source discharges associated with commercial and residential developments also contribute flow to this reach of the Santa Ana River. Hydrology within the Santa Ana River is relatively permanent meaning it has continuous flow at least seasonally (i.e., at least 3 months). Primary indicators of water flow include water marks, sediment deposits, and debris deposits. The Santa Ana River drains a vast upstream watershed extending into Riverside County. It carries surface flows (e.g., storm water, water from precipitation events, surface run-off, and irrigation flows) through the study area, and continues approximately 12 miles southwest before draining into the Pacific Ocean near Newport Beach; therefore, the water conveyance feature is considered a WoUS and WoS. Within the BSA, the Santa Ana River has been affected by the construction of the historic bridge and adjacent developments. It is sparsely vegetated, and within the project site, fill material has been introduced where the existing bridge crosses the river.

**Table 2-62: Summary of Jurisdiction Pursuant to Section 404 and 401 of the CWA and Pursuant to Section 1600 (et seq.) of the CFGC**

| Feature ID | Feature Classification | Section 404 of the CWA (acres) | USACE Defined - Wetland (acres) | Section 401 of the CWA (acres) | CFGC 1600 (et seq.) (acres) |
|---|---|---|---|---|---|
| Santa Ana River | Relocated tributary or excavated flood control facility within a tributary; Santa Ana River; relatively permanent water with a well-defined OHWM; concrete banks are part of this drainage feature; RPW; unvegetated; drains to Pacific Ocean (a TNW). | 16.5 | 0.00 | 16.5 | 16.5 |
| | | Dominant Vegetation | Latitude/ Longitude (Decimal Degrees) | Active Channel Width (Linear Feet) | Cowardin Type |
| | | Channel and banks devoid of vegetation | 33.796972/ -117.878643 | 260 | Riverine |

Source: NES 2018.

### 2.3.2.3 Environmental Consequences

## Temporary Impacts

#### *Alternative 1 - No Build*

No impacts to the WoUS or WoS would occur under the No Build Alternative because no changes to the existing environment would be made in association with the Project.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

All of the Build Alternatives will widen the Santa Ana River Bridge. Temporary impacts will result from the activities required for widening of piers within the Santa Ana Riverbed which requires excavation and grading of the riverbed and slopes. This impact to WoUS and WoS is unavoidable, but has been minimized in project design. In addition, additional measures will be implemented to minimize and avoid impacts to waters during the project construction. These include best management practices such as trash control, restoration of temporary impacts, and restriction of impacts during rainy seasons.

*Impacts to USACE Jurisdiction*

Temporary impacts and permanent losses of WoUS subject to USACE jurisdiction per Section 404 of the CWA are provided in **Table 2-63: USACE Temporary Impacts and Permanent Losses**.

**Table 2-63: USACE Temporary Impacts and Permanent Losses**

| Feature name | Temporary impacts to USACE-defined wetland (acres) | Temporary impacts to WoUS (acres) | Permanent losses of USACE-defined wetland (acres) | Permanent losses of WoUS (acres) |
|---|---|---|---|---|
| Santa Ana River Alternative 2 (Preferred Alternative) | 0.0 | 4.870 | 0.0 | 0.020 |
| Santa Ana River Alternative 2A | 0.0 | 4.88 | 0.0 | 0.020 |
| Santa Ana River Alternative 2B | 0.0 | 4.88 | 0.0 | 0.020 |

Source: NES 2018.

*Impacts to RWQCB Jurisdiction*

Temporary impacts and permanent losses subject to RWQCB jurisdiction per Section 401 of the CWA are provided in **Table 2-64: RWQCB Temporary Impacts and Permanent Losses**.

**Table 2-64: RWQCB Temporary Impacts and Permanent Losses**

| Feature Name | Temporary impacts to RWQCB jurisdiction (acres) | Permanent Losses of RWQCB jurisdiction (acres) |
|---|---|---|
| Santa Ana River Alternative 2 (Preferred Alternative) | 4.87 | 0.020 |
| Santa Ana River Alternative 2A | 4.88 | 0.020 |
| Santa Ana River Alternative 2B | 4.88 | 0.020 |

Note (a) Surfaces are in acres.
Source: NES 2018.

*Impacts to CDFW Jurisdiction*

The Santa Ana River contains a defined bed, bank, and channel, and provides ecological functions and values to local and migrating wildlife. Therefore, it is subject to CDFW jurisdiction pursuant to Section 1600 (et seq.) of the California Fish and Game Code (CFGC) and CWA Sections 404 and 401. Temporary impacts and permanent losses are provided in **Table 2-65: CDFW Temporary Impacts and Permanent Losses**.

**Table 2-65: CDFW Temporary Impacts and Permanent Losses**

| Feature Name | Temporary impacts to CDFW jurisdiction (acres) | Permanent Losses of CDFW jurisdiction (acres) |
|---|---|---|
| Santa Ana River Alternative 2 (Preferred Alternative) | 4.87 | 0.020 |
| Santa Ana River Alternative 2A | 4.88 | 0.020 |
| Santa Ana River Alternative 2B | 4.88 | 0.020 |

Source: NES 2018.

## Permanent Impacts

### *Alternative 1 - No Build*

No impacts to the WoUS or WoS would occur under the No Build Alternative because no changes to the existing environment would be made in association with the Project.

***Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives***

The Project will result in less than 0.1 acres of permanent loss of WoUS and WoS (i.e., Santa Ana River). In addition, the Project would temporally disturb WoUS and WoS. In summary, compliance with applicable codes, ordinances, laws, and other required regulations will safeguard no net loss of WoUS and WoS.

Similar to the OCTA Conservation Plan, OCTA and Caltrans have worked with the USACE to define a Programmatic Individual Permit for the 13 M2 freeway projects which establishes Letter of Permission (LOP) procedures. This Permit (SPL-201200830-VCL) streamlines the individual project level Section 404 permitting for the M2 freeway projects. On a parallel process, the SWRCB has committed to following the same process established for the Section 404 permitting. In order for the USACE to issue the 404 Programmatic Permit, the SWRCB must first issue a General 401 Certification. Advanced mitigation is being provided for the General 401 Certification and is consistent with the compensatory mitigation credits required for the USACE Permit.

Once the project design is approved and concurrence is received regarding the mitigation statement, LOPs and the project-level 401 Certification would then authorize the discharge of dredged or fill material associated with the specific project designs, include any special conditions, and indicate the amount of mitigation acreage to be deducted from the appropriate site. This step is anticipated to be completed during the design phase of this Project. Project level applications will be processed through the SWRCB. The SWRCB will coordinate with the specific Regional Water Quality Control Board as necessary.

The mitigation presented will compensate for project impacts and will result in a net increase in aquatic resource functions. The USACE will determine whether project impacts can be authorized under established LOP procedures; whether additional special conditions will be required; or whether authorization under another USACE permit type will be required. Caltrans and OCTA will obtain the LOP and/or other required USACE permit prior to impacting areas under the jurisdiction of the USACE, the CDFW, and/or the RWQCB (i.e., riparian habitats) and will implement the approved mitigation plan.

The LOP permit included conservative estimated impact numbers for each M2 freeway project. These numbers were based on discussions with Caltrans and OCTA engineers as well as previously permitted freeway projects. Design information was unavailable during the development of this permit. The intent was to capture any and all future potential impacts in order to provide adequate mitigation at the program level. It is anticipated that the LOP impact numbers will be greater than the project level design numbers. This was deliberate to avoid risk and uncertainty for permit coverage. As such, the forecasted permanent impacts for this freeway project (Project G) are well within (below) the LOP permitted impact amount.

#### 2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures

In collaboration with regulatory agency staff, Caltrans, OCTA, and resource specialists, permanent loses to WoUS and WoS have been minimized. The current Project restricts total impacts and temporary disturbances of WoUS and WoS. The OCTA and Caltrans have the following general conservation plan measures to reduce the magnitude of the Project's potential effects on WoUS and WoS.

**BIO - 1:** **Delineation of Environmentally Sensitive Areas:** Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around areas adjacent to the project footprint to designate environmentally sensitive areas to be protected. No project activity of any type will be permitted within these environmentally sensitive areas. In addition, heavy equipment, including motor vehicles, will not be allowed to operate within the environmentally sensitive areas. All construction equipment will be operated in a manner to prevent accidental damage to environmentally sensitive areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the environmentally sensitive area boundary to prevent accidental deposition of fill material in areas where vegetation is immediately adjacent to planned grading activities. (OCTA M2 NCCP/HCP Section 5.6.1)

**BIO - 2:** **Restoration of Temporary Impacts:** Areas of natural habitat that are temporarily affected by construction activities will be restored to a natural condition. The restoration effort will emulate surrounding vegetation characteristics and/or return to previous conditions. For freeway construction projects, revegetation plans will be part of the project design following Caltrans' landscape architecture guidelines and requirements. Restoration plans will be reviewed and approved by the Wildlife Agencies. (OCTA M2 NCCP/HCP Section 5.6.1)

**BIO - 3:** **Trash Control:** To avoid attracting predators of Covered Species and other sensitive species, the project site will be kept as clean of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site(s). (OCTA M2 NCCP/HCP Section 5.6.1)

**BIO - 4:** **Onsite Training:** When in or near natural habitat areas, all personnel involved in the onsite project construction will be required to participate in a preconstruction training program to understand the avoidance and minimization obligations on the Project. (OCTA M2 NCCP/HCP Section 5.6.1)

**BIO - 5:** **Biological Monitoring:** The Biological Monitor will be present on site during all grubbing and clearing of vegetation near ESAs to ensure that these activities remain within the Project footprint and that the flagging/stakes/fencing is being maintained. The Biological Monitor will send weekly monitoring reports to Caltrans and the OCTA

NCCP Administrator during the grubbing and clearing of vegetation near ESAs. (OCTA M2 NCCP/HCP Section 5.6.1)

**BIO – 6:** **Jurisdictional Aquatic Resources and Species Policy:** The OCTA Conservation Plan requires that construction activities in aquatic resources, such as the Santa Ana River, be restricted during the rainy season (October 15 through June 1) or be conducted when the resource is dry and/or lacks flowing or standing water. Construction activities in human-made features cannot be restricted to a given season because they are often managed, and, therefore, water may be present regardless of the season. In the event that construction work-window restrictions cannot be followed, or in the case of human-made features, additional avoidance and minimization measures are required. As part of the additional specific avoidance and minimization measures, dewatering and water diversion will be implemented as described below, and additional Best Management aquatic resources will be implemented as determined through consultation with USACE, CDFW's Lake and Streambed Alteration Program, and RWQCB (SWRCB). The additional BMPs may include the placement of additional straw wattles, silt fencing, or protective barriers as necessary.

**BIO - 7:** **Dewatering/Water Diversion:** Construction activities in special aquatic resources will be restricted to the dry season (June 1 through October 15) when possible. However, open or flowing water may be present during construction. If construction occurs where there is open or flowing water, a strategy that is approved by the resource agencies (e.g., USACE, CDFW's Lake and Streambed Alteration Program, and RWQCB), such as the creation of cofferdams, will be used to dewater or divert water from the work area. If cofferdams are constructed, implementation of the following cofferdam or water diversion measures is recommended to avoid and lessen aquatic resources impacts during construction:

a) The cofferdams, filter fabric, and corrugated steel pipe are to be removed from the creek bed after completion of the Project.

b) The timing of work within all channelized waters is to be coordinated with the regulatory agencies.

c) The cofferdam is to be placed upstream of the work area to direct base flows through an appropriately sized diversion pipe. The diversion pipe will extend through the contractor's work area, where possible, and outlet through a sandbag dam at the downstream end.

d) Sediment catch basins immediately below the construction site are to be constructed when performing in-channel construction to prevent silt- and

sediment-laden water from entering the mainstream flow. Accumulated sediments will be periodically removed from the catch basins.

**BIO - 8:** **Use of Best Management Practices During Construction:** Caltrans/OCTA will identify structural and non-structural Best Management Practices (BMPs) to control sediment and non-storm water discharges from the project site to protect water quality. Actions to prevent sediment from entering watercourses during and after construction may include, but are not limited to, the following BMPs: silt fencing, fiber rolls, gravel bag berms, sand bag barriers, tracking controls, stockpile management, dry season scheduling, proper material delivery and storage, solid waste management, concrete waste management, preservation of existing vegetation, temporary soil stabilization, dust and erosion control, soil binders, and straw mulch. No site personnel will discard solid or liquid materials into jurisdictional water features or any ESA lands. Temporary, construction-related BMPs may include, but will not be limited to, the following:

a) Silt Fence. A silt fence is made of a filter fabric that has been entrenched, attached to supporting poles, and sometimes backed by a plastic or wire mesh for support. The silt fence detains sediment-laden water, promoting sedimentation behind the fence.

   Fiber Rolls. A fiber roll consists of straw, coir, or other biodegradable materials bound into a tight tubular roll and wrapped by netting, which can be photodegradable or natural. Fiber rolls with plastic netting that poses a wildlife entanglement hazard will not be used. Fiber rolls used for erosion control will be certified as free of noxious weed seed. When fiber rolls are placed at the toe and on the face of slopes along contours, they intercept runoff; reduce its flow velocity; release the runoff as sheet flow; and provide removal of sediment from the runoff. By interrupting the length of a slope, fiber rolls can also reduce sheet and rill erosion until vegetation is established.

b) Gravel Bag Berms. A series of gravel-filled bags are placed on a level contour to intercept sheet flows. Gravel bags pond sheet flow runoff, allowing sediment to settle out and release runoff slowly as sheet flow, preventing erosion.

c) Preservation of Existing Vegetation. Careful planned preservation of existing vegetation minimizes the potential removal or injury to existing trees, vines, shrubs, and grasses that protect soil from erosion.

d) Stockpile Management. Stockpile management procedures and practices are designed to reduce or eliminate air and storm water pollution from stockpiles of soil, paving materials (e.g., Portland cement concrete rubble, asphalt

concrete, asphalt concrete rubble, aggregate base, aggregate subbase or pre-mixed aggregate), asphalt minder (so called "cold mix" asphalt), and pressure-treated wood.

Vehicle and Equipment Maintenance. Contamination of storm water resulting from vehicle and equipment maintenance can be prevented or reduced by running a "dry and clean site". The best option would be to perform maintenance activities at an off-site facility. If this option is not available, then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. Employees and subcontractors must be trained in proper procedures. In addition, runoff from the finished roadway could affect water quality in the Santa Ana River.

**BIO - 9:** **Best Management Practices Incorporated into Project Design:** Caltrans/OCTA will include permanent treatment BMPs in the project design that will upgrade and install storm drain system facilities and storm drain controls for the Project. Permanent BMPs will be implemented for the protection of water quality using Caltrans-approved techniques and would be designed to meet RWQCB and National Pollutant Discharge Elimination System (NPDES) permit requirements. Permanent treatment BMPs may include, but would not be limited to, infiltration devices (infiltration trenches), biofiltration swales, and biofiltration strips.

a) Infiltration trenches are basins or trenches that store runoff and allow it to infiltrate into the ground, thus preventing pollutants in the captured runoff from reaching surface waters.

b) Biofiltration strips are vegetated land areas, over which storm water flows as sheet flow. Biofiltration swales are vegetated channels, typically configured as trapezoidal or V-shaped channels that receive and convey storm water flows while meeting water quality criteria and other flow criteria. Pollutants are removed by filtration through the vegetation, sedimentation, adsorption to soil particles, and infiltration through the soil. Strips and swales are effective at trapping litter, total suspended sediment, and particulate metals. Biofiltration strips and swales would be considered wherever site conditions and climate allow vegetation to be established and where flow velocities will not cause scour. The intent of the BMPs implemented will be to reduce pollutants in storm water discharge to the maximum extent practicable (MEP).

c) The Project will conform to the Caltrans State Storm Water Management Plan (SWMP) (Caltrans 2003) and will provide guidance for compliance with the NPDES Permit requirement for discharge. As part of the Project Delivery Storm Water Management Program described in the SWMP, selected Construction Site,

Design Pollution Prevention, and Treatment BMPs will be incorporated into the Project. Compliance with the standard requirements of the SWMP for potential short-term (during construction) and long-term (post construction) impacts will avoid or minimize potential impacts on water quality and storm water runoff. Conformance with the SWMP will include the following:

- Covered Projects will comply with the provisions of the Caltrans Statewide NPDES Permit (Order No. 2012-0011-DWQ, NPDES No. CAS00003) and the NPDES General Permit, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), and any subsequent permit in effect at the time of construction.
- A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented to address all construction-related activities, equipment, and materials that have the potential to affect water quality. The SWPPP will identify the sources of pollutants that may affect the quality of storm water and include the Construction Site BMPs to control pollutants (e.g., sediment control, catch basin inlet protection, construction materials management) and non-stormwater BMPs. All Construction Site BMPs will follow the latest edition of the Storm Water Quality Handbooks, Project Planning and Design Guide (Caltrans 2007) to control and minimize the impacts of construction and construction-related activities, material, and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs.
- Caltrans-approved treatment BMPs will be implemented to the MEP consistent with the requirements of the NPDES Permit, Statewide Storm Water Permit, and WDRs for Caltrans Properties, Facilities, and Activities (Order No. 2012-0011-DWQ, NPDES No. CAS000003).
- Treatment BMPs will include, for example, biofiltration strips/swales, infiltration basins, detention devices, dry weather flow diversion, Gross Solids Removal Devices (GSRDs), media filters, and wet basins. Final determination regarding the selection of treatment BMPs will occur during the design phase.
- Design Pollution Prevention BMPs will be implemented, such as preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems

(e.g., ditches, berms, dikes and swales), oversized drains, flared end sections, and outlet protection/velocity dissipation devices.

- Construction site dewatering must conform to the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (de minimus) Threat to Water Quality (Order No R8-2009-0003, NPDES No. CAG998001), and any subsequent updates to this permit at the time of construction. Dewatering BMPs must be used to control sediments and pollutants, and the discharges must comply with the WDRs issued by the Santa Ana RWQCB.

In addition, the following compensatory measure will be implemented for impacts on jurisdictional waters:

**WET-1** **Compensatory Mitigation.** Unavoidable permanent losses of streambeds and jurisdictional waters (less than 0.1 acre), will be compensated at the pre-approved mitigation sites identified in Table E-1 of Appendix E of the OCTA M2 NCCP/HCP. Additionally, for temporary disturbances to streambeds, the impact areas will be restored to their pre-project conditions, when appropriate, to achieve the no-net-loss standards.

## 2.3.3 Plant Species

### 2.3.3.1 Regulatory Setting

The USFWS and CDFW have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section 2.3.5 in this document for detailed information about these species.

This section of the document discusses all special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans Projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), CA Public Resources Code, Sections 21000-21177.

### 2.3.3.2 Affected Environment

The primary sources used in the preparation of this section is the *Natural Environment Study* (June 2018). This section presents a broader discussion of the dominant plant species found in the project area; a more detailed discussion regarding special status species is found in the Threatened and Endangered Species section (Section 2.3.5) of this document.

As discussed in Section 2.3.1 above, the BSA consists of three land cover types as determined by a qualified biologist through pedestrian field surveys: Developed and Disturbed, Open Water/River, and Ornamental Landscaping.

## Vegetation Communities and Land Cover Types

#### *Developed and Disturbed*

These urbanized lands have ruderal species, also known as plant species first to colonize disturbed lands, dominated by non-native, weedy and invasive species.

#### *Open Water/River*

The Santa Ana River portion within the BSA is a flood control channel within minimal vegetation.

#### *Ornamental*

The vegetation community observed within the BSA includes landscaping that is dominated by non-native plants and species which are cultivated or grown to serve decorative purposes. Dominant flora detected within this community included Peruvian pepper (*Schinus molle*), tree of Heaven (*Ailanthus altissima*), treasure flower (*Gazania linearis*), and Mexican fan palm (*Washingtonia robusta*).

#### *Plant Species*

Plants species potentially occurring or known to occur within project site are listed below in **Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site**. The qualified biologist then used this information on pedestrian surveys to identify if these plants had the potential for occurrence[26] in the project site. Habitat within project site was not considered suitable to support special status species and no special-status species were present in the project area during pedestrian surveys. **Table 2-67: Plant Species Observed in the BSA** shows a list of plant species that were observed within the BSA, of which were mainly comprised of noxious weeds and invasive plant species.

[26] Potential for occurrence definitions utilized within Chapter 3 were derived from the on-line 2017 Caltrans Standard Environmental Reference. The following defines the potential for occurrence definitions within this NES: Absent [A] Species distribution is restricted by substantive habitat requirements which do not occur or are negligible within the project Site; no further survey or study is obligatory to determine likely presence or absence of this species; Habitat Present [HP] – Species distribution is restricted by substantive habitat requirements which occur within the project Site; further survey or study may be necessary to determine likely presence or absence of species; Present [P] – Species or species sign were detected within the project Site; and Critical Habitat [CH] – The project Site is located within a USFWS-designated critical habitat unit.

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site**[27]

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[28] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Chaparral sand-verbena | *Abronia villosa var. aurita* | None | None | 1B.1 | Chaparral sand-verbena is found in chaparral, coastal scrub and desert dunes. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the BSA, and no further survey or study is obligatory to determine likely presence or absence of this species |
| Aphanisma | *Aphanisma blitoides* | None | None | 1B.2 | Aphanisma is a beach-dwelling plant native to the coastline of Baja California and southern California, including the Channel Islands. It is a succulent saline-adapted plant found in sand or scrubs at the immediate coastline. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the BSA, and no further survey or study is obligatory to determine likely presence or absence of this species |

[27] Table 2-66 is based on available information from the California Natural Diversity Database, U.S. Fish & Wildlife Service, California Native Plant Society, resource management plans, coordination with local resource experts, and relevant documents that were assessed to determine the locations and types of biological resources that have the potential to exist within and adjacent to the project.

[28] The habitat descriptions summarized within Table 2-66 are based on available information from the California Natural Diversity Database, U.S. Fish & Wildlife Service, California Native Plant Society, Holland (1986), Sawyer et al. (2009), Baldwin et al. (2012) and coordination with local resource experts.

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Braunton's milk-vetch | *Astragalus brauntonii* | Endangered | None | 1B.1 | Braunton's milkvetch is endemic to carbonate or calcareous soils of the foothills of the southern California mountains. It commonly occurs in disturbed chaparral, coastal sage scrub, and closed-cone forests at elevations of 50 to 2,000 feet (15-610 meters). Soil requirements of Braunton's milkvetch contribute to its limited distribution. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Coulter's saltbush | *Atriplex coulteri* | None | None | 1B.2 | Coulter's saltbush is a perennial herb located on coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland, alkaline or clay soil; blooms Mar.-Oct. Elevation less than 1,050 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| South coast saltscale | *Atriplex pacifica* | None | None | 1B.2 | South coast saltscale is an annual herb found on coastal bluff scrub, coastal dunes, coastal sage scrub, and playas; blooms Mar.-Oct. Elevation less than 500 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Parish's brittlescale | *Atriplex parishii* | None | None | 1B.1 | Parish's brittlescale is an annual herb found in chenopod scrub, playas and vernal pools; blooms June-Oct. Elevation 100-6,500 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Davidson's saltscale | *Atriplex serenana var. davidsonii* | None | None | 1B.2 | Davidson's saltscale is an annual herb found in coastal bluff scrub, coastal sage scrub and alkaline soil; blooms April-Oct. Elevation less than 1,000 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Plummer's mariposa-lily | *Calochortus plummerae* | None | None | 4.2 | Plummer's mariposa-lily is a perennial herb found in chaparral, coastal scrub, cismontane woodland, valley and foothill grassland; with granitic, rocky soil; blooms May-July. Elevation 330-5,600 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Intermediate mariposa-lily | *Calochortus weedii var. intermedius* | None | None | 1B.2 | Intermediate mariposa-lily is a perennial herb found in chaparral, coastal scrub, valley and foothill grassland with rocky soil; blooms May-July. Elevation 590-2,830 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Southern tarplant | *Centromadia parryi ssp. australis* | None | None | 1B.1 | Southern tarplant is an annual herb found on the margins of marshes and swamps, valley and foothills and grasslands and vernal pools; blooms May-Nov. Elevation less than 1,400 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Salt marsh bird's-beak | *Chloropyron maritimum ssp. maritimum* | Endangered | Endangered | 1B.2 | Salt marsh bird's-beak grows in in low clumps in areas of high salt concentrations, including coastal salt marshes and inland salt flats. This species blooms from May to October. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| San Fernando Valley spineflower | *Chorizanthe parryi var. fernandina* | Proposed Threatened | Endangered | 1B.1 | San Fernando Valley spineflower is found primarily in sandy soils within coastal scrub. Elevation 3 – 3,000 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Long-spined spineflower | *Chorizanthe polygonoides var. longispina* | None | None | 1B.2 | Long-spined spineflower is found in chaparral, coastal scrub, meadows, valley and foothill grassland within gabbroic clay. Elevation 100 – 3,500 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Many-stemmed dudleya | *Dudleya multicaulis* | None | None | 1B.2 | Many-stemmed dudleya is often associated with clay soils in barrens, rocky places, and ridgelines as well as thinly vegetated openings in chaparral, coastal sage scrub, and southern needlegrass grasslands on clay soils. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Santa Ana River woollystar | *Eriastrum densifolium ssp. sanctorum* | Endangered | Endangered | 1B.1 | Restricted to open washes of early-successional alluvial fan scrub environments. Occurs in sandy and gravelly soils, and in rock mounds and boulder fields. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| San Diego button-celery | *Eryngium aristulatum var. parishii* | Endangered | Endangered | 1B.1 | San Diego button-celery occurs only in vernal pools with clay soils. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Los Angeles sunflower | *Helianthus nuttallii ssp. parishii* | None | None | 1A | Found in coastal salt marshes and freshwater swamps below 1,500 feet in elevation. Presumed extinct in California. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Mesa horkelia | *Horkelia cuneata var. puberula* | None | None | 1B.1 | Mesa horkelia is found in Coastal Strands, Closed-cone Pine Forest, Foothill Woodland, Northern Coastal Scrub, Chaparral, and Coastal Sage Scrub. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Coulter's goldfield | *Lasthenia glabrata ssp. coulteri* | None | None | 1B.1 | Coulter's goldfield is found in valley grassland, alkali sink, northern oak woodland, coastal salt marsh, and wetland-riparian. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Robinson's pepper-grass | *Lepidium virginicum var. robinsonii* | None | None | 4.3 | An annual herb with dense and pointed hairs on the stems. Plants are generally 1–2 meters tall. This species occurs in dry soils in chaparral and coastal sage scrub below 1,600 feet in elevation. It is considered uncommon within its range. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Intermediate monardella | *Monardella hypoleuca ssp. intermedia* | None | None | 1B.3 | Intermediate monardella is a perennial herb found in cismontane woodland, and lower montane coniferous forest. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Mud nama | *Nama stenocarpa* | None | None | 2B.2 | Annual to perennial herb. Occurs in marshes and swamps and along lake margins and riverbanks. From 15 to 1,640 feet in elevation. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Prostrate vernal pool navarretia | *Navarretia prostrata* | None | None | 1B.1 | Prostrate vernal pool navarretia occurs within coastal sage scrub, valley and foothill grassland (alkaline washes) and vernal pools between 45 and 2,100 feet. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Chaparral nolina | *Nolina cismontana* | None | None | 1B.2 | Chaparral nolina occurs in coastal mountain ranges in dry chaparral and coastal sage scrub habitat on rocky sandstone and gabbro substrates. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| California Orcutt grass | *Orcuttia californica* | Endangered | Endangered | 1B.1 | California Orcutt grass is found within valley grassland, Freshwater Wetlands, wetland-riparian and vernal-pools. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| California beardtongue | *Penstemon californicus* | None | None | 1B.2 | California beardtongue occurs on granitic and sandy soils and stony slopes in chaparral, coniferous forest, and pinyon-juniper woodland habitats. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Allen's pentachaeta | *Pentachaeta aurea ssp. allenii* | None | None | 1B.1 | Allen's pentachaeta is an annual herb that is found in Valley Grassland and Southern Oak Woodland. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Brand's star phacelia | *Phacelia stellaris* | None | None | 1B.1 | Brand's phacelia is primarily associated with coastal dunes and/or coastal scrub between 15 and 1,200 feet in elevation. This species typically occurs in sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| White rabbit-tobacco | *Pseudognaphalium leucocephalum* | None | None | 2B.2 | White rabbit-tobacco is a Perennial herb. Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland on sandy and gravelly soils below 7,000 feet in elevation. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Chaparral ragwort | *Senecio aphanactis* | None | None | 2B.2 | Chaparral ragwort is found within chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | CNPS List | General Habitat Description[27] | Potential for Occurrence (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|---|
| Salt Spring checkerbloom | *Sidalcea neomexicana* | None | None | 2B.2 | Salt Spring checkerbloom is found in creosote bush scrub, chaparral, yellow pine forest, coastal sage scrub, alkali Sink, and wetland-riparian. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Estuary seablite | *Suaeda esteroa* | None | None | 1B.2 | Estuary seablite is found in coastal salt marsh, wetland-riparian and salt-marsh. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| San Bernardino aster | *Symphyotrichum defoliatum* | None | None | 1B.2 | San Bernardino aster is gound in meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grassland. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

Source: NES 2018; United States Fish and Wildlife (USFW), Official Species List Consultation Code 08ECAR00-2017-SLI-1171 2017. http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF
California Native Plant Society (CNPS) designations:
List 1A Plants presumed extinct in California.
List 1B Plants rare and endangered in California and throughout their range.
List 2 Plants rare, threatened, or endangered in California but more common elsewhere in their range.
List 3 Plants about which we need more information; a review list.
List 4 Plants of limited distribution; a watch list.

**Table 2-67: Plant Species Observed in the BSA**

| Scientific Name | Common Name |
|---|---|
| *Ailanthus altissima* | Tree of Heaven |
| *Amaranthus albus** | Prostrate pigweed |
| *Avena barbata* | Lopsided oat |
| *Baccharis salicifolia* | Mulefat |
| *Brachypodium distachyon* | Purple false brome |
| *Bromus diandrus** | Ripgut brome |
| *Bromus madritensis subsp. Rubens** | Red brome |
| *Camissoniopsis hirtella* | Santa Cruz Island suncup |
| *Carpobrotus edulis** | Hottentot fig |
| *Centaurea melitensis** | Maltese star-thistle |
| *Chenopodium album** | Lambsquarters |
| *Conyza Canadensis** | Horseweed |
| *Epilobium ciliatum** | American willowherb |
| *Erodium cicutarium** | Redstem filaree |
| *Eucalyptus globules** | Eucalyptus |
| *Euphorbia peplus** | Spurge |
| *Gazania linearis** | Treasureflower |
| *Galium aparine* | Stickywilly |
| *Gnaphalium luteo-album** | Cudweed |
| *Helminthotheca echioides* | Bristly oxtongue |
| *Heterotheca grandiflora** | Telegraph weed |
| *Hirschfeldia incana** | Summer mustard |
| *Lactuca serriola** | Prickly lettuce |
| *Malva parviflora** | Cheeseweed mallow |
| *Marrubium vulgare** | Horehound |
| *Melilotus albus** | Sweet clover |
| *Melilotus indicus** | Sourclover |
| *Myoporum laetum** | Myoporum |
| *Nicotiana glauca** | Tree tobacco |
| *Pennisetum setaceum** | Fountain grass |
| *Polypogon monspeliensis** | Rabbitsfoot |
| *Ricinus communis** | Castorbean |
| *Salsola trajus** | Russian thistle |
| *Schismus barbatus** | Mediterranean grass |

**Table 2-67: Plant Species Observed in the BSAcontinued)**

| Scientific Name | Common Name |
|---|---|
| *Schinus molle** | Peruvian pepper |
| *Schinus terebinthifolius** | Brazillian peppertree |
| *Sisymbrium irio** | London rocket |
| *Sonchus asper** | Spiny sowthistle |
| *Sonchus oleraceus** | Sowthistle |
| *Sorghum halepense** | Johnsongrass |
| *Washingtonia robusta** | Mexican fan palm |

Note: * denotes noxious weeds and invasive plant species
Source: NSR 2018; United States Fish and Wildlife (USFW), Official Species List Consultation Code 08ECAR00-2017-SLI-1171 2017.
http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

#### 2.3.3.3 Environmental Consequences

### Temporary Impacts

#### *Alternative 1 - No Build*

No impacts to the plant communities in the BSA would be impacted by the project since no construction, changes, or improvements to the highway would be performed.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B - Build Alternatives*

Greater than 90 percent of the project's ground disturbance footprint will directly affect developed lands and ornamental landscaping. Landscaping that will be disturbed in the process of the Project's construction would be replaced in kind according to guidelines outlined in the Landscape Master Plan for this Project.

### Permanent Impacts

#### *Alternative 1 - No Build*

No impacts to the plant communities in the BSA would be impacted by the project since no construction, changes, or improvements to the highway would be performed.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B - Build Alternatives*

Surveys did not detect special status plants within the project site. Therefore, it is unlikely that the Project would result in the loss of individuals or that it would negatively affect local or regional populations of special status plants. Therefore, it is anticipated that the Project will have no effect on special status plants.

#### 2.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

Because no special status plants or habitat were observed within the project area, no avoidance, minimization, and/or mitigation measures are required.

### 2.3.4 Animal Species

#### 2.3.4.1 Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), and the CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section 2.3.5 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act (NEPA)
- Migratory Bird Treaty Act (MBTA)

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act (CEQA)
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 3503, 3503.5, 3511, 4700, 5050, 5515 of the California Fish and Game Code

#### 2.3.4.2 Affected Environment

The primary source used in the preparation of this section is the *Natural Environment Study* (June 2018). Special status and common animal species are discussed in this section relative to the BSA. This section presents a broader view of the special status animal species than the discussion found in the Threatened and Endangered section (Section 2.3.5).

The Project is located within an urban setting, which has been heavily influenced in the past and present by human activities. Existing conditions include SR 57, ubiquitous residential and commercial developments, and infrastructure appurtenances (e.g., electrical distribution, highway interchanges, flood control facilities, paved roads). The BSA has been previously disturbed from development and associated land clearing activities, and no natural communities occur. Furthermore, the BSA has had significant disturbances associated with numerous anthropogenic undertakings over the past several decades (e.g., grading, illegal dumping, active homeless encampments, etc.).

## Special-Status Species

Wildlife surveys were conducted to assess overall baseline conditions and evaluate the project site's ability to support special-status fauna. The BSA was considered potentially suitable, and capable of supporting nesting birds and bats. Common species of raptors and passerines could nest in the BSA on bridges, light posts, electrical distribution facilities, bare ground, woody and herbaceous plants from February 1 to September 30 (as early as January 1st for some species). In addition, biologists performed habitat assessments and surveys for nesting birds and bats (*Yuma myotis*) including underneath the bridge over the Santa Ana River. Neither nesting birds (i.e., passerines and raptors) nor bats were detected during surveys within the BSA. The data collected suggest that there is no characteristic sign or historic evidence of bird or bat breeding, nesting, or roosting activities within the project's disturbance footprint.

Based on records maintained by the CDFW, one historic observation (2015) of a transient soaring American peregrine falcon (*Falco peregrinus anatum*) was documented within the BSA. However, this species was not detected during the field surveys and there is currently no nesting habitat to support this specific species within the BSA. Although peregrine falcons often utilize cliff-like habitats commonly found near perennial water sources for breeding and nesting, the Santa Ana River Bridge was determined by the surveying biologist to be unsuitable for nesting patterns. No nesting birds or remnant inactive nests where observed within the BSA during pedestrian field surveys in February, March, and April 2017. Furthermore, no bats, no bat roosts, and no characteristic bat sign (i.e., guano and staining) were detected within the BSA.

Special status species are listed in **Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site** below. Common animal species not listed or proposed for listing, but known to occur within multiple miles of the project boundaries and their potential for occurrence within its disturbance footprint are listed in **Table 2-69: Wildlife Species Observed in the BSA** below.

The BSA includes no U.S. Fish and Wildlife Service (USFWS)-critical habitat for wildlife.

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site[29]**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[30] | Potential for Occurrence[31] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| San Diego fairy shrimp | *Branchinecta sandiegonensis* | Endangered | None | San Diego fairy shrimp are generally restricted to vernal pools and other non-vegetated ephemeral (i.e., containing water a short time) basins 2 to 12 inches in depth in coastal southern California and northwestern Baja California, Mexico. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

[29] Table 2-68 is based on available information from the California Natural Diversity Database, U.S. Fish & Wildlife Service, resource management plans, coordination with local resource experts, and relevant documents that were assessed to determine the locations and types of biological resources that have the potential to exist within and adjacent to the project.

[30] The habitat descriptions summarized are based on available information from the California Natural Diversity Database, U.S. Fish & Wildlife Service, Burt and Grossenheider (1980), Halfpenny (2000), Sibley (2000), Elbroch (2003), Stebbins (2003), Small 1994 and coordination with local resource experts.

[31] Potential for occurrence definitions utilized within Chapter 3 were derived from the on-line 2017 Caltrans Standard Environmental Reference. The following defines the potential for occurrence definitions within this NES: Absent [A] – Species distribution is restricted by substantive habitat requirements which do not occur or are negligible within the project Site; no further survey or study is obligatory to determine likely presence or absence of this species; Habitat Present [HP] – Species distribution is restricted by substantive habitat requirements which occur within the project Site; further survey or study may be necessary to determine likely presence or absence of species; Present [P] – Species or species sign were detected within the project Site; and Critical Habitat [CH] – The project Site is located within a USFWS-designated critical habitat unit.

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Swainson's hawk | *Buteo swainsoni* | None | Threatened | Swainson's Hawks favor open habitats for foraging. Although much of their native prairie and grassland habitat has been converted to crop and grazing land, these hawks have adjusted well to agricultural settings. You'll find them searching for prey in hay and alfalfa fields, pastures, grain crops, and row crops, or perched atop adjacent fence posts and overhead sprinkler systems. They rely on scattered stands of trees near agricultural fields and grasslands for nesting sites. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Santa Ana sucker | *Catostomus santaanae* | Threatened | None | Occurs in pools and runs of small to medium-sized, shallow streams with cool, unpolluted water. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

[32] The habitat descriptions summarized within Table 3-3 are based on available information from the California Natural Diversity Database, U.S. Fish & Wildlife Service, Burt and Grossenheider (1980), Halfpenny (2000), Sibley (2000), Elbroch (2003), Stebbins (2003), Small 1994 and coordination with local resource experts.

[33] Potential for occurrence definitions utilized within Chapter 3 were derived from the on-line 2017 Caltrans Standard Environmental Reference. The following defines the potential for occurrence definitions within this NES: Absent [A] – Species distribution is restricted by substantive habitat requirements which do not occur or are negligible within the project Site; no further survey or study is obligatory to determine likely presence or absence of this species; Habitat Present [HP] – Species distribution is restricted by substantive habitat requirements which occur within the project Site; further survey or study may be necessary to determine likely presence or absence of species; Present [P] – Species or species sign were detected within the project Site; and Critical Habitat [CH] – The project Site is located within a USFWS-designated critical habitat unit.

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Western yellow-billed cuckoo | *Coccyzus americanus occidentalis* | Threatened | Endangered | Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, near slow-moving watercourses, backwaters, or seeps. Willow species are almost always a dominant component of the vegetation. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Bald eagle | *Haliaeetus leucocephalus* | Delisted | Endangered | The Bald Eagle has been the national emblem of the United States since 1782 and a spiritual symbol for native people for far longer than that. These regal birds aren't really bald, but their white-feathered heads gleam in contrast to their chocolate-brown body and wings. Look for them soaring in solitude, chasing other birds for their food, or gathering by the hundreds in winter. Once endangered by hunting and pesticides, Bald Eagles have flourished under protection. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| California black rail | *Laterallus jamaicensis coturniculus* | None | Threatened | Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Belding's savannah sparrow | *Passerculus sandwichensis beldingi* | None | Endangered | On both their summer and winter ranges, Savannah Sparrows live in grasslands with few trees, including meadows, pastures, grassy roadsides, sedge wetlands, and cultivated fields planted with cover crops like alfalfa. Near oceans, they also inhabit tidal saltmarshes and estuaries. In Alaska and northern Canada, they live among the shrubby willows of the tundra. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Coastal California gnatcatcher | *Polioptila californica californica* | Threatened | None | Occurs in coastal sage scrub vegetation on mesas, arid hillsides, and in washes and nests almost exclusively in California sagebrush, below 2,500 feet in elevation in southern California. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Light-footed clapper rail | *Rallus longirostris levipes* | Endangered | Endangered | Found exclusively in salt marshes between Santa Barbara, California and San Quintin Bay, Baja California, and Mexico. Nesting occurs primarily in dense cordgrass, wrack deposits, and in hummocks of high marsh within the low marsh zone. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Bank swallow | *Riparia riparia* | None | Threatened | Bank Swallows live in low areas along rivers, streams, ocean coasts, or reservoirs. Their territories usually include vertical cliffs or banks where they nest in colonies of 10 to 2,000 nests. Though in the past Bank Swallows were most commonly found around natural bluffs or eroding streamside banks, more and more often these swallows populate human-made sites, such as sand and gravel quarries or road cuts. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| California least tern | *Sternula antillarum browni* | Endangered | Endangered | California Least Terns live along the coast. They nest on open beaches kept free of vegetation by the tide. The typical colony size is 25 pair. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Coast Range newt | *Taricha torosa* | None | None | Frequents terrestrial habitats (grassland, woodland and forest) but breeds in ponds, reservoirs, and slow moving streams | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Least Bell's vireo | *Vireo bellii pusillus* | Endangered | Endangered | Summer resident of southern California in low riparian habitat in the vicinity of water or in dry river bottoms; below 2,000 feet in elevation. Nests placed along margins of bushes or on twigs Projecting into pathways, usually willow, baccharis, and mesquite. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Northern leopard frog | *Lithobates pipiens* | None | None | The northern leopard frog requires a mosaic of habitats to meet the requirements of all of its life stages and breeds in a variety of aquatic habitats that include slow-moving or still water along streams and rivers, wetlands, permanent or temporary pools, beaver ponds, and human-constructed habitats such as earthen stock tanks and borrow pits. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Western spadefoot | *Spea hammondii* | None | None | May be found in coastal sage scrub, chaparral, and grasslands habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Coast horned lizard | *Phrynosoma blainvillii* | None | None | Occurs in coastal sage scrub, open chaparral, riparian woodland, and annual grassland habitats that support adequate prey species. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Coast patch-nosed snake | *Salvadora hexalepis virgultea* | None | None | Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Coastal whiptail | *Aspidoscelis tigris stejnegeri* | None | None | Found in semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas with firm soil or on sandy or rocky ground. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Orange throat whiptail | *Aspidoscelis hyperythra* | None | None | Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Red-diamond rattlesnake | *Crotalus ruber* | None | None | Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, and cultivated areas. On the desert slopes of the mountains, it ranges into rocky desert flats. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Rosy boa | *Charina trivirgata* | None | None | Occurs in semi-arid scrublands, desert foothills, and mountain canyons where it is associated with rocky habitats. Feeds primarily on mammals. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Two-striped gartersnake | *Thamnophis hammondii* | None | None | Generally found around pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brushland, and coniferous forest. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Western pond turtle | *Emys marmorata* | None | None | Inhabits slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| American peregrine falcon | *Falco peregrinus anatum* | Delisted | Delisted | Found perching or nesting on skyscrapers, water towers, cliffs, power pylons, and other tall structures. Peregrines can be seen all over North America, but they are more common along coasts. | A | Species distribution is restricted by substantive habitat and nesting requirements, which do not occur or are negligible within the project site |
| Bald eagle | *Haliaeetus leucocephalus* | Delisted | Endangered | The Bald Eagle has been the national emblem of the United States since 1782 and a spiritual symbol for native people for far longer than that. These regal birds aren't really bald, but their white-feathered heads gleam in contrast to their chocolate-brown body and wings. Look for them soaring in solitude, chasing other birds for their food, or gathering by the hundreds in winter. Once endangered by hunting and pesticides, Bald Eagles have flourished under protection | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Burrowing owl | *Athene cunicularia* | None | None | Prefers open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent on small mammal burrows (particularly ground squirrels) for its subterranean nesting. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| California black rail | *Laterallus jamaicensis coturniculus* | None | Threatened | Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| California horned lark | *Eremophila alpestris actia* | None | None | Inhabits open barren country with a preference for areas of bare ground or short grasses. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| California least tern | *Sternula antillarum browni* | Endangered | Endangered | California Least Terns live along the coast. They nest on open beaches kept free of vegetation by the tide. The typical colony size is 25 pair. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Coastal cactus wren | *Campylorhynchus brunneicapillus sandiegensis* | None | None | Cactus Wrens live in scrubby areas in the Chihuahuan, Sonoran, and Mojave Deserts as well as in coastal sage scrub in California and thorn-scrub areas in Tamaulipas, Mexico. They inhabit areas with cholla, saguaro, and prickly-pear cacti, catclaw acacia, mesquite, whitethorn, desert willow, yucca, palo verde, and other desert shrubs. Small patches of prickly-pear and cholla cacti mixed with short sagebrush and buckwheat are great spots for Cactus Wrens in coastal California and northwestern Baja California, Mexico. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Coastal California gnatcatcher | *Polioptila californica californica* | Threatened | None | Occurs in coastal sage scrub vegetation on mesas, arid hillsides, and in washes and nests almost exclusively in California sagebrush, below 2,500 feet in elevation in southern California. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Cooper's hawk | *Accipiter cooperii* | None | None | A forest and woodland bird, but also a resident of suburban and city environments. Nesting occurs in oak woodlands, eucalyptus groves, riparian woodlands, and suburban settings. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Ferruginous hawk | *Buteo regalis* | None | None | A raptor of open environments including prairies, plains, and badlands. Nesting occurs on the ground as well as in trees. Hunting is largely restricted to open areas where prey is captured after a direct pursuit. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Golden eagle | *Aquila chrysaetos* | None | None | Golden Eagles live in open and semi-open country featuring native vegetation across most of the Northern Hemisphere. They avoid developed areas and uninterrupted stretches of forest. They are found primarily in mountains up to 12,000 feet in elevation, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Golden Eagles nest on cliffs and steep escarpments in grassland, chaparral, shrubland, forest, and other vegetated areas. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Grasshopper sparrow | *Ammodramus savannarum* | None | None | Open grasslands and prairies with patches of bare ground. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Great blue heron | *Ardea herodias* | None | None | Great Blue Herons live in both freshwater and saltwater habitats, and also forage in grasslands and agricultural fields, where they stalk frogs and mammals. Most breeding colonies are located within 2 to 4 miles of feeding areas, often in isolated swamps or on islands, and near lakes and ponds bordered by forests. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Least Bell's vireo | *Vireo bellii pusillus* | Endangered | Endangered | Summer resident of southern California in low riparian habitat in the vicinity of water or in dry river bottoms; below 2,000 feet in elevation. Nests placed along margins of bushes or on twigs Projecting into pathways, usually willow, baccharis, and mesquite. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Light-footed clapper rail | *Rallus longirostris levipes* | Endangered | Endangered | Found exclusively in salt marshes between Santa Barbara, California and San Quintin Bay, Baja California, and Mexico. Nesting occurs primarily in dense cordgrass, wrack deposits, and in hummocks of high marsh within the low marsh zone. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Long-eared owl | *Asio otus* | None | None | These nocturnal hunters roost in dense foliage, where their camouflage makes them hard to find, and forage over grasslands for small mammals. Long-eared Owls are nimble flyers, with hearing so acute they can snatch prey in complete darkness. In spring and summer, listen for their low, breathy hoots and strange barking calls in the night. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Southern California rufous-crowned sparrow | *Aimophila ruficeps canescens* | None | None | Resident in southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Swainson's hawk | *Buteo swainsoni* | None | Threatened | Swainson's Hawks favor open habitats for foraging. Although much of their native prairie and grassland habitat has been converted to crop and grazing land, these hawks have adjusted well to agricultural settings. You'll find them searching for prey in hay and alfalfa fields, pastures, grain crops, and row crops, or perched atop adjacent fence posts and overhead sprinkler systems. They rely on scattered stands of trees near agricultural fields and grasslands for nesting sites. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Tricolored blackbird | *Agelaius tricolor* | None | None | Occurs in coastal riparian habitats along the Pacific Coast and is also associated with farm and agricultural lands. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Western yellow-billed cuckoo | *Coccyzus americanus occidentalis* | Threatened | Endangered | Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, near slow-moving watercourses, backwaters, or seeps. Willow species are almost always a dominant component of the vegetation. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| White-tailed kite | *Elanus leucurus* | None | None | Commonly found in open woodlands, marshes, desert grasslands, savanna, and cultivated fields. This species if often observed hovering while hunting. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Yellow-breasted chat | *Icteria virens* | None | None | Inhabits dense thickets, brush, and secondary growth. Nests in dense shrubs. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Yellow warbler | *Setophaga petechia* | None | None | Occurs in riparian deciduous habitats, especially in cottonwoods (*Populus* spp.), alders (*Alnus* spp.), and willows, and other small trees and shrubs typical of low, open-canopy riparian woodland. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Mexican long-tongued bat | *Choeronycteris mexicana* | None | None | This bat occurs in a variety of habitats, including thorn scrub, palo verde-saguaro desert, semi-desert grassland, oak woodland and tropical deciduous forests. Although most frequently found in desert canyons, they have been observed in oak and ponderosa pine habitat. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Pallid bat | *Antrozous pallidus* | None | None | Occurs in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitat with rocky areas for roosting. Roost alone or in colonies (small and large) in crevices in rock outcrops and cliffs, caves, mines, and trees. Species is very sensitive to disturbance of roosting sites. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Pocketed free-tailed bat | *Nyctinomops femorosaccus* | None | None | Habitats include pinyon juniper woodlands, desert scrub, desert succulent scrub, washes, alkali deserts, palm oases, and Joshua tree woodlands. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Southern California saltmarsh shrew | *Sorex ornatus salicornicus* | None | None | Found among coastal marshes and palustrine environments. These areas include coastal wetlands, salt marshes, and freshwater swamps. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Western mastiff bat | *Eumops perotis californicus* | None | None | Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, hollow trees, and tunnels. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |

**Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site (continued)**

| Common Name | Scientific Name | Federal Status | State Status | General Habitat Description[32] | Potential for Occurrence[33] (Habitat Present/ Absent) | Rationale |
|---|---|---|---|---|---|---|
| Western yellow bat | *Lasiurus xanthinus* | None | None | Western yellow bats are thought to be non-colonial. Individuals usually roost in trees, hanging from the underside of a leaf. They are commonly found in the southwestern U.S. roosting in the skirt of dead fronds in both native and non-native palm trees. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project site |
| Yuma myotis | *Myotis yumanensis* | None | None | The species roosts in bridges, buildings, cliff crevices, caves, mines, and trees. | HP | Species distribution is restricted by substantive habitat requirements which occur within the project site |
| Santa Ana sucker | *Catostomus santaanae* | Threatened | None | Occurs in pools and runs of small to medium-sized, shallow streams with cool, unpolluted water. | A | Species distribution is restricted by substantive habitat requirements, which do not occur or are negligible within the project ite |

Source: NES 2018; United States Fish and Wildlife (USFW), Official Species List Consultation Code 08ECAR00-2017-SLI-1171 2017.

**Table 2-69: Wildlife Species Observed in the BSA**

| Scientific Name | Common Name |
|---|---|
| **Reptiles** | |
| *Sceloperous occidentalis* | Western fence lizard |
| **Birds** | |
| *Agelaius phoeniceus* | Red-winged blackbird |
| *Buteo jamaicensis* | Red-tailed hawk |
| *Calypte anna* | Anna's hummingbird |
| *Egretta thula* | Snowy egret |
| *Larus californicus* | California gull |
| *Carpodacus mexicanus* | House finch |
| *Columba livia* | Rock pigeon |
| *Corvus brachyrhynchos* | American crow |
| *Corvus corax* | Common raven |
| *Falco sparverius* | American kestrel |
| *Quiscalus quiscula* | Common yellowthroat |
| *Passer domesticus* | House sparrow |
| *Psaltriparus minimus* | Bushtit |
| *Quiscalus quiscula* | Common grackle |
| *Sayornis nigricans* | Black phoebe |
| *Sturnus vulgaris* | European starling |
| *Zenaida macroura* | Mourning dove |
| **Mammals** | |
| *Otospermophilus beecheyi* | California ground squirrel |

Source: NSR 2018; United States Fish and Wildlife (USFW), Official Species List Consultation Code 08ECAR00-2017-SLI-1171 2017.

### 2.3.4.3 Environmental Consequences

## Temporary Impacts

#### *Alternative 1 – No Build*

No impacts to animal species or existing conditions are expected from the Project.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

Based on field surveys, a review of pertinent literature, and the analysis contained herein, the Project is not expected to result in loss of viability or to substantially modify regional habitat availability for any common or special-status animal species. Lands temporarily affected by the

Project will be restored to pre-project conditions. During construction, the Project would implement measures as part of the M2 NCCP/HCP to reduce the potential for impacts to special status or common animal species. The measures include restoration of disturbed areas, good-housekeeping activities to avoid attracting predators, preconstruction training programs for construction personnel, biological monitoring during vegetation clearing and grubbing, avoidance of construction activities during breeding seasons, and preconstruction surveys.

## Permanent Impacts

### *Alternative 1 – No Build*

No impacts to animal species or existing conditions are expected from the Project.

### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

Special status species were not observed within the project area during BSA surveys. Suitable habitat for bird/bat nesting, roosting, foraging, and breeding have been diminished as a result of past development. Therefore, habitat for common species observed within the BSA is unlikely to be impacted. The alignment of the bridge in relation to the river will not change, and therefore, will not result in the permanent loss of any migration corridors or landscape linkages. It is unlikely that the Project would result in the loss of individuals or that it would adversely affect local or regional populations or deter species from using the site.

### 2.3.4.4 Avoidance, Minimization, and/or Mitigation Measures

OCTA and Caltrans have voluntarily elected to impose the following standard avoidance procedures to reduce the magnitude of the Project's potential effects on nesting birds and bats:

**BIRD-1** **Nesting Birds Policy (OCTA Conservation Plan Section 5.6.3)** A Nesting Birds Policy will be implemented to conform to existing regulations and procedures for protection of nesting birds. Migratory native bird species are protected by international treaty under the MBTA of 1918 (50 CFR 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code make it unlawful to: take, possess, or needlessly destroy the nest or eggs of any bird (3503); take, possess or destroy any birds in the orders of Falconiformes or Strigiformes (birds-of-prey) and the nest and eggs of any such bird (3503.5); and take or possess any migratory nongame bird, or any part thereof, as designated in the MBTA. Under state law, take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs and/or young resulting from disturbances that cause abandonment of active nests.

Proposed Project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season, which generally runs February 1st to

September 30th (as early as January 1st for some species) to avoid disturbance to breeding birds or destruction of the nest or eggs. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted.

If the Construction Lead determines that avoidance of the avian breeding season is not feasible, at least 2 weeks prior to the initiation of project activities, a qualified biologist with experience in conducting breeding bird surveys will conduct weekly bird surveys to detect presence/absence of native bird species occurring in suitable nesting habitat that is to be directly or indirectly disturbed and (as access to adjacent areas allows) any other such habitat within an appropriate buffer distance of the disturbance area. Generally, the buffer distance should be 300 feet (500 feet for raptors); however, because the covered freeway improvement projects will generally occur along noisy freeways, a buffer distance as low as 100 feet for non-raptors could be appropriate. If a narrow buffer distance is warranted, the Construction Lead will have a qualified biologist identify the appropriate buffer distances for raptors and non-raptors and notify Wildlife Agencies. The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of project activities. If a native or nesting bird species is found, the Construction Lead will do one of the following to avoid and minimize impacts on native birds and the nest or eggs of any birds:

a. Implement default 300-foot minimum avoidance buffers for all birds and 500-foot minimum avoidance buffers for all raptor species. The breeding habitat/nest site will be fenced and/or flagged in all directions, and this area will not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project.

b. If a narrow buffer distance is warranted, the OCTA will have a qualified biologist develop a project-specific Nesting Bird Management Plan. The site-specific nest protection plan will be developed collaboratively with Wildlife Agencies and submitted to the Wildlife Agencies, although the Wildlife Agencies will not be responsible for approving the narrower buffer distance and the Nesting Bird Management Plan. The Plan should include detailed methodologies and definitions to enable a qualified avian biologist to monitor and implement nest-specific buffers based on topography, vegetation, species, and individual bird behavior. This Nesting Bird Management Plan will be supported by a Nest Log that tracks each nest and its outcome. The Nest Log will be submitted to the Wildlife Agencies at the end of each week. The Construction Lead may

propose an alternative plan for avoidance and nesting birds for Wildlife Agencies' review and approval.

c. Flagging, stakes, and/or construction fencing should be used to demarcate the inside boundary of the buffer between the project activities and the nest. The Construction Lead personnel, including all contractors working on site, should be instructed on the sensitivity of the area. The Construction Lead will document the results of the recommended protective measures described above to demonstrate compliance with applicable state and federal laws pertaining to the protection of native birds.

d. A biological monitor will be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint (i.e., outside the demarcated bird buffer) and that the flagging/stakes/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor will send weekly monitoring reports to the OCTA NCCP Administrator during the grubbing and clearing of vegetation and will notify the OCTA NCCP Administrator immediately if project activities take, possess, or needlessly destroy the nest or eggs of any bird as well as birds-of-prey and their nest or eggs. Within 48 hours of damage to an active nest or eggs or observed death or injury of birds protected under state law or the MBTA (which includes, but not is limited to, the birds on the Covered Species list), OCTA will notify the Wildlife Agencies.

**BIRD BAT-1** Despite the lack of presence of bats in the project site during initial surveys, all work areas on existing bridges with potential bat roosting habitat will be cleared of all bats during the fall (i.e., September or October) outside of the maternity season (i.e., April 1 to August 24) to avoid trapping flightless young inside during the summer months or hibernating individuals during the winter. Exclusion efforts are to occur prior to the initiation of construction activities under the guidance and observation of a qualified bat biologist. Exclusionary devices should be used to exclude bats from directly affected work areas and avoid potential direct impacts. Such exclusion efforts must be continued to keep the structures free of bats throughout the duration of the construction activities or until construction at the location is deemed complete and bat use is again acceptable. All bat exclusion techniques will be coordinated between the Department and the resource agencies, as applicable.

**BIRD BAT-2** If a bat maternity colony is detected, alternate roosting habitat shall be created and/or identified and monitored to ensure habitat is successfully occupied prior to exclusion.

**BIRD BAT-3** Prior to any vegetation clearing and bridge construction scheduled during the bat breeding season, a qualified biologist will conduct outflight census activities to determine the presence or absence of bat roosts within 72 hours prior to any clearing of vegetation or bridge construction. If roosting bats are detected, the biologist shall report and consult with resource agencies prior to commencing project activities within 500 feet of the bat detection site(s). The location of any bat roosts will be mapped, and an appropriate activity exclusion area or exclusion devices will be installed to preclude bats from being taken when project work occurs. The exclusion area will be clearly visible and remain in place until bat roosts are deemed inactive by a qualified biologist. If warranted bat exclusion devices, deterrent protocols and procedures shall be pre-approved by resource agencies prior to being implemented by OCTA.

## 2.3.5 Threatened and Endangered Species

### 2.3.5.1 Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFW is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as

"hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

#### 2.3.5.2 Affected Environment

The primary source used in the preparation of this section is the *Natural Environment Study* (June 2018) to detail the threatened and endangered (T & E) species in the project BSA. Threatened or endangered species are species of plants and animals that are formally listed as endangered under FESA or CESA. Caltrans is required to determine if the proposed Project will involve and possibly affect proposed or listed species and/or their critical habitat.

**Table 2-66: Listed, Proposed Plant Species Potentially Occurring or Known to Occur within the Project Site** and **Table 2-68: Listed and Proposed Wildlife Species Potentially Occurring or Known to Occur in the Project Site** below, list threatened and endangered plant and animal species that are known to occur within multiple miles of the project site. This list was compiled using information from records, lists, and maps from the CDFW, CNPS, USGS, Microsoft, Google Earth, NRCS, USDA, South Coast Wildlands, the CNDDB, USFWS, and URS and field surveys.

### 2.3.5.3 Environmental Consequences

## Temporary Impacts

#### *Alternative 1 - No Build*

Existing conditions would remain the same based on the No Build Alternative. There would be no impact to special status species as shown through the detailed analysis performed for this site that has concluded no special status species are present within the boundary.

#### *Alternative 2, 2A, & 2B – Build Alternatives*

Since the Project is located within an urban setting that has been heavily influenced by human activities and urban development, the Project has no potential to impact threatened and endangered species during construction due to their lack of presence within the project boundary. No changes to the biological characteristics to cause a direct or indirect change to any endangered or threatened species are anticipated with project construction.

## Permanent Impacts

#### *Alternative 1 - No Build*

Existing conditions would remain the same based on the No Build Alternative.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

OCTA has also prepared the OCTA Natural Community Conservation Plan/Habitat Conservation Plan (OCTA Conservation Plan) as a mechanism to offset potential project-related effects on Covered Species, including State and federally listed species and their habitats, in a comprehensive manner. It achieves higher-value conservation than what would be expected through project-by-project mitigation in exchange for a streamlined project review and permitting process for the OC Go (formerly M2) freeway program as a whole. The proposed Project is a Covered Project under the OCTA Conservation Plan (i.e., project G). The OCTA M2 Conservation Plan includes Streambed Program Guidelines (Conservation Plan Appendix E), which outline potential conditions and the process for submittal of a project-level Notifications of Lake or Streambed Alterations (NLSA) and the issuance for individual Lake or Streambed Alteration Agreements (LSAA) for this project pursuant to California Fish and Game Code sections 1600–1616. The Streambed Program requires the evaluation of streambed avoidance options and specification of minimization measures prior to compensatory mitigation and ensures adequate mitigation based on habitat and type of aquatic resource to address state regulatory obligations.

On February 7, 2019 an official U.S. Fish and Wildlife Services (USFWS) List of Proposed, Threatened, and Endangered Species, and Critical Habitats was obtained through the USFWS

Information, Planning, and Conservation System. The species list provided was used as the basis upon which analysis of impacts was conducted (See Appendix F for the letter and list). Based on surveys conducted and analysis presented, there is no potential for the presence of endangered or threatened species, and no adequate habitat for these species to be present within the project limits. Therefore, the Project would not result in the loss of individuals or negatively affect local or regional populations of species and has been designated as having no effect on federally or state listed species.

Since this Project has been designated as having no effect after analysis of potential impacts, consultation with USFWS under the federal and state ESA Section 7 is not applicable.

#### 2.3.5.4 Avoidance, Minimization, and/or Mitigation Measures

Although no federal or state threatened and endangered species or habitat were observed within the project area, the standard avoidance measures outlined in the OCTA Conservation Plan and Streambed Program Guidelines would be implemented to avoid any potential impacts that may arise. With implementation of these standards, it is anticipated that no impacts would occur to threatened and endangered species.

### 2.3.6 Invasive Species

#### 2.3.6.1 Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. 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." Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State's invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed Project.

#### 2.3.6.2 Affected Environment

The primary source used in the preparation of this section is the Natural Environment Study (June 2018) to present a broad discussion of the invasive species within the BSA.

For the analysis of biological resources in the project site, a Biological Study Area (BSA) was established. This area includes the Project's proposed ground disturbance footprint and a buffer to include nearby areas that are not merely adjacent to the project footprint that may be impacted directly and indirectly. The BSA consists of three vegetation communities and land cover types as determined by a qualified biologist through pedestrian field surveys: Developed and Disturbed, Open Water/River, and Ornamental Landscaping. These urbanized lands have ruderal

species, also known as plant species first to colonize disturbed lands, dominated by non-native, weedy and invasive species.

### Invasive Species

Invasive plant species exist within the project site and dominate the land cover types within the Biological Study Area. These species are listed below in Section 2.3.3. **Table 2-67: Plant Species Observed in the BSA** shows a list of plant species that were observed within the BSA, of which were mainly comprised of noxious weeds and invasive plant species.

Invasive species are defined as any non-native plant(s) contained within the designated weed lists of the California Department of Food and Agriculture (CDFA 2017), the U.S. Department of Agriculture (USDA), the California Invasive Plant Council (Cal-IPC 2017), or identified by the OCTA or Caltrans as being of potential management concern. Invasive plants can thrive in areas beyond their natural range of dispersal. These plants are characteristically adaptable, aggressive, and have a high reproductive capacity. Their vigor combined with a lack of natural enemies often leads to outbreak populations.

#### 2.3.6.3 Environmental Consequences

### Temporary Impacts

#### *Alternative 1 - No Build*

With the No Build alternative, the Project would not implement any programs to remove existing invasive plants. Invasive plants would grow uncontrolled based on existing conditions.

#### *Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives*

In compliance with the Executive Order on Invasive Species, EO 13112, invasive species would be removed from the Project and controlled during construction. The Project includes construction methods and measures to reduce the potential for the spread of invasive species including, removal of invasive species in ground disturbed areas and equipment inspections to reduce the transport of invasive species. In addition, eradication strategies (i.e. weed abatement programs) would be employed should an invasion occur during construction. Section 1.3.3 details the measures to be employed during construction to reduce the spread of noxious weeds.

### Permanent Impacts

#### *Alternative 1 - No Build*

Left on their own, invasive plant species may aggressively colonize new areas and may become dominant or otherwise damage native plant communities if uncontrolled. Invasive plant species may have a competitive advantage over native species and may form an expansive monoculture. They may alter physical and/or chemical soil conditions, dominate the landscape to the detriment

of native plants and wildlife, deplete ground and surface water resources, compromise agricultural operations, conflict with recreational values, create fire hazards, and compromise aesthetic values of native or urban landscapes. They may be quick to colonize disturbed areas, including construction sites, roadsides, irrigated sites, or any other area with altered hydrology, soil structure, or soil chemistry. With the No Build alternative, the Project would not implement any programs to remove existing invasive plants.

### Alternative 2 (Preferred Alternative), 2A, & 2B – Build Alternatives

Lands affected by the Project will be restored to pre-construction conditions and invasive species would be removed. Landscaping disturbed during construction would be replaced in kind according to guidelines outlined in the Landscape Master Plan for the Project. None of the species on the California list of invasive species would be used for erosion control or landscaping.

#### 2.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

The OCTA and Caltrans have elected to impose the following procedures to reduce the magnitude of the Project's potential effects on state and federally listed plant species:

**PLANT-1.** **Invasive Species Control.** Invasive species will be removed from the project work area and controlled during construction. The use of known invasive plant species (i.e., plant species listed in California Invasive Plant Council's [Cal-IPC's] California Invasive Plant Inventory with a High or Moderate rating) will be prohibited for construction, revegetation, and landscaping activities. Project measures will be included to ensure invasive plant material is not spread from the project site to other areas by disposal off site or by tracking seed on equipment, clothing, and shoes. Equipment/material imported from an area of invasive plants must be identified and measures implemented to prevent importation and spreading of nonnative plant material within the project site. All construction equipment will be cleaned with water to remove dirt, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds before arriving to and leaving the project site. Eradication strategies (i.e., weed abatement programs) will be employed should an invasion occur during construction. (OCTA M2 NCCP/HCP Section 5.6.1)