

2.4 BIOLOGICAL ENVIRONMENT

2.4.1 Natural Communities

2.4.1.1 Regulatory Setting

This section discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. The emphasis of the section is on the ecological function of the natural communities in the area. 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 in Section 2.4.5, *Threatened and Endangered Species*. Wetlands and other waters are discussed in Section 2.4.2.

2.4.1.2 Affected Environment

This section is based on the Natural Environment Study (Minimal Impacts) prepared for the Project (Caltrans 2025).

The study area assessed for biological resources is referred to as the Biological Study Area (BSA), representing the area of potential direct and indirect effects on biological resources from the Build Alternatives. The 572-acre BSA for the Project spans approximately 2 miles along the Interstate (I-) 5 corridor and consists of the Project site, the Project's construction footprint, and a 500-foot buffer (Figure 2.4.1-1). The Project is in southern Orange County in the cities of Lake Forest, Laguna Woods, and Laguna Hills. The northwestern limits of the BSA extend across I-5 to approximately 180 to 500 feet southeast of Lake Forest Drive. The southeastern limits extend across I-5 to approximately 0.21 mile west of Alicia Parkway. The southwestern limits extend from Aliso Creek in the southeast to Paseo De Valencia and Avenda De La Carlota in the northwest. The northeast limits extend approximately 0.35 mile northeast of I-5 along El Toro Road as well as northwest and southeast along Rockfield Boulevard.

The only natural area and habitat corridor in the BSA is Aliso Creek at the southeastern end of the BSA, which is outside of the Project site and the impact area. Aliso Creek can be used by wildlife for travel from the Santa Ana Mountains in the northeast to the Laguna Coast and Aliso Canyon wilderness areas in the southwest.

A Natural Environment Study (Minimal Impacts) was prepared for the Project in April 2025.

Vegetation Communities

The BSA includes the following habitat types and land cover: developed areas, disturbed areas, ornamental landscaping, a eucalyptus grove, urban park, riverbed, willow riparian habitat, and coastal sage scrub.

Habitats are considered to be of special concern because of (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of sensitive plants or animals occurring on-site. The only habitats and natural communities of special concern in the BSA are willow riparian and coastal sage scrub (Figure 2.4.1-2).

- **Willow Riparian (*Salix gooddingii* – *Salix laevigata* Forest and Woodland Alliance):** Located in Aliso Creek south of I-5, within the 500-foot buffer of the BSA and outside the limits of the Project. This community is dominated by black willow, arroyo willows, and red willows, along with nonnative species such as giant reed (*Arundo donax*), Mexican fan palm (*Washingtonia robusta*), and tree tobacco (*Nicotiana glauca*). This habitat has a California State Rank of 3, which is considered sensitive under the California Environmental Quality Act (CEQA).
- **Coastal Sage Scrub (*Artemisia californica* – *Salvia mellifera* Shrubland Alliance):** Located within the 500-foot buffer of the BSA along the slopes of Aliso Creek south of I-5. This community is dominated by California sagebrush (*Artemisia californica*). Other plant species observed in low cover include prickly pear (*Opuntia* sp.) and California buckwheat (*Eriogonum fasciculatum*).

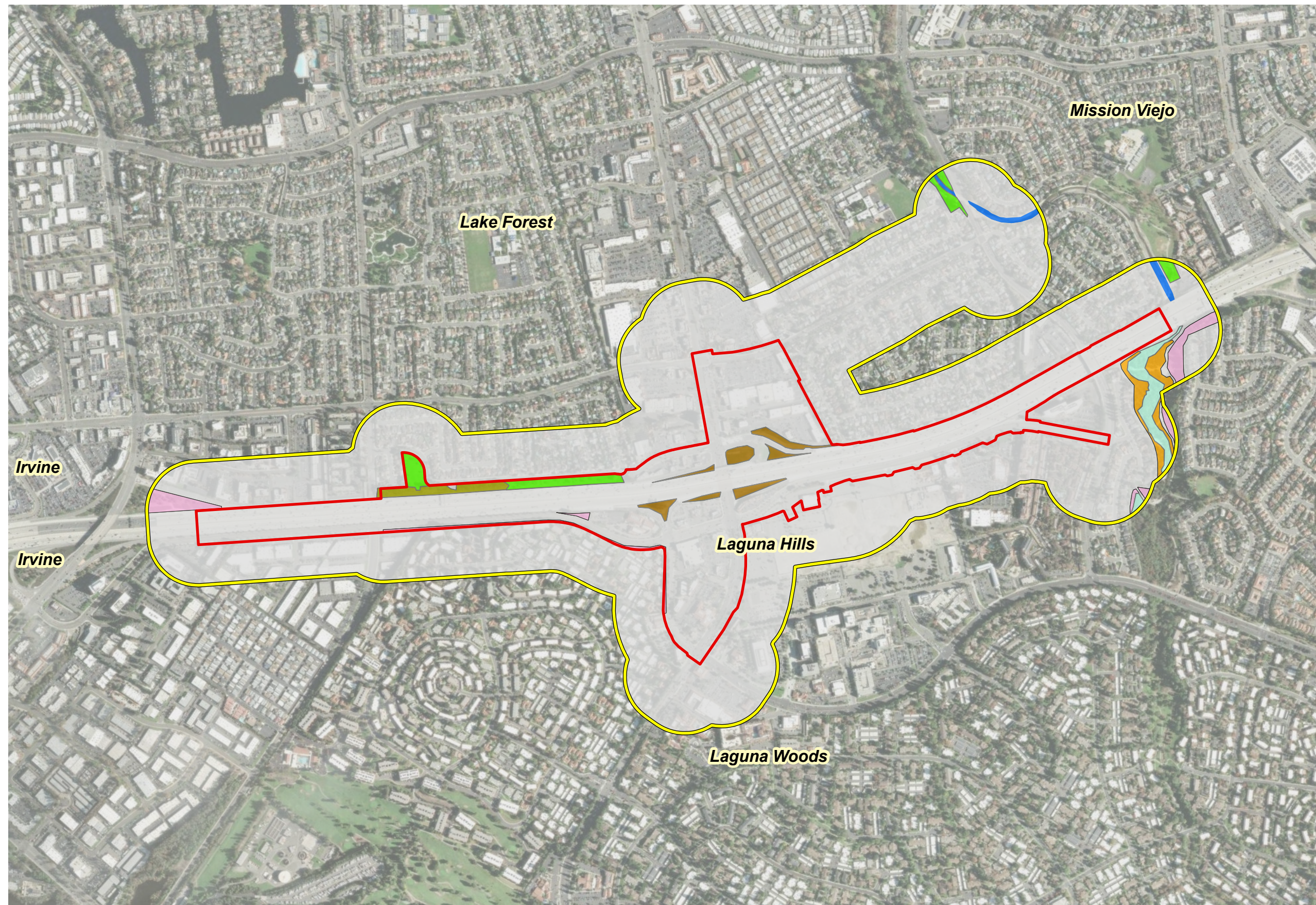
Wildlife Corridors and Habitat Connectivity

The BSA is almost completely developed and surrounded by development. The only natural area and habitat corridor is Aliso Creek at the southeastern end of the BSA, which is outside of the Project site and the impact area. Aliso Creek can be used by wildlife for travel from the Santa Ana Mountains in the northeast to Laguna Coast and Aliso Canyon wilderness areas in the southwest.

The Project would not affect habitat fragmentation or wildlife movement corridors because the Project would take place in an already highly developed area. The only wildlife corridor, Aliso Creek, would not be affected.

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- Legend**
- Environmental Study Limit
 - Biological Study Area
- Vegetation/Land Cover**
- Coastal Sage Scrub
 - Developed
 - Disturbed
 - Eucalyptus Grove
 - Ornamental
 - Riverbed
 - Urban Park
 - Willow Riparian

Source: VCS Environmental

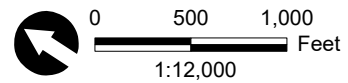


Figure 2.4.1-2
I-5 El Toro Road Interchange Project
Vegetation Map
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2.4.1.3 Environmental Consequences

Temporary Impacts

Build Alternatives

Build Alternative 1

The Project would not result in temporary direct or indirect impacts on natural communities. The willow riparian and coastal sage scrub habitats are within the 500-foot buffer and outside of the Project site and the impact area. Both habitat types are associated with Aliso Creek, which is well outside the construction footprint. No direct or indirect impacts on these habitats would occur as a result of the Project.

Although no temporary impacts on natural communities are anticipated, Project Feature **PF-BIO-1** includes measures to prevent the introduction or spread of invasive species that could affect native plant communities during construction.

PF-BIO-1 Invasive Species Control: Invasive species will be removed from the Project work area and contained during construction. The use of known invasive plant species (i.e., plant species listed in the California Invasive Plant Council [Cal-IPC] 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 visually inspected and cleaned with water to remove dirt, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds before entering and exiting the Project site. Eradication strategies (i.e., weed abatement programs) will be employed should an invasion occur during construction.

Design Variation: Build Alternative 1a

The design variation considered under Build Alternative 1a is substantively similar to Build Alternative 1 and would not result in additional impacts on natural communities. Direct and indirect impacts on natural communities under Build Alternative 1a would be the same as described for Build Alternative 1.

Build Alternative 3

Build Alternative 3 would not result in any ground disturbance or other activities that would affect natural communities. As such, there would be no Project-related temporary impacts on natural communities.

No-Build Alternative

Under the No-Build Alternative, I-5 would remain in its current condition and no improvements would be implemented. Therefore, there would be no Project-related temporary impacts on natural communities.

Permanent Impacts

Build Alternatives

Build Alternative 1

The Project would not result in permanent direct or indirect impacts on natural communities. The willow riparian and coastal sage scrub habitats are within the 500-foot buffer and outside of the Project site and the impact area. Both habitat types are associated with Aliso Creek, which is well outside the construction footprint. No direct or indirect impacts on these habitats would occur as a result of the Project.

Design Variation: Build Alternative 1a

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Build Alternative 3 would not result in any ground disturbance or other activities that would affect natural communities. As such, there would be no Project-related permanent impacts on natural communities.

No-Build Alternative

Under the No-Build Alternative, I-5 would remain in its current condition and no improvements would be implemented. Therefore, there would be no Project-related permanent impacts on natural communities.

2.4.1.4 Avoidance, Minimization, and/or Mitigation Measures

Although no impacts on natural communities are anticipated, the avoidance and minimization measures that follow would be implemented to ensure protection of sensitive natural communities.

- BIO-1 Delineation of Environmentally Sensitive Areas (ESAs):** Prior to clearing vegetation and/or groundwork, highly visible barriers (such as orange construction fencing) will be installed around areas adjacent to the construction footprint to designate ESAs (i.e., the riparian habitat and coastal sage scrub associated with Aliso Creek) to be protected/avoided. No Project activity of any type will be permitted in these ESAs. Heavy equipment, including motor vehicles, will not be allowed to operate in the ESAs. All construction equipment will be operated in a manner that prevents accidental damage to ESAs. No structure of any kind or incidental storage of equipment or supplies will be allowed in these protected zones. Silt fence

barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas where vegetation is immediately adjacent to planned grading activities.

- BIO-2 On-site Training:** An employee education program will be developed. Each employee, including temporary workers, contractors, and subcontractors, will receive a training/awareness program prior to working on the Project. They will be advised of the potential impact on the listed species and the potential penalties for taking such species. At a minimum, the program will include the following topics: occurrences of the listed and sensitive species in the area (including photographs), their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of federal and state laws, reporting requirements, and Project features designed to reduce the impacts on these species and promote continued successful occupation of the Project area.

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