

3.20 Invasive Species

3.20.1 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 plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

3.20.2 Affected Environment

The information in this section is based on the *Natural Environment Study* (NES; December 2015) prepared for the Proposed Project.

The Study Area that is assessed for biological resources is referred to as the Biological Study Area (BSA). The description of the BSA is discussed in Section 3.15, Natural Communities, and shown on Figure 3.15.1.

Exotic plant species exist within the nonnative plant communities throughout the BSA, within patches of native plant communities, and in areas that have been disturbed by human uses. Exotic species are typically more numerous adjacent to roads and developed areas and frequently border areas of ornamental landscaping. In the past, these areas likely supported grasslands, oak woodland, coastal sage scrub, and riparian habitats. Consequently, scattered plant species associated with these plant communities are often found in these areas.

The California Invasive Plant Council (Cal-IPC) 2006 Invasive Plant Inventory highlights nonnative plants that are serious problems in wildlands (i.e., natural areas that support native ecosystems, including national, State, and local parks, ecological reserves, wildlife areas, national forests, and Bureau of Land Management lands). The inventory categorizes plants as High, Moderate, or Limited based on each species’ negative ecological impact in California. Plants categorized as High have severe ecological impacts. Plants categorized as Moderate have substantial and

apparent, but not severe, ecological impacts. Plants categorized as Limited are invasive, but their ecological impacts are minor on a statewide level.

A total of 29 exotic plants listed on Cal-IPC's Invasive Plant Inventory were identified in the BSA during the surveys described earlier in Section 3.15.2.2. Of these species, there are 4 with an overall High rating, 12 with a Moderate rating, and 13 with a Limited rating. Invasive species that have severe ecological impacts are given a High rating. Species with a High rating identified in the BSA are fennel (*Foeniculum vulgare*), broad-leaved peppergrass (*Lepidium latifolium*), Mediterranean tamarisk (*Tamarix ramosissima*), and foxtail chess (*Bromus madritensis* ssp. *rubens*).

No invasive animal species were observed in the BSA, such as the potentially occurring brown-headed cowbird (*Molothrus ater*).

3.20.3 Environmental Consequences

3.20.3.1 Temporary Impacts

Impacts related to invasive species are considered permanent impacts because the introduction of invasive species into previously undisturbed areas would result in permanent impacts to the habitats in those areas. Therefore, impacts related to invasive species as a result of construction and operation of the Proposed Project are described below under permanent impacts.

3.20.3.2 Permanent Impacts

Build Alternative (Two-Lane Express Lanes Connector) (Preferred Alternative)

Implementation of the Build Alternative has the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasive species, disturbances to soil surfaces, and improper removal and disposal of invasive species that result in the seed being spread along the highway. Invasive species also have the potential to be included in seed mixtures and mulch; however, none of the species on the California list of noxious weeds are currently used by Caltrans for erosion control or landscaping.

As specified in Measure IS-1, a Weed Abatement Program/Non-Standard Special Provisions will be developed and implemented consistent with EO 13112 to minimize the potential for intrusion or exportation of invasive plant species to and from the BSA during project construction. With implementation of Measure IS-1, potential permanent impacts related to invasive species would be minimized.

No Build Alternative

The No Build Alternative does not include any improvements to SR-241 or SR-91 in the Project Area. Therefore, no permanent impacts to invasive species would occur as a result of the No Build Alternative.

3.20.4 Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would reduce the potential impacts of the Proposed Project related to invasive species:

Measure IS-1 Weed Abatement Program/Non-Standard Special Provisions.

During Final Design, a qualified landscape architect will develop a Weed Abatement Program/Non-Standard Special Provisions (NSSP) for inclusion in the project specifications. The Weed Abatement Program/NSSP will be developed in compliance with Executive Order 13112 to minimize the potential for intrusion or export of invasive plant species to and from the Biological Study Area during project construction. At a minimum, the following will be included in the Weed Abatement Program/NSSP and implemented prior to and during construction to address potential effects associated with invasive species. The Weed Abatement Program/NSSP will define the specific details, frequency, and, if applicable, performance standards for the following individual activities and requirements:

- Inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another.
- Limit soil and vegetation disturbance to those areas specifically required for the project construction.
- Obtain soil, gravel, and rock from weed-free sources.
- Use only certified weed-free straw, mulch, and/or fiber rolls for erosion control during construction.
- Prior to the completion of construction, revegetate affected areas adjacent to native vegetation with plant species that are native to the vicinity and approved by California Department of Transportation (Caltrans) District 12 Biologists.

- Not use any species listed in the California Invasive Plant Council Invasive Plant Inventory with a High or Moderate rating in revegetation.
- After construction, ensure that erosion control and revegetation sites are monitored until achievement of the project-specific performance standards defined in the Weed Abatement Program/NSSP or a period of 1 year, whichever is greater, after installation, to detect nonnative species prior to the establishment of the native vegetation.
- Implement eradication procedures (e.g., spraying and/or hand weeding) should an infestation occur. The use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by Caltrans District 12 Biologists during and after project construction.
- During construction, reduce indirect impacts of exotic plant infestations and litter by roadside maintenance at least once daily during construction to remove litter and weeds from the right-of-way.