

2.20 Invasive Species

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

2.20.2 Affected Environment

The information in this section is based on the *Natural Environment Study* (January 2023) prepared for the proposed project.

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.

As shown in Table 2.19.1, 17 invasive plant species with a Moderate to High Cal-IPC rating were identified in the Biological Study Area (BSA). No invasive animal species were observed in the BSA.

2.20.3 Environmental Consequences

2.20.3.1 Temporary Impacts

Build Alternatives (Alternatives 2, 3, and 4)

Potential impacts from invasive species associated with the construction and operation of transportation projects are considered permanent. Refer to Section 2.20.3.2, Permanent Impacts, for discussion regarding invasive species.

Table 2.19.1: Cal-IPC Rated Moderate and High Species in the Biological Study Area

Scientific Name	Common Name	Rating
<i>Arundo donax</i>	Giant reed	High
<i>Cortaderia</i> sp.	Pampas grass	High
<i>Carpobrotus edulis</i>	Hottentot-fig	High
<i>Hedera helix</i>	English ivy	High
<i>Avena fatua</i>	Wild oat	Moderate
<i>Brassica nigra</i>	Black mustard	Moderate
<i>Bromus diandrus</i>	Ripgut brome	Moderate
<i>Centaurea melitensis</i>	Maltese star thistle	Moderate
<i>Cynodon dactylon</i>	Bermuda grass	Moderate
<i>Hordeum murinum</i>	Mouse barley	Moderate
<i>Nicotiana glauca</i>	Tree tobacco	Moderate
<i>Pennisetum setaceum</i>	African fountain grass	Moderate
<i>Ficus carica</i>	Edible fig	Moderate
<i>Gazania linearis</i>	treasureflower	Moderate
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	Moderate
<i>Schinus terebinthifolius</i>	Brazilian peppertree	Moderate
<i>Washingtonia robusta</i>	Mexican fan palm	Moderate

Source: Compiled by LSA (2023).
Cal-IPC = California Invasive Plant Council

Alternative 1 (No Build Alternative)

The No Build Alternative would not include construction of any of the improvements associated with the build alternatives. As a result, as described under Section 2.19.3.2, Permanent Impacts, the No Build Alternative would not result in new impacts related to invasive species. Locations within the Interstate 5 (I-5) right-of-way where invasive species currently occur would not be modified under the No Build Alternative.

2.20.3.2 Permanent Impacts

Build Alternatives (Alternatives 2, 3, and 4)

As noted earlier, potential impacts from invasive species associated with construction and operation of transportation projects are considered permanent. Implementation of the build alternatives has the potential to spread invasive species to adjacent native habitats in the BSA through the entering and exiting of contaminated construction equipment, the inclusion of invasive species in seed mixtures and mulch, and the

improper removal and disposal of invasive species causing seed to be spread along the highway. With implementation of measure IS-1 described further in Section 2.20.4 below, potential permanent impacts under the build alternatives related to invasive species would not be adverse.

Alternative 1 (No Build Alternative)

The No Build Alternative would not include construction or operation of any of the improvements proposed under the build alternatives. However, the invasive species already present within the BSA would remain.

2.20.4 Avoidance, Minimization, and/or Mitigation Measures

As noted above, measure IS-1 would be incorporated help avoid and/or minimize potential impacts related to invasive species.

IS-1 Weed Abatement Program. In compliance with Executive Order 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control plans included in the project will not use species listed as invasive. A weed abatement program shall be developed for the proposed project and incorporated into the Plans, Specifications, and Estimates (PS&E) package to avoid and/or minimize the importation of nonnative plant material during and after construction. At a minimum, the program shall include the following measures:

- During construction, invasive plant material will be removed from the proposed project work area. All removed invasive plant material will be disposed of properly in a landfill or other suitable facility.
- During construction, the Construction Contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment from one project location to another.
- During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible.
- During construction, the Construction Contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily, or more often when needed, due to dry or windy conditions, to prevent excessive amounts of dust.

- During construction, the Construction Contractor shall ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust.
- During construction, soil, gravel, and rock will be obtained from weed-free sources.
- Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control.
- After construction, affected areas adjacent to native vegetation will be revegetated with plant species that are native to the vicinity as approved by the District Biologist.
- After construction, all revegetated areas will avoid the use of species listed on the California Invasive Plant Council (Cal-IPC) California Invasive Plant Inventory that have a High or Moderate rating.
- Erosion control and/or revegetation sites will be monitored after construction to detect and control the introduction/invasion of nonnative species. The monitoring period will be determined in consultation with resource agencies.
- Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist.
- All woody invasive species will be removed from the proposed project limits.