3.21 INVASIVE SPECIES

This section discusses impacts on the spread of invasive species and is based on the *Natural Environment Study* (NES) (January 2012).

3.21.1 REGULATORY SETTING

On February 3, 1999, President Clinton signed Executive Order 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 guidance issued on August 10, 1999, directs the use of the State's invasive species list currently maintained by the California Invasive Species Council to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

3.21.2 AFFECTED ENVIRONMENT

The California Invasive Plant Council (Cal-IPC) 2006 Invasive Plant Inventory is based on information submitted by members, land managers, botanists, and researchers throughout the state as well as published sources. The inventory highlights nonnative plants that are serious problems in wildlands (natural areas that support native ecosystems, including national, state, and local parks, ecological reserves, wildlife areas, national forests, Bureau of Land Management [BLM] lands, etc.). The inventory categorizes plants as High, Moderate, or Limited based on the 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 31 exotic plant species occurring on the Cal-IPC Inventory were identified within the Biological Study Area (BSA). Of these species, there are three listed with a High rating, including Hottentot-fig (*Carpobrotus edulis*), giant reed (*Arundo donax*), and pampas grass (*Cortaderia* sp.) Sixteen of the species are listed with a Moderate rating, including poison hemlock (*Conium maculatum*), sticky eupatorium (*Ageratina adenophora*), bull thistle (*Cirsium vulgare*), black mustard (*Brassica nigra*), shortpod mustard (*Hirschfeldia incana*), London rocket (*Sisymbrium irio*), edible fig (*Ficus carica*), tree of heaven (*Ailanthus altissima*), tree tobacco (*Nicotiana glauca*), Mexican fan palm (*Washingtonia robusta*), ripgut brome (*Bromus diandrus*), Bermuda grass (*Cynodon dactylon*), tall fescue (*Festuca arundianacea*), foxtail barley (*Hordeum murinum*), Italian ryegrass (*Lolium multiflorum*), and African fountain grass (*Pennisetum*

setaceum). Twelve of the species are listed with a Limited rating, including African brass-buttons (*Cotula coronopifolia*), bristly ox-tongue (*Picris echioides*), wild radish (*Raphanus sativus*), five-hook bassia (*Bassia hyssopifolia*), Russian thistle (*Salsola tragus*), castor bean (*Ricinus communis*), black locust (*Robinia pseudoacacia*), American pokewood (*Phytolacca americana*), English plantain (*Plantago lanceolata*), kikuyugrass (*Pennisetum clandestinum*), smilo grass (*Piptatherum miliaceum*), and rabbitfoot grass (*Polypogon monspeliensis*).

3.21.3 Environmental Consequences

3.21.3.1 Permanent Impacts

Build Alternatives. Construction of the I-710 Corridor Project has the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that its seed is spread along the highway. Although no *Caulerpa taxifolia* (a nonnative seaweed) was observed in the BSA during the 2009 biological surveys, the project could result in the spread of this species into the BSA if preventive measures are not taken. However, the potential for introduction of *Caulerpa taxifolia* into the BSA is minimized where additional shading is provided from structures such as widened bridges over the Los Angeles River. Impacts associated with Alternatives 6A and 6B would be greater than impacts associated with Alternative 5A, given the larger area of disturbance associated with the freight corridor.

No Build Alternative. Alternative 1 would have no effect on the spread of invasive species.

3.21.3.2 Public Health Considerations

No public health considerations were identified with regard to project impacts from the spread of invasive species.

3.21.4 Avoidance, Minimization and/or Mitigation Measures

Measure CON-77 in Section 3.24 of this Environmental Impact Report/Environmental Impact Statement (EIR/EIS) addresses invasive species concerns during construction. In compliance with Executive Order (EO) 13112, the California Department of Transportation (Caltrans) shall implement the following measure to address invasive species following completion of construction:

IS-1 A weed abatement program would be developed to minimize the importation of nonnative plant material after construction. Eradication strategies would be employed should an increase in invasive plants occur.

At a minimum, this program would include:

- After construction, affected areas adjacent to native vegetation would be revegetated with plant species approved by the California Department of Transportation (Caltrans) District Biologist that are native to the vicinity.
- After construction, all revegetated areas would avoid the use of species listed in California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory that have a high or moderate rating.
- Eradication procedures (e.g., spraying and/or hand weeding) would be outlined should an infestation occur; the use of herbicides would be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Caltrans District Biologist.

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