3.22 Invasive Species

The analysis of invasive species impacts of the proposed project is based on the *Natural Environment Study* (NES) (July 2008) and the *Supplement to the Natural Environment Study* (December 2011).

3.22.1 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 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.

3.22.2 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 identifies 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 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. There were 47 invasive/exotic plant species observed within the Biological Study Area (BSA) for the MCP project. Of these 47, the invasive plant ratings for 7 species are categorized as "High," 19 species are categorized as "Moderate," and 21 species are categorized as "Low."

Species observed within that BSA that are rated as "High" are Hottentot-fig (*Carpobrotus edulis*), fennel (*Foeniculum vulgare*), yellow star-thistle (*Centaurea solstitialis*), Mediterranean tamarisk (*Tamarix ramosissima*), giant reed (*Arundo donax*), red brome (*Bromus madritensis* ssp. *rubens*), and pampas grass (*Cortaderia*

selloana). Of these, red brome was observed in grassland and scrub areas throughout the BSA. The remaining species were observed in isolated patches in the BSA.

3.22.3 Environmental Consequences

3.22.3.1 Permanent Impacts

Build Alternatives

The construction of the MCP Build Alternatives may 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. These would be permanent effects resulting from the construction activities for the MCP Build Alternatives.

Mitigation Measures IS-1 through IS-6, provided below, will avoid or reduce the impact of invasive species from spreading from or into the project area during project construction.

During the operation of the MCP facility, vehicles using the facility may also spread invasive species. These impacts would be minimal because areas adjacent to the facility will be landscaped with native species that should outcompete the invasive species.

No Build Alternatives

The construction of other projects included in the No Build Alternatives may also spread invasive species as described for the MCP Build Alternatives above. Similar measures to reduce this impact would be implemented for the No Build Alternatives as described for the MCP Build Alternatives.

3.22.3.2 Temporary Impacts

Impacts related to invasive species are considered permanent because the introduction of invasive species into previously undisturbed areas would permanently affect the habitat. Therefore, impacts related to invasive species are described above under permanent impacts.

3.22.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures are applicable to all the MCP Build Alternatives and their design variations and will be implemented during construction of the MCP project to avoid adverse impacts related to invasive species.

To avoid adverse impacts during operation of the facility, Measure U&ES-5, provided in Section 3.5, Utilities/Emergency Services, will also be implemented to further prevent the spread of invasive species within the MCP facility right of way by complying with fuel modification requirements.

IS-1 **Landscaped Disturbed Areas.** During construction, the Riverside County Transportation Commission (RCTC) Resident Engineer will require the Construction Contractor to landscape/revegetate disturbed areas and bare soil in the project disturbance limits with California Department of Transportation (Caltrans) recommended seed mixtures and container plants from locally adapted species to preclude the invasion of noxious weeds. The use of site-specific materials adapted to local conditions increases the likelihood that the landscaping/ revegetation will be successful and maintain the genetic integrity of the local ecosystem.

The RCTC Resident Engineer and the Construction Contractor will ensure that the invasive plant species listed in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), Table 6-2, are not planted within the project area.

During construction, the RCTC Resident Engineer will require the Construction Contractor to submit the proposed seed mixtures for the parts of the project under Caltrans jurisdiction for approval by a Caltrans District 8 Landscape Architect. No landscaping/revegetation in state right of way will be installed prior to Caltrans approval of the seed mixtures.

Prior to and during construction, RCTC will require the Construction Contractor to require the Project Biologist to make arrangements well in advance of planting (at least 9 months prior to the scheduled planting) to ensure that the needed plant materials are collected and/or located and available for the scheduled planting time. Sufficient time must be allocated for a professional seed company to visit the project site during the appropriate season to collect native plant seed.

If local propagates are not available or cannot be collected in sufficient quantities to meet the scheduled planting time, plant materials collected or grown from other sources within southern California can

be substituted, based on approval of use of those alternative plant materials by the RCTC Resident Engineer and the RCTC Contract Biologist, and for areas in the State right of way, by the Caltrans District 8 Landscape Architect.

For widespread native herbaceous species that are more likely to be genetically homogeneous, site specificity is a less important consideration, and seed and container plants from commercial sources may be used based on approval of use of those alternate plant materials by the RCTC Resident Engineer and the RCTC Contract Biologist, and for areas in the state right of way, by the Caltrans District 8 Landscape Architect.

IS-2 **Seed Purity.** During construction, as seed mixtures are collected, the RCTC Resident Engineer will require the Construction Contractor to require the Project Biologist to certify the seed purity by planting seed labeled under the California Food and Agricultural Code or that has been tested within the year by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists. The Project Biologist will provide the documentation of compliance with this requirement to the RCTC Project Engineer and the RCTC Contract Biologist, and for seed mixtures that will be used in the state right of way, to the Caltrans District 8 Landscape Architect.

IS-3 **Construction Equipment.** During all site preparation, disturbance, grading and construction activities, the RCTC Resident Engineer will require that the Construction Contractor implement procedures to ensure that construction equipment is cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds both before mobilizing to arrive at the site and before leaving the site. The Construction Contractor will document that equipment coming to the site will be cleaned at established truck wash facilities within the project vicinity and will provide facilities within the project limits to clean equipment leaving the site.

IS-4 **Trucks.** During all site preparation, disturbance, grading and construction activities, the RCTC Resident Engineer will require the Construction Contractor to implement procedures to ensure that all trucks carrying vegetation from the project limits are covered and that all vegetative materials removed from the project limits are properly disposed of in accordance with all applicable laws and regulations.

IS-5 **Inspected Material.** During all site preparation, disturbance, grading, and construction activities, the RCTC Resident Engineer will require the Construction Contractor implement procedures to ensure that if material is obtained from a borrow site, that the material is inspected for the presence of noxious weeds and invasive plants to ensure that the material imported to the project site does not contain noxious weeds or invasive plants. The RCTC Resident Engineer will require the Construction Contractor to provide written documentation of the procedures and the implementation of those procedures whenever borrow material is brought to the project site.

IS-6 **Weeds and Invasive Plants.** During all site preparation, disturbance, grading, and construction activities, the RCTC Resident Engineer will require the Construction Contractor to control, kill, and remove noxious weeds and invasive plants from the project site, under the direction of the Project Biologist.

This page intentionally left blank