3.19 Plant Species

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

3.19.1 Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section 3.21 in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFG species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), Public Resources Code, Sections 2100-21177.

3.19.2 Affected Environment

Dominant plant species in the biological study area (BSA) include red brome (*Bromus madritensis* ssp. *rubens*), common ripgut grass (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), Mediterranean schismus (*Schismus barbatus*), wild oats (*Avena* spp.), shortpod mustard (*Hirschfeldia incana*), and California buckwheat (*Eriogonum fasciculatum*). Common subdominant species include Canada horseweed (*Conyza canadensis*), common fiddleneck (*Amsinckia menziesii*), common sunflower (*Helianthus annuus*), brittlebush (*Encelia farinosa*), California sagebrush (*Artemisia*

californica), doveweed (*Croton setiger*), saltbush (*Atriplex* sp.), and saltgrass (*Distichlis spicata*).

The natural communities in the project BSA may provide habitat for a variety of plant species considered sensitive by the USFWS, the CDFG, and the CNPS. A literature review resulted in a list of 37 sensitive plant species that may occur in or within the vicinity of the BSA as summarized in the table of regional species of concern provided in Appendix N of this EIR/EIS. Ten of these species are federally or state-listed as endangered or threatened or are candidates for listing and are discussed in more detail later in Section 3.21, Threatened and Endangered Species.

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) requires habitat assessments, surveys, and impact evaluations for certain special-status plant (Narrow Endemic Plant Species Survey Area [NEPSSA] and Criteria Area Species Survey Area [CASSA]) species within the designated survey areas for each species. These survey areas are referred to as NEPSSAs and CASSAs in the MSHCP, and each survey area is associated with a suite of species that require assessment of impact potential. Habitat assessments and surveys were conducted for 15 species, pursuant to MSHCP requirements. The following four plant species were found within their designated survey areas:

- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) (federally listed as endangered, refer to Section 3.21, Threatened and Endangered Species)
- Spreading navarretia (*Navarretia fossalis*) (federally listed as threatened, refer to Section 3.21, Threatened and Endangered Species)

Smooth tarplant and Coulter's goldfields were observed within and adjacent to the San Jacinto River floodplain in the Lakeview area. Smooth tarplant was also found along road edges and in other highly disturbed areas from Perris to the east end of the project, both inside and outside of its MSHCP-designated survey area.

In addition to the four MSHCP survey species discussed above, the following special-status plant species identified in the literature search were found to have suitable habitat present in the BSA:

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*)
- Peirson's milk-vetch (*Astragalus pachypus* var. *jaegeri*)
- Plummer's mariposa lily (*Calochortus plummerae*)
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*)
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- San Bernardino aster (*Symphyotrichum defoliatum* [*Aster defoliatus*])

None of these species were observed in the BSA during the surveys. Based on their habitat requirements and known distributions, Pierson's milkvetch, Plummer's mariposa lily, Parry's spineflower, long-spined spineflower, and San Bernardino aster each have a low probability of occurrence within the BSA. Much of the habitat in the BSA that may be suitable for these species was surveyed as part of the NEPSSA and CASSA species surveys.

Most of the suitable habitat for chaparral sand-verbena within the BSA was surveyed as part of the NEPSSA and CASSA focused species surveys. The remaining potential habitat within the project footprint is of low quality and is expected to have few, if any, individuals of this species. This remaining potential habitat is along the San Jacinto River at the extreme eastern end of the project site. The BSA at the west side of the existing bridge was surveyed in 2004 for a San Jacinto River maintenance project. Although chaparral sand-verbena was found and mapped approximately 400 feet (ft) west of the BSA as part of that study, it was not found in the part of the BSA surveyed during focused surveys for the MCP project. Based on the degree of disturbance and habitat conditions, no more than a few individuals of this species are expected to occur within the part of the MCP project footprint not surveyed during the focused surveys.

Robinson's pepper-grass is uncommon to locally common in chaparral and coastal sage scrub communities in western Riverside County, southern San Bernardino County, San Diego County, Los Angeles County, and Orange County. Robinson's pepper-grass was not observed during the NEPSSA and CASSA plant species surveys; however, it is widely scattered in western Riverside County and may occur in Riversidean upland sage scrub in areas of the BSA that were not part of the plant surveys. Given that this species is not listed as threatened or endangered, is relatively widespread in the region, and occupies relatively common habitats, focused surveys were not conducted.

3.19.3 Environmental Consequences

3.19.3.1 Permanent Impacts

Build Alternatives

Western Riverside County Multiple Species Habitat Conservation Plan Narrow Endemic Plant Species Survey Area Species, and Criteria Area Species Survey Area Survey Species

In areas where survey species were found to be present in focused surveys, the occupied areas were assessed for long-term conservation value for each species in the designated survey area within the MCP project footprint. Impact estimates are based on a conservative (worst-case) assumption that 100 percent of plant species habitat in the right-of-way footprint will be permanently impacted. All MCP Build Alternatives would result in 2.72 acres (ac) of direct impacts to areas of long-term conservation value for smooth tarplant and 1.99 ac of direct impacts to areas of long-term conservation value for Coulter's goldfields for the base case design and San Jacinto North Design Variation (SJN DV). For the San Jacinto River Bridge Design Variation (SJRB DV) for all MCP Build Alternatives, impacts to areas of long-term conservation value would be 2.73 ac for smooth tarplant and 2.25 ac for Coulter's goldfields.

Because greater than 10 percent of areas within the right-of-way footprint that have long-term conservation value for smooth tarplant and Coulter's goldfields will be impacted, a Determination of Biological Equivalent or Superior Preservation (DBESP) will be prepared pursuant to the MSHCP, Section 6.1.3. The DBESP requirements are discussed below in Section 3.19.4.

During the preliminary project design, the project footprint was aligned with existing roadways, where native habitats have already been removed or disturbed by development or other land uses. The MCP Build Alternatives avoid much of the Coulter's goldfields habitat areas suitable for long-term conservation. Efforts to avoid additional habitat areas are limited by the adjacent San Jacinto Wildlife Area along the north edge of the MCP right of way. Shifting the footprint south would result in a greater impact to this species.

Indirect impacts of the project on smooth tarplant and Coulter's goldfields populations adjacent to the project footprint within the San Jacinto River floodplain may result from edge effects such as increased potential for fire, exotic plant infestations, unauthorized recreational use, and pollutants associated with vehicle use of the parkway. Indirect effects on plants in the San Jacinto River floodplain could

result from localized increases in water velocity following major floods due to changes in river hydraulics caused by placement of bridge columns, abutments, and fill; however, because of the negligible increases anticipated, substantial indirect effects on the plant species in the San Jacinto River floodplain would not be expected.

Due to the potential for fire risk, there is a greater potential that an indirect effect of vegetation clearing and removal of habitat adjacent to the MCP may occur. Additional indirect effects resulting from an increase in fire frequency may result in an increase of exotic plant species. The MCP Build Alternatives may provide additional access points for unauthorized off-road vehicle use, which may destroy native habitats and may also promote exotic plant infestation. Exotic plant infestations may out-compete special-status species (such as smooth tarplant and Coulter's goldfields) in their native habitats. Additionally, pollutants (in the form of nitrogen compounds from car emissions) may settle on the soil and stimulate the growth of nonnative species, which may out-compete native species.

In summary, the MCP Build Alternatives could result in indirect effects on smooth tarplant and Coulter's goldfields, including increased fire risk, invasive species infestations, unauthorized recreational use, pollutants, and localized changes in water velocity.

Species Not Requiring Surveys

Peirson's milkvetch, Plummer's mariposa lily, Parry's spineflower, long-spined spineflower, and San Bernardino aster each have a low probability of occurrence within the BSA. Therefore, impacts to these species are not expected. Few, if any, individuals of chaparral sand-verbena are expected to occur within the project footprint. Therefore, impacts to this species are not anticipated. Robinson's pepper-grass may occur in the project area as it is relatively widespread and occurs in common habitats, but any impacts by the MCP Build Alternatives would not be expected to impair the long-term existence of large or important populations.

For all of these species, indirect impacts of the project are similar to those described above for the species requiring surveys, and include edge effects such as increased potential for fire, exotic plant infestations, unauthorized recreational use, and pollutants associated with vehicle use of the freeway.

No Build Alternatives

Under Alternative 1A, the MCP project would not be constructed. Planned improvements in the regional and local circulation system, as accounted for in the

adopted Riverside County General Plan, RCTC's Measure A program, and city General Plans would be implemented assuming 2040 land use conditions.

Under Alternative 1B, as with Alternative 1A, the MCP project would not be constructed. Planned street networks would be developed according to the Circulation Element of the Riverside County General Plan, including improvements to the Ramona Expressway.

Impacts related to a footprint were not calculated for the No Build Alternatives; therefore, a qualitative analysis of the permanent effects of Alternatives 1A and 1B is presented here. Alternative 1A would generally result in fewer impacts to plant species than any of the MCP Build Alternatives, because the MCP project would not be built and no improvements would be made to the Ramona Expressway. Alternative 1B would generally result in fewer impacts than the MCP Build Alternatives because it would widen the Ramona Expressway, and the MCP project would not be built.

3.19.3.2 Temporary Impacts

Temporary impacts to plant species may occur during construction where habitats are temporarily disturbed during grading or other activities. For this impact analysis, a conservative (worst-case) right-of-way footprint was established for each alternative that includes areas of cut and fill, staging areas for construction vehicles, equipment and materials, haul routes, and water quality treatment features. While some parts of this project footprint will only be temporarily disturbed during construction and would be revegetated with native plant species, it is not expected that this revegetation would fully restore the functions and values of the impacted habitat. Therefore, the analysis of impacts to plant species conservatively estimates a worst-case impact scenario where all areas within the right-of-way footprint are calculated as permanent impacts, including areas spanned by bridges. No additional temporary impacts would occur outside of the right-of-way footprint.

3.19.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to Avoidance, Minimization, and Mitigation Measures NC-1 and NC-2 listed in Section 3.17 and Measures U&ES-5 and U&ES-6 in Section 3.5, the following measure will be implemented in order to avoid and minimize impacts to sensitive plant species during construction of the MCP project. This measure would apply to all MCP Build Alternatives.

PS-1 **Determination of Biological Equivalent or Superior Preservation.** Prior to certification of the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS), the Riverside County Transportation Commission (RCTC) Project Manager and the biologist under contract to the RCTC (RCTC Project Biologist) will obtain a Determination of Biological Equivalent or Superior Preservation (DBESP) for impacts to smooth tarplant and Coulter's goldfields pursuant to Section 6.1.3 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Measures in the DBESP will demonstrate that equivalent or superior conservation for the species will be achieved through either location and preservation of populations that are not already proposed for conservation in the MSHCP, and/or restoration or enhancement of existing populations within the proposed conservation area. Mitigation for the project impacts to smooth tarplant and Coulter's goldfields within the San Jacinto River floodplain will occur within the San Jacinto River floodplain.

After completion of the implementation of the DBESP measures for smooth tarplant and Coulter's goldfields, the RCTC Project Manager will work with the RCTC Right-of-Way Agents to ensure that all off-site mitigation areas will be conserved in perpetuity, either through fee title transfer or a conservation easement to the Western Riverside County Regional Conservation Authority (RCA).

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