

3.19 Plant Species

The analysis of potential impacts of the proposed project on plant species is based on the *Natural Environment Study* (NES) (LSA Associates, Inc. 2008).

3.19.1 Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) share 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 fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The statutory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et. seq. See also 50 CFR Part 402. The statutory 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, Public Resources Code, Sections 2100-21177.

3.19.2 Affected Environment

The natural communities in the project Biological Study Area (BSA) include a variety of plant species considered sensitive by USFWS, CDFG, and CNPS. A literature review resulted in a list of 35 sensitive plant species that may occur in or within the vicinity of the Biological Study Area (BSA). Eleven (11) 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.

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 Areas [NEPSSAs] and Criteria Area Species Survey Areas [CASSAs]) 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 19 species, pursuant to MSHCP requirements. The following five species were found within their designated survey areas:

- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*)
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- Spreading navarretia (*Navarretia fossalis*)

Munz's onion (*Allium munzii*) and additional many-stemmed dudleya may be found during a 2008 focused survey of previously unsurveyed habitat north of the El Sobrante Landfill. In August 2007, the MCP alignment in this area was shifted to avoid a many-stemmed dudleya mitigation area. These two species are inferred to be present in the unsurveyed habitat pending the results of the 2008 focused survey. These two species as well as San Miguel savory (*Satureja chandleri*) are also inferred to be present in a few small unsurveyed areas outside of the project footprint, but within 30 meters (m) (100 feet [ft]) of the project footprint south of Lake Mathews.

San Jacinto Valley crownscale is federally listed as endangered, spreading navarretia is federally listed as threatened, and Munz's onion are federally listed as endangered and state listed as threatened; therefore, these species are discussed in more detail later in Section 3.21, Threatened and Endangered Species.

Two MSHCP survey species were also found outside of their designated survey areas. Smooth tarplant was found outside of its designated survey areas at various locations along Ramona Expressway near the east end of the project. These occurrences were along road edges and in other highly disturbed areas. Round-leaved filaree (*Erodium macrophyllum*) was found outside of its designated survey areas at two locations: The first occurrence, consisting of about 20,000 individuals, was found south of Lake Mathews near Cajalco Road, partially within the footprint of Alternatives 6 and 7; the second occurrence, consisting of about 7,000 individuals, was found south of Lake

Mathews near the extreme south edge of the BSA. The second occurrence was not within the footprint of any project alternative.

In addition to the 9 MSHCP survey species discussed above, the following 10 special-status species identified in the literature search were found to be present or have suitable habitat present in the BSA:

- California screw-moss (*Tortula californica*)
- Chaparral sand-verbena (*Abronia villosa* var. *aurita*)
- Plummer's mariposa lily (*Calochortus plummerae*)
- Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)
- Palmer's grapplinghook (*Harpagonella palmeri*)
- Mesa horkelia (*Horkelia cuneata* ssp. *puberula*)
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- Santiago Peak phacelia (*Phacelia suaveolens* ssp. *keckii*)
- San Bernardino aster (*Symphotrichum defoliatum* [*Aster defoliatus*])

Only two of these species, long-spined spineflower and Palmer's grapplinghook, were observed in the BSA during the surveys. Most of the long-spined spineflower were within the footprint of Alternatives 4, 5, 6, and 7. Palmer's grapplinghook were observed in the BSA south of Lake Mathews, but not within the project footprint. It is unlikely that any additional populations of these species occur within the BSA.

California screw-moss, Plummer's mariposa lily, intermediate mariposa lily, mesa horkelia, Santiago Peak phacelia, and San Bernardino aster each have a low probability of occurrence within the BSA. These species are not known from the project vicinity, and 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 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 122 m (400 ft) west of the BSA as part of that study, it was not found in the portion of the

BSA surveyed during focused surveys for the MCP. Based on the degree of disturbance and habitat conditions, no more than a few individuals of this species are expected to occur within the portion of the footprint not surveyed during 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. Much of the potential habitat for this species was surveyed during the NEPSSA and CASSA plant species surveys. Robinson's pepper-grass was not observed during those surveys; however, it is widely scattered in western Riverside County and may occur in chaparral, Riversidean upland sage scrub, and Diegan coastal sage scrub in other areas of the BSA. 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.

Areas having long-term conservation value were identified in the BSA for smooth tarplant, many-stemmed dudleya, and Coulter's goldfields. Additional areas inferred to be occupied by many-stemmed dudleya and San Miguel savory were also identified in the BSA in the unsurveyed portions of the Lake Mathews South General Plan (LMS-GP), Lake Mathews South (LMS), and Far South (FS) Segments. Areas having long-term conservation value were identified in the Perris Drain (PD) and San Jacinto (SJ) Segments for smooth tarplant, in the LMS-GP Segment for many-stemmed dudleya, and in the SJ Segment for Coulter's goldfields (near the San Jacinto River).

Smooth tarplant, many-stemmed dudleya, round-leaved filaree, Palmer's grapplinghook, and long-spined spineflower are Lake Mathews MSHCP target species. The occurrences of smooth tarplant, many-stemmed dudleya, and Palmer's grapplinghook found during the surveys are not within the Lake Mathews MSHCP Plan Area. The long-spined spineflower locations were within the Lake Mathews MSHCP Plan Area. One of the two occurrences of round-leaved filaree is within the Lake Mathews MSHCP Plan Area.

Other Lake Mathews MSHCP target species observed in the BSA include small-flowered morning-glory (*Convolvulus simulans*) and Great Valley phacelia (*Phacelia ciliata*). Great Valley phacelia, even though a Lake Mathews MSHCP target species, is not considered to be sensitive by regulatory agencies or the CNPS. Small-flowered

morning-glory is a species that is monitored by the CNPS (a CNPS List 4 species) but is not considered rare.

Long-spined spineflower and many-stemmed dudleya are El Sobrante Landfill MSHCP target species. All of the many-stemmed dudleya locations found during the surveys are within the El Sobrante Landfill MSHCP Plan Area except for one population of 30 individuals. The long-spined spineflower locations found during the surveys are not within the El Sobrante Landfill MSHCP Plan Area.

3.19.3 Environmental Consequences

3.19.3.1 Permanent Impacts

Build Alternatives

MSHCP NEPSSA and CASSA Survey Species

Alternatives 4, 5, and 9 would result in 3.07 hectares (ha) (7.58 acres [ac]) of direct impacts to areas inferred to have long-term conservation value for many-stemmed dudleya. A shared portion of Alternatives 4, 5, and 9 has been realigned in order to avoid all currently known locations of many-stemmed dudleya. Alternatives 6 and 7 would result in 0.01 ha (0.02 ac) of direct impacts to areas inferred to have long-term conservation value for this species. Impacts to this species are based on the “worst-case” inference that this species is present throughout the areas that may be suitable habitat in the BSA that have not been surveyed. All of the areas of suitable habitat within the composite project footprint will be surveyed in 2008. The actual area of impact to many-stemmed dudleya may be less based on the results of the 2008 surveys.

All Build Alternatives would result in 0.84 ha (2.08 ac) of direct impacts to areas of long-term conservation value for smooth tarplant and 0.63 ha (1.55 ac) of direct impacts to areas of long-term conservation value for Coulter’s goldfields since the recorded populations of these species are within the SJ Segment, which is common to all five Build Alternatives.

Wherever feasible, the project footprint was aligned with existing roadways, where native habitats have already been removed or disturbed by development or other land use. The MCP Build Alternatives have been located to avoid the greatest concentrations of many-stemmed dudleya habitat areas suitable for long-term conservation.

The MCP Build Alternatives would avoid much of the Coulter's goldfields habitat areas suitable for long-term conservation. Any effort to avoid additional habitat areas would be 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.

The MCP Build Alternatives would not impact San Miguel savory because the areas with an inferred presence of suitable habitat for this species in the BSA would not be directly impacted by the project footprint.

Indirect impacts of the project on smooth tarplant and Coulter's goldfields populations adjacent to the project footprint within the San Jacinto 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. Fire risk increases the potential to require vegetation clearing and removal of habitat adjacent to road. Increased fire frequency may result in type conversion of native habitats and an increase of exotic plant species. Exotic plant infestations may out-compete these special-status species in their native habitat. Additional access points for unauthorized off-road vehicle use may result from the MCP project. Off-road vehicle use may destroy native habitat and these sensitive species and may also promote exotic plant infestation. 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.

Species Not Requiring Surveys

Most of the 900 individuals of long-spined spineflower that were observed within the BSA are within the footprint of Alternatives 4, 5, 6, and 7, and would be impacted under these Alternatives. Approximately 100 individuals of Palmer's grapplinghook were observed in the BSA south of Lake Mathews, but not within the MCP project footprint; therefore, they would not be impacted by the MCP project. Because it is unlikely that any additional populations of these species occur within the BSA, additional impacts to these species are not expected.

California screw-moss, Plummer's mariposa lily, intermediate mariposa lily, mesa horkelia, Santiago Peak phacelia, 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 was not observed in the BSA, but may occur in chaparral or coastal sage scrub communities in areas of the BSA that were not part of the focused plant survey. Given that this species is relatively widespread in the region and occupies relatively common habitats, any impacts by a linear project footprint would not be expected to impair the long-term existence of large or important populations.

Indirect impacts to any populations of these species that occur in the project vicinity may result from edge effects, such as an increase in fire potential, exotic plant infestations, unauthorized recreational use, and pollutants associated with the parkway. However, most of the habitat suitable for these species in the project vicinity is within existing reserves or within the MSHCP Criteria Area where development would be limited by MSHCP Cell Criteria.

Additional indirect impacts of the project on areas adjacent to the project footprint may result from edge effects such as exotic plant infestations, unauthorized recreational use, and pollutants associated with vehicle and pedestrian use of the parkway.

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 2035 land use conditions.

Alternative 1B is the same as Alternative 1A but includes implementation of Cajalco Road and Ramona Expressway consistent with the Riverside County General Plan Circulation Element.

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 proposed Build Alternatives since the MCP project would not be built and no improvements would be made to Cajalco Road or Ramona Expressway. Alternative 1B would generally result in fewer impacts than the Build Alternatives since it would widen Cajalco Road and Ramona Expressway. Between Interstate 15 (I-15) and El Sobrante Road, the impacts of Alternative 1B would be the

same as Build Alternatives 6 and 7, since these alternatives follow the General Plan roadway alignments in this area.

Discussions of Impacts Relative to MSHCP Amendment

The EIR/EIS for the MSHCP found that direct and indirect impacts on sensitive vegetation communities and covered species, including plant species, are reduced through implementation of the MSHCP, which includes assembly of an approximately 202,340 ha (500,000 ac) reserve system, adaptive management and monitoring, as well as other protection measures. Impacts to native grasslands were identified as an unavoidable adverse impact.

The MSHCP includes coverage of a regional transportation corridor upon which the project alternatives for the MCP have been developed. An amendment to the MSHCP would be required to provide coverage to a modified alignment for the transportation corridor. This discussion is provided as a supplemental environmental analysis to provide supporting documentation under CEQA and NEPA for such an amendment to the MSHCP that would be pursued for the selected alignment. It should be noted that this discussion pertains specifically to the analysis of consistency for Alternative 9 Temescal Wash Area Design Variation (TWS DV) which has been identified as the Locally Preferred Alternative. If a different alternative were to be pursued for coverage, additional CEQA/NEPA analysis may be needed.

Section 3.17 contains a detailed analysis of the effects of providing coverage of Alternative 9 TWS DV under the MSHCP, pursuant to the specific criteria identified in the MSHCP to demonstrate consistency. As noted in Section 3.17, a consistency determination is not being made at this time. However, the analysis contained in Section 3.17 provides a framework for consistency and identifies the environmental effects of MSHCP coverage for Alternative 9 TWS DV. The criteria addressed in that analysis includes consideration of impacts on plant species. The finding of the analysis in Section 3.17 is that Alternative 9 TWS DV, including the mitigation lands that are available to demonstrate consistency with the MSHCP, provides an equivalent or superior level of conservation compared with what was anticipated and analyzed in the MSHCP EIR/EIS. Therefore, an amendment to the MSHCP to provide coverage for Alternative 9 TWS DV would not result in impacts on plant species beyond that previously analyzed.

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 purposes of this impact analysis, a conservative 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 portions of this right of way 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 conservatively estimates a worst case impact scenario wherein all areas within the right of way footprint are calculated as permanent impacts, with the exception of areas spanned by bridges. Impacts to riparian habitats and jurisdictional areas at the bridged areas have been identified as temporary and permanent impacts.

3.19.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to Mitigation Measures BIO-1 through BIO-3 and HCP-1 (listed in Section 3.17) and U&ES-5 (listed in Section 3.5) of this EIR/EIS, 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** Prior to construction, the Riverside County Transportation Commission (RCTC) 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), where 10 percent or more of those portions of the site that provide for the long-term conservation value of smooth tarplant or Coulter's goldfields are impacted. A DBESP may also be required for any impacts to areas that are occupied by many-stemmed dudleya (based on the results of the 2008 focused surveys in the area north of the El Sobrante Landfill MSHCP Plan Area). Mitigation provided 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.

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