

## 2.18 Plant Species

### 2.18.1 Regulatory Setting

The United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) 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 provided 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). The proposed Project is not anticipated to impact any species listed or proposed for listing as threatened or endangered as discussed earlier in the introduction to Chapter 2.

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

The regulatory requirements for FESA can be found at 16 United States Code (USC), Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. California Department of Transportation (Caltrans) projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900–1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000–21177.

### 2.18.2 Affected Environment

The information in this section is based on the *Natural Environment Study (Minimal Impacts)* (April 2023) prepared for the proposed Project.

A literature review and records search were conducted to identify the existence or potential occurrence of sensitive or special-status plant species located within or in the vicinity of the Biological Study Area (BSA). The results of the literature review indicated 61 special-status plant species as potentially occurring in the BSA.

Of the 61 special-status plant species, 14 are federally and/or State-listed as endangered or threatened species and are not discussed in this section. As noted

earlier in the introduction to Chapter 2, habitat suitability for threatened or endangered species in the BSA was deemed low, and none were detected during biological surveys; therefore, the Build Alternatives are not anticipated to impact any threatened or endangered species. As a result, threatened and endangered species are not discussed further in this document. The remaining 47 special-status plant species identified in the records search as potentially occurring in or near the vicinity of the BSA are:

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*)
- Yucaipa onion (*Allium marvinii*)
- Aphanisma (*Aphanisma blitoides*)
- Horn's milk-vetch (*Astragalus hornii* var. *hornii*)
- Coulter's saltbush (*Atriplex coulteri*)
- South coast saltscale (*Atriplex pacifica*)
- Parish's brittlescale (*Atriplex parishii*)
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*)
- Malibu baccharis (*Baccharis malibuensis*)
- Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)
- Lucky morning-glory (*Calystegia felix*)
- Lewis' evening-primrose (*Camissoniopsis lewisii*)
- Southern tarplant (*Centromadia parryi* ssp. *Australis*)
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*)
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)
- Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)
- Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- Cliff spurge (*Euphorbia misera*)
- Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*)
- Tecate cypress (*Hesperocyparis forbesii*)
- Vernal barley (*Hordeum intercedens*)
- Mesa horkelia (*Horkelia cuneata* ssp. *puberula*)
- Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- Heart-leaved pitcher sage (*Lepechinia cardiophylla*)
- Jokerst's monardella (*Monardella australis* ssp. *jokerstii*)

- Intermediate monardella (*Monardella hypoleuca* ssp. *intermedia*)
- Mud nama (*Nama stenocarpum*)
- Prostrate vernal pool navarretia (*Navarretia prostrata*)
- Coast woolly-heads (*Nemacaulis denudata* var. *denudate*)
- Chaparral nolina (*Nolina cismontane*)
- California beardtongue (*Penstemon californicus*)
- Allen's pentachaeta (*Pentachaeta aurea* ssp. *Allenii*)
- South coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*)
- Brand's star phacelia (*Phacelia stellaris*)
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*)
- Nuttall's scrub oak (*Quercus dumosa*)
- Parish's gooseberry (*Ribes divaricatum* var. *parishii*)
- Sanford's arrowhead (*Sagittaria sanfordii*)
- Southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*)
- Chaparral ragwort (*Senecio aphanactis*)
- Salt spring checkerbloom (*Sidalcea neomexicana*)
- Estuary seablite (*Suaeda esteroa*)
- San Bernardino aster (*Symphotrichum defoliatum*)
- Greata's aster (*Symphotrichum greatae*)

In addition to the literature review, reconnaissance-level field surveys were conducted on July 26, July 27, and August 1, 2022, to characterize the general biological resources and to ascertain the presence or absence of special-status plant species and the likelihood of their occurrence in or near the BSA. None of the special-status plant species listed above were observed or otherwise detected in the BSA at the time of the surveys. The BSA does not contain, nor is it adjacent to, suitable habitat for any special-status plant species identified in the literature search, with the possible exception of lucky morning-glory, southern tarplant, smooth tarplant, Peruvian dodder, Los Angeles sunflower, mud nama, Gambel's watercress, Sanford's arrowhead, southern mountains skullcap, and San Bernardino aster. The remaining special-status plant species identified in the list either have a low probability of occurring or are not expected to occur within the BSA and are unlikely to be adversely affected by the activities related to the build alternatives.

A focused botanical survey was conducted within the BSA on August 1; September 1, 7, 16, 28, and 30; and October 14, 20, and 28, 2022, to determine the presence of special-status plant species. No special-status plant species (i.e., listed, proposed for

listing, or candidate species) were observed or otherwise detected in the BSA at the time of the 2022 focused survey.

The BSA is highly urbanized but does support small natural areas associated with some of the drainages. Areas within the BSA are mostly developed, ruderal, or landscaped supporting ornamental vegetation dominated by nonnative species.

### **2.18.2.1 Lucky Morning-Glory**

The lucky morning-glory is not a federally or State-listed species, but it has a California Rare Plant Rank (CRPR) of 1B.1,<sup>1</sup> which means it is considered seriously endangered in California.

Lucky morning-glory is an annual or perennial rhizomatous herb species that occurs in wetland and marshy areas from 100 to 700 feet above mean sea level. This species has not been reported within 3 miles of the BSA. There is potentially suitable habitat for lucky morning-glory within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no lucky morning-glory was observed. Therefore, lucky morning glory does not appear to occur in the BSA.

### **2.18.2.2 Southern Tarplant**

The southern tarplant is not a federally or State-listed species, but it has a CRPR of 1B.1,<sup>2</sup> which means it is considered seriously endangered in California.

Southern tarplant is an annual herb species that occurs at the margins of marshes and swamps, vernal mesic valley and foothill grasslands, and vernal pools from sea level to 656 feet above mean sea level. This species has been reported six times within 3 miles of the BSA, including from several locations in Peters Canyon Wash, but not within or immediately adjacent to the BSA. There is potentially suitable habitat for southern tarplant within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no southern tarplant was observed. Therefore, southern tarplant does not appear to occur in the BSA.

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<sup>1</sup> Formerly known as CNPS 1B.1.

<sup>2</sup> Ibid.

### **2.18.2.3 Smooth Tarplant**

The smooth tarplant is not a federally or State-listed species, but it has a CRPR of 1B.1,<sup>1</sup> which means it is considered seriously endangered in California.

Smooth tarplant is an annual herb species that occurs in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland on alkaline soils from sea level to 1,575 feet above mean sea level. This species has not been reported within 3 miles of the BSA. There is potentially suitable habitat for smooth tarplant within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no smooth tarplant was observed. Therefore, smooth tarplant does not appear to occur in the BSA.

### **2.18.2.4 Peruvian Dodder**

The Peruvian dodder is not a federally or State-listed species, but it has a CRPR of 2B,<sup>2</sup> which means it is considered rare, threatened, or endangered in California.

Peruvian dodder is an annual parasitic species that occurs in freshwater herbs from sea level to 1,600 feet above mean sea level. This species has not been reported within 3 miles of the BSA. There is potentially suitable habitat for Peruvian dodder within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no Peruvian dodder was observed. Therefore, Peruvian dodder does not appear to occur in the BSA.

### **2.18.2.5 Los Angeles Sunflower**

The Los Angeles sunflower is not a federally or State-listed species, but it has a CRPR of 1A,<sup>3</sup> which means it is presumed extinct in California.

Los Angeles sunflower is a perennial herb species that occurs in marshes and swamps from 30 to 1,600 feet above mean sea level. This species has not been reported within 3 miles of the BSA. There is potentially suitable habitat for Los Angeles sunflower within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no Los Angeles sunflower was observed. Therefore, Los Angeles sunflower does not appear to occur in the BSA.

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<sup>1</sup> Formerly known as CNPS 1B.1.

<sup>2</sup> Formerly known as CNPS 2B.

<sup>3</sup> Formerly known as CNPS 1B.1.

### **2.18.2.6 Mud Nama**

The mud nama is not a federally or State-listed species, but it has a CRPR of 2B,<sup>1</sup> which means it is considered rare, threatened, or endangered in California.

Mud nama is an annual to perennial herb species that occurs in marshes and swamps from 15 to 1,640 feet above mean sea level. This species has been reported from one location in Peters Canyon Wash within 3 miles of the BSA, but not within or immediately adjacent to the BSA. There is potentially suitable habitat for mud nama within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no mud nama was observed. Therefore, mud nama does not appear to occur in the BSA.

### **2.18.2.7 Gambel's Watercress**

The Gambel's watercress is a federally endangered and State threatened species, and it has a CRPR of 1B.1,<sup>2</sup> which means it is considered seriously endangered in California.

Gambel's watercress is a perennial rhizomatous herb species that occurs in marshes from 20 to 1,100 feet above mean sea level. This species has been reported from one location within 3 miles of the BSA partially overlapping with the BSA near I-5 and 17<sup>th</sup> Street in Santa Ana. There is potentially suitable habitat for Gambel's watercress within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no Gambel's watercress was observed. Therefore, Gambel's watercress does not appear to occur in the BSA.

### **2.18.2.8 Sanford's Arrowhead**

The Sanford's arrowhead is not a federally or State-listed species, but it has a CRPR of 1B,<sup>3</sup> which means it is rare and endangered in California and throughout its range.

Sanford's arrowhead is a perennial emergent herb species that occurs in marshes and swamps from sea level to 2,100 feet above mean sea level. This species has not been reported within 3 miles of the BSA. There is potentially suitable habitat for Sanford's arrowhead within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no Sanford's arrowhead was observed. Therefore, Sanford's arrowhead does not appear to occur in the BSA.

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<sup>1</sup> Formerly known as CNPS 1B.1.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

### **2.18.2.9 Southern Mountains Skullcap**

The southern mountains skullcap is not a federally or State-listed species, but it has a CRPR of 1B.2,<sup>1</sup> which means it is rare and endangered in California and throughout its range.

Southern mountains skullcap is a perennial herb species that occurs in gravelly soils of stream banks or in oak or pine woodland from 1,400 to 6,600 feet above mean sea level. This species has not been reported within 3 miles of the BSA. There is potentially suitable habitat for southern mountains skullcap within the limited freshwater marsh present within the BSA, but the BSA is located outside the known range for the species. During the focused botanical survey, no southern mountains skullcap was observed. Therefore, southern mountains skullcap does not appear to occur in the BSA.

### **2.18.2.10 San Bernardino Aster**

The San Bernardino aster is not a federally or State-listed species, but it has a CRPR of 1B.2,<sup>2</sup> which means it is rare, threatened, or endangered in California and elsewhere.

San Bernardino aster is a perennial herb species that occurs in vernal wet sites from sea level to 6,700 feet above mean sea level. This species has been reported from three locations within 3 miles of the BSA, two of which overlap with the BSA, centered at I-5 and Beach Boulevard and SR-55 and Edinger Avenue. There is potentially suitable habitat for San Bernardino aster within the limited freshwater marsh present within the BSA. However, during the focused botanical survey, no San Bernardino aster was observed. Therefore, San Bernardino aster does not appear to occur in the BSA.

## **2.18.3 Environmental Consequences**

The proposed Project is expected to have no effect on any of the federally or State-listed species identified as potentially occurring within the BSA because although suitable habitat for one listed species is present, it is not expected to occur within the BSA (refer to Table 2.18.1).

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<sup>1</sup> Formerly known as CNPS 1B.1.

<sup>2</sup> Ibid.

**Table 2.18.1 Listed Plant Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA**

Species	Status	General Habitat Description	Activity Period	Habitat Present/ Absent	Rationale
Braunton's milk-vetch <i>Astragalus brauntonii</i>	US: FE CA: – CRPR: 1B.1	Perennial herb. Generally shallow calcium carbonate soils derived from marine substrates. Typically associated with the fire-dependent chaparral habitat on limestone and on down-wash sites below 2,100 ft in elevation.	January–August	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. No suitable habitat for this species is present on site, but critical habitat is adjacent. Not observed during 2022 botanical surveys.
Ventura marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	US: FE CA: SE CRPR: 1B	Perennial herb. Coastal salt marsh within reach of high tide or protected by barrier beaches, or more rarely near seeps on sandy bluffs below 120 ft in elevation. Known only from Santa Barbara and Ventura Counties. Believed extirpated from Los Angeles and Orange Counties.	June–October	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA, and this species is believed to be extirpated from Orange County. Suitable habitat is absent. Not observed during 2022 botanical surveys.
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	US: FT CA: SE CRPR: 1B	Bulbiferous perennial herb. Occurs primarily in vernal pools, but also found in chaparral, cismontane woodlands, coastal scrub, playas, and valley and foothill grasslands, usually in clay soils. From 115 to 4,003 ft in elevation.	March–June	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
Salt marsh bird's-beak <i>Chloropyron maritimum</i> spp. <i>maritimum</i>	US: FE CA: SE CRPR: 1B	Annual herb. Coastal dunes and salt marshes.	May–October	HA	<b>Not expected to occur.</b> There is one known occurrence in a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	US: FC CA: SE CRPR: 1B	Annual herb. Shallow depressions or shallow, compacted, low-nutrient (e.g., sandy), or disturbed soils (e.g., dirt roads or around rodent burrows) in grassland or coastal scrub where competition from shrubs and exotic grasses is limited, primarily in northeastern Western Transverse Ranges and San Gabriel Mountains below 3,330 ft in elevation.	April–July	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.



**Table 2.18.1 Listed Plant Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA**

Species	Status	General Habitat Description	Activity Period	Habitat Present/ Absent	Rationale
Slender-horned spineflower <i>Dodecahema leptoceras</i>	US: FE CA: SE CRPR: 1B	Annual herb. Occurs in chaparral, cismontane woodland and coastal scrub in sandy soils. From 600 to 2,280 ft in elevation.	April–June	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
Laguna Beach dudleya <i>Dudleya stolonifera</i>	US: FT CA: ST CRPR: 1B	Perennial stoloniferous herb. Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands, often in thin soil on north-facing sandstone cliffs. From 30 to 780 ft in elevation.	May–July	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
Santa Ana River woollystar <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	US: FE CA: SE CRPR: 1B	Riversidean alluvial fan sage scrub and chaparral in sandy or gravelly soils of floodplains and terraced fluvial deposits of the Santa Ana River and larger tributaries (Lytle and Cajon Creeks, lower portions of City and Mill Creeks) at 300 to 2,100 ft in elevation in San Bernardino and Riverside Counties.	May–September	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
San Diego button-celery <i>Eryngium aristulatum</i> var. <i>parishii</i>	US: FE CA: SE CRPR: 1B	Annual or perennial herb. Vernal pools and similar mesic habitats in coastal scrub and grassland at 50 to 2,000 ft in elevation.	April–June	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
Gowen cypress <i>Hesperocyparis goweniana</i>	US: FT CA: - CRPR: 1B	Perennial evergreen tree. Usually found in sandy soils on coastal terraces, closed-cone coniferous forests, and maritime chaparral (sometimes with Monterey and Bishop Pines) from 100 to 1,000 ft. Endemic to California, only known from Monterey County.	Year-round	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.

**Table 2.18.1 Listed Plant Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA**

Species	Status	General Habitat Description	Activity Period	Habitat Present/ Absent	Rationale
Gambel's watercress <i>Nasturtium (Rorippa) gambelii</i>	US: FE CA: ST CRPR: 1B	Marshes from 20 to 1,100 ft in elevation.	April– September	P	<b>Low potential to occur.</b> There is one known occurrences within a 3-mile buffer of the BSA. Marginally suitable habitat for this species is present in the BSA. Not observed during 2022 botanical surveys.
California Orcutt grass <i>Orcuttia californica</i>	US: FE CA: SE CRPR: 1B	Annual grass. Vernal pools from 50 to 2,200 ft in elevation.	April–August	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.
Lyon's pentachaeta <i>Pentachaeta lyonii</i>	US: FE CA: SE CRPR: 1B	Annual herb. Clay soils in edges of openings in fire-adapted coastal sage scrub and chaparral on saddles between hills, on the tops of small knolls, or in flat areas at the base of slopes, particularly where soil crust results in less competition from annual grasses, from 100 to 2,100 ft in elevation. Occurs only in the Santa Monica Mountains in eastern Ventura and western Los Angeles Counties and in the western Simi Hills in Ventura County. Based on historical records, it once occurred on the Palos Verdes Peninsula and on Santa Catalina Island, but it has not been seen at these locations since 1910 and 1855, respectively, and is assumed to be extirpated from those areas.	March-August.	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.

**Table 2.18.1 Listed Plant Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA**

Species	Status	General Habitat Description	Activity Period	Habitat Present/Absent	Rationale
Big-leaved crownbeard <i>Verbesina dissita</i>	US: FT CA: ST CRPR: 1B	Perennial herb. Occurs in southern maritime chaparral (90% of time) and coastal scrub (10% of time) from 135 to 615 ft in elevation along the immediate coast.	April–July	HA	<b>Not expected to occur.</b> There are no known occurrences within a 3-mile buffer of the BSA. Suitable habitat is absent. Not observed during 2022 botanical surveys.

Source: *Natural Environment Study (Minimal Impacts)* (April 2023).

**Status:**

- CE = California Endangered
- CFP = California Fully Protected Species
- CNPS = California Native Plant Society
- CSP = California Special Plant
- CT = California Threatened
- FC = Federal Candidate
- FE = Federal Endangered
- FP, FPE, FPT = Federal Proposed
- FT = Federal Threatened

**CNPS California Rare Plant Ranking Designations:**

- 1A = Plants presumed extinct in California
- 1B = Plants rare and endangered in California and throughout their range
- 2 = Plants rare, threatened, or endangered in California but more common elsewhere in their range
- 3 = Plants needing more information (a review list)
- 4 = Plants of limited distribution (a watch list)

**Habitat Present/Absent:**

- HA = No habitat is present and no further work is needed, or habitat is absent or species was absent in the BSA at the time of the focused survey.
- HP = Habitat is or may be present.

BSA = Biological Study Area  
CNPS = California Native Plant Society  
ft = foot/feet

### **2.18.3.1 Temporary Impacts**

#### ***Build Alternative (Alternative 2)***

Based on the literature search, suitable habitat for lucky morning-glory, southern tarplant, smooth tarplant, Peruvian dodder, Los Angeles sunflower, mud nama, Gambel's watercress, Sanford's arrowhead, southern mountains skullcap, and San Bernardino aster is absent from the Alternative 2 impact area. In addition, none of these species were observed or otherwise detected during the focused botanical survey conducted within the BSA. Therefore, these species are considered unlikely to occur in the BSA. As a result, construction of Alternative 2 would not result in temporary impacts on special-status plant species.

#### ***Build Alternatives (Alternatives 3 and 4)***

Based on the literature search, suitable habitat for lucky morning-glory, southern tarplant, smooth tarplant, Peruvian dodder, Los Angeles sunflower, mud nama, Gambel's watercress, Sanford's arrowhead, southern mountains skullcap, and San Bernardino aster may be within the limited freshwater marsh present within the BSA. However, none of these species were observed or otherwise detected during the focused botanical survey conducted within the BSA. Therefore, these species are considered unlikely to occur in the BSA. Temporary indirect impacts during construction activities associated with Alternatives 3 and 4 may include an increase or change in off-site runoff, erosion, and spread of invasive species during construction. These impacts would not be new to the BSA but would temporarily increase the level of indirect disturbance near the freshwater marsh during construction activities associated with Alternatives 3 and 4. As a result, construction of Alternatives 3 and 4 is not anticipated to result in temporary impacts on special-status plant species.

Special-status species do not appear to occur in the BSA, and the build alternatives would not result in temporary impacts to special-status plant species. Alternatives 3 and 4 are the only Build Alternatives that would temporarily impact marginally suitable habitat for special-status plant species, but they are not likely to result in temporary impacts to individuals. To address potential direct and indirect impacts to suitable habitat for special-status species, minimization measure PL-1 will be implemented as part of the proposed Project and is described further under Section 2.18.4.

#### ***No Build Alternative (Alternative 1)***

The No Build Alternative would not include construction of any of the improvements proposed under the build alternatives, and as noted above, lucky morning-glory,

southern tarplant, smooth tarplant, Peruvian dodder, Los Angeles sunflower, mud nama, Gambel's watercress, Sanford's arrowhead, southern mountains skullcap and San Bernardino aster are unlikely to occur in the BSA. Therefore, the No Build Alternative would not result in temporary impacts to other special-status plant species.

### **2.18.3.2 Permanent Impacts**

#### ***Build Alternatives (Alternatives 2, 3, and 4)***

As noted above, it was determined that lucky morning-glory, southern tarplant, smooth tarplant, Peruvian dodder, Los Angeles sunflower, mud nama, Gambel's watercress, Sanford's arrowhead, southern mountains skullcap, and San Bernardino aster are considered unlikely to occur in the BSA. The build alternatives would not have permanent impacts to suitable habitat for these species. As a result, the operation of the build alternatives would not result in permanent impacts on special-status plant species.

#### ***No Build Alternative (Alternative 1)***

The No Build Alternative would not include operation of any of the improvements proposed under the Build Alternatives, and as noted above, lucky morning-glory, southern tarplant, smooth tarplant, Peruvian dodder, Los Angeles sunflower, mud nama, Gambel's watercress, Sanford's arrowhead, southern mountains skullcap, and San Bernardino aster do not appear to occur in the BSA. Therefore, the No Build Alternative would not result in adverse permanent impacts to special-status plant species.

### **2.18.4 Avoidance, Minimization, and/or Mitigation Measures**

In order to help avoid and/or minimize potential impacts, Measure PL-1 would be implemented to further avoid temporary impacts to Gambel's watercress and other special-status species that have suitable habitat within the BSA. Measure PL-1, listed below, would minimize potential temporary direct impacts to suitable habitat resulting from general construction activities.

**PL-1**      **Pre-Construction Clearance Surveys.** A qualified biologist will conduct pre-construction surveys to confirm the absence of sensitive biological resources within the work areas. The pre-construction surveys will take place no more than 24 hours prior to commencement of work activities. If listed species are observed within the work area (or areas potentially indirectly affected by Project activities, as

determined by the qualified biologist) and the work cannot be postponed until the species is no longer present, the California Department of Transportation (Caltrans) will obtain written approval from the USFWS or the CDFW, as applicable, prior to completing Project work at these locations. No additional avoidance, minimization, and/or mitigation measures other than the standard Project Features are required. No compensatory mitigation is required.