#### **INVASIVE EXOTICS**

Numerous species of invasive exotic plants (CalIPC 2012) and noxious plant species (CDFA) occur within the WOD Project survey area. Several of those species are considered noxious and dominate portions of the WOD Project survey area landscape. All invasive exotic and noxious species are identified in Appendix A. Invasive exotic and noxious species are listed in Table 4, Invasive Exotic and Noxious Plants within the WOD Project survey area. Forty species of invasive exotics were observed at one or more locations within the WOD Project survey area. Figure 5, Invasive Species Areas, illustrates the location of the invasive exotic species.

California Invasive Plant Council rates invasive exotic plants using High, Moderate, or Limited based on evaluation (CalIPC 2012). The meaning of these overall ratings is described below.

- High These species have severe ecological impacts on physical processes, plant and animal
  communities, and vegetation structure. Their reproductive biology and other attributes are
  conducive to moderate to high rates of dispersal and establishment. Most are widely distributed
  ecologically.
- Moderate These species have substantial and apparent, but generally not severe, ecological
  impacts on physical processes, plant and animal communities, and vegetation structure. Their
  reproductive biology and other attributes are conducive to moderate to high rates of dispersal,
  though establishment is generally dependent upon ecological disturbance. Ecological amplitude
  and distribution may range from limited to widespread.
- **Limited** These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a high score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

The California Department of Food and Agriculture (CDFA) recommend plants for listing, after consultation with outside experts and the Agricultural Commissioners of California's counties (CACs). The CDFA will designate a plant as a noxious weed if it is found to be "troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate".

At the time that CDFA lists a species, it also receives a rating of A, B, C, D or Q. These ratings are defined below (CDFA 2013).

#### **'A'**

A pest of known economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment. A-rated pests are prohibited from entering the state because, by virtue of their rating, they have been placed on the of Plant Health and Pest Prevention Services Director's list of organisms "detrimental to agriculture" in accordance with the FAC Sections 5261 and 6461.

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The only exception is for organisms accompanied by an approved CDFA or USDA live organism permit for contained exhibit or research purposes. If found entering or established in the state, A-rated pests are subject to state (or commissioner when acting as a state agent) enforced action involving eradication, quarantine regulation, containment, rejection, or other holding action.

#### **B**'

A pest of known economic or environmental detriment and, if present in California, it is of limited distribution. B-rated pests are eligible to enter the state if the receiving county has agreed to accept them. If found in the state, they are subject to state endorsed holding action and eradication only to provide for containment, as when found in a nursery. At the discretion of the individual county agricultural commissioner they are subject to eradication, containment, suppression, control, or other holding action.

#### **'C'**

A pest of known economic or environmental detriment and, if present in California, it is usually widespread. C-rated organisms are eligible to enter the state as long as the commodities with which they are associated conform to pest cleanliness standards when found in nursery stock shipments. If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner. There is no state enforced action other than providing for pest cleanliness.

#### 'Q'

An organism or disorder suspected to be of economic or environmental detriment, but whose status is uncertain because of incomplete identification or inadequate information.

Table 4. Invasive Exotic and Noxious Plants within the WOD Project Survey Area

Scientific Name <sup>5</sup>	Common Name <sup>6</sup>	Cal-IPC	CDFA Rating <sup>7</sup>
		Inventory rating	
Ailanthus altissima	Tree-of-Heaven	Moderate	С
Arundo donax	Giant Reed	High	В
Avena barbata	Slender Wild Oat	Moderate	
Brassica tournefortii	Sahara Mustard	High	
Bromus diandrus ssp. diandrus	Ripgut Grass	Moderate	
Bromus hordeaceus	Soft Chess	Limited	
Bromus madritensis ssp. rubens	Red Brome	High	
Bromus tectorum var. tectorum	Cheat Grass	High	
Cardaria draba	Whitetop	Moderate	В

<sup>&</sup>lt;sup>5</sup> Scientific nomenclature follows the Flora of North America Editorial Committee (1993-2011), *The Jepson Manual* (Baldwin et al. 2011), or more recent taxonomic treatments, or treatments not incorporated into *The Flora of North America North of Mexico* or *The Jepson Manual*.

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<sup>&</sup>lt;sup>6</sup> Common names follow Abrams and Ferris (1960), Neihaus and Ripper (1976), and DeGarmo (1980).

<sup>&</sup>lt;sup>7</sup> Species with a CDFA rating are considered noxious.

Scientific Name <sup>5</sup>	Common Name <sup>6</sup>	Cal-IPC Inventory rating	CDFA Rating <sup>7</sup>
Carpobrotus chilensis	Iceplant	Moderate	
Centaurea melitensis	Tocalote	Moderate	С
Cirsium vulgare	Bull Thistle	Moderate	A
Conium maculatum	Poison Hemlock	Moderate	
Cynodon dactylon	Bermuda Grass	Moderate	С
Erodium cicutarium	Redstem Filaree	Limited	
Eucalyptus camaldulensis	River Red Gum	Limited	
Foeniculum vulgare	Sweet Fennel	High	
Gazania linearis	Gazania	Moderate	
Hirschfeldia incana	Summer Mustard	Moderate	
Hordeum murinum	Mediterranean Barley	Moderate	
Hypochaeris glabra	Smooth Cat's-ear	Limited	
Marrubium vulgare	White Horehound	Limited	
Medicago polymorpha	Common Burclover	Limited	
Nicotiana glauca	Tree Tobacco	Moderate	
Pennisetum setaceum	South African Fountain Grass	Moderate	
Polypogon monspeliensis	Bearded Rabbitsfoot Grass	Limited	
Raphinus sativus	Wild Radish	Limited	
Ricinus communis	Castor Bean	Limited	
Rubus armeniacus	Himalayan blackberry	High	
Salsola tragus	Russian Thistle	Limited	С
Schinus molle	Peruvian peppertree	Limited	
Schinus terrebinthifolius	Brazilian peppertree	Limited	
Sisymbrium irio	London Rocket	Moderate	
Spartium junceum	Spanish Broom	High	
Tamarix ramosissima	Saltcedar or Tamarisk	High	В
Trifolium hirtum	Rose Clover	Moderate	
Verbascum thapsus	Common mullein	Limited	
Vulpia myuros	Rattail Fescue	Moderate	
Washingtonia robusta	Mexican Fan Palm	Moderate	

Below are brief descriptions of each invasive exotic plant species and or noxious plant species known to occur within the WOD Project survey area, including each taxon's scientific name, common name, growth habit, family, survey sections it was observed in, and its CalIPC and or CDFA rating. Also included are one or more photographs of each taxon.

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## Ailanthus altissima

Ailanthus altissima, Tree-of-Heaven, is a multi-stemmed, small tree to 20 m high, and is a member of the Quassia/Simarouba family (Simaroubaceae). The leaves are pinnately compound, 30 to 90 cm long. It spreads by rhizomes and trunk sprouts. It is classified as Moderate under the CalIPC inventory rating.

Ailanthus altissima occurs in Sections 18S, 24, 30, 33, 36, 39, and 42 within the WOD Project survey area.



#### Arundo donax

*Arundo donax*, Giant Reed, is a tall, dense, woody, bamboo-like clumping grass, 2 to 10 m high, and is a member of the Grass family (Poaceae). The leaves are up to 100 cm long. It spreads by rhizomes and culms. It is classified as High under the CalIPC inventory rating.

Arundo donax occurs in Sections 18N, 18S, and 36 within the WOD Project survey area.



Left: © 2005 Luigi Rignanese. Right: © 2004 Steven Perkins

#### Avena barbata

*Avena barbata*, Slender Wild Oat, is a tall annual grass, 30 to 150 cm high, and is a member of the Grass family (Poaceae). The leaves are, 6 to 30 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

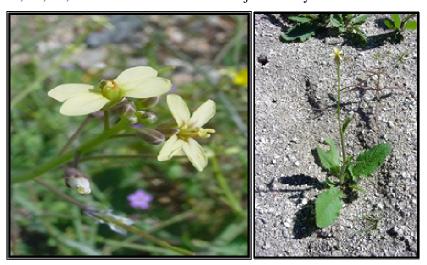
Avena barbata occurs in Sections 6S, 6N, 7N, 7S, 12, 13, 14, 15, 16, 16aN, 16aS, 17N, 17S, 18N, 18S, 19N, 19S, 20, 21, 22, 23, 25, 26, 27, 28, 28N, 28S, 29S, 33, 34, 35, 36, 37, 38, 39, 40, 41, and 42.



## Brassica tournefortii

*Brassica tournefortii*, Sahara Mustard, is an erect annual herb, 10 to 70 cm high, and is a member of the Mustard family (Brassicaceae). The basal leaves consist of a persistent rosette, with a 2 to 10 cm-long petiole, and leaf blades lyrate to pinnatisect, 2 to 30 cm by 10 to 50 (-100) mm, serratedentate margins, with 4 to 10 lobes each side. The cauline leaves are sessile, with blade reduced in size distally, base tapered, and not auriculate or amplexicaule. It spreads by seed. It is classified as High under the CalIPC inventory rating.

*Brassica tournefortii* occurs in Sections 1, 2, 3, 4, 5N, 6S, 7N, 7S, 8N, 8S, 9, 10, 11, 19S, 21, 28, 28S, 32, 34, 35, 37, 38, 39, and 40 within the WOD Project survey area.



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## Bromus diandrus ssp. diandrus

Bromus diandrus ssp. diandrus, Ripgut Broom, is an annual grass, 15 to 80 cm, with leaves soft-hairy; blade 2 to 7 mm wide, and margins scabrous. The inflorescence is 6 to 25 cm long,  $\pm$  open, lower branches generally nodding, upper spreading to ascending. The flower spikelets are  $\pm$  compressed, glabrous to scabrous. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

Bromus diandrus ssp. Diandrus occurs in Sections 10, 11, 15, 17S, 18N, 19N, 19S, 20, 22, 24, 25, 26, 27, 28, 28S, 29N, 29S, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, and 41.



Left: © 2004 Carol W. Witham. Right: © 2002 James B. Gratiot

#### Bromus hordeaceus

Bromus hordeaceus ssp. hordeaceus, Soft Chess, is an erect annual grass, 11 to 65 cm high, leaves soft-hairy, and the blade is 1.5 to 5 mm wide. The inflorescence is 2.5 to 13 cm long, generally  $\pm$  dense, branches ascending to erect, with spikelets greater than the stalk. The spikelets are  $\pm$  compressed, glabrous to short-soft-hairy. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

*Bromus hordeaceus* occurs in Sections 19N, 19S, 20, 22, 23, 24, 25, 26, 27, 28, 28N, 28S, 29N, 29S, 30, 31, 32, 33, 34, 35, 36, 37, and 38 within the WOD Project survey area.



Left: © 2009 Keir Morse. Right: © 2007 Luigi Rignanese

## Bromus madritensis ssp. rubens

Bromus madritensis ssp. rubens, Red Brome, is an erect annual grass, 10 to 50 cm high, and is a member of the Grass family (Poaceae). The leaves are glabrous to short-soft-hairy; blade 1 to 4 mm wide, and leaf-sheath generally puberulent. The inflorescence is 3 to 8 cm long, ovoid, dense; branches (except lowest) obscure, with spikelets cylindric to slightly compressed, and glabrous to puberulent. It spreads by seed. It is classified as High under the CalIPC inventory rating.

*Bromus madritensis* ssp. *rubens* occurs in Sections 5N, 6N, 6S, 7N, 7S, 8S, 9, 10, 11, 12, 13, 16, 16aN, 17N, 17S, 18N, 18S, 19N, 19S, 20, 21, 22, 25, 26, 27, 28, 28N, 28S, 29N, 29S, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, and 42 within the WOD Project survey area.



#### Bromus tectorum var. tectorum

Bromus tectorum var. tectorum, Cheat Grass, is a slender annual grass, 5 to 40 cm high, and is a member of the Grass family (Poaceae). The leaf-sheaths are generally densely soft-hairy, leaf-blades 1 to 5 mm wide,  $\pm$  glabrous to densely soft-hairy, and long-ciliate near base. The inflorescence is 6 to 22 cm long, open to  $\pm$  dense, with branches spreading to nodding. The spikelets are subcylindric to slightly compressed. It spreads by seed. It is classified as High under the CalIPC inventory rating.

*Bromus tectorum* var. *tectorum* occurs in Sections 2, 4, 5N, 5S, 6S, 7N, 7S, 8S, 9, 10, 14, 15, 18S, 19S, 20, 25, 26, 30, 31, 34, 35, 36, and 37 within the WOD Project survey area.



Left: © 2007 Jason E. Willand. Right: © 2006 Louis-M. Landry

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#### Cardaria draba

Cardaria draba, Whitetop, is a spreading perennial herb with white flowers, 8 to 90 cm high, and is a member of the Mustard family (Brassicaceae). The leaves are 1.5 to 15 cm long. It spreads by seed and rhizomes. It is classified as Moderate under the CalIPC inventory rating.

Cardaria draba occurs in Section 30 within the WOD Project survey area.



Left: © 2006 Louis-M. Landry. Right: © 1999 California Academy of Sciences

# Carduus pycnocephalus

Carduus pycnocephalus, Italian Thistle, is an erect annual herb 20 to 200 cm high, and is a member of the Sunflower family (Asteraceae). The leaves are 10 to 15 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

Carduus pycnocephalus occurs in Sections 28, 28N, 28S, 29N, 30, 31, 33, 34, 35, 37, 38, 39, and 41 within the WOD Project survey area.



# Carpobrotus chilensis

Carpobrotus chilensis, Sea Fig, is a prostrate perennial herb/shrub with triangular and fleshy leaves, 1 dm high and forming thick, broad mats several m across, and is a member of the Ice Plant family (Aizoaceae). It spreads by seed and rhizomes. It is classified as Moderate under the CalIPC inventory rating.

Carpobrotus chilensis occurs in Section 39 within the WOD Project survey area.



#### Centaurea melitensis

*Centaurea melitensis*, Tocalote, is an erect annual herb, 10 to 100 cm high, and is a member of the Sunflower family (Asteraceae). The leaves are 2 to 15 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

*Centaurea melitensis* occurs in Sections 18N, 19N, 19S, 25, 26, 27, 28, 28N, 28S, 29N, 29S, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, and 41 within the WOD Project survey area.



# Cirsium vulgare

*Cirsium vulgare*, Bull Thistle, is an erect annual herb, 30 to 200 cm high, and is a member of the Sunflower family (Asteraceae). The leaves are 10 to 40 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

Cirsium vulgare occurs in Sections 18S, 19N, 26, 28N, 28S, and 29S within the WOD Project survey area.



## Conium maculatum

*Conium maculatum*, Poison Hemlock, is an erect annual herb 50 to 300 cm high, and is a member of the Carrot family (Apiaceae). The leaves are 15 to 30 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

Conium maculatum occurs in Section 34 within the WOD Project survey area.



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## Cynodon dactylon

Cynodon dactylon, Bermuda Grass, is a prostrate, turf-forming perennial grass, 10 to 40 cm high, and is a member of the Grass family (Poaceae). The leaves are less than 6 cm long. It spreads by rhizomes and stolons, and sometimes by seed. It is classified as Moderate under the CalIPC inventory rating.

Cynodon dactylon occurs in Sections 5N, 18S, 28N, and 40 within the WOD Project survey area.



Left: © 2006 Luigi Rignanese. Right: © 2010 Moorea Biocode

#### Erodium cicutarium

*Erodium cicutarium*, Redstem Filaree, is an annual herb, 10 to 50 cm high, and is a member of the Geranium family (Geraniaceae). The leaves are twice-pinnately compound, 3 to 10 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

*Erodium cicutarium* occurs in Sections 1, 2, 3, 4, 5N, 5S, 6N, 6S, 7N, 7S, 8S, 9, 10, 19N, 19S, 20, 21, 22, 24, 25, 26, 28S, 29N, 29S, 30, 33, 34, 35, 38, 39, 40, 41, and 42 within the WOD Project survey area.



# Eucalyptus camaldulensis

*Eucalyptus camaldulensis*, River Red Gum, is an erect evergreen tree up to 25 m high, and is a member of the Myrtle family (Myrtaceae). The leaves are 6 to 20 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Eucalyptus camaldulensis occurs in Sections 2, 18N, 19S, 24, 25, 34, and 42 within the WOD Project survey area.



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## Foeniculum vulgare

*Foeniculum vulgare*, Sweet Fennel, is an erect perennial herb, 0.9 to 2 m high, and is a member of the Carrot family (Apiaceae). The leaves have petioles 7 to 14 cm long, are conspicuously sheathing, leaf blades 3 to 4 dm wide, triangular-ovate in shape, finely pinnately dissected, sections 4-40 mm long, and thread-like. It spreads by seed. It is classified as High under the CalIPC inventory rating. .

Foeniculum vulgare occurs in Section 26 within the WOD Project survey area.



#### Gazania linearis

*Gazania linearis*, Gazania, is a perennial herb to 4 to 5 cm high, and is a member of the Sunflower family (Asteraceae). The leaves are 10 to 38 cm long. The ray flowers are yellow to orange. It spreads by seed and rhizomes. It is classified as Moderate under the CalIPC inventory rating.

Gazania linearis occurs in Sections 25, 27, 28, and 36 within the WOD Project survey area.



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### Hirschfeldia incana

*Hirschfeldia incana*, Summer Mustard, is an erect annual or biennial herb with yellow flowers, 20 to 200 cm high, and is a member of the Mustard family (Brassicaceae). The leaves are 3 to 40 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating. .

*Hirschfeldia incana* occurs in Sections 15, 16aN, 18N, 18S, 19N, 19S, 20, 22, 24, 25, 26, 27, 28, 28N, 28S, 29N, 29S, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, and 42 within the WOD Project survey area.



#### Hordeum murinum

Hordeum murinum, foxtail barley, is an annual grass, 15 to 110 cm high, and is a member of the Grass family (Poaceae). The leaves are less than 28 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

*Hordeum murinum* occurs in Sections 10, 15, 19S, 20, 22, 24, 25, 26, 28S, 29S, 31, 33, 35, 36, 37, 38, 39, 40, and 41 within the WOD Project survey area.



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# Hypochaeris glabra

*Hypochaeris glabra*, Smooth Cat's-ear, is an erect, slender annual herb, 10 to 60 cm high, and is a member of the Sunflower family (Asteraceae). The leaves are 2 to 10 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Hypochaeris glabra occurs in Sections 6S, 19N 19S, 20, 26, 27, 28, 28N, 28S, and 36 within the WOD Project survey area.



## Marrubium vulgare

*Marrubium vulgare*, White Horehound, is a mounding perennial herb, 10 to 60 cm high, and is a member of the Mint family (Lamiaceae). The leaves are 1.5 to 5.5 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

*Marrubium vulgare* occurs in Sections 19N, 19S, 25, 26, 27, 28, 28N, 29N, 29S, 30, 31, 32, 34, 36, 38 and 39 within the WOD Project survey area.



# Medicago polymorpha

*Medicago polymorpha*, Common Burclover, is a prostrate annual herb, 10 to 50 cm high, and is a member of the Pea family (Fabaceae). The leaves are 10 to 20 mm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

*Medicago polymorpha* occurs in Sections 19S, 25, 27, 28, 29S, 31, 33, 34, and 37 within the WOD Project survey area.



## Nicotiana glauca

*Nicotiana glauca*, Tree Tobacco, is a shrub or small tree 2 to 6 m high, with yellow tubular flowers, and is a member of the Tomato family (Solanaceae). The leaves are broadly ovate, 5 to 21 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

*Nicotiana glauca* occurs in Sections 13, 15, 16, 16aN, 17N, 18N, 18S, 19S, 20, 21, 22, 25, 26, 28, 28N, 28S, 31, 32, 33, 35, 36, 37, 38, 39, 40, and 41 within the WOD Project survey area.



#### Pennisetum setaceum

*Pennisetum setaceum*, African Fountain Grass, is a clumping perennial grass, 40 to 150 cm high, and is a member of the Grass family (Poaceae). The leaves are 4 to 8 cm long. It spreads by seed and rhizomes. It is classified as Moderate under the CalIPC inventory rating.

Pennisetum setaceum occurs in Sections 5N, and 5S within the WOD Project survey area



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# Polypogon monspeliensis

*Polypogon monspeliensis*, Bearded Rabbitsfoot Grass, is an erect annual grass, 20 to 100 cm high, and is a member of the Grass family (Poaceae). The leaves are 1 to 20.5 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Polypogon monspeliensis 18N, 18S, 24, 28N, and 29S within the WOD Project survey area.



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### Raphinus sativus

*Raphinus sativus*, Wild Raddish, is an erect annual herb, 10 to 130 cm high, and is a member of the Mustard family (Brassicaceae). The leaves are 2 to 60 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Raphinus sativus occurs in Sections 22, 23, 24, and 42 within the WOD Project survey area.



#### Ricinus communis

*Ricinus communis*, Castor Bean, is an erect evergreen shrub, 1 to 3 m high, and is a member of the Euphorb family (Euphorbiaceae). The leaves are palmately lobed, 10 to 50 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Ricinus communis occurs in Sections 33, 36, 39, and 42 within the WOD Project survey area.



### Rubus armeniacus

*Rubus armeniacus*, Himalayan blackberry, is a perennial vine, up to 3 m high, and is a member of the Rose family (Rosaceae). The leaves are palmately compound usually with 5 leaflets each, 5 to 11 cm long. It spreads by vegetative means. It is classified as High under the CalIPC inventory rating.

Rubus armeniacus occurs in Section 26 within the WOD Project survey area.



# Salsola tragus

*Salsola tragus*, Russian thistle, is a rounded annual herb, less than 1.5 m high, and is a member of the Chenopod family (Chenopodiaceae). The leaves are 0.8 to 5.2 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

*Salsola tragus* occurs within Sections 18S, 19S, 22, 24, 25, 26, 27, 28, 28N, 28S, 29N, 31, 33, 35, 36, 37, 38, 39, 41, and 42 within the WOD Project survey area.



#### Schinus molle

Schinus molle, Peruvian peppertree, is an evergreen tree, 5 to 18 m high, and is a member of the Sumac family (Anacardiaceae). The leaves are pinnately compound, 10 to 30 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Schinus molle occurs within Sections 3, 8S, 18N, 25, 26, 30, 32, 36, 37, 38, and 41 within the WOD Project survey area.



## Schinus terebinthifolius

*Schinus terebinthifolius*, Brazilian peppertree, is an evergreen tree, 5 to 10 m high, and is a member of the Sumac family (Anacardiaceae). The leaves are pinnately compound, 8 to 15 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Schinus terebinthifolius occurs within Sections 26, 32, and 39 within the WOD Project survey area.



# Sisymbrium irio

*Sisymbrium irio*, London Rocket, is an erect annual herb with pale yellow flowers, 10 to 75 cm high, and is a member of the Mustard family (Brassicaceae). The leaves are 1.5 to 15 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

Sisymbrium irio occurs within Sections 5N, 6S, 8S, 19S, 24, 25, 26, 33, 35, 36, 38, and 39 within the WOD Project survey area.



## Spartium junceum

*Spartium junceum*, Spanish Broom, is a large, erect shrub, up to 3 m high, and is a member of the Pea family (Fabaceae). The leaves are less than 2.5 cm long. It spreads by seed. It is classified as High under the CalIPC inventory rating.

Spartium junceum occurs within Section 20 within the WOD Project survey area.



#### Tamarix ramosissima

*Tamarix ramosissima*, Saltcedar, is a multi-trunked tree or large shrub with scale-like leaves, up to 8 m high, and is a member of the Tamarisk family (Tamaricaceae). The leaves are scalelike, stems green and smooth. It spreads by seed and root sprouts. It is classified as High under the CalIPC inventory rating.

*Tamarix ramosissima* occurs within Sections 5N, 5S, 15, 18N, 18S, 25, 26, 28, 28S, 29S, and 42 within the WOD Project survey area.



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## Trifolium hirtum

*Trifolium hirtum,* Rose Clover, is an erect to spreading annual herb, with bristly approximately 1.5-cm-wide flower-heads with pink flowers. The calyx is plumose bristly, and is a member of the Pea family (Fabaceae). The leaves are 1 to 2.5 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

Trifolium hirtum occurs within Sections 27 and 36 within the WOD Project survey area.



# Verbascum thapsus

*Verbascum thapsus*, Common mullein, is 30 to 200 cm high, and is a member of the Crowfoot family (Scrophulariaceae). The leaves are 8 to 50 cm long. It spreads by seed. It is classified as Limited under the CalIPC inventory rating.

Verbascum thapsus occurs within Sections 18S and 26 within the WOD Project survey area.



# Vulpia myuros

*Vulpia myuros* forma *myuros*, Rattail Fescue, is an erect annual grass, less than 75 cm high, and is a member of the Grass family (Poaceae). The leaves are 2.4 to 10.5(17) cm long, 0.4 to 3 mm wide, usually rolled. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

*Vulpia myuros* occurs within Sections 13, 18S, 19N, 19S, 25, 26, 27, 28, 28S, 29S, 30, 31, 34, 36, 38, and 39 within the WOD Project survey area.



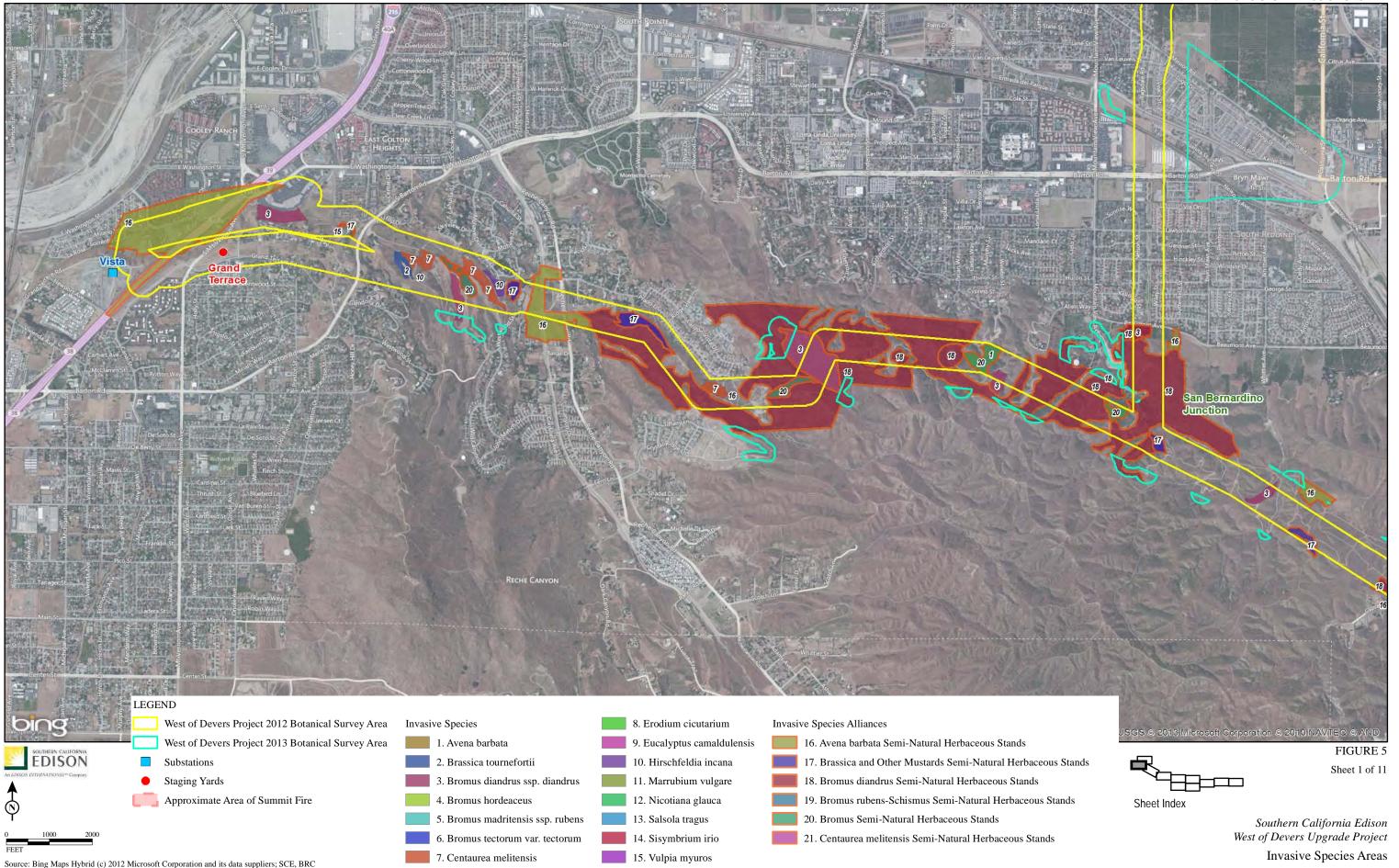
# Washingtonia robusta

*Washingtonia robusta*, Mexican Fan Palm, is a tree up to 30 m high, and is a member of the Palm family (Arecaceae). The leaves are up to 100 cm long. It spreads by seed. It is classified as Moderate under the CalIPC inventory rating.

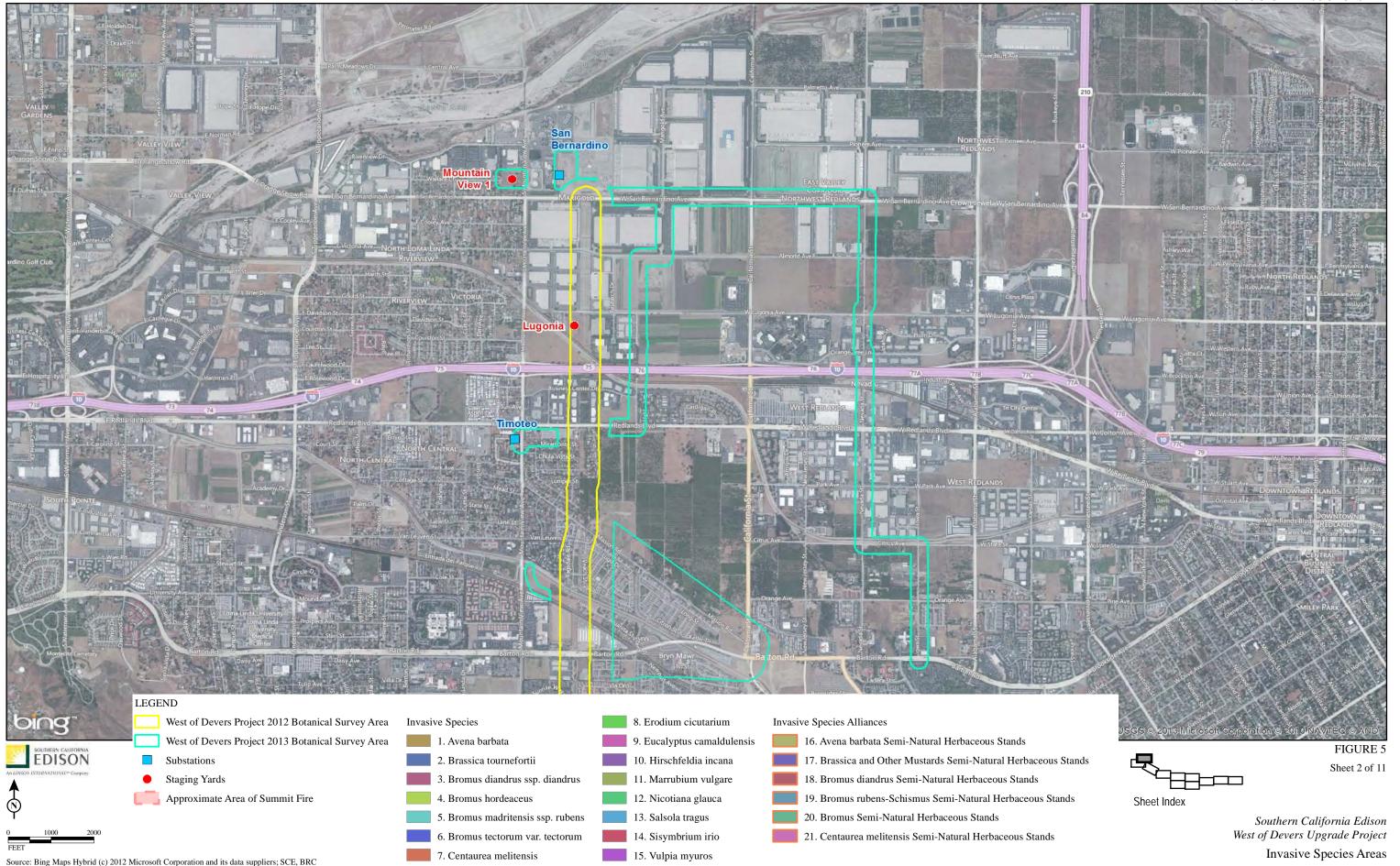
Washingtonia robusta occurs within Sections 25, 28S, 39, and 42 within the WOD Project survey area.



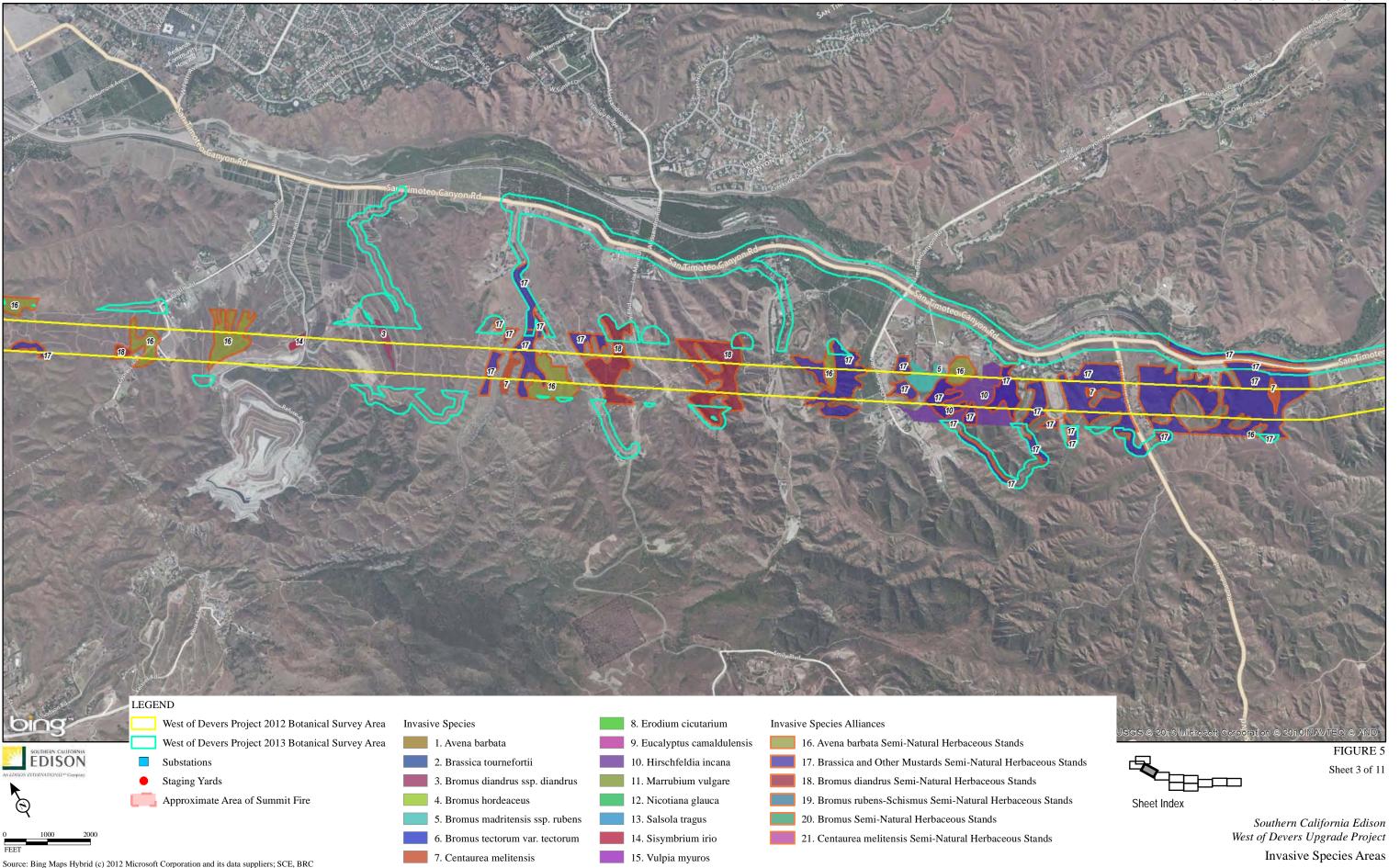
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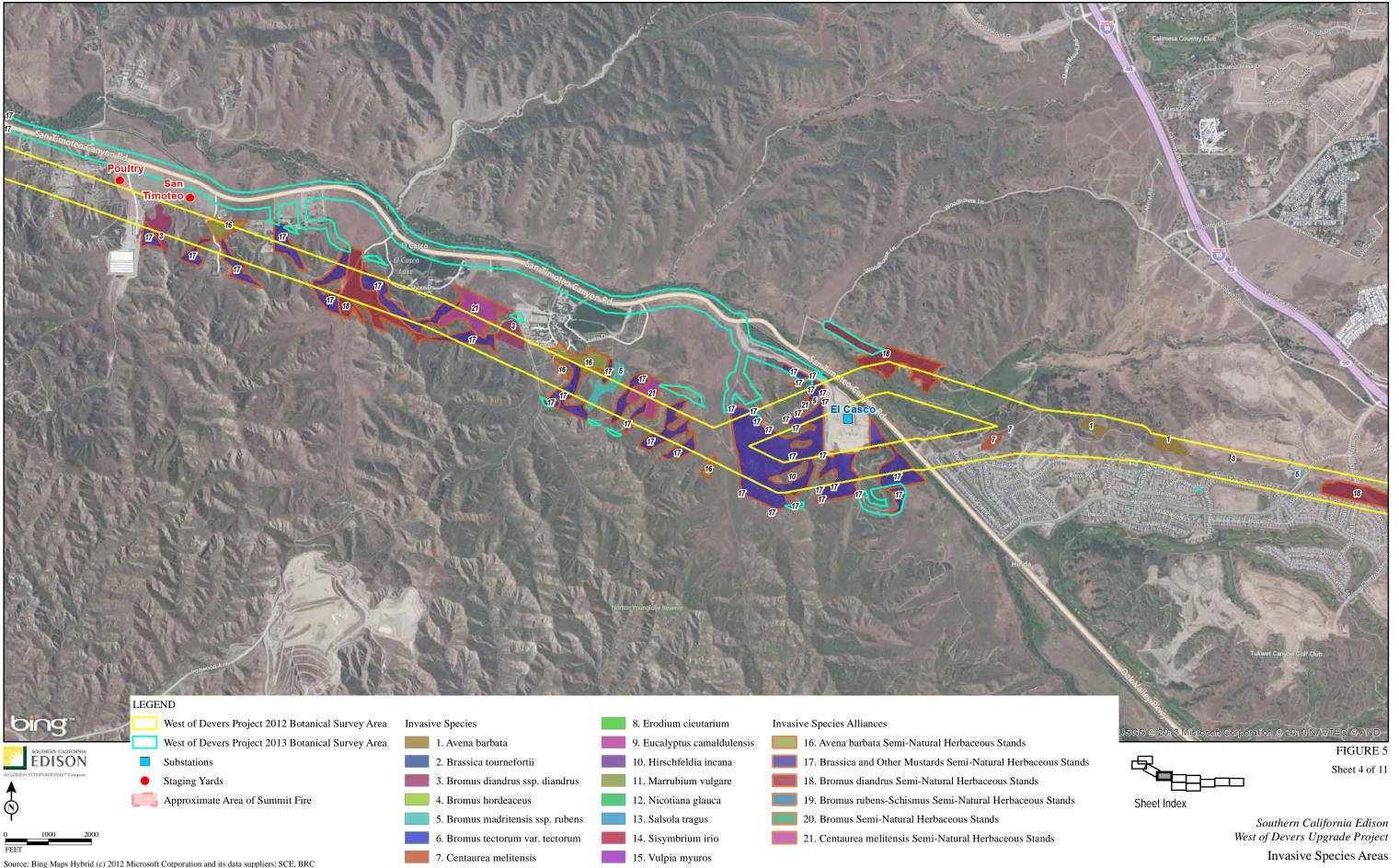


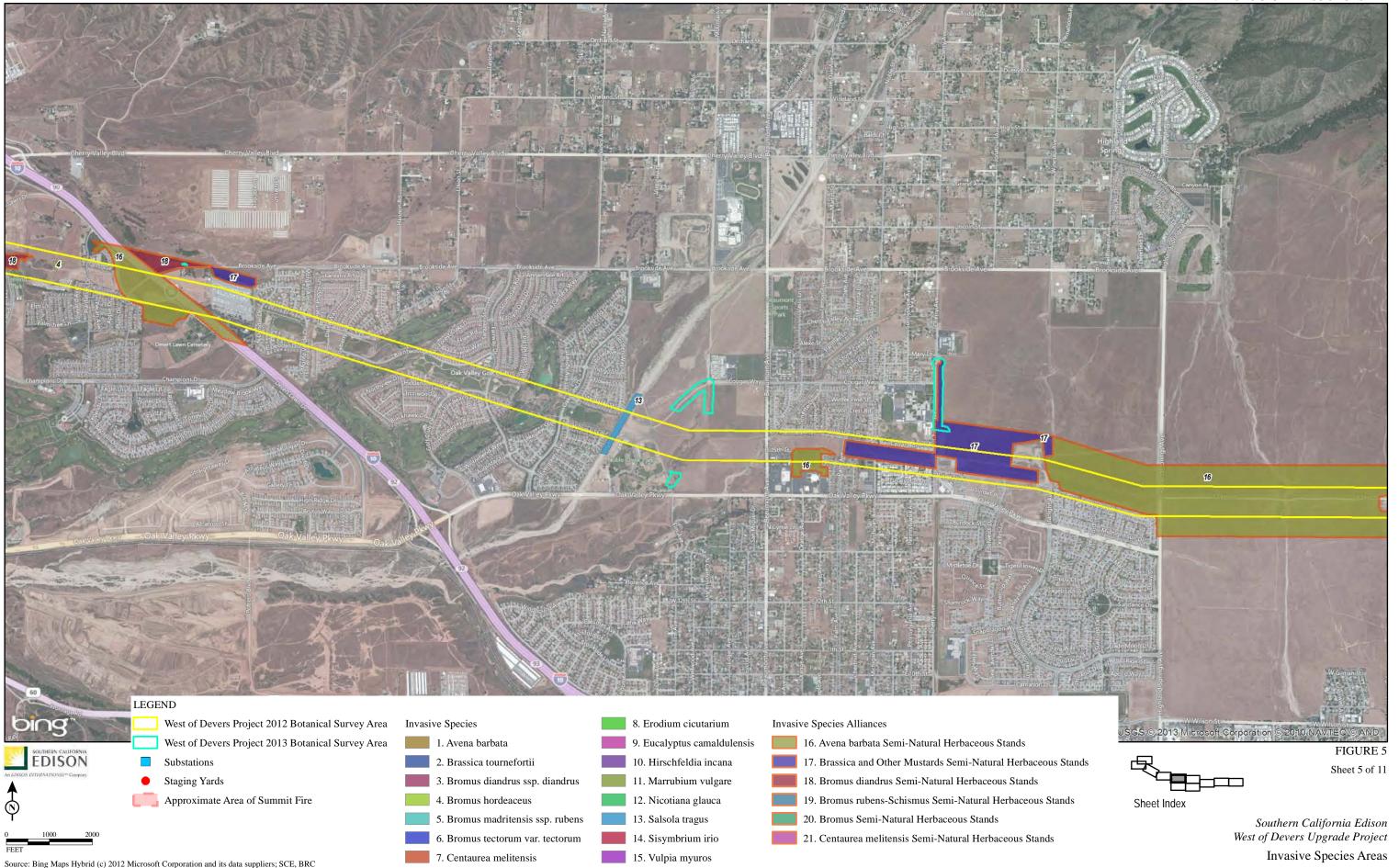
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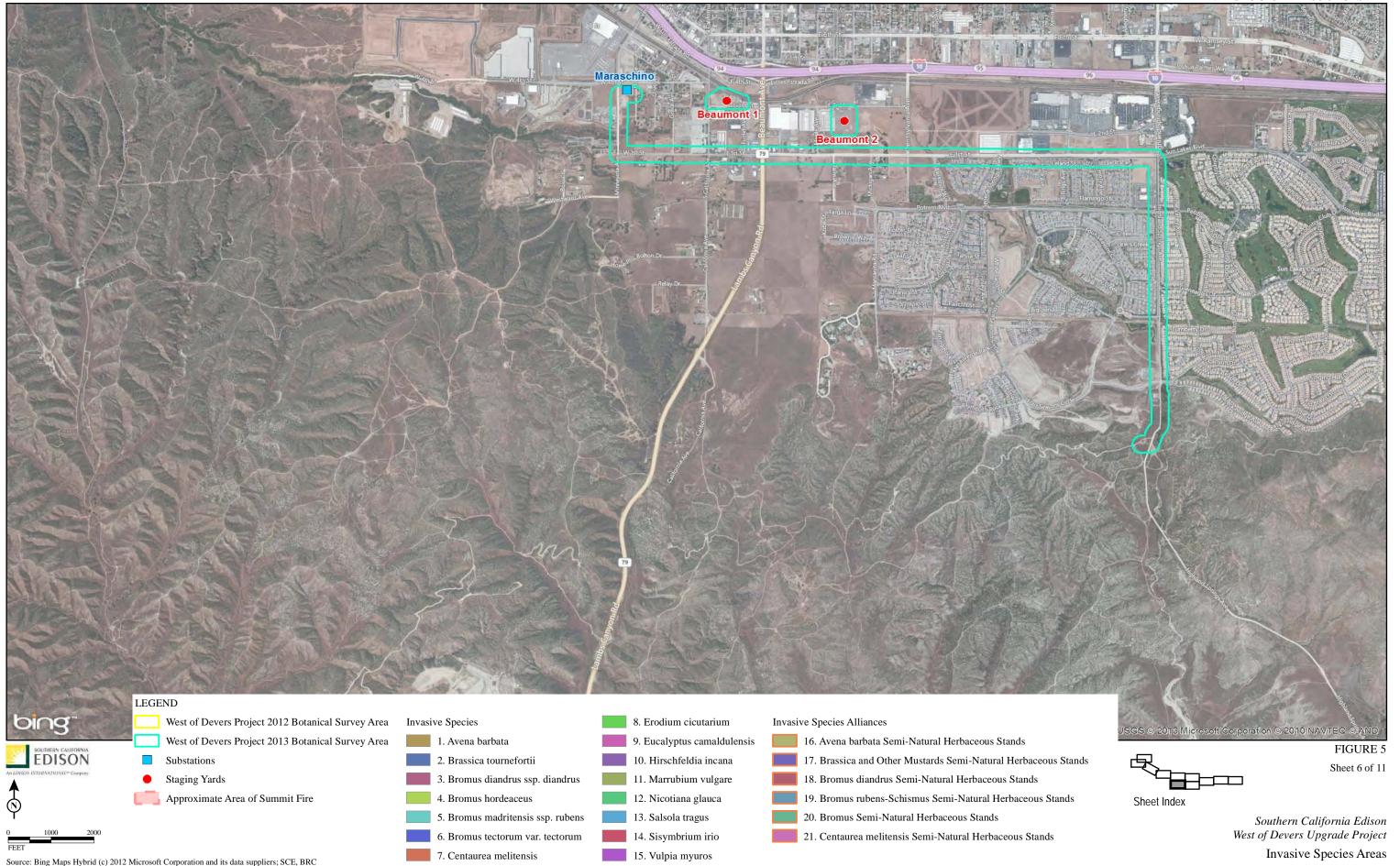


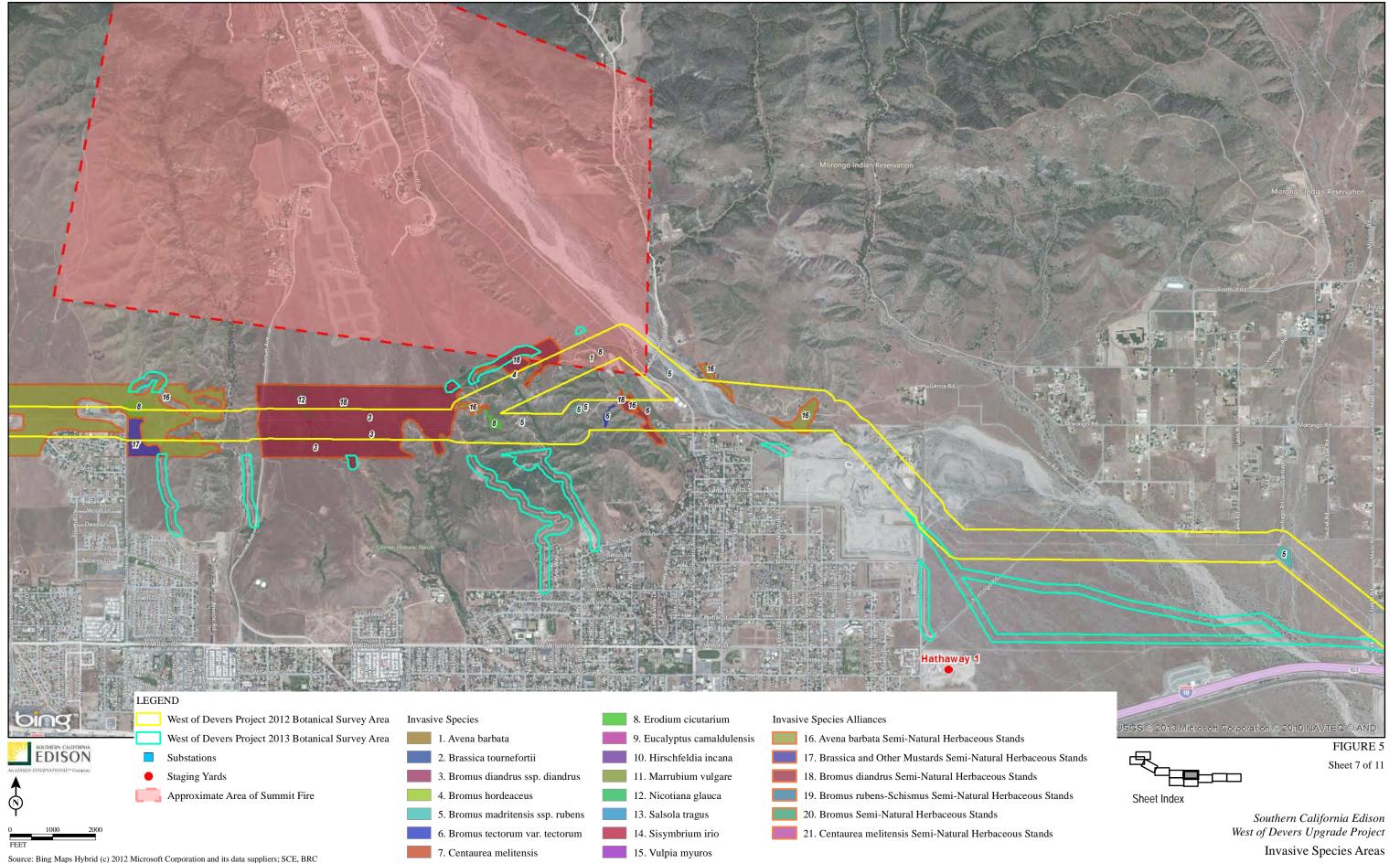
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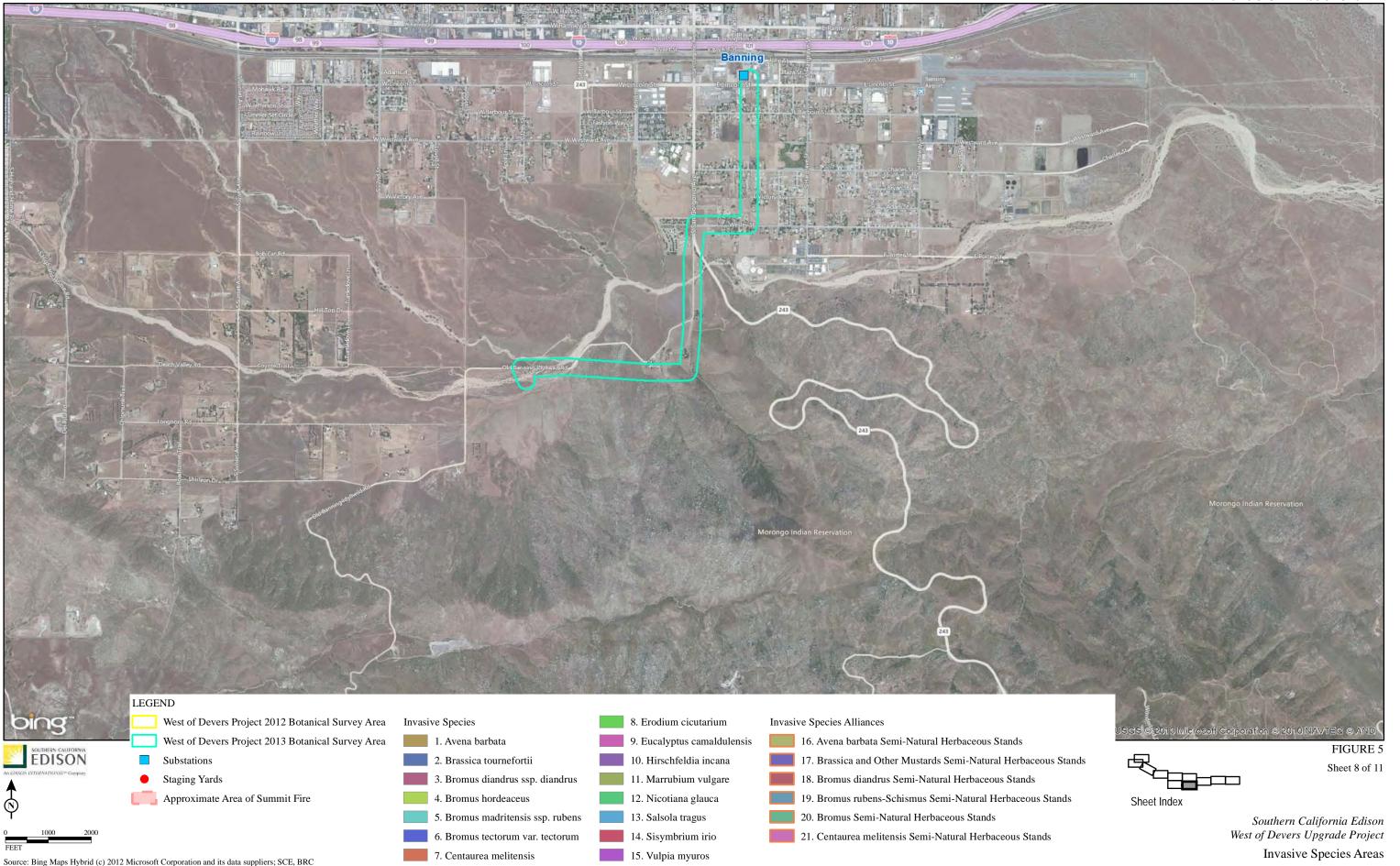




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Proponent's Environmental Assessment

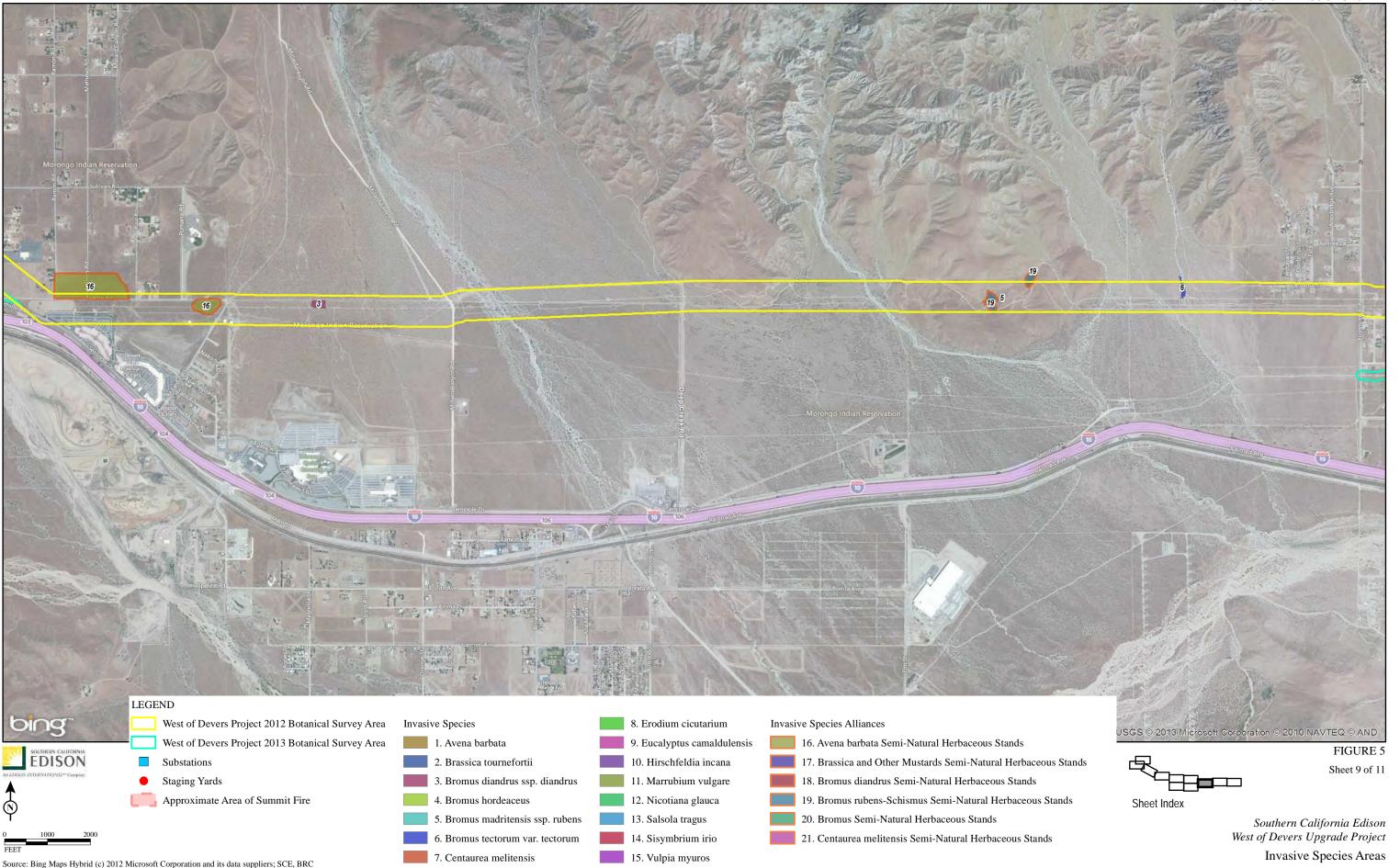
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Proponent's Environmental Assessment

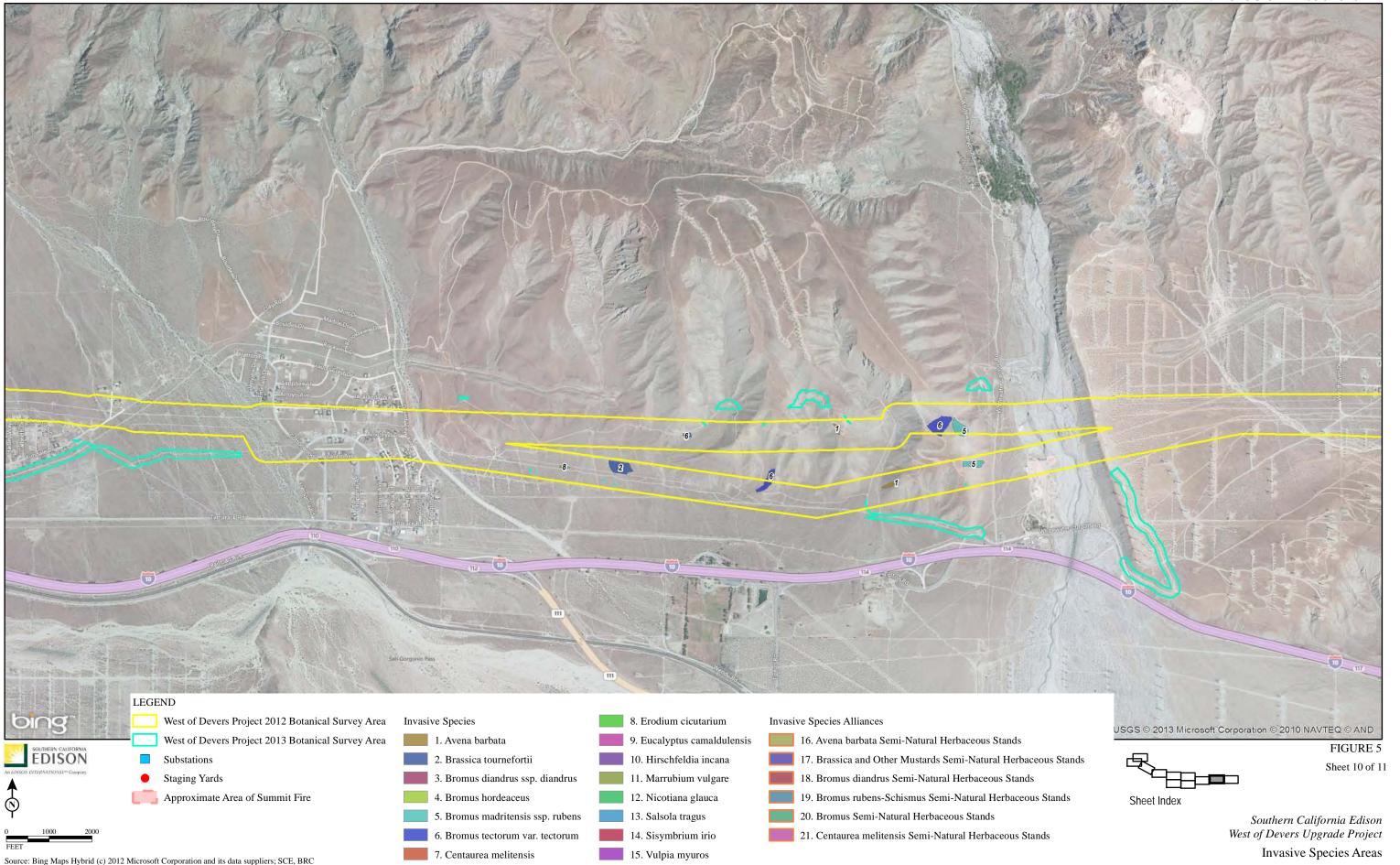
West of Devers Upgrade Project



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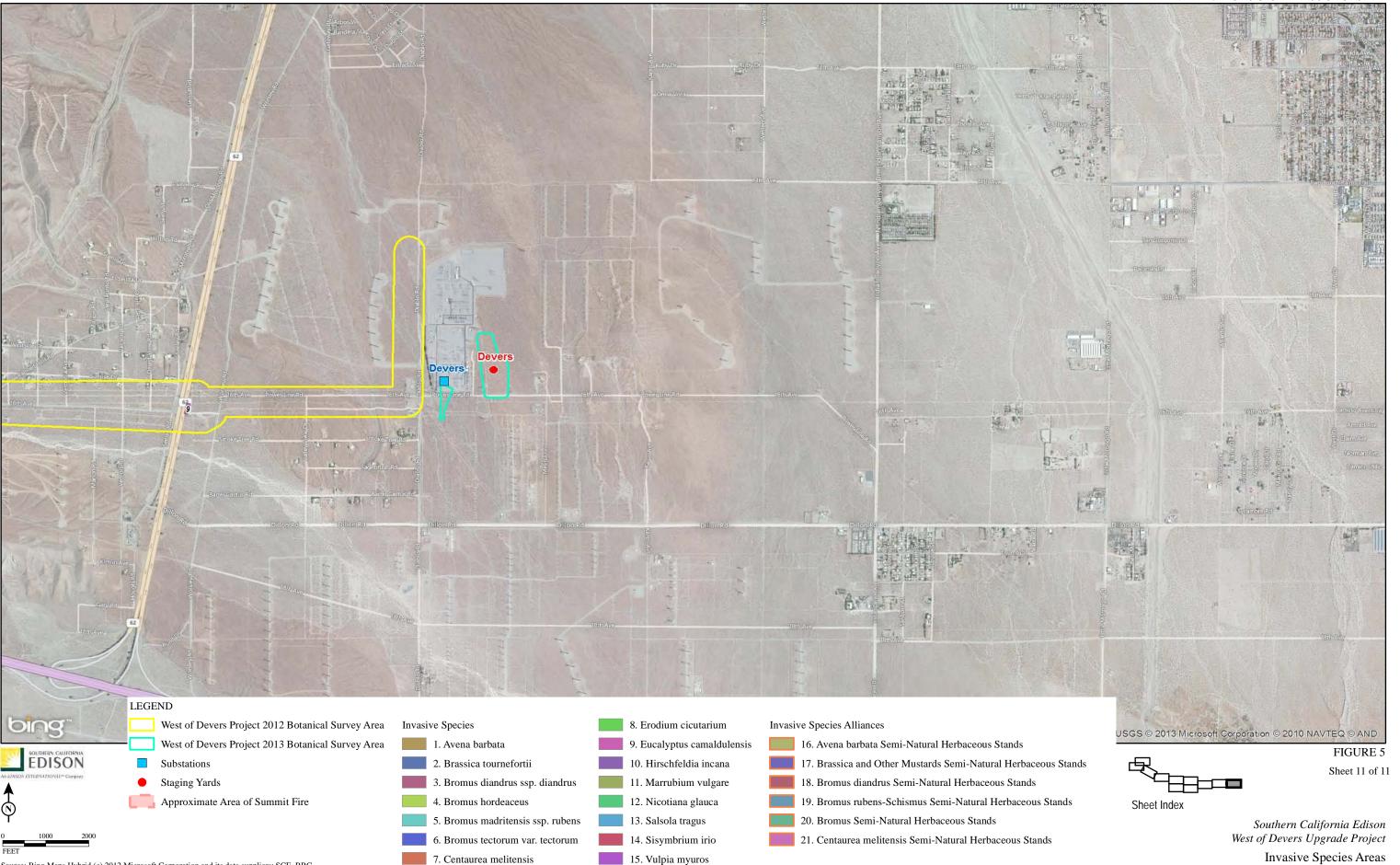
Proponent's Environmental Assessment

West of Devers Upgrade Project



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Proponent's Environmental Assessment West of Devers Upgrade Project



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Proponent's Environmental Assessment West of Devers Upgrade Project

Source: Bing Maps Hybrid (c) 2012 Microsoft Corporation and its data suppliers; SCE, BRC

### **SECTION 4. ACKNOWLEDGEMENTS**

This report was written by Steve Jones of BioResource Consultants, Inc. (BRC) and David Magney of David Magney Environmental Consulting (DMEC). Seth Sutherland (BRC) created all graphics for this report. Mr. Magney along with BRC Biologists Mr. Cedrick Villaseñor, Mr. James Peet, and Ms. Therin Rhaintre conducted the Project area survey and photographed the botanical resources in March, April, May, and June 2012. Mr. Jones, Mr. Villaseñor, Ms. Rhaintre and Ms. Termondt (BRC) conducted the Project area survey and photographed the botanical resources in April and May 2013. Photographs not taken during the 2012 and 2013 botanical surveys were taken directly from the Cal Flora photo database (CalPhotos 2012). Mr. Villaseñor, Mr. Peet and Ms. Termondt assisted with data entry and analysis. Peter Cantle (BRC) managed the project and provided product reviews.

Ingri Quon of LSA Associates, Inc. provided project coordination assistance throughout this project and Ms. Quon and Dr. Stanley Spencer, also of LSA, reviewed this report.

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## **APPENDIXES**

# **APPENDIX A**

Vascular Plants Observed in 2012-2013 within the West of Devers Upgrade Project Survey Area

Appendix A. Vascular Plants Observed in 2012-2013 within the West of Devers Upgrade Project Survey Area

Scientific Name	Common Name	Habit	Family
Abronia villosa var. aurita	Chaparral Sand-verbena	AH	Nyctaginaceae
Acacia baileyana +	Bailey Acacia	S/T	Fabaceae
Acacia longifolia +	Golden Wattle	S	Fabaceae
Acamptopappus sphaerocephalus var.			
sphaerocephalus	Rayless Goldenhead	S	Asteraceae
Acmispon americanus var. americanus	American Birdsfoot Trefoil	AH	Fabaceae
Acmispon glaber var. brevialatus	Desert Deerweed	S	Fabaceae
Acmispon glaber var. glaber	Deerweed	S	Fabaceae
Acmispon maritimus var. maritimus	Coastal Lotus	AH	Fabaceae
Acmispon strigosus var. strigosus	Strigose Lotus or Hosackia	AH	Fabaceae
Acmispon wrangelianus	Chile Lotus	AH	Fabaceae
Acourtia microcephala	Sacapelote	PH	Asteraceae
Adenostoma fasciculatum var. fasciculatum	Chamise	S	Rosaceae
Agapanthus africanus +	African Lily	PG	Agapanthaceae
Agoseris retrorsa	Retrorse Mountain Dandelion	AH	Asteraceae
Agrostis exarata	Spike Bentgrass	PG	Poaceae
Ailanthus altissima **	Tree-of-Heaven	T	Hippocastinaceae
Allium marvinii	Yucaipa Onion	PG	Alliaceae
Allium peninsulare var. peninsulare	Peninsular Onion	PG	Alliaceae
Alnus rhombifolia	White Alder	T	Betulaceae
Amaranthus albus *	Pigweed Amaranth	AH	Amaranthaceae
Amaranthus blitoides	Mat Amaranth	AH	Amaranthaceae
Amaranthus hybridus *	Green Amaranth	AH	Amaranthaceae
Ambrosia acanthicarpa	Annual Turweed	AH	Asteraceae
Ambrosia dumosa	Burrowbush	S	Asteraceae
Ambrosia psilostachya var. californica	Western Ragweed	BH	Asteraceae
Ambrosia salsola var. salsola	Cheesebush	S	Asteraceae
Amsinckia intermedia	Rancher's Fire	AH	Boraginaceae
Amsinckia menziesii	Menzies' Fiddleneck	AH	Boraginaceae
Amsinckia tessellata var. tessellata	Desert Fiddleneck	AH	Boraginaceae
Arctostaphylos glandulosa ssp. mollis	Hairy Eastwood Manzanita	S	Ericaceae
Arctostaphylos glauca	Bigberry Manzanita	S	Ericaceae
Arctostaphylos parryana var. parryana	Parry Manzanita	S	Ericaceae
Argemone munita	Prickly Poppy	PH	Papaveraceae
Artemisia californica	California Sagebrush	S	Asteraceae
Artemisia douglasiana	Mugwort	PH	Asteraceae
Artemisia dracunculus	Tarragon	PH	Asteraceae
Arundo donax **	Giant Reed	PG	Poaceae
Asclepias californica	California Milkweed	PH	Apocynaceae
Astragalus pomonensis	Pomona Locoweed	PH	Fabaceae
Atriplex canescens var. canescens	Fourwing Saltbush	S	Chenopodiaceae
Atriplex canescens var. linearis	Fourwing Saltbush	S	Chenopodiaceae
Avena barbata **	Slender Wild Oat	AG	Poaceae
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Scientific Name	Common Name	Habit	Family
Baccharis pilularis ssp. consanguinea	Coyote Brush	S	Asteraceae
Baccharis salicifolia	Mulefat	S	Asteraceae
Baccharis salicina	Emory Baccharis	S	Asteraceae
Baccharis sarothroides	Desert Broom	S	Asteraceae
Bahiopsis parishii	Parish's Goldeneye	S	Asteraceae
Bebbia juncea var. aspera	Sweetbush	S	Asteraceae
Bloomeria crocea var. crocea	Common Goldenstars	PG	Themidaceae
Bowlesia incana	Hoary Bowlesia	AH	Apiaceae
Brassica tournefortii **	Sahara Mustard	AH	Brassicaceae
Brickellia californica	California Brickellbush	S	Asteraceae
Brickellia desertorum	Desert Brickellbush	S	Asteraceae
Bromus carinatus var. carinatus	California Broom	AG	Poaceae
Bromus diandrus ssp. diandrus **	Ripgut Grass	AG	Poaceae
Bromus hordeaceus **	Soft Chess	AG	Poaceae
Bromus madritensis ssp. madritensis* *	Madrid Brome	AG	Poaceae
Bromus madritensis ssp. rubens **	Red Brome	AG	Poaceae
Bromus tectorum var. tectorum **	Downy Brome, Cheat Grass	AG	Poaceae
Calandrinia ciliata	Redmaids	AH	Portulacaceae
Callistemon sp. +	New Zealand Bottlebrush	S	Myrtaceae
Calochortus plummerae	Plummer's Mariposa Lily	PG	Liliaceae
Calystegia occidentale var. fulcrata	Sonora Morning-glory	PV	Convolvulacea
Camissonia strigulosa	Contorted Primrose	AH	Onagraceae
Camissoniopsis bistorta	California Sun Cup	AH	Onagraceae
Camissoniopsis cf micrantha	Miniature Sun Cup	AH	Onagraceae
Camissoniopsis pallida ssp. hallii	Hall's Paleyellow Sun Cup	AH	Onagraceae
Camissoniopsis pallida ssp. pallida	Paleyellow Sun Cup	AH	Onagraceae
Cardaria draba **	Whitetop	PH	Brassicaceae
Carduus pycnocephalus **	Italian Thistle	AH	Asteraceae
Carex praegracilis	Field Sedge	PG	Cyperaceae
Carpobrotus chilensis **	Hottentot Fig	S	Aizoaceae
Castilleja applegatei ssp. martinii	Wavy-leaved Paintbrush	AH	Orobanchaceae
Castilleja exserta ssp. exserta	Purple Owl's Clover	AH	Orobanchaceae
Castilleja foliolosa	Leafy Indian Paintbrush	PH	Orobanchaceae
Casuarina sp. +	She Oak	T	Casuarinaceae
Ceanothus griseus var. horizontalis +	Carmel Creeper	S	Rhamnaceae
Ceanothus oliganthus var. oliganthus	Hairy Ceanothus	S	Rhamnaceae
Ceanothus oliganthus var. sorediatus	Jim Brush	S	Rhamnaceae
Ceanothus perplexans	Desert Ceanothus	S	Rhamnaceae
Cedrus deodara +	Deodar Cedar	T	Pinaceae
Centaurea benedicta *	Blessed Thistle	AH	Asteraceae
Centaurea melitensis **	Tocalote, Napa Thistle	АН	Asteraceae
Cercocarpus betuloides var. betuloides	Birchleaf Mountain Mahogany	S	Rosaceae
Chaenactis fremontii	Desert or Fremont Pincushion	AH	Asteraceae
Chaenactis glabriuscula var. lanosa	Woolly Yellow Pincushion	AH	Asteraceae
Chamaesyce polycarpa var. polycarpa	Many-fruited Spurge	PH	Euphorbiaceae
Chenopodium album *	Lambsquarters	AH	Chenopodiacea
Chenopodium californicum	California Goosefoot	PH	Chenopodiacea

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Scientific Name	Common Name	Habit	Family
Chilopsis linearis ssp. arcuata	Desert Willow	T	Bignoniaceae
Chlorogalum pomeridianum var. pomeridianum	Soap Lily	PG	Agavaceae
Chorizanthe brevicornu var. brevicornu	Brittle Spineflower	AH	Polygonaceae
Chorizanthe xanti var. leucotheca	White-bracted Spineflower	AH	Polygonaceae
Cichorium intybus*	Wild Chicory	PH	Asteraceae
Cirsium occidentale var. californicum	California Thistle	BH	Asteraceae
Cirsium vulgare **	Bull Thistle	BH	Asteraceae
Cistus cobariensis +	Sun Rose	S	Cistaceae
Citrus sp. +	Citrus (Orange or Lemon)	T	Rutaceae
Clarkia dudleyana	Dudley's Fairyfan	AH	Onagraceae
Clarkia epilobioides	Canyon Fairyfan	AH	Onagraceae
Clarkia purpurea var. quadrivulnera	Four Spot	AH	Onagraceae
Clarkia rhomboidea	Rhomboid Farewell-to-Spring	AH	Onagraceae
Claytonia perfoliata ssp. perfoliata	Miner's Lettuce	AH	Portulacaceae
Clematis lasiantha	Virgins Bower	PV	Ranunculaceae
Collinsia concolor	Chinese Houses	AH	Plantaginaceae
Collinsia heterophylla	Chinese Houses	AH	Plantaginaceae
Conium maculatum **	Poison Hemlock	AH	Apiaceae
Convolvulus arvensis *	Bindweed	AV	Convolvulacea
Conyza canadensis	Horseweed	AH	Asteraceae
Corethrogyne filaginifolia	California Cudweed-aster	PH	Asteraceae
Cotoneaster sp. +	Cotoneaster	S	Rosaceae
Crassula connata	Pygmy Sand-weed	AH	Crassulaceae
Croton californicus	California Croton	PH	Euphorbiaceae
Cryptantha intermedia var. intermedia	Common Forget-Me-Not	AH	Boraginaceae
Cryptantha sp.2 (tiny flowers)	tiny flowered Forget-Me-Not	AH	Boraginaceae
Cryptantha sp.3	a Forget-Me-Not	AH	Boraginaceae
Cucurbita foetidissima	Calabazilla	PV	Cucurbitaceae
Cucurbita palmata	Coyote Melon	PV	Cucurbitaceae
Cuscuta californica var. californica	California Dodder	AV	Convolvulaceae
Cuscuta subinclusa	Desert Dodder	AV	Convolvulaceae
Cylindropuntia bigelovii	Teddy-bear Cholla	S	Cactaceae
Cylindropuntia californica var. parkeri	Cane Cholla	S	Cactaceae
Cylindropuntia echinocarpa	Silver or Golden Cholla	S	Cactaceae
Eylindropuntia ramosissima	Pencil Cholla	S	Cactaceae
Cylindropuntia ramosissima X C. echinocarpa	Pencil Cholla Hybrid	S	Cactaceae
Cynodon dactylon **	Bermuda Grass	PG	Poaceae
Datura wrightii	Jimson Weed	AH	Solanaceae
Deinandra kelloggii	Kellogg's Tarplant	AH	Asteraceae
Delphinium parryi ssp. parryi	Parry Larkspur	PH	Ranunculaceae
Dendromecon rigida ssp. rigida	Tree Poppy	S	Papaveraceae
Dichelostemma capitatum ssp. capitatum	Blue Dicks	PG	Themidaceae
Diplacus longiflorus [Mimulus aurantiacus ssp. pubescens]	Hairy Bush Monkeyflower	S	Phrymaceae
Ditaxis neomexicana	New Mexico Silverbush	PH	Malvaceae
Orosanthemum floribundum *	Dew Flower Iceplant	PH	Aizoaceae
Dudleya lanceolata	Lanceleaf Live-forever	PH	Crassulaceae
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Scientific Name	Common Name	Habit	Family
Echinocactus polycephalus var. polycephalus	Mojave Hedgehog Cactus	S	Cactaceae
Echinocereus engelmannii var. engelmannii	Engelmann's Hedgehog Cactus	S	Cactaceae
Ehrendorferia chrysantha	Golden Eardrops	PH	Papaveraceae
Elymus condensatus	Giant Wildrye	PG	Poaceae
Elymus glaucus	Blue Wildrye	PG	Poaceae
Emmenanthe penduliflora var. penduliflora	Whispering Bells	AH	Boraginaceae
Encelia actonii	Acton's Brittlebush	S	Asteraceae
Encelia californica	California Bush Sunflower	S	Asteraceae
Encelia farinosa	Button Brittlebush	S	Asteraceae
Ephedra californica	California Mormon Tea	S	Ephedraceae
Ephedra viridis	Green Mormon Tea	S	Ephedraceae
Epilobium canum ssp. canum	California Fuchsia	PH	Onagraceae
Epilobium ciliatum ssp. ciliatum	Northern Willow-herb	AH	Onagraceae
Eremocarpus setigerus	Dove Weed	AH	Euphorbiaceae
Eremothera boothii ssp. condensata	Compact Booth's Evening-primrose	AH	Onagraceae
Eremothera boothii ssp. decorticans?	Booth's Evening-primrose	AH	Onagraceae
Eriastrum densifolium ssp. densifolium	Giant Woollystar	PH	Polemoniaceae
Eriastrum sapphirinum ssp. dasyanthum	Sapphire Woollystar	AH	Polemoniaceae
Eriastrum sapphirinum ssp. sapphirinum	Sapphire Woollystar	AH	Polemoniaceae
Ericameria palmeri var. pachylepus	Broad-scaled Palmer's Goldenbush	S	Asteraceae
Ericameria paniculata	Mojave Rabbitbrush	S	Asteraceae
Ericameria pinifolia	Pine Goldenbush	S	Asteraceae
Erigeron foliosus var. foliosus	Leafy Fleabane or Daisy	PH	Asteraceae
Eriodictyon crassifolium var. crassifolium	Yerba Santa	S	Boraginaceae
Eriodictyon trichocalyx var. trichocalyx	Hairy Flower Yerba Santa	S	Boraginaceae
Eriogonum elongatum var. elongatum	Slender Buckwheat	PH	Polygonaceae
Eriogonum fasciculatum var. foliolosum	Leafy California Buckwheat	S	Polygonaceae
Eriogonum fasciculatum var. polifolium	Desert California Buckwheat	S	Polygonaceae
Eriogonum gracile var. gracile	Slender Woolly Buckwheat	AH	Polygonaceae
Eriogonum inflatum	Desert Trumpet	PH	Polygonaceae
Eriogonum nudum var. pauciflorum or pubiflorum	Nude Buckwheat	PH	Polygonaceae
Eriogonum palmerianum	Palmer Buckwheat	AH	Polygonaceae
Eriogonum thurberi	Thurber Buckwheat	AH	Polygonaceae
Eriogonum wrightii var. nodosum	Wright's Buckwheat	S	Polygonaceae
Eriophyllum confertiflorum var. confertiflorum	Golden Yarrow	PH	Asteraceae
Eriophyllum wallacei	Wallace's Woolly Daisy	AH	Asteraceae
Erodium botrys *	Long-beaked Filaree	AH	Geraniaceae
Erodium brachycarpum *	Short-fruited Filaree	AH	Geraniaceae
Erodium cicutarium **	Redstem Filaree	AH	Geraniaceae
Erodium malacoides *	Mediterranean Filaree	AH	Geraniaceae
Erodium moschatum *	Whiteleaf Filaree	AH	Geraniaceae
Eschscholzia californica ssp. californica	California Poppy	AH	Papaveraceae
Eschscholzia glyptosperma.	Desert Gold Poppy	AH	Papaveraceae
Eschscholzia minutiflora	Pygmy Poppy	AH	Papaveraceae
Eucalyptus camaldulensis **	River Red Gum	T	Myrtaceae
Eucalyptus polyanthemos *+	Silver Dollar Gum	T	Myrtaceae
Eucalyptus sideroxylon +	Red Ironbark Eucalyptus	T	Myrtaceae
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Scientific Name	Common Name	Habit	Family
Eucalyptus tereticornis *	Forest Red Gum	T	Myrtaceae
Eucrypta chrysanthemifolia var. chrysanthemifolia	Common Eucrypta	AH	Boraginaceae
Eulobus californicus	Mustard Primrose	AH	Onagraceae
Ficus sp. +	Fig	T	Moraceae
Foeniculum vulgare **	Sweet Fennel	PH	Apiaceae
Fraxinus dipetala	Flowering Ash	T	Oleaceae
Fraxinus velutina	Velvet Ash	T	Oleaceae
Funastrum cynanchoides var. harwegii	Hartweg's Twinevine	AV	Apocynaceae
Galium angustifolium ssp. angustifolium	Narrowleaf Bedstraw	PH	Rubiaceae
Galium aparine	Goosegrass	AH	Rubiaceae
Garrya flavenscens	Silk-tassel Bush	S	Garryaceae
Gaura sinuata *	Wavyleaf Beeblossom	PH	Onagraceae
Gazania linearis **	Linear-leaved Treasure Flower	PH	Asteraceae
Gilia angelensis	Chaparral Gilia		Polemoniaceae
Gilia capitata ssp. abrotanifolia	Blue Field Gilia	AH	Polemoniaceae
Gilia clivorum	Purplespot Gilia		Polemoniaceae
Gnaphalium palustre *	Lowland Cudweed	AH	Asteraceae
Grevillea sp. +	Grevillea	S	Proteaceae
Gutierrezia californica	California Matchweed	S	Asteraceae
Gutierrezia sarothrae	Broom Snakeweed	S	Asteraceae
Hazardia squarrosa var. grindelioides	Sawtooth Goldenbush	S	Asteraceae
Helianthemum scoparium	Peak Rush-rose	PH	Cistaceae
Helianthus annuus	Annual Sunflower	AH	Asteraceae
Helianthus gracilentus	Slender Sunflower	PH	Asteraceae
Hemerocallis sp. +	Daylily	PG	Xanthorrhoracea
Hesperocnide tenella	Western Nettle	AH	Urticaceae
Hesperoyucca whipplei	Our Lord's Candle	S	Agavaceae
Heteromeles arbutifolia	Toyon	S	Rosaceae
Heterotheca grandiflora	Telegraph Weed	BH	Asteraceae
Heterotheca sessiliflora var. fastigiata	Sessileflower Goldenaster	PH	Asteraceae
Heterotheca villosa var. villosa	Hairy False Goldenaster	PH	Asteraceae
Hilaria rigida	Big Galleta	PG	Poaceae
Hirschfeldia incana **	Summer Mustard	ВН	Brassicaceae
Hordeum murinum ssp. leporinum **	Hare Barley	AG	Poaceae
Hordeum vulgare *	Barley	AG	Poaceae
Hypochaeris glabra **	Smooth Cat's-ear	AH	Asteraceae
socoma acradenia var. eremophila	Desert Alkali Goldenbush	S	Asteraceae
va axillaris [var. robustior]	Poverty Weed	PH	Asteraceae
Juglans nigra +	Black Walnut	T	Juglandaceae
Juncus mexicanus	Wire Grass	PG	Juncaceae
uncus mexicunus Iuncus xiphioides	Iris-leaved Rush	PG	Juncaceae
tuncus xipniotaes Iuniperus californica	California Juniper	S	Cupressaceae
runiperus caigornica Keckiella antirrhoides var. antirrhoides	_	S S	_
	Chaparral Beardtongue Heartleaf Penstemon	S S	Plantaginaceae
Keckiella cordifolia Krameria bicolor		S S	Plantaginaceae Krameriaceae
	White Rhatany Prickly Wild Lettuce	S AH	Asteraceae
Lactuca serriola *			

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Scientific Name	Common Name	Habit	Family
Lamium amplexicaule *	Henbit	AH	Lamiaceae
Larrea tridentata var. tridentata	Creosote Bush	S	Zygophyllaceae
Lasthenia californica	California Goldfields	AH	Asteraceae
Lasthenia gracilis	Southern California Goldfields	AH	Asteraceae
Lepidium lasiocarpum	Hairypod Peppergrass	AH	Brassicaceae
Lepidium nitidum var. nitidum	Common Peppergrass	AH	Brassicaceae
Lepidospartum squamatum	Scalebroom	S	Asteraceae
Leptosyne bigelovii	Bigelow's Tickseed	AH	Asteraceae
Linanthus californicus	California Prickly Phlox	S	Polemoniaceae
ithophragma affine ssp. mixtum	Common Woodland Star	PH	Saxifragaceae
ogfia filaginoides	California Cottonrose	AH	Asteraceae
omatium utriculatum	Foothill Lomatium	PH	Apiaceae
Lonicera interrupta	Interupted Honeysuckle	S	Caprifoliaceae
upinus albifrons var. albifrons	Silver Bush Lupine	S	Fabaceae
Lupinus bicolor ssp. bicolor	Miniature Lupine	AH	Fabaceae
Lupinus hirsutissimus	Nettle Lupine	AH	Fabaceae
upinus microcarpus var. densiflorus	Red-flowered Lupine	AH	Fabaceae
upinus nanus	Small Lupine	AH	Fabaceae
upinus sparsiflorus var. sparsiflorus	Few-flowered Lupine	AH	Fabaceae
upinus succculentus	Arroyo Lupine	AH	Fabaceae
upinus truncatus	Truncate-leaved Lupine	AH	Fabaceae
ycium andersonii	Desert Boxthorn	S	Solanaceae
ythrum californicum	California Loosestrife	PH	Lythraceae
Magnolia grandiflora +	Southern Magnolia	T	Magnoliaceae
Malacothamnus fremontii	Fremont's Bushmallow	S	Malvaceae
Malacothrix californica	California Chicory	AH	Asteraceae
Aalacothrix saxatalis var. tenuifolia	Tenuate Cliff-aster	PH	Asteraceae
Malosma laurina	Laurelleaf Sumac	S	Anacardiaceae
Aalva parviflora *	Cheeseweed	AH	Malvaceae
Aammillaria tetrancistra	Fishhook Cactus	PH	Cactaceae
Aarrubium vulgare **	White Horehound	PH	Lamiaceae
Aatricaria discoidea *	Pineapple Weed	AH	Asteraceae
1edicago polymorpha **	Common Burclover	AH	Fabaceae
Melica frutescens	Woody Melic Grass	PG	Poaceae
Ielica imperfecta	Coast Melic Grass	PG	Poaceae
Ielilotus indicus *	Yellow Sweetclover	AH	Fabaceae
Ientzelia laevicaulis	Giant blazing star	AH	Loasaceae
Mentzelia tricuspis	Spiny-hair blazingstar	AH	Loasaceae
Aimulus brevipes	Yellow Monkeyflower	AH	Phrymaceae
Mimulus cardinalis	Scarlet Monkeyflower	PH	Phrymaceae
Aimulus guttatus	Common Streamside Monkeyflower	PH	Phrymaceae
Airabilis laevis var. crassifolia	California Four O'Clock	S	Nyctaginaceae
Airabilis laevis var. villosa	Bigelow's Wishbone Bush	S	Nyctaginaceae
Airabilis tenuiloba	Slender-lobed Four O'Clock	S	Nyctaginaceae
Muhlenbergia sp.	Muhly Grass	AG	Poaceae
Ayoporum laetum +	Myoporum	S	Myoporaceae
Nandina domestica +	Heavenly Bamboo	S	Berberidiaceae

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Scientific Name	Common Name	Habit	Family
Nasturtium officinale *	Watercress	PH	Brassicaceae
Navarretia hamata ssp. hamata	Southern Hooked Navarretia	AH	Polemoniaceae
Nemophila menziesii var. menziesii	Baby Blue-eyes	AH	Boraginaceae
Nemophila pendunculata	Meadow Nemophila	AH	Boraginaceae
Nerium oleander *+	Oleander	S	Apocynaceae
Nicotiana glauca **	Tree Tobacco	T	Solanaceae
Oenothera deltoides	Devil's Lantern	AH	Onagraceae
Opuntia basilaris var. basilaris	Beavertail Cactus	S	Cactaceae
Opuntia engelmannii var. engelmannii	Engelmann Prickly Pear Cactus	S	Cactaceae
Opuntia littoralis	Coastal Prickly Pear Cactus	S	Cactaceae
Paeonia californica	California Peony	PH	Paeoneaceae
Palafaxia arida	Desert Palafox	PH	Asteraceae
Parkinsonia florida	Palo Verde	T	Fabaceae
Pectocarya linearis ssp. ferocula	Slender Pectocarya	AH	Boraginaceae
Pellaea andromedifolia var. andromedifolia	Coffee Fern	PF	Pteridaceae
Pennisetum setaceum **	African Fountain Grass	PG	Poaceae
Pennisetum villosum *	Fountain Grass	PG	Poaceae
Penstemon spectabilis var. subviscosus	Sticky Mojave Bugler	PH	Plantaginaceae
Pentagramma triangularis var. triangularis	Goldenback Fern	PF	Pteridaceae
Peritoma arborea var. angustata	Desert Bladderpod	S	Cleomiaceae
Peritoma arborea var. arborea	Bladderpod	S	Cleomiaceae
Persicaria cf punctata	Dotted Water Smartweed	PH	Polygonaceae
Petalonyx thurberi ssp. thurberi	Thurber Sandpaper-plant	S	Loasaceae
Phacelia campanularia var. campanularia	Desert Bluebells	AH	Boraginaceae
Phacelia cicutaria var. hispida	Hispid Caterpillar Phacelia	AH	Boraginaceae
Phacelia distans	Fern Scorpionweed	AH	Boraginaceae
Phacelia egena/imbricata	Rock Phacelia	PH	Boraginaceae
Phacelia minor	Wild Canterbury Bells	AH	Boraginaceae
Phacelia ramosissima	Branching Phacelia	PH	Boraginaceae
Pholistoma membranaceum	White Fiesta Flower	AH	Boraginaceae
Phoradendron californicum	Desert Mistletoe	PH	Viscaceae
Phoradendron macrophyllum	Bigleaf Mistletoe	PH	Viscaceae
Physalis crassifolia	Ground-cherry	PH	Solanaceae
Pinus halepensis +	Allepo Pine	T	Pinaceae
Plagiobothrys arizonicus	Arizona Popcornflower	AH	Boraginaceae
Plagiobothrys canescens var. canescens	Bracted Popcornflower	AH	Boraginaceae
Plagiobothrys collinus var. californicus	California Popcornflower	AH	Boraginaceae
Plantago erecta	California Plantain	AH	Plantaginaceae
Plantago major *	Common Plantain	PH	Plantaginaceae
Plantago ovata var. fastigiata	Desert Plantain	AH	Plantaginaceae
Platanus racemosa var. racemosa	Western Sycamore	T	Platanaceae
Pluchea sericea	Arrow Weed	S	Asteraceae
Poa annua *	Annual Bluegrass	AG	Poaceae
Poa secunda var. secunda	One-sided Bluegrass	PG	Poaceae
Polygonum aviculare ssp. aviculare	Doorweed	AH	Polygonaceae
Polypogon australis *	Southern Rabbitsfoot Grass	AG	Poaceae
Polypogon uusnuus Polypogon monspeliensis **	Bearded Rabbitsfoot Grass	AG	Poaceae

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Scientific Name	Common Name	Habit	Family
Populus fremontii ssp. fremontii	Fremont Cottonwood	T	Salicaceae
Portulaca oleracea *	Common Purslane	AH	Portulaceae
Prosopis glandulosa var. torreyana	Honey Mesquite	S	Fagaceae
Prunus blireana +	Blireana Plum	T	Rosaceae
Prunus ilicifolia ssp. ilicifolia	Hollyleaf Cherry	S	Rosaceae
Psathyrotes annua	Annual Psathyrotes	AH/PH	Asteraceae
Pseudognaphalium bioletti	Bicolored Everlasting	PH	Asteraceae
Pseudognaphalium californicum	Green Everlasting	PH	Asteraceae
Pseudognaphalium luteoalbum *	Cudweed Everlasting	AH	Asteraceae
Psorothamnus arborescens var. simplicifolius	California Indigo-bush	S	Fabaceae
Psorothamnus schottii	Indigo-bush	S	Fabaceae
Pterostegia drymarioides	Fairy Mist	AH	Polygonaceae
Punica granatum *+	Pomegranate	S	Lythraceae
Pyracantha sp. +	Firethorn	S	Rosaceae
Quercus agrifolia var. agrifolia	Coast Live Oak	T	Fagaceae
Quercus berberidifolia	California Scrub Oak	S	Fagaceae
Quercus engelmannii	Engelmann Oak	T	Fagaceae
Quercus palmeri X Q. berberidifolia	hybrid Oak	S	Fagaceae
Quercus hybrid 2	hybrid Oak	S	Fagaceae
Quercus wislizenii var. frutescens	Shrubby Interior Live Oak	S	Fagaceae
Rafinesquia californica	California Chickory	AH	Asteraceae
Rafinesquia neomexicana	New Mexico Desert Chicory	AH	Asteraceae
Raphanus sativus **	Wild Radish	AH	Brassicaceae
Rhamnus crocea	Redberry	S	Rhamnaceae
Phamnus ilicifolia	Hollyleaf Redberry, Buckthorn	S	Rhamnaceae
Rhus ovata	Sugar Bush	S	Anacardiaceae
Rhus trilobata	Skunk Brush	S	Anacardiaceae
Ribes aureum var. gracillimum	Golden Currant	S	Grossulariaceae
Ribes malvaceum var. viridifolium.	Chaparral Currant	S	Grossulariaceae
Ricinus communis **	Castor Bean	S	Euphorbiaceae
Pobinia pseudo-acacia *	Black Locust	T	Fabaceae
Rosa californica	California Wild Rose	S	Rosaceae
Rubus armeniacus **	Himalayan Blackberry	PV	Rosaceae
Rumex salicifolius var. ?	Willow Dock	PH	Polygonaceae
Salazaria mexicana	Bladder-sage	S	Lamiaceae
alix exigua var. exigua	Narrowleaf Willow	S	Salicaceae
alix gooddingii	Black Willow	T	Salicaceae
Salix laevigata	Red Willow	T	Salicaceae
alix lasiolepis var. lasiolepis	Arroyo Willow	S	Salicaceae
alsola tragus **	Russian Thistle	AH	Chenopodiacea
alvia apiana var. apiana	White Sage	S	Lamiaceae
'alvia apiana var. compacta	Compact White Sage	S	Lamiaceae
Talvia columbariae	Chia	AH	Lamiaceae
Salvia leucophylla	Purple Sage	S	Lamiaceae
Salvia mellifera	Black Sage	S	Lamiaceae
Salvia mengera Salvia vaseyi	Wand Sage	S	Lamiaceae
Sambucus mexicana	Blue Elderberry	S	Caprifoliaceae

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Scientific Name	Common Name	Habit	Family
Schinus molle **+	Peruvian peppertree	T	Anacardiaceae
Schinus terebinthifolia **+	Brazilian peppertree	T	Anacardiaceae
Schismus barbatus *	Abu Mashi	AG	Poaceae
Scrophularia californica ssp. floribunda	Many-flowered California Figwort	PH	Scrophulariaceae
Selaginella bigelovii	Bigelow Spike-moss	PF	Selaginellaceae
Selaginella eremophila	Desert Spike-moss	PF	Selaginellaceae
Senecio flaccidus var. douglasii	Shrubby Butterweed	S	Asteraceae
Senecio vulgaris *	Common Groundsel	AH	Asteraceae
Senegalia greggii	Catclaw	S	Fabaceae
Sidalcea sparsifolia	Southern Checkerbloom	PH	Malvaceae
Silybum marianum *	Milk Thistle	AH	Asteraceae
Simmondsia chinensis	Jojoba	S	Simmondsiaceae
Sisymbrium altissimum *	Tumbling Mustard	AH	Brassicaceae
Sisymbrium irio **	London Rocket	AH	Brassicaceae
Sisymbrium orientale *	Eastern Mustard	AH	Brassicaceae
Sisyrinchium bellum	Blue-eyed Grass	PG	Iridaceae
Solanum douglasii	Douglas Nightshade	S	Solanaceae
Solanum xanti	Chaparral Nightshade	S	Solanaceae
Sonchus asper ssp. asper*	Prickly Sow Thistle	AH	Asteraceae
Sonchus oleraceus *	Common Sow Thistle	AH	Asteraceae
Spartium junceum **	Spanish Broom	S	Fabaceae
Spergularia marina	Saltmarsh Sand-spurrey	AH	Caryophyllaceae
Stachys ajugoides var. rigida	Rigid Hedge Nettle	PH	Lamiaceae
Stellaria media *	Common Chickweed	AH	Caryophyllaceae
Stephanomeria exigua ssp. exigua	Small Wirelettuce	PH	Asteraceae
Stephanomeria pauciflora var. (?)	Wire Lettuce, Desert Straw	PH	Asteraceae
Stephanomeria virgata ssp. virgata	Tall Stephanomeria	AH	Asteraceae
Stillingia linearifolia	Queen's-root	S	Euphorbiaceae
Stipa cernua	Foothill Needlegrass	PG	Poaceae
Stipa coronata	Crested Needlegrass	PG	Poaceae
Stipa hymenoides	Sand Rice Grass	PG	Poaceae
Stipa lepida	Foothill Needlegrass	PG	Poaceae
Stipa miliacea var. miliacea *	Smilo Grass	PG	Poaceae
Stipa pulchra	Purple Needlegrass	PG	Poaceae
Stipa speciosa	Desert Needlegrass	PG	Poaceae
Symphoricarpos sp.	Snowberry	S	Caprifoliaceae
Tamarix ramosissima **	Tamarisk, Saltcedar	T/S	Tamaricaceae
Taraxacum officinale *	Dandelion	AH	Asteraceae
Tetradymia comosa	Hairy Cottonthorn	S	Asteraceae
Thamnosma montana	Turpintine-broom	S	Rutaceae
Toxicodendron diversilobum	Western Poison Oak	PV	Anacardiaceae
Tragopogon dubius *	Yellow Salsify	PH	Asteraceae
Trianthema portulacastrum	Horse-purslane	АН	Aizoaceae
Tribulus terrestris *	Puncture Vine, Caltrop	AH	Zygophyllaceae
Trichostema lanceolatum	Vinegar Weed	AH	Lamiaceae
Trifolium hirtum **	Rose Clover	AH	Fabaceae
Typha domingensis	Narrowleaf Cattail	PG	Typhaceae
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Scientific Name	Common Name	Habit	Family
Typha latifolia	Broadleaf Cattail	PG	Typhaceae
Ulmus sp. *	Elm	T	Ulmaceae
Uropappus lindleyi	Silverpuffs	AH	Asteraceae
Urtica dioica ssp. holosericea	Stinging Nettle	PH	Urticaceae
Urtica urens *	Dwarf Nettle	AH	Urticaceae
Verbascum thapsus **	Common Mullein	PH	Scrophulariaceae
Veronica anagallis-aquatica *	Water Speedwell	PH	Plantaginaceae
Veronica arvensis *	Common Speedwell	AH	Plantaginaceae
Viburnum suspensum +	Sandankwa Viburnum	S	Caprifoliaceae
Vicia benghalensis *	Purple Vetch	AV	Fabaceae
Viola pedunculata	Johnny Jump-up	PH	Violaceae
Vitis girdiana	Southern California Wild Grape	PV	Vitaceae
Vulpia bromoides *	Slender Fescue	AG	Poaceae
Vulpia microstachys var. pauciflora	Naked Six Weeks Fescue	AG	Poaceae
Vulpia myuros **	Rattail Fescue	AG	Poaceae
Washingtonia filifera +	California Fan Palm	T	Arecaceae
Washingtonia robusta **	Mexican Fan Palm	T	Arecaceae
Xanthium strumarium	Cocklebur	AH	Asteraceae
Yabea microcarpa	Yabea	AH	Apiaceae
Yucca shidigera	Mojave Yucca	S	Agavaceae
Zannichellia palustris	Horned-pondweed	PH	Zannichelliaceae
Ziziphus parryi var. parryi	Parry Jujube	S	Rhamnaceae

#### Habit definitions:

PG = perennial grass or graminoid r fern ally PV = perennial vine

AF = annual fern or fern ally PV = perennial vine AG = annual grass or graminoid PH = perennial herb

 $AH = annual \ herb$  S = shrub  $BH = biennial \ herb$  T = tree

PF = perennial fern or fern ally

Notes: Scientific nomenclature follows the Flora of North America Editorial Committee (1993-2011), *The Jepson Manual* (Baldwin et al. 2011), or more recent taxonomic treatments, or treatments not incorporated into *The Flora of North America North of Mexico* or *The Jepson Manual*. Common names follow Abrams and Ferris (1960), Neihaus and Ripper (1976), and DeGarmo (1980).

An "\*" indicates non-native taxa that have become naturalized or persist without cultivation. \*\* indicates CAL-IPC invasive exotic species and CDFA noxious weed species, A "+" indicates cultivated/planted nonnative species, such as in landscaping situations.

**Bold** typeface indicates special-status species.