September 29, 2015
20884

Jemellee Cruz
Flood Maintenance Division
County of Los Angeles Department of Public Works
900 South Fremont Avenue, Annex Building
Alhambra, California 91803

**SUBJECT: RESULTS FROM THE FOCUSED PLANT SURVEY FOR SOFT-BOTTOM CHANNEL REACH 113, DOMINGUEZ CHANNEL, MAINTENANCE PROJECT, LOS ANGELES COUNTY, CALIFORNIA. TASK ORDER NUMBER FMD-C339**

Dear Ms. Cruz:

This letter report summarizes the findings of the focused plant survey conducted for the Soft-Bottom Channel (SBC) Reach 113, Dominguez Channel, for the Los Angeles County Flood Control District (LACFCD) to support the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR) for the proposed actions relating to the Dominguez Channel SBC Reach Annual Maintenance Project (Project). Information contained in this document is in accordance with accepted scientific and technical standards that are consistent with the requirements of United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).

The Project reach is located in the Cities of Gardena, Carson, Wilmington, and Los Angeles. The channel is surrounded mainly by residential, commercial, and industrial development. The Project is located between the Interstate-110 and Interstate-710, extending south of Artesia Boulevard in Gardena to Henry Ford Avenue in Wilmington in the Port of Los Angeles (Figure 1). The proposed impact area includes:

- The expanse from the top of the riprap on one bank, across the channel, to the top of the riprap on the other bank
- A 50-foot buffer around any tree or shrub identified as having a 0.5-inch or more root diameter within the Dominguez Channel Project area (landward side of levee on one bank, across the channel, to the landward side of levee on the other bank plus an additional 15-foot buffer if it is contained within the LACFCD easement)
- The total channel length of 8.21 linear miles

**METHODS**

The focused plant survey was conducted by Chambers Group, Inc. (Chambers Group) botanists Jeremy Smith and Christina Congedo on September 3 and between September 9 through 11, 2015. During the survey, the botanists visually scanned the impact area for the presence of: southern tarplant (*Centromadia parryi* subsp. *australis*) and coast woolly-heads (*Nemacaulis denudata*), identified in the biological technical report by Chambers Group (2014) as having a potential to occur within the Dominguez Channel Project area.

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The survey was conducted by walking parallel transects throughout the impact area. If a targeted plant species was observed during the survey, botanists recorded the location using Global Positioning System (GPS) technology that provides real-time sub-meter accuracy and that has the capability to provide sub-foot accuracy with post processing. Representative photographs were taken of each rare plant species identified within the impact area. All plant species observed during the survey were recorded (Attachment 1). Plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations in *The Jepson Manual, Vascular Plants of California, Second Edition* (Baldwin et al. 2012) and the *Sunset Western Garden Book* (Brenzel 2007). Plant nomenclature follows that of Baldwin et al. (2012) for native plants and naturalized waifs, or the Sunset Publishing Corporation (Brenzel 2007) for ornamental cultivars.

## RESULTS

### Vegetation

Open water is present within this SBC reach, and developed areas consisting of concrete and riprap channel banks line the reach. The channel edges contain thin bands and patches of disturbed saltmarsh vegetation, most dense in the upstream portion of the reach. The vegetated portions of the channel were dominated by native common pickleweed (*Salicornia pacifica*), saltwort (*Batis maritma*), salt grass (*Distichlis spicata*), and fleshy jaumea (*Jaumea carnosa*). This vegetation type was considered disturbed due to a high proportion of trash and interspersed patches of ruderal and nonnative vegetation present in densities greater than 25 percent throughout the channel. Dominant nonnative vegetation present included seashore paspalum (*Paspalum vaginatum*), bristly ox-tongue (*Helminthotheca echioides*), ripgut grass (*Bromus diandrus*), and flax-leaved horseweed (*Erigeron bonariensis*).

### Sensitive Plants

Southern tarplant and coast woolly-heads were not observed within the proposed impact area during the survey and these species are considered absent. No additional sensitive plant species were observed within the proposed impact.

Botanists did identify southern tarplant on private property immediately outside the LACFCD right-of-way in the southwestern portion of the reach (Figure 2).

**Southern Tarplant (*Centromadia parryi* subsp. *australis*) CRPR 1B.1**

Southern tarplant is an annual herb in the Asteraceae family that flowers between May and November. This plant is often found along the margins of marshes and swamps, can be found in vernally mesic valley and foothill grasslands, and has been known to grow in vernal pools as well. This species occurs at elevations up to 1,575 feet (0 to 480 meters) above mean sea level. This species is threatened by population fragmentation, urbanization, vehicles, development, foot traffic, grazing, habitat disturbance, and competition from nonnative plants (CNPS 2015).

Several individuals of southern tarplant were observed immediately outside the LACFCD right-of-way adjacent to the Dominguez Channel within a potential staging area for the proposed maintenance work (See photographs in Attachment 2, and mapped on Figure 2). Avoidance of this polygon is recommended. If

LACFCD proposes to use this area as a staging area or if additional work is proposed to occur outside the specified impact area, mitigation may be required.

**CONCLUSIONS**

Southern tarplant and coast woolly-heads were not observed during the survey within the proposed impact area; therefore, these species are considered absent from SBC Reach 113. Mitigation is not required for these species. It is recommended that LACFCD avoid using the southern tarplant polygon identified on Figure 2 as a staging area or for any additional proposed work.

Please feel free to contact me at (949) 261-5414 ext. 7241 or at hclayton@chambersgroupinc.com if you have any questions.

Sincerely,

Heather Clayton

**Heather Clayton**
**Senior Botanist**

**References**

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, and D.H. Wilken (editors)
2012 *The Jepson Manual: Vascular Plants of California, Second Edition*. University of California Press, Berkeley, CA.

Brenzel, K. N., (editor)
2007 *The Sunset Western Garden Book, Eighth Edition.* Sunset Publishing Corporation, Menlo Park, CA.

California Native Plant Society (CNPS)
2015 *Inventory of Rare and Endangered Plants of California* (online edition, v8-02). California Native Plant Society, Rare Plant Program, Sacramento, CA. Accessed September 3, 2015, from http:www.rareplants.cnps.org/.

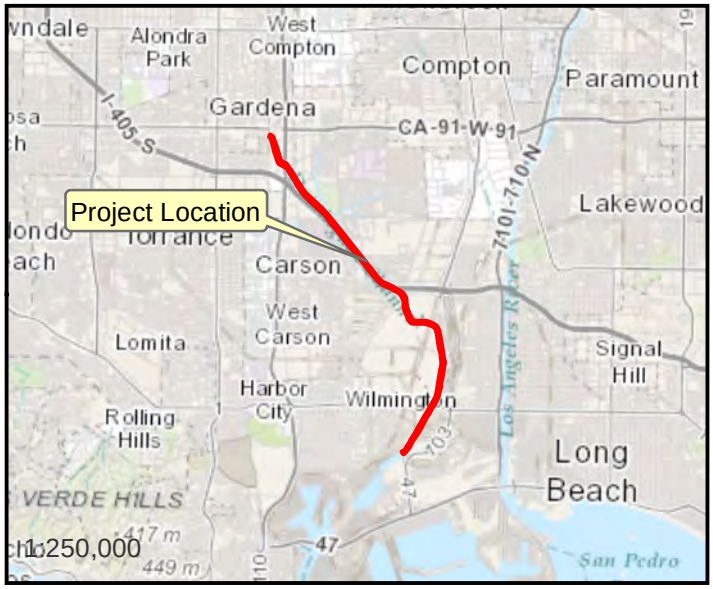
Chambers Group, Inc. (Chambers Group)
2014 Biological Technical Report for the Dominguez Soft Bottom Channel Reach Maintenance Project Los Angeles County, California. Chambers Group, Inc. Santa Ana, CA. Prepared for Los Angeles County Department of Public Works on May 29, 2014.

**Figures and Attachments**

Figure 1 – Project Location and Vicinity Map
Figure 2 – Focused Plant Survey Map

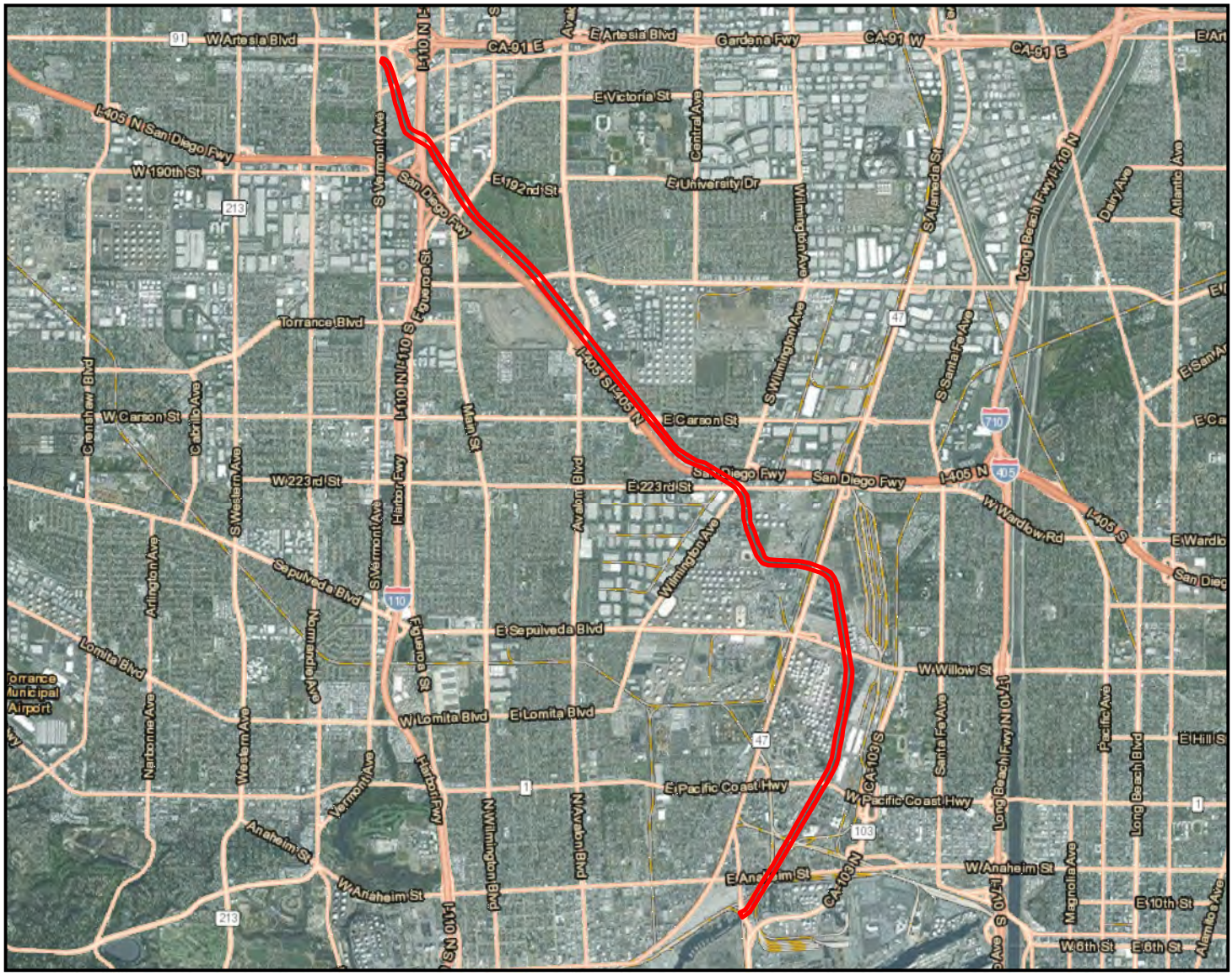
Attachment 1 – Plant Species Observed
Attachment 2 – Representative Photographs

Solving Environmental Challenges










**Legend**

Survey Area

N

0 0.5 1 2

Miles

# Figure 1

Dominguez Soft-Bottom Channel
Project Location & Vicinity Map

Name: 20884 Dominguez Fig 1 Loc & Vicinity.Mxd
Print Date: 9/28/2015, Author: msimmons

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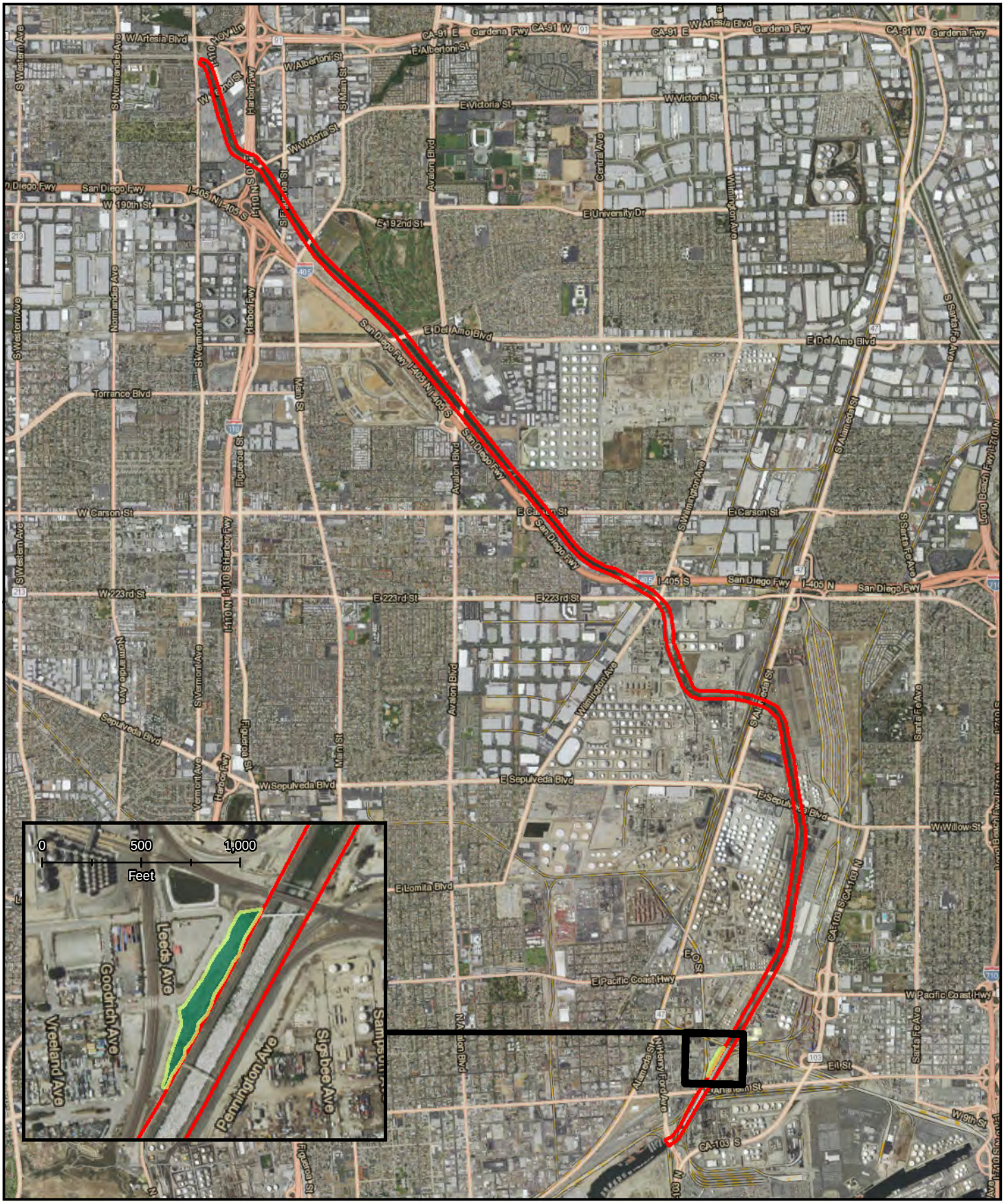


# Figure 2

Dominguez Soft-Bottom Channel
Focused Plant Survey Results Map

Name: 20884 Dominguez Fig 2 Plant Survey.Mxd
Print Date: 9/28/2015, Author: msimmons

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# ATTACHMENT 1 – PLANT SPECIES OBSERVED

**ATTACHMENT 1**
**PLANT SPECIES OBSERVED**

| Scientific Name | Common Name |
|---|---|
| **ANGIOSPERMS (EUDICOTS)** | |
| **AIZOACEAE** | **FIG-MARIGOLD FAMILY** |
| *Mesembryanthemum crystallinum** | crystalline iceplant |
| **AMARANTHACEAE** | **AMARANTH FAMILY** |
| *Amaranthus albus** | tumbling pigweed |
| **ANACARDIACEAE** | **SUMAC OR CASHEW FAMILY** |
| *Malosma laurina* | laurel sumac |
| *Schinus terebinthifolius** | Brazilian pepper tree |
| **APIACEAE** | **CARROT FAMILY** |
| *Apium graveolens** | celery |
| *Foeniculum vulgare** | fennel |
| **ASTERACEAE** | **SUNFLOWER FAMILY** |
| *Ambrosia psilostachya* | western ragweed |
| *Baccharis salicifolia* subsp. *salicifolia* | mule fat |
| *Bidens pilosa** | common beggar-ticks |
| *Centaurea diluta** | North African knapweed |
| *Centaurea melitensis** | tocalote |
| *Cirsium vulgare** | bull thistle |
| *Dimorphotheca fruticosa** | trailing African daisy |
| *Erigeron bonariensis** | flax-leaved horseweed |
| *Erigeron canadensis* | horseweed |
| *Glebionis coronaria** | garland daisy |
| *Helminthotheca echioides** | bristly ox-tongue |
| *Heterotheca grandiflora* | telegraph weed |
| *Lactuca serriola** | prickly lettuce |
| *Pseudognaphalium stramineum* | cotton-batting plant |
| *Senecio vulgaris** | common groundsel |
| *Sonchus asper* subsp. *asper** | prickly sow thistle |
| *Sonchus oleraceus** | common sow thistle |
| *Symphyotrichum subulatum* | aster |
| *Xanthium strumarium* | cocklebur |
| **BORAGINACEAE** | **BORAGE FAMILY** |
| *Heliotropium curassavicum* var. *oculatum* | salt heliotrope |
| **BRASSICACEAE** | **MUSTARD FAMILY** |
| *Hirschfeldia incana** | shortpod mustard |
| *Raphanus sativus** | radish |

| Scientific Name | Common Name |
|---|---|
| **CACTACEAE** | **CACTUS FAMILY** |
| *Opuntia littoralis* | coastal prickly pear |
| **CARYOPHYLLACEAE** | **PINK FAMILY** |
| *Spergularia marina* | saltmarsh sandspurrey |
| **CASUARINACEAE** | **BEEFWOOD FAMILY** |
| *Casuarina equisetifolia*+ | beefwood |
| **CHENOPODIACEAE** | **GOOSEFOOT FAMILY** |
| *Arthrocnemum subterminale* | Parish's pickleweed |
| *Atriplex lentiformis* | big saltbush |
| *Atriplex prostrata* | spearscale |
| *Atriplex semibaccata** | Australian saltbush |
| *Bassia hyssopifolia** | five-hooked bassia |
| *Salicornia pacifica* | common pickleweed |
| *Salsola tragus** | Russian thistle |
| **CONVOLVULACEAE** | **MORNING-GLORY FAMILY** |
| *Cressa truxillensis* | alkali weed |
| *Cuscuta pacifica* var. *pacifica* | large-flower saltmarsh dodder |
| **EUPHORBIACEAE** | **SPURGE FAMILY** |
| *Chamaesyce maculata** | spotted spurge |
| *Ricinus communis** | castor-bean |
| **FABACEAE** | **LEGUME FAMILY** |
| *Acacia melanoxylon** | blackwood acacia |
| *Frankenia salina* | alkali heath |
| **GERANIACEAE** | **GERANIUM FAMILY** |
| *Erodium cicutarium** | red-stemmed filaree |
| **MALVACEAE** | **MALLOW FAMILY** |
| *Lagunaria patersonia**+ | primrose tree |
| **MYRTACEAE** | **MYRTLE FAMILY** |
| *Eucalyptus citriodora** | lemon-scent gum |
| *Melaleuca* sp.*+ | myrtle |
| *Melaleuca viminalis** | bottlebrush |
| **NYCTAGINACEAE** | **FOUR O'CLOCK FAMILY** |
| *Bougainvillea spectabilis** | bougainvillea |
| **OLEACEAE** | **OLIVE FAMILY** |
| *Fraxinus uhdei** | shamel ash |
| *Ligustrum* sp.*+ | privet |
| **PHYTOLACCACEAE** | **POKEWEED FAMILY** |
| *Phytolacca americana** | pokeweed |

| Scientific Name | Common Name |
|---|---|
| **PLANTAGINACEAE** | **PLANTAIN FAMILY** |
| *Plantago lanceolata** | English plantain |
| *Plantago major** | common plantain |
| **PLUMBAGINACEAE** | **LEADWORT FAMILY** |
| *Limonium perezii** | Perez's marsh-rosemary |
| *Limonium ramosissimum** | Algerian sea lavender |
| **POLYGONACEAE** | **BUCKWHEAT FAMILY** |
| *Rumex conglomeratus** | dock |
| **PORTULACACEAE** | **PURSLANE FAMILY** |
| *Portulaca oleracea** | common purslane |
| **SALICACEAE** | **WILLOW FAMILY** |
| *Salix gooddingii* | black willow |
| **SAPINDACEAE** | **SOAPBERRY FAMILY** |
| *Cupaniopsis anacardioides** | carrotwood |
| *Koelreuteria paniculata** | golden raintree |
| **SCROPHULARIACEAE** | **FIGWORT FAMILY** |
| *Myoporum laetum** | myoporum |
| **SIMAROUBACEAE** | **QUASSIA FAMILY** |
| *Ailanthus altissima** | tree of heaven |
| **SOLANACEAE** | **NIGHTSHADE FAMILY** |
| *Datura wrightii* | jimson weed |
| *Nicotiana glauca** | tree tobacco |
| **TAMARICACEAE** | **TAMARISK FAMILY** |
| *Tamarix ramosissima** | Mediterranean tamarisk |
| **ULMACEAE** | **ELM FAMILY** |
| *Ulmus parvifolia** | Chinese elm |
| **ANGIOSPERMS (MONOCOTS)** | |
| **ARECACEAE** | **PALM FAMILY** |
| *Phoenix canariensis** | Canary Island date palm |
| *Washingtonia robusta** | Mexican fan palm |
| **POACEAE** | **GRASS FAMILY** |
| *Agrostis capillaris** | colonial bent |
| *Arundo donax** | giant reed |
| *Avena barbata** | slender wild oat |
| *Bromus hordeaceus** | soft chess |
| *Bromus madritensis* subsp. *madritensis** | foxtail chess |
| *Distichlis spicata* | saltgrass |
| *Festuca perennis** | Italian ryegrass |

| Scientific Name | Common Name |
|---|---|
| *Leptochloa fusca* subsp. *uninervia* | Mexican sprangletop |
| *Paspalum vaginatum** | seashore paspalum |
| *Paspalum distichum* | knotgrass |
| *Pennisetum setaceum** | fountain grass |
| *Stipa miliacea* var. *miliacea** | smilo grass |

*Non-Native Species, +Ornamental, Unlikely to be Invasive

# ATTACHMENT 2 – REPRESENTATIVE PHOTOGRAPHS

## ATTACHMENT 2
## REPRESENTATIVE PHOTOGRAPHS

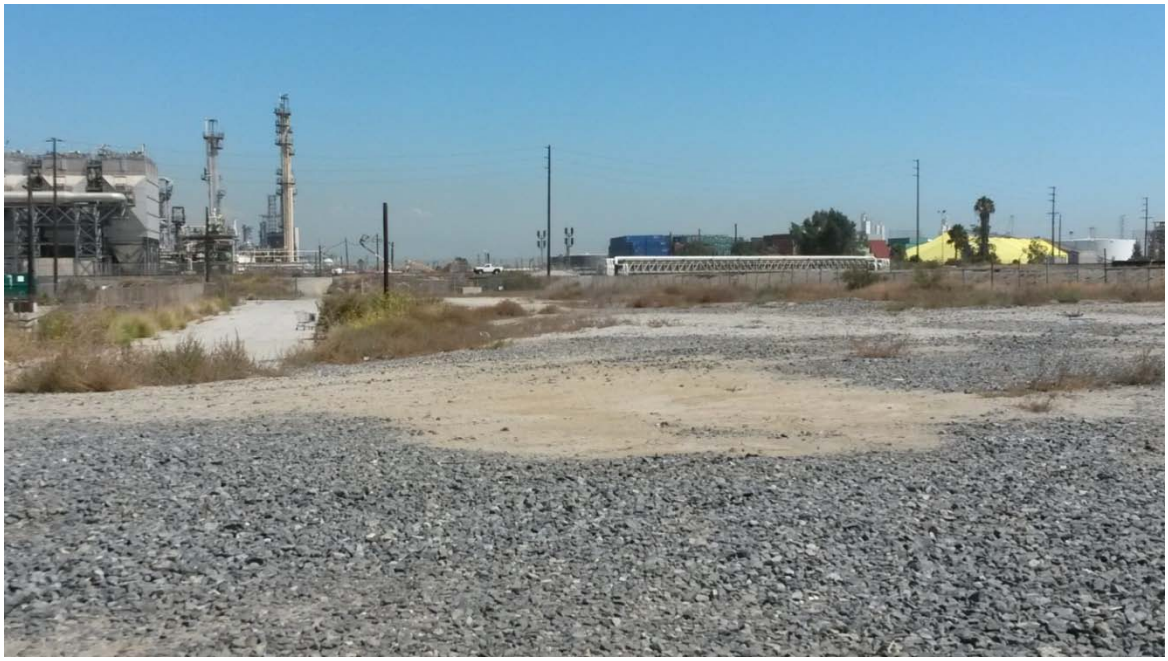

**Photo 1:** Overview of the mapped area immediately outside the LACFCD right-of-way containing southern tarplant (*Centromadia parryi* subsp. *australis*).



**Photo 2:** Photo of a pile of dead southern tarplant that appear to have been uprooted from the mapped area.



**Photo 3:** A close-up and representative photo of southern tarplant in vegetative form taken at an offsite location.



**Photo 4**: A close-up and representative photo of a southern tarplant flower for reference purposes.