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 112, BALLONA CREEK, 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 112, Ballona Creek, 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 Ballona Creek 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 Marina Del Rey area of the City of Los Angeles and is surrounded mainly by residential, commercial, and industrial development. The Project is located west of Interstate 405, east of Marina Del Rey, and north of the Los Angeles International Airport (Figure 1), from Centinela Avenue to Pacific Avenue. 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 Ballona Creek 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 2.75 linear miles

METHODS

The focused plant survey was conducted by Chambers Group, Inc. (Chambers Group) botanists Heather Clayton and Rebecca Alvidrez on September 2, 2015. During the survey, the botanists visually scanned the impact area for the presence of: southern tarplant (*Centromadia parryi* subsp. *australis*) and white-rabbit-tobacco (*Pseudognaphalium leucocephalum*), identified in the biological technical report by BonTerra (2010) and through discussions with CDFW as having a potential to occur within the Ballona Creek Project area.

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 channel banks line the reach. The channel edges contain thin bands and patches of disturbed freshwater marsh vegetation, most dense in the upstream portion of the reach, dominated by southern cattail (*Typha domingensis*), California bulrush (*Schoenoplectus californicus*), and cocklebur (*Xanthium strumarium*). This vegetation type was considered disturbed due to the interspersed patches of ruderal vegetation, dominated by non-native fountain grass (*Pennisetum setaceum*), Mexican fan palm (*Washingtonia robusta*), African umbrella-sedge (*Cyperus involucratus*), curly dock (*Rumex crispus*), and common beggar ticks (*Bidens pilosa*). Ornamental vegetation included volunteer species such as Brazilian pepper (*Schinus terebinthefolius*), shamel ash (*Fraxinus uhdei*), golden raintree (*Koelreuteria paniculata*), and Chinese elm (*Ulmus parvifolia*) (BonTerra 2014a).

Sensitive Plants

Southern tarplant and white-rabbit tobacco were not observed within the impact area during the survey and are considered absent. Two additional species described as sensitive by the California Native Plant Society (CNPS) were observed within the impact area on site (Figure 2). One California Rare Plant Rank (CRPR) 2 species which is considered rare, threatened, or endangered in California but more common elsewhere, and one CRPR 4 species on the CNPS watch list of plants with limited distribution were observed within the impact area and are described below.

San Diego Marsh-Elder (*Iva hayesiana*) CRPR 2B.2

San Diego marsh-elder is a perennial herb to subshrub in the Asteraceae family that flowers between April and October. This rhizomatous subshrub is associated with streambeds, depressions, and alkaline sinks. San Diego marsh-elder can be found at elevations from 33 to 1,640 feet (10 to 500 meters) above mean sea level (amsl). Waterway channelization, coastal development, non-native plant species, and vehicle traffic are threats to the San Diego marsh-elder populations (CNPS 2015).

One individual San Diego marsh-elder was observed within the impact area growing in a small patch with a radius of approximately 6 feet (Table 1). This species was observed growing on the northwestern bank of the channel just above the water's edge, between existing disturbed freshwater marsh habitat and ornamental vegetation (BonTerra Psomas 2014a) (See photograph in Attachment 2). As the San Diego marsh-elder was

found associated with a marsh habitat and both freshwater marsh and saltmarsh habitats are excluded from maintenance activities, this rare species will not be impacted by maintenance activities. This species' occurrence is atypical for this area because the San Diego marsh-elder is only previously known from San Diego County (CNPS 2015); however, native habitat restoration is occurring adjacent to the channel, and this species may have inadvertently naturalized into SBC Reach 112 from a neighboring restored community.

Southwestern Spiny Rush (*Juncus acutus* subsp. *leopoldii*) CRPR 4.2

Southwestern spiny rush is a perennial rhizomatous herb in the Juncaceae family that flowers between March and June. This rhizomatous herb is associated with mesic sites within coastal dunes, alkaline seeps within meadows, and coastal salt marshes at elevations from 10 to 2,952 feet (3 to 900 meters) amsl. This species is threatened by urbanization and flood control (CNPS 2015).

One individual southwestern spiny rush was observed within the 50-foot buffer zone on the landward side of the levee at the southwestern end of the reach (Table 1). This species appears to have been directly planted as part of an adjacent restoration project (See photograph in Attachment 2) and will not be impacted by maintenance activities.

Table 1. Sensitive Plant Species Locations

Species	GPS Coordinates	
	Latitude	Longitude
San Diego marsh-elder	33.984864	-118.418592
southwestern spiny rush	33.963021	-118.452399

CONCLUSIONS

Southern tarplant and white-rabbit tobacco were not observed during the survey; therefore, these species are considered absent from the SBC Reach 112. Mitigation is not required for CRPR List 4 species, and southwestern spiny rush will most likely not be impacted during maintenance activities. Given the location of the San Diego marsh-elder (a CRPR 2B.2 species) within the impact area, however, maintenance activities involving vegetation removal have a low potential to impact this individual. The distance to the nearest tree proposed for removal during maintenance activities (i.e., *Fraxinus* sp., #42 as identified in BonTerra Psomas 2014b)) is approximately 40 feet to the northeast from the San Diego marsh-elder patch. Because the San Diego marsh-elder species is growing within freshwater marsh habitat and all marsh habitat will not be disturbed according to project permits, no impacts to the San Diego marsh-elder are anticipated. Efforts should be made to avoid the immediate area (including a 10-foot radius buffer) or mitigation will likely be required. It is recommended that a biological monitor flag the San Diego marsh-elder patch and be present when working around this species to ensure maintenance crews can properly identify the plant and impacts can be avoided.

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.

BonTerra
2010 The Results of Biological Reconnaissance Surveys of Two Soft-Bottom Channels, Los Angeles County, Unpublished Letter Report Prepared for the Los Angeles County Flood Control District, Los Angeles, CA.

BonTerra Psomas
2014a Results of Biological Inventory Surveys of Reach 112, Ballona Creek, Los Angeles County, California. Unpublished Letter Report Prepared for the County of Los Angeles Department of Public Works, Flood Maintenance Division, Alhambra, CA.

2014b Results of Tree Inventory Surveys of Reach 112, Ballona Creek, Los Angeles County, California. Unpublished Letter Report Prepared for the County of Los Angeles Department of Public Works, Flood Maintenance Division, Alhambra, CA.

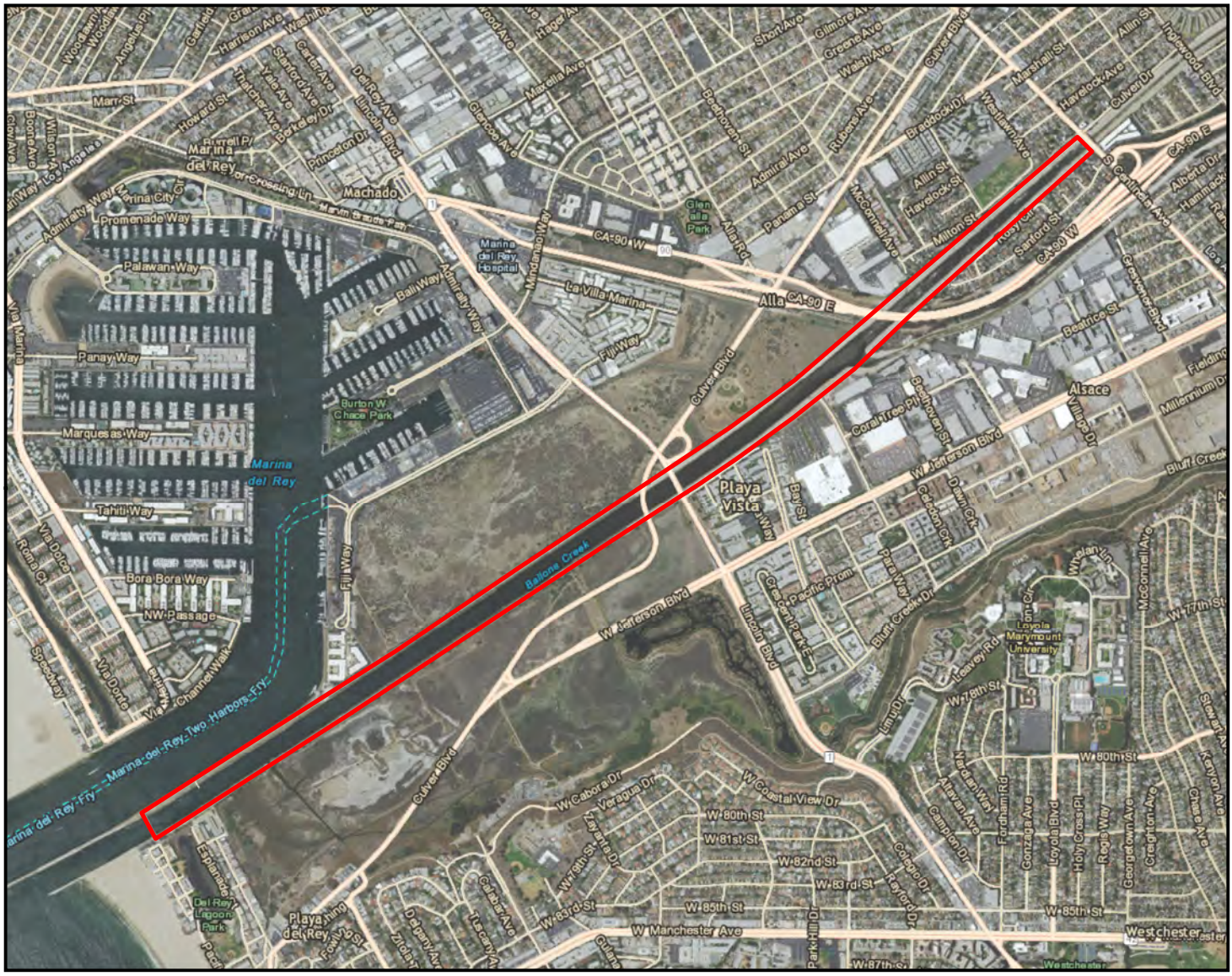
Brenzel, K. N., (editor)
2007 *The Sunset Western Garden Book, Eighth Edition.* Sunset Publishing Corporation, Menlo Park, CA.

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/.

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



Legend

Survey Area

N

0 1,000 2,000 4,000

Feet

Figure 1

Ballona Creek

Project Location & Vicinity Map

Name: 20884 Ballona Fig1 Loc & Vicinity.Mxd
Print Date: 9/4/2015, Author: stondre

CHAMBERS GROUP

Legend

Survey Area

Focused Plant Survey

Iva hayesiana

Juncus acutus subsp. leopoldii

N

0 500 1,000 2,000

Feet

Figure 2

Ballona Creek

Focused Plant Survey Map

Name: 20884 Ballona Fig2 Focused Plant Survey.Mxd

Print Date: 9/4/2015, Author: stondre

CHAMBERS GROUP

ATTACHMENT 1 – PLANT SPECIES OBSERVED

ATTACHMENT 1
PLANT SPECIES OBSERVED

Scientific Name	Common Name
MAGNOLIIDS	
LAURACEAE	**LAUREL FAMILY**
Cinnamomum camphora+*	camphor tree
SAURURACEAE	**LIZARD'S-TAIL FAMILY**
Anemopsis californica	yerba mansa
ANGIOSPERMS (EUDICOTS)	
AIZOACEAE	**FIG-MARIGOLD FAMILY**
*Carpobrotus edulis**	hottentot-fig
AMARANTHACEAE	**AMARANTH FAMILY**
*Amaranthus albus**	tumbling pigweed
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
Malosma laurina	laurel sumac
Rhus integrifolia	lemonadeberry
*Rhus lancea**	african sumac
Rhus ovata	sugar bush
*Schinus terebinthifolius**	Brazilian pepper tree
APIACEAE	**CARROT FAMILY**
*Apium graveolens**	celery
*Foeniculum vulgare**	fennel
APOCYNACEAE	**DOGBANE FAMILY**
Asclepias curassavica+*	bloodflower milkweed
ARALIACEAE	**GINSENG FAMILY**
Hydrocotyle ranunculoides	floating marsh-pennywort
ASTERACEAE	**SUNFLOWER FAMILY**
*Ageratina adenophora**	eupatory
Ambrosia psilostachya	western ragweed
Artemisia californica	California sagebrush
Baccharis pilularis	coyote brush
Baccharis salicifolia subsp. *salicifolia*	mule fat
*Bidens pilosa**	common beggar-ticks
*Centaurea melitensis**	tocalote
*Centaurea diluta**	North African knapweed
*Chrysanthemum carinatum**	tricolor chrysanthemum
Encelia californica	California bush sunflower
*Erigeron bonariensis**	flax-leaved horseweed
Erigeron canadensis	horseweed

Scientific Name	Common Name
*Helminthotheca echioides**	bristly ox-tongue
Heterotheca grandiflora	telegraph weed
Isocoma menziesii	coast goldenbush
Iva hayesiana	San Diego marsh-elder
Jaumea carnosa	fleshy Jaumea
*Lactuca serriola**	prickly lettuce
Pseudognaphalium biolettii	bicolored cudweed
*Pseudognaphalium luteoalbum**	everlasting cudweed
Pseudognaphalium stramineum	cotton-batting plant
Sonchus asper subsp. *asper**	prickly sow thistle
*Sonchus oleraceus**	common sow thistle
Symphyotrichum subulatum	annual saltmarsh aster
Xanthium strumarium	cocklebur
BORAGINACEAE	**BORAGE FAMILY**
Heliotropium curassavicum var. *oculatum*	salt heliotrope
BRASSICACEAE	**MUSTARD FAMILY**
*Hirschfeldia incana**	shortpod mustard
Lepidium didymum	wart cress
*Raphanus sativus**	radish
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
Arthrocnemum subterminale	Parish's pickleweed
Atriplex lentiformis	big saltbush
*Atriplex prostrata**	spearscale
*Atriplex rosea**	tumbling oracle
*Bassia hyssopifolia**	five-hooked bassia
*Chenopodium album**	lamb's quarters
*Chenopodium ambrosioides**	Mexican tea
Salicornia pacifica	common pickleweed
*Salsola tragus**	Russian thistle
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
Cuscuta pacifica var. *pacifica*	large-flower saltmarsh dodder
*Dichondra micrantha**+	Asian ponyfoot
*Ipomoea purpurea**	common morning-glory
EUPHORBIACEAE	**SPURGE FAMILY**
*Euphorbia serpens**	matted sandmat
*Ricinus communis**	castor-bean
FABACEAE	**LEGUME FAMILY**
*Acacia saligna**+	golden wreath wattle

Scientific Name	Common Name
*Acacia melanoxylon**+	Australian blackwood
*Bauhinia variegata**+	mountain ebony
Cassia sp.*+	cassia
*Ceratonia siliqua**+	St John's bread
Cercis occidentalis+	western redbud
*Melilotus indica**	sourclover
FAGACEAE	**OAK FAMILY**
Quercus agrifolia	coast live oak
FRANKENIACEAE	**FRANKENIA FAMILY**
Frankenia salina	alkali heath
GERANIACEAE	**GERANIUM FAMILY**
*Erodium botrys**	broad-lobed filaree
*Erodium cicutarium**	red-stemmed filaree
HAMAMELIDACEAE	**WITCH-HAZEL FAMILY**
*Liquidambar styraciflua**+	sweet gum
LAMIACEAE	**MINT FAMILY**
Lavandula sp.*+	lavender
*Marrubium vulgare**	horehound
*Rosmarinus officinalis**	rosemary
Salvia greggii *+	autumn sage
Salvia leucophylla	purple sage
MALVACEAE	**MALLOW FAMILY**
*Malva parviflora**	cheeseweed
MELIACEAE	**MAHOGANY FAMILY**
*Melia azedarach**+	chinaberry tree
MYRSINACEAE	**MYRSINE FAMILY**
*Anagallis arvensis**	scarlet pimpernel
MYRTACEAE	**MYRTLE FAMILY**
*Callistemon linearis**+	bottlebrush tree
*Eucalyptus globulus**+	blue gum
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**
*Bougainvillea spectabilis**+	bougainvillea
OLEACEAE	**OLIVE FAMILY**
*Fraxinus uhdei**+	shamel ash
Ligustrum sp.*+	privet
PASSIFLORACEAE	**PASSION FRUIT FAMILY**
*Passiflora edulis**+	passion fruit

Scientific Name	Common Name
PITTOSPORACEAE	**TOBIRA FAMILY**
Pittosporum undulatum+*	Victoria-box
PLANTAGINACEAE	**PLANTAIN FAMILY**
*Plantago lanceolata**	English plantain
*Plantago major**	common plantain
PLATANACEAE	**SYCAMORE FAMILY**
Platanus racemosa	western sycamore
PLUMBAGINACEAE	**LEADWORT FAMILY**
*Limonium perezii**	Perez's marsh-rosemary
POLYGONACEAE	**BUCKWHEAT FAMILY**
Persicaria lapathifolia	willow-weed
*Rumex conglomeratus**	dock
*Rumex crispus**	curly dock
PORTULACACEAE	**PURSLANE FAMILY**
*Portulaca oleracea**	common purslane
RHAMNACEAE	**BUCKTHORN FAMILY**
Ceanothus sp.	ceanothus
ROSACEAE	**ROSE FAMILY**
Heteromeles arbutifolia	toyon
Malus sp.*+	apple
SALICACEAE	**WILLOW FAMILY**
Populus fremontii subsp. *fremontii*+	Fremont cottonwood
SAPINDACEAE	**SOAPBERRY FAMILY**
Koelreuteria bipinnata+*	Chinese flame tree
Koelreuteria paniculata+*	golden raintree
SCROPHULARIACEAE	**FIGWORT FAMILY**
*Myoporum laetum**	myoporum
SOLANACEAE	**NIGHTSHADE FAMILY**
*Nicotiana glauca**	tree tobacco
Solanum sp.	nightshade
TROPAEOLACEAE	**NASTURTIUM FAMILY**
*Tropaeolum majus**	garden nasturtium
ULMACEAE	**ELM FAMILY**
Ulmus parvifolia+*	Chinese elm
ANGIOSPERMS (MONOCOTS)	
AGAVACEAE	**AGAVE FAMILY**
Agave americana+*	century plant
Yucca elephantipes+*	giant yucca

Scientific Name	Common Name
ARECACEAE	**PALM FAMILY**
Phoenix canariensis+*	Canary Island date palm
Syagrus romanzoffiana+*	Queen palm
Washingtonia robusta+*	Mexican fan palm
ASPARAGACEAE	**ASPARAGUS FAMILY**
*Asparagus densiflorus**	asparagus fern
CYPERACEAE	**SEDGE FAMILY**
Cyperus eragrostis	tall cyperus
*Cyperus involucratus**	umbrella-plant
Schoenoplectus californicus	California bulrush
JUNCACEAE	**RUSH FAMILY**
Juncus acutus subsp. *leopoldii*	southwestern spiny rush
Juncus bufonius	toad rush
POACEAE	**GRASS FAMILY**
*Agrostis stolonifera**	redtop
*Avena barbata**	slender wild oat
*Bromus diandrus**	ripgut grass
*Cortaderia selloana**	pampas grass
*Cynodon dactylon**	Bermuda grass
Distichlis spicata	saltgrass
*Festuca perennis**	Italian ryegrass
Miscanthus sinensis+*	Chinese silver grass
*Paspalum dilatatum**	dallis grass
Paspalum distichum	knotgrass
*Pennisetum setaceum**	fountain grass
Poa pratensis subsp. *pratensis**	Kentucky bluegrass
*Sorghum halepense**	Johnsongrass
Stipa miliacea var. *miliacea**	smilo grass
TYPHACEAE	**CATTAIL FAMILY**
Typha domingensis	slender cattail

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

ATTACHMENT 2 – REPRESENTATIVE PHOTOGRAPHS

ATTACHMENT 2
REPRESENTATIVE PHOTOGRAPHS

Photo 1: View from Centinela Avenue facing southwest.

Photo 2: View from Pacific Avenue facing northeast.

Photo 3: Photo of San Diego marsh-elder (*Iva hayesiana*) found at the eastern end of the reach on the northwestern bank of the Ballona Creek channel. This species is a CRPR 2B.2 species.

Photo 4: Close-up photo of San Diego marsh-elder observed on site.

Photo 5: Photo of southwestern spiny rush (*Juncus acutus* subsp. *leopoldii*). A single individual was found at the western end of the reach on the southeastern bank of the Ballona Creek channel within a portion of the levee that has been restored in the past. This species is a CRPR 4.2 species.