BonTerra CONSULTING
COSTA MESA PASADENA
T: (626) 351-2000 F: (626) 351-2030 | 3452 E. Foothill Blvd., Suite 420
www.BonTerraConsulting.com | Pasadena, CA 91107

October 30, 2009

Ms. Jemellee Cruz
Flood Maintenance Division
Department of Public Works
County of Los Angeles
900 South Fremont Ave
Annex Building, 2nd Floor
Alhambra, CA 91802-1460

VIA EMAIL AND OVERNITE EXPRESS
jcruz@dpw.lacounty.gov

Subject: Results of Focused Plant Surveys for the Los Cerritos Soft-Bottom Channel, Los Angeles County, California

Dear Ms. Cruz:

This letter report presents the findings of focused plant surveys conducted for the Los Cerritos Soft-Bottom Channel (SBC), in Los Angeles County, California. Surveys were conducted for three California Native Plant Society (CNPS) List 1B species with potential to occur because of the presence of suitable habitat: southern tarplant (*Centromadia parryi* ssp. *australis*), which is known to occur in the Los Cerritos wetlands, Sanford's arrowhead (*Sagittaria sanfordii*), and estuary seablite (*Suaeda esteroa*). The approximately 2-mile Los Cerritos SBC reach is located in the City of Long Beach, and is surrounded mainly by residential, commercial, and industrial development, and by open spaces in the downstream portions (Exhibits 1 and 2). This SBC reach starts at Atherton Street, crosses under bridges at Anaheim Road, State Highway 22, and Loynes Drive, and the downstream boundary is State Highway 1/Pacific Coast Highway. The survey area is located on the Los Alamitos U.S. Geological Survey (USGS) 7.5-minute quadrangle map, with an elevation below approximately ten feet above mean sea level (msl).

METHODS

Prior to the field survey, a literature review was conducted to identify special status plants known from the general vicinity. This included a review of Long Beach, Los Alamitos, and Seal Beach USGS 7.5-minute quadrangles in the California Department of Fish and Game (CDFG) California Natural Diversity Database (CDFG 2009) and the CNPS Inventory (CNPS 2009). Reference populations of southern tarplant were visited to confirm that this species was blooming during the surveys; it was observed to be flowering in the Newport Beach area on July 9, 2009, and in the City of Carson on July 13, 2009.

According to the National Weather Service, Long Beach Airport (located about three miles from the survey area) has received 9.4 inches of precipitation over the past year (since July 1, 2008), which is about 73 percent of the normal 12.9 inches based on 1971-2000 averages (National Weather Service 2009).

Special status plant surveys were conducted on July 28, 2009 by BonTerra Consulting Botanist Jeff Crain and Ecologist Allison Rudalevige. Meandering transects were used to search the survey area. All plant species observed were

recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Hickman (1993) and Munz (1974). Taxonomy follows Hickman (1993) and current scientific data (e.g., scientific journals) for scientific and common names.

SITE DESCRIPTION

Open water was present within this reach at the time of the survey. The SBC also contains developed areas consisting of both grouted and un-grouted rip-rap (large piled rocks) along the banks. The channel edges contain thin bands of disturbed salt marsh (BonTerra Consulting 2009). The upper slopes of the banks contain patches of riparian herb vegetation. On the upper banks at the downstream end of the reach, there are also patches of non-native grassland. Soil types generally consist of the Chino association (USDA 1969).

RESULTS

One special status plant species was observed during the surveys: estuary seablite (Exhibit 3). Since only one individual was observed, a voucher specimen was not collected. A list of all plants observed within the survey area during focused surveys can be found in Attachment A.

Estuary seablite is a perennial herb that typically blooms between May and October (CNPS 2009). It occurs in coastal salt marshes at elevations below approximately 15 feet above msl (Hickman 1993). In southern California, this species is known from Los Angeles, Orange, San Diego, and Ventura counties (CNPS 2009). One individual was observed on the south-facing bank of Alamitos Bay adjacent to the marina in disturbed salt marsh habitat. Associated species include: native common woody pickleweed (*Salicornia virginica*) and non-native hottentot fig (*Carpobrotus edulis*), slender-leaved iceplant (*Mesembryanthemum nodiflorum*), and Australian saltbush (*Atriplex semibaccata*). A California Natural Diversity Database (CNDDB) Field Survey Form for this occurrence is included as Attachment B.

If you have any comments or questions, please call Marc Blain at (626) 351-2000.

Sincerely,

BONTERRA CONSULTING

Marc T. Blain
Biological Resources Manager/Associate

Enclosures:
- Exhibit 1 – Local Vicinity
- Exhibit 2 – Aerial Photograph
- Exhibit 3 – Special Status Plant Species Location
- Attachment A – Plant Compendium
- Attachment B – CNDDB Field Survey Form

REFERENCES

BonTerra Consulting. 2009 (*In prep*.). *Results of Biological Reconnaissance Surveys of Two Soft-Bottom Channels, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.

California Department of Fish and Game (CDFG). 2009 (July 4). California Natural Diversity Database. Records of Occurrence for Long Beach, Los Alamitos, and Seal Beachquadrangle maps. Sacramento, CA: CDFG, Natural Heritage Division.

California Native Plant Society (CNPS). 2009. Electronic Inventory of Rare and Endangered Vascular Plants of California (v7-09d). Records of Occurrence for Long Beach, Los Alamitos, and Seal Beach quadrangle maps. Sacramento, CA: CNPS. http://www.cnps.org/inventory.

Hickman, J.C., Ed. 1993. The Jepson Manual of Higher Plants of California. Berkeley, CA: University of California Press.

Munz, P.A. 1974. A Flora of Southern California. Berkeley, CA: University of California Press.

National Weather Service. 2009 (June 12). National Weather Service Forecast Office: Los Angeles/Oxnard. http://www. weather.gov/climate.

United States Department of Agriculture (USDA). 1969 (revised). Report and General Soil Map, Los Angeles County, California. Lancaster, CA: USDA, Natural Resources Conservation Service.

Local Vicinity

Exhibit 1

Los Cerritos Soft-Bottom Channel, Los Angeles County, California

N W E S

4,000 2,000 0 4,000

Feet

BonTerra CONSULTING

(Rev 10/29/09 CJS) PAS\Projects\CoLADPW\J127\Graphics\Plant_Rpts\Ex1_LV_cerritos.pdf

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Aerial Photograph

Exhibit 2

Los Cerritos Soft-Bottom Channel, Los Angeles County, California

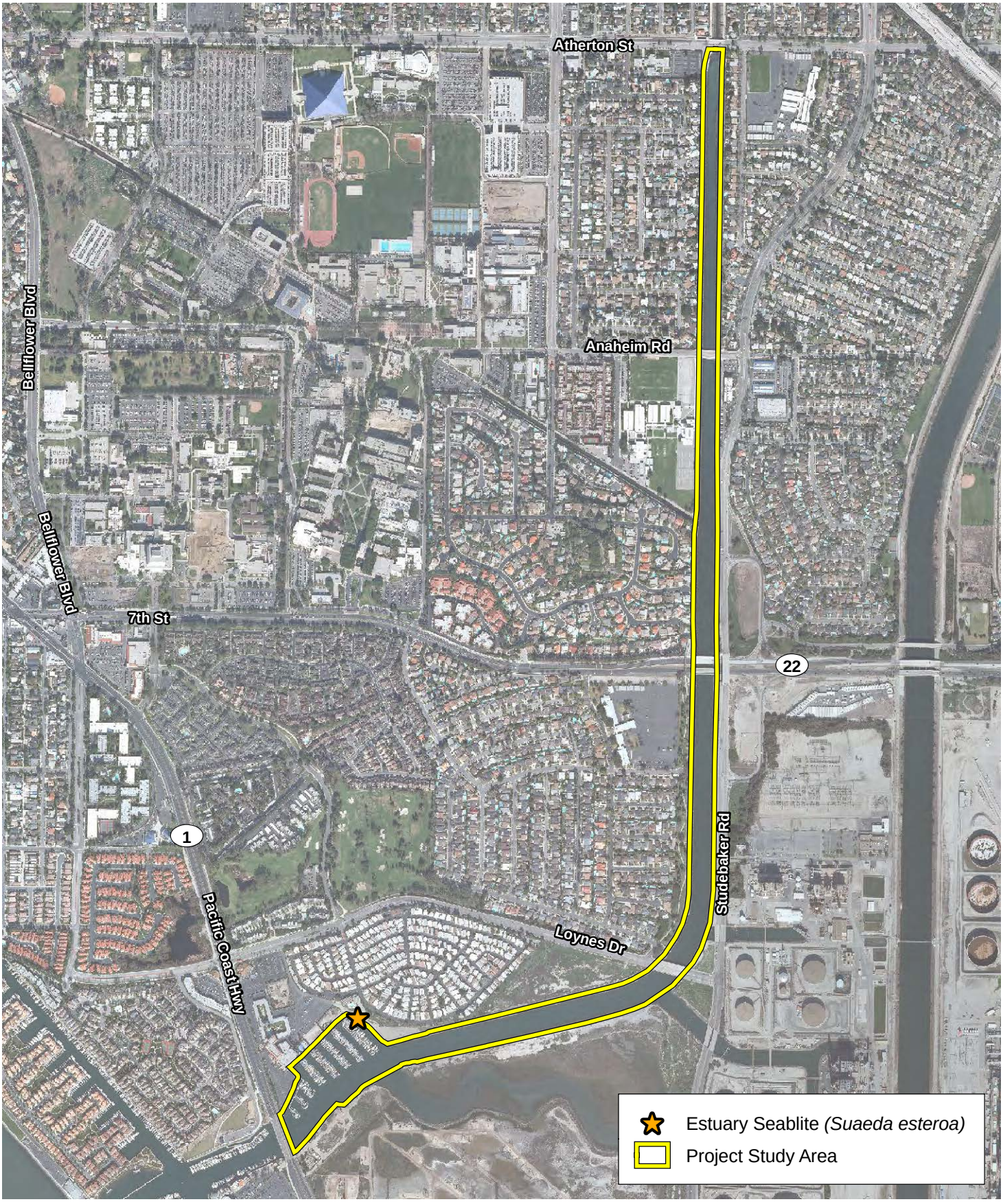
N
W E
S

1,100 550 0 1,100

Feet

BonTerra CONSULTING

(Rev 10/19/09 CJS) Projects\CoLADPW\J127\Graphics\Plant_Rpts\Ex2_aerial_cerritos.pdf



Special Status Plant Species Location

Exhibit 3

Los Cerritos Soft-Bottom Channel, Los Angeles County, California

N W E S

1,100 550 0 1,100 Feet

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ATTACHMENT A
PLANT COMPENDIUM

FLOWERING PLANTS
CLASS DICOTYLEDONES (DICOTS)
AIZOACEAE - FIG-MARIGOLD FAMILY
*Carpobrotus edulis** hottentot fig
*Mesembryanthemum nodiflorum** slender-leaved iceplant
AMARANTHACEAE - AMARANTH FAMILY
*Amaranthus albus** tumbleweed
ANACARDIACEAE - SUMAC FAMILY
*Schinus molle** Peruvian pepper tree
*Schinus terebinthifolius** Brazilian pepper tree
ASTERACEAE (COMPOSITAE) - SUNFLOWER FAMILY
Ambrosia acanthicarpa annual bursage
Ambrosia psilostachya western ragweed
Baccharis pilularis coyote brush
Baccharis salicifolia mule fat
*Centaurea melitensis** tocalote
*Cirsium vulgare** bull thistle
Conyza canadensis common horseweed
*Cotula coronopifolia** African brass buttons
Gnaphalium canescens everlasting
*Gnaphalium luteo-album** weedy cudweed
Heterotheca grandiflora telegraph weed
*Hypochaeris glabra** smooth cat's ear
Jaumea carnosa fleshy jaumea
*Lactuca serriola** prickly lettuce
Malacothrix saxatilis cliff malacothrix
*Sonchus oleraceus** common sow-thistle
Stephanomeria exigua wreath plant

PLANT COMPENDIUM
(Continued)

FLOWERING PLANTS
BRASSICACEAE (CRUCIFERAE) - MUSTARD FAMILY
*Hirschfeldia incana** shortpod mustard
Lepidium sp. peppergrass
*Sisymbrium orientale** hare's ear cabbage
CARYOPHYLLACEAE - PINK FAMILY
Spergularia sp. sand spurrey
CHENOPODIACEAE - GOOSEFOOT FAMILY
*Atriplex semibaccata** Australian saltbush
Atriplex triangularis spearscale
Bassia hyssopifolia five-hook bassia
*Chenopodium album** lamb's quarters
Salicornia virginica common woody pickleweed
*Salsola tragus** Russian thistle
Suaeda esteroa **estuary sea-blite**
Suaeda taxifolia woolly sea-blite
CONVOLVULACEAE - MORNING-GLORY FAMILY
Cressa truxillensis alkali weed
CUSCUTACEAE - DODDER FAMILY
Cuscuta californica California dodder
Cuscuta salina salty dodder
FRANKENIACEAE - ALKALI HEATH FAMILY
Frankenia salina alkali heath
MALVACEAE - MALLOW FAMILY
*Malva parviflora** cheeseweed
MYOPORACEAE - MYOPORUM FAMILY
*Myoporum laetum** myoporum
PASSIFLORACEAE - PASSION FRUIT FAMILY
*Passiflora caerulea** passion flower
PLUMBAGINACEAE - LEADWORT FAMILY

PLANT COMPENDIUM
(Continued)

FLOWERING PLANTS
*Limonium sinuatum**   winged sea-lavender
POLYGONACEAE - BUCKWHEAT FAMILY
Eriogonum fasciculatum var. *fasciculatum*   California buckwheat
Polygonum amphibium   water smartweed
SOLANACEAE - NIGHTSHADE FAMILY
*Nicotiana glauca**   tree tobacco
Solanum americanum   white nightshade
CLASS MONOCOTYLEDONES (MONOCOTS)
POACEAE [GRAMINEAE] - GRASS FAMILY
*Avena barbata**   slender wild oat
*Bromus diandrus**   ripgut grass
Bromus madritensis ssp. *rubens**   foxtail chess
Distichlis spicata   salt grass
*Festuca pratensis**   meadow fescue
Hordeum murinum var. *leporinum**   foxtail barley
Leptochloa uninervia   Mexican sprangletop
Leymus triticoides   beardless wild-rye
*Lolium perenne**   perennial ryegrass
*Piptatherum miliaceum**   smilo grass / millett ricegrass
*Polypogon monspeliensis**   annual beard grass
** indicates non-native species*

ATTACHMENT B
CNDDB FIELD SURVEY FORM

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

Date of Field Work (mm/dd/yyyy): 07/28/2009

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Suaeda esteroa*

Common Name: estuary sea-blite

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☑ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jeffrey Crain
Address: 151 Kalmus Drive, Suite E-200
Costa Mesa, CA 92626
E-mail Address: JCrain@bonterraconsulting.com
Phone: (714) 444-9199

Plant Information

Phenology: _____% vegetative 100% flowering _____% fruiting

Animal Information

_____ # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

***Location Description* (please attach map AND/OR fill out your choice of coordinates, below)**

South-facing bank of Alamitos Bay

County: Los Angeles Landowner / Mgr.: LA County Department of Public Works

Quad Name: Los Alamitos Elevation: 8 feet

T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): GPS

T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ GPS Make & Model Garmin GPSMap 60SX

DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐ Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐

Coordinates: 396920, 3736769

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Disturbed saltwater marsh. Associates include Carpobrotus edulis, Atriplex semibaccata, Salicornia virginica, and Mesembryanthemum nodiflorum.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☐ Fair ☑ Poor

Immediate AND surrounding land use: Area is used as marina.

Visible disturbances: Non-native plants comprise a majority of the plant cover.

Threats: Non-native plants, maintenance of the marina.

Comments:

Determination: *(check one or more, and fill in blanks)*

☑ Keyed (cite reference): Jepson
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☑
Habitat	☐	☐	☑
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes ☑ no ☐