DUDEK

MAIN OFFICE 605 THIRD STREET ENCINITAS, CALIFORNIA 92024 T 760.942.5147 T 800.450.1818 F 760.632.0164

#### MEMORANDUM

To:	Anthony Cotts, Weston Solutions, Inc.	
From:	Tricia Wotipka, Dudek	
Subject:	Los Trancos Creek Maintenance Project, Biological Assessment Memo	
Date:	March 1, 2012	
cc:	Asha Bleier, Dudek	
Attachments:	Appendix A – Species Observed on Site	
	Figures 1–5	

This memo documents the results of a biological reconnaissance survey including a habitat assessment, a general inventory of plant and animal species, and vegetation mapping performed by Dudek for the Los Trancos Creek Maintenance Project, located within Crystal Cove State Park, Orange County, California (Figures 1 and 2). Major roadways in the project area include the Pacific Coast Highway (Highway 1) about 150 feet to the east and Newport Coast Drive approximately 0.8 miles south. The site is bound to the north and south by walkways and structures associated with the Crystal Cove State Park, to the east by a light vehicle bridge, and to the west by the Pacific Ocean. The site is in a dynamic, erosive state that includes deep scour pits along the north sidewall of the creek with a large amount of accumulated silt along the south sidewall. It is this accumulated silt that supports the thick growth of various non-native and invasive vegetation. Elevations on-site range from approximately five feet above mean sea level (AMSL) in the northeast to sea level in the southwest portion. Soils on-site are comprised of 100% beach sand.

The proposed project is confined to a section of Los Trancos Creek approximately 200 feet in length. In the project area, the creek varies in width from about 26 to 28 feet and is contained within vertical concrete walls with an earthen bottom (Weston Solutions 2012). Concrete grade control walls, aligned perpendicular to creek flow, are located near the upstream and downstream limits of the site. A pedestrian bridge forms the northern boundary of the project. A second pedestrian bridge crosses Los Trancos Creek near the central portion of the site (Figure 3).

The site is tidally influenced and it receives a majority of its flow from sea water overtopping the natural sand berm and groundwater sources (Weston Solutions 2012). During dry periods of the year (summer and between rainfall events), water remains ponded in the creek, mostly due to a buildup of sand between the site and the Pacific Ocean caused by wave and tidal influences (Weston Solutions 2012). Urban flows upstream, if present, are diverted and thus do not reach

the site. Therefore, the source of ponded water during dry periods of the year is groundwater and seawater overtopping the sand berm during high spring tides (Weston Solutions 2012).

The proposed project involves minor channel elevation and grade alterations, the removal of invasive, non-native vegetation, and the planting of native wetland vegetation within a 200 foot long by roughly 26 foot wide section of Los Trancos Creek. One of the goals of the project is to shift the ponded water towards the center of the creek in order to promote a more natural cross section for plant habitat (i.e., more gentle slopes in comparison to the unnatural vertical concrete walls and deep scour pits that currently exist along the north sidewall) (Weston Solutions 2012). This will be accomplished by slightly altering the existing surface elevations and strategically placing rock and cobble along both sides of the creek to encourage a more natural channel cross-section. Six inches of soil planted with native vegetation will be placed on top of the rock adjacent to the sidewalls to serve as a medium for plant growth (Figure 4). Downstream of the southernmost pedestrian bridge, a berm comprised of accumulated silt and sand will be lowered to about six inches above the normal ponded water surface elevation to encourage improved creek flow. A small swale, measuring about two feet in width, will be graded and revegetated with native vegetation (Weston Solutions 2012).

#### METHODS

In 2003, the Vegetation Classification and Mapping Program of the CDFG, Wildlife and Habitat Data Analysis Branch, published the *List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CNDDB) (CDFG 2003 [updated 2011]). In September 2010, the CDFG published the *Natural Communities List* (NCL; CDFG 2010), which uses the scientific name of the dominant species in that alliance as the alliance name, which is based on the *Manual of California Vegetation, Second Edition* (MCV2; Sawyer, Keeler-Wolf, and Evens 2009). These classification systems focus on a quantified, hierarchical approach that includes both floristic (plant species) and physiognomic (community structure and form) factors as currently observed (as opposed to predicting climax or successional stages). Nomenclature for on-site vegetation communities reflects the most current system, MCV2 and NCL. All vegetation communities were mapped in accordance with these sources, where feasible.

On February 1, 2012, Dudek biologists Jayme Timberlake and Tricia Wotipka surveyed the Los Trancos Creek Maintenance Project Site during suitable weather conditions. Aerial maps of the site (scale 1 inch = 200 feet) were utilized as a guide to conduct the survey and map existing vegetation communities.

# **Jurisdictional Wetland Assessment**

There are three primary agencies that regulate activities within coastal and inland streams, wetlands, and riparian areas in southern California: the U.S. Army Corps of Engineers (USACE) Regulatory Program regulates activities pursuant to Section 404 of the federal Clean Water Act (CWA); the CDFG regulates activities under Sections 1600–1616 of the Fish and Game Code; and the California Regional Water Quality Control Board (RWQCB) regulates activities under the Porter-Cologne Water Quality Control Act and Section 401 of the CWA. The California Coastal Commission (CCC) also regulates wetlands within the coastal zone pursuant to the Coastal Zone Management Act (CZMA) (California Public Resources Code Section 30233).

Although a formal wetlands delineation was not performed on site, wetlands were anecdotally noted and their spatial distribution mapped based on the extent of hydrophytic vegetation and/or evidence of hydrology (i.e., drift lines, drainage patents, sediment deposition, etc.). Following the field work, wetland features (i.e., polygons) and non-wetland waters (i.e., linear features) were included in a project-specific GIS using ArcGIS software.

### RESULTS

#### **Vegetation Communities**

Five vegetation communities and land covers, comprising 0.17 acre, were mapped on site during the biological reconnaissance survey including: disturbed southern coastal salt marsh (0.01 acre), mulefat scrub (0.01 acre), disturbed channel (0.04 acre), open water (0.05 acre), and beaches (0.06 acre). All five communities were mapped between the vertical concrete banks of Los Trancos Creek and are thus considered waters and wetlands of the U.S./State. A more detailed description of these communities is provided below (Figure 3).

**Southern coastal salt marsh**, including disturbed forms, is a wetland community that develops in low, flat estuaries at the mouths of rivers and streams. Tidal inundation or excessive evaporation results in highly saline conditions around the margins of lagoons, and it is under these conditions that salt marshes develop. This community is often characterized by low-growing succulents such as common pickleweed (*Salicornia virginica*), salty-Susan (*Jaumea carnosa*), salt grass (*Distichlis spicata*), salt cedar (*Tamarix* ssp.), and other salt-tolerant species.

Disturbed southern coastal salt marsh is similar in species composition to the undisturbed form of this community but it tends to support more than 30% cover of non-native species. Within the project site, this community was mapped on an elevated sandy bench near the mouth of Los

Trancos Creek and is supported by approximately 40-50% cover of common pickleweed, a native herb, and at least 60% cover of kikuyu grass (*Pennisetum clandestinum*), an invasive, low growing grass.

**Mulefat scrub** is a relatively low (2 to 3 meters), dense, shrubby riparian scrub alliance that occurs in riparian vegetation, edges of catch basins, and in canyons. It is dominated by mulefat (*Baccharis salicifolia*), and may contain a small number of arroyo willow (*Salix lasiolepis*), upland shrubs, and facultative wetland herbs. Mulefat scrub is a seral alliance that occurs mainly along major drainages and floodplains where the riparian vegetation is open or disturbed. Frequent flooding and/or scouring apparently maintain this alliance in an early successional state (Holland 1986). Characteristic plant species in this alliance include mulefat, coyote brush (*Baccharis pilularis*), western ragweed (*Ambrosia psilostachya*), and a few other obligate or facultative wetland species (Reed 1988).

Within the project area, mulefat scrub was mapped in one small location just downstream and abutting the northernmost pedestrian bridge.

**Disturbed channel**, while not a formerly recognized habitat type by the CDFG (2003) or Holland (1986), is dominant wetland community within the project area supporting a myriad of non-native and invasive vegetation below the ordinary high water mark (OHWM) of Los Trancos Creek with no clear dominant species. This community is largely supported by garden nasturtium (*Tropaeolum majus*), kikuyu grass, and other ornamental species associated with the park landscaping. Salt grass, a native species, occupies less than 5% of the overall cover.

**Open water** consists of open ponds or flowing streams with little to no vegetation. Within the project site, open water occurs in the active, unvegetated low of Los Trancos Creek.

**Beaches** are characterized as narrow, sandy, and stony areas along the ocean that are partly or completely covered by water during high tide and exposed during low tide. The stony stretches of beach are mainly at the mouths of drainage ways and the bases of cliffs, though beaches may change from sandy to stony, or stony to sandy, during storm events. Where beach materials (sand, pebble, cobble) occur above the mean high tide line they may become stabilized over time with the establishment of saline-tolerant perennial plant species.

Beaches occur along the southern border of the project site from the Pacific Ocean coastline to approximately a maximum of 50 feet inland.

# California Natural Diversity Database (CNDDB)

According to a search of the CNDDB, no special-status species have been recorded on-site and given the dynamic nature of the confined floodplain and the extent of non-native vegetation in the creek, special-status species are not expected to occur in Los Trancos Creek (*Figure 5*). Several special-status species have been recorded off site within 500 feet of the project site including monarch butterfly (*Danaus plexippus*), the federally-listed threatened California gnatcatcher (*Polioptila californica*), and many-stemmed dudleya (*Dudleya multicaulis*), California Native Plant Society (CNPS) List 1B.2 (Figure 5).

#### Plant and Wildlife Species Observed

Fifteen (15) species of plants were recorded during the biological reconnaissance survey of which 6 (40%) were non-native and 9 (60%) were native. However, these numbers do not represent the most accurate distribution of native versus non-native species in the area because there were a number of ornamental species and exotic grasses along the toe of the eastern concrete channel bank that could not be identified at the time the survey was conducted.

Wildlife species observed included western kingbird (*Tyrannus verticalis*), black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), California gull (*Larus californicus*), and American crow (*Corvus brachyrhynchos*). A full list of species observed is included as *Appendix A*. No special-status plant or wildlife species were observed on-site and given the disturbed and developed context of the creek in this location, none are expected to occur.

#### Habitat Assessment

The project is centered on Los Trancos Creek, a perennially flowing north to south trending creek that empties directly into the Pacific Ocean. The creek is bound by vertical, concrete walls and is largely supported by non-native wetland and non-wetland waters of the U.S. All of the mapped communities within Los Trancos Creek are considered wetland and non-wetland waters of the U.S./State and as such impacts to these communities would require authorization from the ACOE, CDFG, RWQCB, and CCC prior to work initiation. No special-status upland communities occur in the project site.

#### IMPACTS ASSESSMENT

The project will permanently impact, 0.17 acre of wetlands and non-wetland waters of the U.S./State including 0.06 acre of beaches, 0.04 acre of disturbed channel, 0.01 acre of disturbed

southern coastal salt marsh, 0.01 acre of mulefat scrub, and 0.05 acre of open water. A discussion of the biological constraints as it relates to this impacts assessment is provided below.

# **DISCUSSION OF CONSTRAINTS**

#### Relationship to the Natural Communities Conservation Plan (NCCP)

The California legislature enacted the NCCP Act in 1991, recognizing the need for broad-based planning to provide effective protection and conservation of the state's wildlife while continuing to allow appropriate development and growth. Under this approach, the focus changed from the preservation of individual species to the conservation of natural communities (and their constituent species). In accordance with this Act, the Central-Coastal NCCP/Habitat Conservation Plan (HCP) allocated an approximately 208,000-acre area that includes the central portion of the County, including lands from the coastline inland to Riverside County.

The project site is in the study area of the coastal subarea of the Central-Coastal NCCP/HCP. Because the California Department of Parks and Recreation is a participating landowner in this regional planning effort, any development activities and uses that are addressed by the NCCP/HCP would be considered fully mitigated under the NCCP Act and take authorization for impacts to California gnatcatcher would be granted under the NCCP/HCP. However, this does not obviate the need to obtain environmental permits from the ACOE, CDFG, RWQCB, and possibly the CCC to authorize impacts to wetlands and non-wetland waters of the U.S./State resulting from the project.

#### California Coastal Commission

Under the Coastal Zone Management Act (CZMA), the CCC regulates impacts to wetlands in the "coastal zone" and requires a coastal development permit (CDP) for almost all development within this zone. From three miles seaward the coastal zone generally extends approximately 1,000 yards inland. In less developed areas, it can extend up to five miles inland from the mean high tide line, but can also be considerably less than 1,000 yards inland in developed areas.

To ensure maximum responsiveness to local conditions, accountability, and public accessibility, the CCC felt it was necessary to rely heavily on local government and local land use planning procedures and enforcement (City of Newport Beach 2012). To more effectively enforce Coastal Act policies, local governments can prepare and have the CCC approve, or certify, a Local Coastal Program (LCP). An LCP typically consists of a Land Use Plan and an Implementation Plan. The Land Use Plan indicates the kinds, location, and intensity of land uses, the applicable resource protection and development policies, and, where necessary, a listing of implementing

actions. The Implementation Plan consists of the zoning ordinances, zoning district maps, and other legal instruments necessary to implement the land use plan. Any amendments to the certified LCP will require review and approval by the Coastal Commission prior to becoming effective (City of Newport Beach 2012).

Although the project is located within the municipal boundaries of the City of Newport Beach (City), the City does not have a certified LCP and thus does not have the authority or jurisdiction to issue CDPs.

However, Crystal Cove State Park has a certified Public Works Plan (PWP), which is intended to guide development within the park. The Crystal Cove PWP was approved by the CCC with conditions on May 20, 1982. Conditions were met on August 26, 1982. A few amendments to the PWP have occurred since the initial approval. The most recent PWP amendment was authorized in June 2003 (PWP-4-82-A2) and involved an update that replaced the Crystal Cove Historic District Development and Public Use Plan and On-Site Maintenance Program with the Crystal Cove Historic District Preservation and Public Use Plan. The PWP is now comprised of the Crystal Cove State Park General Plan, dated July 1982, the On-Site Maintenance Plan dated August 1982, and the Crystal Cove State Park Historic District Development and Public Use Plan, dated November 2003. Section 30605 of the Coastal Act, cited above, establishes the standard of review. The first threshold question is whether the specific project is contained in the PWP. If it is, then the CCC's review is limited to the imposition of conditions. The CCC cannot deny a project that it previously certified as part of the PWP; however, the CCC can regulate the manner in which the project is carried out to bring it into conformance with the PWP. Once it is determined that a project is contained in the PWP, the second question is whether or not the project is consistent with the PWP.

Prior to making any recommendations on the CDP process moving forward, Dudek would like an opportunity to review the PWP to fully determine what type of landscaping, maintenance, and/or BMP requirements were envisioned in the parking areas and whether the replacement of California sagebrush scrub in the medians with water quality BMPs would be considered a covered "project" by the PWP and its on-site maintenance program.

If it is considered a "covered" project then it would be subject to the Notice of Impending Development (NOID) review process and regulated by the conditions specified in the PWP. If it is not covered, it will be subject to a CCC-issued CDP issued by the Coastal Act Chapter 3 policies as the standard of review. Dudek's recommendation moving forward would be to submit this biological resource memorandum and hydrologic evaluation report to the CCC for project-specific/NOID review under the PWP. Because the proposed project seeks to improve

and restore Los Trancos Creek, which would only enhance the public's enjoyment of the park, the CCC may support the project. A pre-application meeting should be scheduled with local CCC staff as soon as possible to better understand their position as it relates to the proposed project. A CDP can take anywhere from 6 to 9 months to obtain but it is envisioned that the process can occur concurrently with the other environmental permits being sought.

# Permitting and Habitat Mitigation Requirements

As previously indicated, waters of the U.S., including wetlands, are regulated by the ACOE, RWQCB, CDFG, and CCC and as such any impacts to these resources require environmental permits prior to work initiation. It is anticipated based on the extent of impacts to aquatic resources (0.17 acre total) that the project would qualify for the following permit authorizations:

- ACOE Section 404 Nationwide Permit 27 (Stream and Wetland Restoration)
- RWQCB Section 401 Water Quality Certification
- CDFG Section 1602 Lake and Streambed Alteration Agreement
- CCC project-specific/NOID review or CDP

Because the focus of the project is to restore a 200 foot long section of Los Trancos Creek to a more natural cross-section, thereby by restoring functions and services to this creek system and increasing flood storage and flood flow conveyance in the area, it is anticipated that the resource agencies will agree that the proposed activities will result in a net benefit to Los Trancos Creek, and by extension the Pacific Ocean, and therefore the project will qualify as a stream restoration project rather than a development project. Because the proposed activity is solely restorative and is intended to result in net increases in aquatic resource functions and services, no additional mitigation is required beyond what is proposed as part of the project.

# **Other Mitigation Requirements**

#### **Migratory Bird Treaty Act**

To avoid potential impacts to possible nesting species protected by the Migratory Bird Treaty Act (MBTA), it is recommended that removal of shrubs be conducted during the non-breeding season for all nesting bird species, including passerines which typically nest between February 15<sup>th</sup> and August 31<sup>st</sup> each year. If vegetation removal is scheduled during the passerine breeding seasons, a nesting bird survey should be conducted within 72 hours prior to vegetation removal. If an active nest is found, a buffer zone of approximately 30 feet for passerine nests should be flagged and all work should be avoided in those areas until the nest is confirmed to be inactive.

#### **Special-Status Plant Species**

No special-status plant species were found on site during the biological reconnaissance survey and none are expected to occur due to the developed context of the site.

#### **REFERENCES CITED**

- CDFG (California Department of Fish and Game). 2003. *California Natural Diversity Data Base* (CNDDB). The Vegetation Classification and Mapping Program List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. September.
- CDFG. 2007. CNDDB. Rarefind. Version 3.0.5. Computer database. August 2011.
- CDFG. 2010. *Natural Communities List*. Available at http://www.dfg.ca.gov/biogeodata/vegcamp/natural\_comm\_list.asp. Accessed August 2011.
- CDFG and USFWS (U.S. Fish and Wildlife Service). 2003. Rehabilitation of Historic Cottages and Infrastructure Project in the Historic District of Crystal Cove State Park. August 11, 2003.
- City of Newport Beach. 2012. Local Coastal Program. Accessed on February 28, 2012 at: <u>http://www.newportbeachca.gov/index.aspx?page=107</u>
- Clean Water Act of 1972. Sections 401 and 404.
- California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed on Wednesday, February 29, 2012.
- County of Orange. 1996. Natural Community Conservation Plan and Habitat Conservation Plan, County of Orange, Central and Coastal Subregion, Parts I and II: NCCP/HCP. Prepared for County of Orange Environmental Management Agency, 3000 North Flower, Santa Ana, California. July 17, 1996.
- Fish and Game Code. California Fish and Game Commission. http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=fgc&codebody=&hits=20

Migratory Bird Treaty Act of 1918.

# DUDEK

- Sawyer, Keeler-Wolf, and Evens. 2008. A Manual of California Vegetation Second Edition. California Native Plant Society, Sacramento, CA. 1300pp.
- Weston Solutions. 2012. Hydrology and Water Quality Calculations for Crystal Cove State Park, Reef Point Parking Lot Maintenance Project, County of Orange, CA. February 16.







	a the Cart	Chudu Area
	Start Start Start	Vegetation Communities/Landcovers
	The second s	BEACH, Beach
		MFS, Mulefat Scrub
	A CONTRACTOR	OW, Open Water
	1300 · · · · · · · · · · · · · · · · · ·	dCHANNEL, disturbed Channel
	A STATISTICS AND A STATISTICS	dCSM, disturbed Coastal Salt marsh
	15 30	-VI-W CALA
DUDEK	AERIAL SOURCE: BING MAPPING SERVICE	FIGURE 3
7151-02		
MARCH 2012	LOS TRANCOS CREEK MAINTENANCE PROJECT - BIOLOGICAL RESOURCES MEMO	



IPh2 Crystal Cove Channel/MAPDOC/MAPSBioMemo Figs	
DUDEK	SITE PLAN SOURCE: WESTON SOLUTIONS 2012 FIGURE 4 Vegetation Map with Limits of Impact
7151-02 NARCH 2012	LOS TRANCOS CREEK MAINTENANCE PROJECT - BIOLOGICAL RESOURCES MEMO



# **APPENDIX A**

Species Observed on Site

# **PLANT SPECIES**

#### **ANGIOSPERMS (DICOTS)**

### ASTERACEAE - SUNFLOWER FAMILY

Ambrosia psilostachya – ragweed Baccharis pilularis – coyote brush Baccharis salicifolia – mulefat

- \* Picris echioides bristly ox-tongue
- \* Cynara cardunculus artichoke thistle

#### BRASSICACEAE - MUSTARD FAMILY

*Rorippa nasturtium-aquatica* – watercress

#### CHENOPODIACEAE - GOOSEFOOT FAMILY

Salicornia virginica – common pickleweed

#### **ONAGRACEAE - WILLOWHERB**

Oenothera elata - Hooker's evening primrose

#### **OXALIDACEAE - WOOD-SORREL FAMILY**

\* Oxalis pes-caprae - Bermuda buttercup

#### PRIMULACEAE - PRIMROSE FAMILY

\* *Anagallis arvensis* - poor man's weatherglass, scarlet pimpernel

#### TROPAEOLACEAE – NASTURTIUM

\* *Tropaeolum majus* – garden nasturtium

#### ANGIOSPERMAE (MONOCOTYLEDONES)

#### CYPERACEAE – SEDGE FAMILY

Scirpus americanus - American tule

#### POACEAE - GRASS FAMILY

Distichlis spicata - saltgrass

\* Pennisetum clandestinum – kikuyu grass

#### ТҮРНАСЕАЕ

Typha latifolia - common cattail

\* signifies introduced (non-native) species

# DUDEK

### WILDLIFE SPECIES -VERTEBRATES

#### BIRDS

#### *TROCHILIDAE -* HUMMINGBIRDS

Calypte anna - Anna's hummingbird

# **TYRANNIDAE - TYRANT FLYCATCHERS**

Sayornis nigricans - black phoebe Tyrannus verticalis - western kingbird

#### LARIDAE - GULLS AND TERNS

Larus californicus - California gull

# **COLUMBIDAE - PIGEONS AND DOVES**

Zenaida macroura - mourning dove

#### CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos - American crow

\* signifies introduced (non-native) species