# **Jurisdictional Determination of Seasonal Features**

#### for the

#### **NEWPORT BANNING RANCH**

Prepared for:

#### Newport Banning Ranch LLC

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#### 1.0 INTRODUCTION

Dudek has prepared this jurisdictional determination of seasonal features report (report) to present the results of our wetland criteria assessment and regulatory responsibility for a variety of seasonal features that occur on the Newport Banning Ranch (site), an oil field, located in the City of Newport Beach and unincorporated Orange County, California. For the purposes of this report, a seasonal feature is a small, topographically depressed area capable of supporting inundation from local rain events for a short duration usually during the winter and spring months. The initial wetland delineation of these features was conducted by Glenn Lukos Associates, Inc. (GLA) in June 2012, and then was subsequently reviewed, updated, and modified by Dudek. Wetland criteria, developed by the Army Corps of Engineers (USACE), were thoroughly assessed at each feature for the presence of a positive indicator of wetland habitat, understanding that the strictest definition of wetland would herein be applied, the oneparameter wetland per the California Coastal Act (CCA). Importantly, oil production, operation, maintenance, abandonment and remediation activities of the oil field are the subject of a 1973 determination by the California Coastal Zone Conservation Commission that the rights to conduct the oil operations on the oil field had vested and are, therefore, exempt from regulation under the California Coastal Zone Conservation Act. Accordingly, seasonal features positive for wetland criterion, but within oil operational areas and/or the oil operation abandonment and soil remediation footprint were not identified as jurisdictional under the CCA or under the regulatory authority of the California Coastal Commission (CCC). However, all features were evaluated pursuant to the single parameter test used by the CCC to delineate wetlands and the data presented accordingly on the Wetland Determination data forms and the Wetland Parameter Field Assessment map (Figure 4). Other regulations, federal and state, pertaining to wetlands and waters of the U.S. and the State of California under their respective laws is unrestrictive, in our determination, for the entire site. Additionally, the San Diego fairy shrimp (Branchinecta sandiegonensis), a federally endangered branchiopod (i.e. fairy shrimp) inhabits eight of these seasonal features. As such, we have properly included the U.S. Fish and Wildlife Service (USFWS), which has regulatory authority over federally-listed species, in our jurisdictional determination.

The report provides our reasoning for the determination of jurisdictional status of the seasonal features based on relative to the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Coastal Commission (CCC). The immediate intent of this report is to provide updated biological information in support of the project application through the CCC's Coastal Development Permit (CDP) review process. This report is also intended to support review by other applicable regulatory resource agencies that may have permit authority governing actions carried out on the project site, specifically the USACE, RWQCB, and USFWS.

Newport Banning Ranch LLC (NBR) is proposing a project on the 401.07-acre site consisting of residential, mixed-use and visitor-serving development, habitat restoration, and recreational playgrounds, parks, and open space. As a precursor to implementing the Project, Newport Banning Ranch LLC, (representing the surface rights owners, Cherokee Newport Beach, LLC and Aera Energy LLC) have agreed to assume from the mineral rights owners the responsibility to complete a \$30 million dollar oilfield abandonment and environmental remediation effort, thereby making approximately 95% of the property available for conservation, recreation and limited residential, commercial and visitor-serving uses. Biologically important project components include the following:

- Approximately 235 acres of the property (59 percent) would be designated as an Open Space Preserve and is anticipated to be managed by the Newport Banning Land Trust.
- Approximately 144 acres of the designated open space would be subject to restoration and conservation of wetland, bluff, riparian and upland mesa habitat, 3 acres would be revegetated and enhanced as native planting buffers around oil consolidation sites, and 76 acres would be made available for third-party wetland mitigation and habitat restoration purposes.
- The Project's natural open space, passive and active public parklands and trail system are a significant contributing element to the envisioned 1,000-acre Orange Coast River Park, which is planned as a contiguous nature park connecting inland areas to the shoreline at the mouth of the Santa Ana River via trails and a variety of restored coastal habitats.
- The Project site's existing surface oil production activities located throughout the site would be consolidated into approximately 17 acres, which would be abandoned, remediated, restored and converted to permanent open space upon cessation of oil operations.

#### 1.1 **Project Location**

The Project site is located in the City of Newport Beach and unincorporated Orange County, California, on the southwestern boundary of the City of Costa Mesa and east of the City of Huntington Beach (*Figure 1*). The site is bordered by commercial and residential development in the City of Costa Mesa on the east, the Pacific Coast Highway and residential properties within Newport Beach on the south, the Santa Ana River and Santa Ana River estuary on the west, and Talbert Regional Park on the north. The Pacific Ocean is approximately 289 meters (947 feet) to the southwest of the site at its closest point.

## 1.2 Biological Setting

The Project site, which comprises approximately 401 acres, is partially located on the western edge of a coastal terrace overlooking the Santa Ana River, with adjacent bluffs, arroyos, and lowlands that include areas of the Santa Ana River floodplain and local areas that exhibit tidal influence as well as adjacent wetland areas not addressed in this report. Currently, the entire site consists of an oil producing facility. The lowlands, which are not addressed in this report, occupy mostly the northwestern portion of the site, adjacent to the Santa Ana River and the river estuary. They consist of limited tidally influenced saltmarsh habitats, disturbed open and scrub habitats, and an extensive area of disturbed willow forest and scrub, all of which have been modified to some degree by oil well pads, roads, oil and gas pipelines, and maintenance activities associated with the oil facilities. Developed areas consisting of pavement and buildings below the bluffs occupy the lowlands bordering the west edge of the site farther south. The majority of the southern and eastern portions of the site consist of a coastal terrace. This terrace supports areas of open grass and forb-dominated communities in the southeast, disturbed forb-dominated communities in the east-central portion of the site, scrub habitats in the northeastern portion of the site, and a mixture of scrub, and disturbed forb communities in the central portion of the site. An arroyo with an extensive area of southern willow scrub bisects the southern portion of the site from east to west. As with the lowlands, oil development is found throughout the areas of coastal terrace, where paved and dirt roads, oil well pads, and gas and oil pipelines occur across the landscape. The bluffs bordering the terrace to the south and east are dominated by a variety of coastal scrub communities that include California brittlebush (Encelia californica), California buckwheat (Eriogonum fasciculatum), prickly pear (Opuntia littoralis), and coast cholla (Cylindropuntia prolifera).

The Project site is located within the largely urbanized coastal portion of Orange County. However, it is adjacent to estuarine habitat associated with the Santa Ana River and upland mesa areas with seasonal pools that , which is inhabited by special-status bird species such the Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), listed as endangered (SE) under the California Endangered Species Act (CESA), and the light-footed clapper rail (*Rallus longirostris levipes*), SE and listed as endangered (FE) under the federal Endangered Species Act (ESA). In addition, a mosaic of natural coastal habitats is found north of the site and along the Santa Ana River, in Talbert Regional Park and Fairview Park. Coastal California gnatcatchers (*Polioptila californica californica*), a bird species listed as threatened (FT) under the ESA, is found in scrub habitats within these areas and on the Project site. Another federally listed bird species, the least Bell's vireo (*Vireo bellii pusillus*), occurs in habitats dominated by willows (*Salix* spp.) in the area, including in the lowlands of the Project site. Vernal pools in the undeveloped areas near the Santa Ana River, including the Project site, provide habitat for the federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*). The open habitats

within the less developed corridor associated with the Santa Ana River also provide habitat for raptor species, including the northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). Trees and wooded areas provide nesting habitat for raptors and foraging habitat for species such as Cooper's hawk (*Accipiter cooperii*) and red-shouldered hawk (*Buteo lineatus*). Osprey (*Pandion haliaetus*), which feed mostly on fish, are attracted to open water in the area.

## 1.3 Biological Survey Area

Detailed field surveys for this report were performed throughout the upper mesa areas on the eastern portion of the Project site focusing solely on seasonal features that have been documented to fill with rain water and remain ponded for a short duration. Historical wetland delineation data from the *Draft Jurisdictional Delineation Report* by BonTerra (2011b) and *Jurisdictional Delineation for the Newport Banning Ranch Property* by GLA (2008) documented jurisdictional features in the western lowlands and in vegetated riparian areas in the eastern upper mesa portions of the Project site (*Figure 2*); however, the majority of the features addressed in this report were not mapped by those studies.



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**Jurisdictional Determination of Seasonal Features** 

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#### 2.0 SUMMARY OF REGULATIONS

The following agencies regulate specified activities within streams, wetlands, and riparian areas throughout California: USACE, California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game [CDFG]), and RWQCB. The USACE Regulatory Program regulates the discharge of dredge or fill material under Section 404 of the Clean Water Act (CWA). The CDFW regulates alteration of streambeds and lakes waters under Sections 1600–1616 of the CDFG Code. The RWQCB regulates dredge and fill activities within wetlands and non-wetland waters under Section 401 of the CWA and discharge of waste into waters of the state under the Porter-Cologne Water Quality Control Act.

The CCC also regulates wetlands within the coastal zone pursuant to the California Coastal Act (CCA) (California Public Resources Code Section 30233). The City of Newport Beach (City) regulates wetlands (coastal brackish marshes, coastal freshwater marshes, southern coastal salt marshes, southern hardpan vernal pools, freshwater seeps, and alkali meadows) as Environmentally Sensitive Habitat Areas (ESHAs) pursuant to the Coastal Land Use Plan (CLUP; City of Newport Beach 2005); however, the site is located in an area of deferred certification, within which the City's certified CLUP does not serve as the standard of review for new development. The City's certified CLUP may, however, serve as guidance for CCC review of new development subject to coastal development permit requirements under the CCA.

#### 2.1 U.S. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the USACE regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in USACE regulations at 33 CFR Part 328.3(a) as:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:
  - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or



- (*ii*) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or
- *(iii)* Which are used or could be used for industrial purpose by industries in interstate commerce.
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;
- (6) The territorial seas;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.

In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." The discharge of dredge or fill material into waters of the United States, including wetlands requires authorization from the USACE prior to impacts.

The USACE regulates "discharge of dredged or fill material" into "waters of the U.S.," which includes tidal waters, interstate waters, and all other waters that are part of a tributary system to interstate waters or to navigable "waters of the U.S.," the use, degradation, or destruction of which could affect interstate or foreign commerce or which are tributaries to waters subject to the ebb and flow of the tide (33 CFR. 328.3(a)), pursuant to provisions of Section 404 of the CWA. The USACE defines jurisdictional wetlands as areas supporting a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology, in accordance with the procedures established in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). However, the United States Supreme Court ruling in the *Solid Waste Agency of Northern Cook County vs. United States Army Corps of Engineers, No. 99-1178* (January 9, 2001) ("the

SWANCC case"), held that the CWA does not give the federal government regulatory authority over non-navigable, isolated, intrastate waters. Because of this decision, some previously regulated depressional areas such as mudflats, sandflats, wetlands, prairie potholes, wet meadows, playa lakes, natural ponds, and vernal pools, which lack a hydrologic connection to other intra- or inter-state "waters of the U.S.," are no longer regulated by the USACE. However, some of these areas (e.g., isolated streams, lakes or ponds) may still be regulated by the CDFW under Section 1600 of the CDFG Code, the RWQCB under the Porter-Cologne Water Quality Control Act, or the CCC under the California Coastal Act.

#### 2.2 California Department of Fish and Wildlife

In accordance with Section 1600 et seq. of the CDFG Code (Streambed Alteration), the CDFW regulates activities which "will substantially divert, obstruct, or substantially change the natural flow or bed, channel or bank, of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit." The CDFW takes jurisdiction to the top of bank of a stream, or the limit of the adjacent riparian vegetation, referred to in this report as "streambed and associated riparian habitats."

Section 1600 et seq. does not extend to isolated wetlands and waters, such as small ponds or pools not located on or immediately adjacent to a stream course, wet meadows, vernal pools, or tenajas, nor does it extend over marine waters influenced by the ebb and flow of the tide that lack a bed and bank form typical of stream channels.

#### 2.3 Regional Water Quality Control Board

The RWQCB regulates discharging waste, or proposing to discharge waste, within any region that could affect the "waters of the state" (Water Code Section 13260 (a)), pursuant to provisions of the Porter-Cologne Water Quality Control Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050 (e)). Although the Porter-Cologne Water Quality Control Act definition of "Waters of the State" may not apply on federally owned land, the RWQCB may still assert jurisdiction over qualifying aquatic resources on land owned by the U.S. where the CWA Section 401 applies. Before the USACE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) under the Porter-Cologne Water Quality Control Act.

#### 2.4 California Coastal Commission

Under the CCA, the CCC regulates impacts to wetlands in the "coastal zone" and reviews new development subject to coastal development permit requirements. Section 30121 of the CCA

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defines wetlands as "...lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, swamps, mudflats, and fens..." In contrast to the USACE, which uses a three-parameter definition to delineate wetlands, the CCC essentially uses the Cowardin method of wetlands classification, which defines wetland boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

The CCC wetland definition is generally more encompassing than either the USACE or CDFW definition in most respects. However, Section 13577(b) of the Administrative Regulations suggest that, where conditions are not capable of supporting hydric soils or hydrophytic vegetation, hydrologic indicators of saturation or surface waters should be expressed on an annual basis ("at some time during each year") rather than under ordinary high water conditions as is the case under the federal regulatory standard.

The CLUP Policy 4.2.3-11, which may serve as guidance for CCC review of new development subject to coastal development permit requirements under the CCA, requires the following minimum mitigation measures if a project involves diking or filling of a wetland (City of Newport Beach 2005):

A. If an appropriate mitigation site is available, the applicant shall submit a detailed plan which includes provisions for (1) acquiring title to the mitigation site; (2) "in-kind" wetland restoration or creation where possible; (3) where "out-of-kind" mitigation is necessary, restoration or creation of wetlands that are of equal or greater biological productivity to the wetland that was filled or dredged; and (4) dedication of the restored or created wetland and buffer to a public agency, or permanent restriction of their use to open space purposes.

Adverse impacts shall be mitigated at a ratio of 3:1 for impacts to seasonal wetlands, freshwater marsh and riparian areas, and at a ratio of 4:1 for impacts to vernal pools and saltmarsh (the ratio representing the acreage of the area to be restored/created to the acreage of the area diked or filled), unless the applicant provides evidence establishing, and the approving authority finds, that restoration or creation of a lesser area of wetlands will fully mitigate the adverse impacts of the dike or fill project. However, in no event shall the mitigation ratio be less than 2:1 unless, prior to the development impacts, the mitigation is completed and is empirically demonstrated to meet performance criteria that establish that the created or restored wetlands are functionally equivalent or superior to the impacted wetlands. The mitigation shall occur on-site wherever possible. Where not possible, mitigation should occur in the same watershed. The mitigation site shall be purchased and legally restricted and/or dedicated before the dike or fill development may proceed.

- B. The applicant may, in some cases, be permitted to open equivalent areas to tidal action or provide other sources of surface water in place of creating or restoring wetlands pursuant to paragraph A. This method of mitigation would be appropriate if the applicant already owns, or can acquire, filled or diked areas which themselves are not environmentally sensitive habitat areas but which would become so if such areas were opened to tidal action or provided with other sources of surface water.
- C. However, if no appropriate sites under options (A) and (B) are available, the applicant shall pay an in-lieu fee of sufficient value to an appropriate public agency for the purchase and restoration of an area of equivalent productive value, or equivalent surface area.

#### 2.5 U.S. Fish and Wildlife Service

Section 9 of the Endangered Species Act (ESA) prohibits taking of fish and wildlife species listed as endangered or threatened under section 4 of the ESA. Under the ESA, the term ``take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The term ``harm" is defined in the regulations as significant habitat modification or degradation that results in death or injury of listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). The term ``harass" is defined in the regulations as to carry out actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3).

However, under specified circumstances, the USFWS may issue permits that allow the take of federally listed species, provided that the take that occurs is incidental to, but not the purpose of, an otherwise lawful activity. Regulations governing permits for endangered and threatened species are at 50 CFR 17.22 and 17.32, respectively.

Section 7(a)(1)(B) of the Act contains provisions for issuing such incidental take permits to non-Federal entities for the take of endangered and threatened species, provided the following criteria are met:

- A. The taking will be incidental;
- *B. The applicants will, to the maximum extent practicable, minimize and mitigate the impact of such taking;*
- *C. The applicants will propose a mitigation plan and ensure that adequate funding for the plan will be provided;*

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- *D. The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and*
- *E.* The applicants will carry out any other measures that the USFWS may require as being necessary or appropriate for the purposes of the conservation easement.

#### 3.0 METHODS

Before detailing the methodology, it is important to note that a large number of the seasonal features (features) addressed in this report were identified during previous wet season fairy shrimp surveys conducted by GLA in 2000, 2008, 2009, 2010, 2011, and 2012. The focus of these surveys was to determine the presence or absence of federally listed vernal pool branchiopods. During these surveys, depth and duration of water ponding were recorded, presence/absence of invertebrate species was documented, and rain quantities were recorded. Since the fairy shrimp survey protocol requires bi-weekly visits to the site, the data presented in the survey reports was useful in determining recent site conditions, historical hydrology information, and assisted in identifying potential seasonal features. Additionally, Dudek conducted a 2012 dry season fairy shrimp survey to determine the presence of fairy shrimp cysts/aquatic invertebrates. GLA also conducted an extensive literature review, which included all available Project reports and maps, local plans and professional databases. The subsequent field surveys focused on evaluating the seasonal features that have the potential to be regulated by the USACE, CDFW, RWQCB, and/or CCC as wetlands.

#### 3.1 Literature Review

The following data sources and project reports were used in the wetland delineation and jurisdictional determination effort:

- 90-Day Dry-Season Protocol Survey Report for Federally-Listed Vernal Pool Branchiopods on the Newport Banning Ranch, City of Newport Beach and Unincorporated Orange County, Orange County, California. Permit Numbers TE139634-2 and TE60147A-0 (Dudek 2013)
- Biological Technical Report for the Newport Banning Ranch Property, Newport Beach, California (GLA 2009a)
- Coastal Land Use Plan (City of Newport Beach 2005)
- Draft Environmental Impact Report, Volume I, Newport Banning Ranch Project, City of Newport Beach (BonTerra 2011a)
- Draft Jurisdictional Delineation Report, Newport Banning Ranch, Newport Beach, California (BonTerra 2011b)
- Examination of Soil Samples from an Orange County, CA Site for Fairy Shrimp Cysts (ERS 2012)

- Final Biological Technical Report, Newport Banning Ranch, Newport Beach, California. (BonTerra 2011c)
- Historic aerial photographs
- Jurisdictional Delineation for the Newport Banning Ranch Property, City of Newport Beach and Unincorporated Orange County, Orange County, California (GLA 2008a)
- Jurisdictional Determination/Delineation of 48 Ponding Features at the Newport Banning Ranch Property, Orange County, California. (GLA 2012a)
- National Wetlands Inventory Maps (USFWS 2012)
- National Hydric Soils List (USDA-NRCS 2012a)
- Report of 2011/2012 Wet-Season Survey for Listed Branchiopods Conducted for Oil Field Features at the 401-acre Newport Banning Ranch Property, City of Newport Beach and Unincorporated Orange County, Orange County, California. (GLA 2012b)
- Report of a Wet-Season Survey for Listed Branchiopods Conducted for a Seasonal Pool at the 403-acre Newport Banning Ranch Property, City of Newport Beach and Unincorporated Orange County, Orange County, California. (GLA 2009b)
- Report of a Wet-Season Survey for Listed Branchiopods Conducted for Oil Field Features at the 401-acre Newport Banning Ranch Property, City of Newport Beach and Unincorporated Orange County, Orange County, California. (GLA 2011a)
- Report of a Wet-Season Survey for Listed Branchiopods Conducted for Three Seasonal Pools at the 403-acre Newport Banning Ranch Property, City of Newport Beach and Unincorporated Orange County, Orange County, California. (GLA 2010)
- Results of Dry-Season Survey for Listed Fairy Shrimp for a Single Feature at the 412.5acre Newport Banning Ranch Property, City of Newport Beach and Unincorporated Orange County, Orange County, California. (GLA 2011b)
- Summary of Protocol Surveys for Federally-Listed Vernal Pool Branchiopods Conducted on Newport Banning Ranch, City of Newport Beach and Unincorporated Orange County, California (Dudek and GLA 2013)
- Summary of Surveys for Federally-Listed Vernal Pool Branchiopods Conducted in 2000 and 2007 through 2012 at the 401-acre Newport Banning Ranch Property, City of Newport Beach, Orange County, California. (GLA 2012c)

- U.S. Geological Survey (USGS) topographic map
- Various inputs from community members including the Complete Banning Ranch Mesa Vernal Pools/Wetland, Second Edition, Power Point Slide Show. (Banning Ranch Conservancy 2011)
- Web Soil Survey (USDA-NRCS 2012b)

#### 3.2 Field Assessment

As noted, GLA performed wet season fairy shrimp surveys, prior to conducting the seasonal feature jurisdictional wetland delineation, in 2000, 2008, 2009, 2010, 2011, and 2012. During wet season fairy shrimp surveys, hydrological monitoring was performed at subject seasonal features to document depth and duration of inundation. In addition, Dudek performed a 2012 dry season fairy shrimp survey to document aquatic invertebrates.

Following the detailed hydrological monitoring, in May and June 2012, GLA Senior Wetland Specialist Tony Bomkamp performed a delineation of seasonal features to determine whether the features met the minimum threshold for wetlands as defined by USACE, CDFW, RWQCB, and the CCC (*Table 1*). Dudek performed a follow-up site visit on October 4, 2012 to review and verify data collected by GLA during the seasonal feature wetland delineation.

Date(s)	Survey Type	Personnel	Company
May 1 and 10, 2012 June 9, 2012	Jurisdictional Delineation of Seasonal Features	T. Bomkamp	GLA
October 4, 2012	Jurisdictional Delineation of Seasonal Features Field Review and Update	J. Davis IV, T. Wotipka, H. Moine	Dudek

 Table 1. Summary of Surveys, Personnel, and Company

Notes:

GLA – Glenn Lukos Associates, Inc.

The seasonal feature wetland delineation was performed in accordance with the methods prescribed in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). The USACE and RWQCB wetlands delineation consisted of data collection focused on the three parameters described in the USACE manual: hydrophytic vegetation, hydric soils, wetland hydrology. Potential wetland areas defined by the City and CCC were determined based on the presence of a single parameter with the presence of each parameter determined in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). In

some instances where isolated surface waters are present, the RWQCB may choose to take jurisdiction over these resources under the State's Porter-Cologne Water Quality Control Act.

A total of three seasonal features (named 24b, 49a, and 49b by the Banning Ranch Conservancy) were previously observed by the Banning Ranch Conservancy but not observed during 2011 GLA surveys, thus not surveyed. Additionally, one seasonal feature (named 6 by the Banning Ranch Conservancy) was previously observed by the Banning Ranch Conservancy but determined to be outside the property boundary by GLA, thus not surveyed (Banning Ranch Conservancy 2011 and GLA 2012c).

Vegetation, soils, and hydrology were each evaluated for 49 geographically distinct features throughout the Project site to determine the presence or absence of wetland field indicators as described in more detail below.

#### 3.2.1 Wetland Vegetation

Seasonal changes in species composition, land-use practices, wildfires, and other natural disturbances can adversely affect the process for wetlands vegetation determination. In normal situations, a sample point is considered positive for hydrophytic vegetation if it passes the basic dominance test (Indicator 1), meaning that more than 50 percent of the dominant species sampled were characterized as either obligate, facultative wetland, and/or facultative per *The National Wetland Plant List* (Lichvar 2012). At each seasonal feature sample point, absolute cover and dominance of each observed plant species was recorded. A description of the hydrophytic vegetation categories is provided in *Table 2*.

Indicator Status	Occurrence in Wetlands	Estimated Probability of Occurrence in Wetland (percent)
OBL (Obligate Wetland Plants)	Occur almost always under natural conditions in wetlands.	>99
FACW (Facultative Wetland Plants)	Usually occur in wetlands, but occasionally found in non-wetlands.	67-99
FAC (Facultative Plants)	Equally likely to occur in wetlands or non-wetlands.	34-66
FACU (Facultative Upland Plants)	Usually occurs in non-wetlands, but occasionally found in wetlands.	1-33
UPL (Obligate Upland Plants)	Occurs in wetlands in another region, but occur almost always under natural conditions in non- wetlands in this region.	<1
NI (No Indicator)	Not included on list of hydrophytic vegetation, does not occur in wetlands in the region specified.	0

Table 2. Hydrophytic Vegetation Indicator Categories

\*Source: Reed 1988

#### 3.2.2 Hydric Soils

The presence of hydric soils was determined in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). According to the National Technical Committee for Hydric Soils, hydric soils are "soils that are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (USDA Soil Conservation Service 1994).

Where feasible, soil pits were excavated to depths of approximately six inches; however, digging in many survey areas was challenging due to the presence of asphalt and compacted soils. Dry soils were moistened to obtain the most accurate soil color. Munsell Soil-Color Charts were used to determine soil chroma and value (Munsell 2009). Excavated soils were examined for evidence of hydric conditions, including low chroma values and redoximorphic features, vertical streaking, sulfidic odor, gleyed soils, and high organic matter content in the upper horizon. In general, soils from test pits were determined to be hydric if found to be of a chroma one or chroma two with redoximorphic features, consistent with the description of Redox Depressions (F8) and/or Vernal Pools (F9) in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). Additionally, evidence of previous ponding or flooding was assessed along with the slope, local topography, existing landform characteristics, and soil material/composition, in order to determine if hydric soils were present.

#### 3.2.3 Hydrology

Per the guidelines prescribed in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008), wetland hydrology indicators are separated into four major groups: Group A, B, C, and D. Group A indicators are based on direct observations of surface flow, ponding, and soil saturation/groundwater. Group B indicators consist of evidence that the site has been or is currently subjected to ponding including, but not limited to, water marks, drift deposits, aquatic invertebrates, and sediment deposits. Group C indicators include signs of previous and/or current saturation including oxidized rhizospheres surrounding living roots and the presence of reduced iron or sulfur, both of which are indicative of extended periods of soil saturation. Group D indicators consist of "vegetation and soil features that are indicative of current rather than historic wet conditions and include a shallow aquitard and results of the FAC-Neutral test." Each group is subdivided into primary and secondary categories based on their frequency and probability to occur in the Arid West region.

GLA and Dudek biologists examined each feature closely for evidence of hydrology indicators including, most notably, surface water (A1), surface soil cracks (B6), and aquatic invertebrates (B13). Rain quantities, ponding, and aquatic invertebrate data collected during wet season fairy shrimp surveys and aquatic invertebrate data collected during dry season fairy shrimp surveys were used to assist in jurisdictional determination. It should be noted that ponding data was not consistently recorded during wet season fairy shrimp surveys, thus decreasing the ability to include the data during jurisdictional determination. During site visits, each of the 49 features was closely examined for evidence of hydrology indicators from all four groups.

#### 3.3 Coastal Act Exemption Assessment

Oil production, operation, maintenance and abandonment and remediation activities of the Banning Lease Oil Field are the subject of a 1973 determination by the California Coastal Zone Conservation Commission that the rights to conduct the oil operations on the oil field had vested and are, therefore, exempt from regulation under the California Coastal Zone Conservation Act.

For purposes of identifying wetland features subject to CCA review, all features were first evaluated pursuant to the single parameter test used by the CCC to delineate wetlands, and were then reviewed for relative location within existing oil field facility areas and pending/planned abandonment, consolidation and remediation sites to identify those features consider exempt and not jurisdictional under the CCA. The quantity of each seasonal feature within oilfield facility, abandonment and soil remediation areas was then calculated within the geographic information system (GIS) database. If greater than 50 percent of the seasonal feature is located within oil facility, abandonment and remediation footprint, it was identified as exempt and not jurisdictional under the CCA or under the regulatory authority of the CCC.

The exempt status of existing oil field operation and maintenance activities and pending/planned abandonment, consolidation and remediation activities presents a unique set of circumstances pursuant to which the subject CCA wetland delineation is conducted, and the Project Team is committed to sharing all relevant information with CCC Staff to facilitate a thorough review of the jurisdictional wetland determination as it relates to CCA permit requirements.

## 4.0 SITE HISTORY

Much of the Project site has been the subject of ongoing oil field operations extending over 75 years. In order to evaluate resources located within oil field operations areas, it is necessary to understand the scope of prior oil field operations that have affected the property and the scale of future abandonment and remediation activities that are typically mandated by regulation for any oil field at the end of production and associated processing.

Since the commencement of oil operations in the early 1940's, approximately 489 wells have been drilled on the oil field. Existing oil operations include the oil well sites and related surface and subsurface oil facility infrastructure, including but not limited to pipelines, storage tanks, power poles, machinery, improved and unimproved roadways, buildings, and oil processing facilities. There currently remain over 40 miles of active and inactive pipelines throughout the site used to convey oil, water, and gas produced from the oil wells to separation and treatment facilities within the oil field.

Operation of the oilfield involves drilling/redrilling and production operations, as well as staging of activities, the movement of equipment and personnel to, from, and across the site, and the storage of equipment and materials. In addition, the oil field operation includes maintenance and security activities that are essential to efficient operations and the protection of the property, oil field employees, and persons and properties in the vicinity of the oilfield. These activities include, among others, road repairs, vegetation management, fire abatement, and weed control.

Vegetation management is an integral component of the oil field maintenance program, and has been performed by oil operators since the early 1940s. The extent of vegetation clearance is limited to the amount necessary to ensure public safety, fire prevention, site security, and proper oil field functioning. Vegetation management is performed by mowing and manual removal (e.g., saws, weed whackers, and pruners) of flammable vegetation, including most open grass and weedy areas. Historically, the oil operators have performed vegetation management at least two times per year (depending upon the seasonal rainfall), and have periodically (typically annually) cleared vegetative growth along oil pipelines, gas pipelines, utilities, and well pad areas throughout the field. Pipeline clearing cannot be done by mechanical mowing; therefore, it is more difficult and labor-intensive resulting in a less frequent, but nonetheless important, component of the maintenance schedule. The same pattern of vegetation maintenance related to the oil field activities that was occurring at the time the Resolution of Exemption was issued has continued on the site to-date.

Pursuant to state and local agency requirements, a draft Remedial Action Plan, prepared by Geosyntec (August 2009) has been prepared which specifies that oil field abandonment and remediation efforts would include oilfield facility and infrastructure removal and oilfield

remediation, as well as the consolidation of oilfield activities. Active and potentially active wells in the upland and lowland areas outside of oil field consolidation areas would be plugged and abandoned. Additionally, previously abandoned wells would be investigated and, if necessary, would be re-abandoned, as needed to meet current DOGGR and Orange County Fire Authority requirements. The oilfield abandonment process would also include demolishing and removing the pipelines, utility poles, and other related production equipment, structures, and road surface materials. These abandonment activities would clear the site for the subsequent remediation phase, which would be implemented after the demolition and abandonment of oil production facilities are completed.

In addition, previous studies have identified multiple areas of Recognized Environmental Conditions (RECs) on the Project site. The site is impacted primarily by petroleum hydrocarbons. Seven of the RECs investigated show significant hydrocarbon impacts beyond surface areas. It is estimated that approximately 246,000 cubic yards (cy) of materials will need to be remediated as part of the abandonment process. Of the 246,000 cy, approximately 138,000 cy are hydrocarbon-impacted soils and 108,000 cy are surface road materials and concrete. In addition to the REC areas, it is expected that additional small volumes of impacted soils may be identified during the oilfield facility demolition phase. Based on the groundwater assessments performed at the site, there were no historical groundwater impacts detected under or in the immediate vicinity of the development area proposed for new land uses.

#### 5.0 RESULTS

Forty-nine features were analyzed to determine the presence or absence of hydrophytic vegetation, hydric soils, and hydrology. The results of the jurisdictional determination listed in *Table 3*, detailed on the Wetland Determination Data Forms (*Appendix A*), and described in detail in *Sections 6.4-6.52*. Site photographs are provided in *Appendix B*.

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## **Jurisdictional Determination of Seasonal Features**

Feature Name		Wetland Determination Field Indicators					
Current Name	BRC Name	Vegetation		Hydric Soil	Hydrology		
		Dominance Test	Prevalence Index <sup>1</sup>	Redox Depressions (F8)	Surface Water (A1)	Surface Soil Cracks (B6)	Aquatic Invertebrates (B13)
VP1	1	$\checkmark$	-	$\checkmark$	-	-	√2
VP2	2	$\checkmark$	-	$\checkmark$	-	-	√2
VP3	AD3	-	-	-	-	-	√2
А	30/30a	$\checkmark$	-	-	$\checkmark$	-	$\checkmark$
В	5	-	-	-	-	-	$\checkmark$
С	4	$\checkmark$	-	-	-	-	$\checkmark$
D	3	-	$\checkmark$	-	-	-	$\checkmark$
E	17	-	-	-	-	-	√2
F	7	-	✓	-	-	-	-
G		-	-	-	-	$\checkmark$	√2
Н	14	-	-	-	-	-	√2
I	8	-	-	-	-	-	√2
J	9	-	-	-	-	-	√2
K	10	-	-	-	-	-	✓
L	15	-	-	-	-	-	✓
М	11	-	-	-	-	-	✓
Ν	16	-	-	-	✓	$\checkmark$	✓
0	18	-	-	-	-	-	-
Р	12	✓	-	-	-	✓	✓
Q	19	-	-	-	-	-	✓
R	13	✓	-	-	-	-	✓
S	21	-	✓	-	✓	✓	-
Т	20	-	-	-	$\checkmark$	-	✓
U	22	-	-	-	-	-	-
V	28	✓	-	-	-	-	✓
W	29	-	-	-	-	-	✓
Х	28b	-	✓	-	-	-	✓
Y	38	-	-	-	-	-	✓

#### Table 3. Feature Sample Point Wetland Determination Field Indicators Summary

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#### **Jurisdictional Determination of Seasonal Features**

Feature Name		Wetland Determination Field Indicators					
Current Name	BRC Name	Vegetation		Hydric Soil	Hydrology		
		Dominance Test	Prevalence Index <sup>1</sup>	Redox Depressions (F8)	Surface Water (A1)	Surface Soil Cracks (B6)	Aquatic Invertebrates (B13)
Z	25	-	-	-	-	-	✓
AA	40	-	-	-	-	-	-
BB	41	-	-	-	-	-	✓
CC	31	$\checkmark$	-	-	-	-	✓
DD	43	-	-	-	-	-	✓
EE	48	-	-	-	-	-	✓
FF	23	-	-	-	-	-	✓
GG	47	-	-	-	$\checkmark$	-	✓
HH	26	-	-	-	-	-	✓
I	42	-	-	-	-	-	✓
JJ	33	-	-	-	-	-	-
KK	30b	-	-	✓	-	-	✓
LL	37	-	-	-	-	-	✓
MM	24a	✓	-	-	$\checkmark$	-	✓
NN	45	-	-	-	-	-	-
00	44	✓	-	-	-	-	✓
PP	27/46	✓	-	-	$\checkmark$	-	✓
QQ	39	-	-	-	-	-	-
RR	36	-	-	-	-	-	-
SS	34	-	-	-	-	-	-
TT	35	-	-	-	-	-	-

#### Table 3. Feature Sample Point Wetland Determination Field Indicators Summary

Notes:

BRC – Banning Ranch Conservancy

<sup>1</sup> – Prevalence index is used when the sample point fails the dominance test. However, for the vegetation parameter to be met indicators of both hydric soil and wetland hydrology must be present, unless disturbed or problematic.

<sup>2</sup> – Federally endangered San Diego fairy shrimp (*Branchinecta sandiegoensis*)

#### 5.1 Vegetation

A variety of hydrophytic vegetation was observed and recorded in order to document the potential for wetland designation. *Table 4* includes a comprehensive summary of common plant species observed within the features and their associated wetland indicator status.

Scientific Name	Common Name	Indicator Status1
Ambrosia psilostachya	Cuman ragweed	FACU
Baccharis salicifolia	Mule fat	FAC
Baccharis salicina	Willow baccharis	FACW
Bassia hyssopifolia	Fivehorn smotherweed	FAC
Bromus hordeaceus	Soft brome	FACU
Conyza canadensis	Canadian horseweed	FACU
Cortaderia selloana	Uruguayan pampas grass	FACU
Cotula coronopifolia	Common brassbuttons	OBL
Cyperus eragrostis	Tall flatsedge	FACW
Deinandra fasciculata	Clustered tarweed	FACU
Distichlis spicata	Saltgrass	FAC
Eleocharis macrostachya	Pale spikerush	OBL
Eleocharis palustris	Common spikerush	OBL
Erodium botrys	Longbeak stork's bill	FACU
Euthamia occidentalis	Western goldentop	FACW
Frankenia salina	Alkali seaheath	FACW
Helminthotheca echioides	Bristly oxtongue	FACU
Heliotropium curassavicum	Salt heliotrope	FACU
Hordeum marinum ssp. gussoneanum	Mediterranean barley	FAC
Hordeum murinum ssp. leporinum	Hare barley	FACU
Lythrum hyssopifolia	Hyssop loosestrife	OBL
Malvella leprosa	Alkali mallow	FACU
Melilotus indicus	Annual yellow sweetclover	FACU
Plantago elongata	Prairie plantain	FACW
Polypogon monspeliensis	Annual rabbitsfoot grass	FACW
Pseudognaphalium luteoalbum	Jersey cudweed	FAC
Psilocarphus brevissimus	Short woollyheads	FACW
Pulicaria paludosa	Spanish false fleabane	FAC
Rumex crispus	Curly dock	FAC
Salsola tragus	Prickly Russian thistle	FACU

# Table 4. List of Hydrophytic Plant Species Observed at Feature Sample Points and Their Indicator Status

# Table 4. List of Hydrophytic Plant Species Observed at Feature SamplePoints and Their Indicator Status

Scientific Name	Common Name	Indicator Status1
Spergularia marina	Salt sandspurry	OBL
Vulpia myuros	Annual fescue	FACU
Notes:		· · · · ·

1 – Source: Lichvar 2012

#### 5.2 Soils

Of the 49 seasonal features examined for soil characteristics, only three soil pits exhibited hydric soil indicators. In each case, the soil pits met the criteria for F8, Redox Depressions. Soils data collected at each feature sample point is provided on the Wetland Determination Data Forms in *Appendix A*.

Based on review of the Orange County USDA NRCS soil survey map (USDA-NCRS 2012b) and BonTerra's reports (2009a,b), the primary soils within the Project site include Beaches, Bolsa silt loam, Capistrano sandy loam, Marina loamy sand, Myford sandy loam, Pits, Riverwash, and Tidal Flats. A brief summary of the soils located within the Project site is provided herein because wetland resources can often be associated with specific substrates. The USDA-NRCS has mapped eight soil series within the Project site with 10 distinct soils. These soils vary widely in depth, fertility, and permeability. *Table 5* lists the soil types within the Project site.

Soil Types	Numeric Reference	Hydric Status
Beaches	115	Yes
Bolsa silt loam	122	Yes
Capistrano sandy loam, 9 to 15 percent slopes	136	No
Marina loamy sand, 2 to 9 percent slopes	162	No
Myford sandy loam, 0 to 2 percent slopes	172	Yes
Myford sandy loam, 2 to 9 percent slopes	173	Yes
Myford sandy loam, 9 to 30 percent slopes, eroded	177	No
Pits	185	Yes
Riverwash	191	Yes
Tidal flats	211	Yes
Notes:		

#### Table 5. Soil Types and Hydric Status

Source: USDA-NRCS 2012b

Of the 10 soil series mapped onsite, seven are known to be hydric (USDA-NRCS 2012b). It is important to emphasize that the hydric soils lists were designed primarily to generate a list of

potentially hydric soils from the National Soil Information System (NASIS) database. They can be useful in making preliminary wetland determinations but in no way should replace field truthing. Field indicators must be used for all on-site determinations of hydric soils. A brief description of the surface soils present within the Project site based on the USDA-NRCS (formerly the Soil Conservation Service) soil survey map, is provided below (USDA-NCRS 2012b). *Figure 3*, Soils, illustrates the location of the described soils.

#### Beaches

Beaches are narrow, sandy, and stony areas along the Pacific Ocean, which are partly or completely covered by water during high tide and exposed during low tide. Along part of the coast, cliffs and bluffs rise abruptly from the ocean causing beaches to be absent or narrow. The stony stretches of beach are mainly at mouths of drainage ways and the base of cliffs. Beaches are not stable; they may change from sandy to stony or from stony to sandy during storms. This soil type occurs along the Pacific Ocean within the southern portion of the Project site.

#### Bolsa Silt Loam

The Bolsa series consists of somewhat poorly drained soils on alluvial fans. These soils formed in mixed alluvium. They have slopes of 0-2 percent, are nearly level and occur on large alluvial fans. A typical profile exhibits a matrix color of 10YR 4/2 from 0-29 inches when moist. The following Bolsa series soil type was mapped on the Project site:

• Bolsa Silt Loam (122)

#### **Capistrano Sandy Loam**

The Capistrano series consists of well-drained soils. These soils formed in sedimentary alluvium of the coastal foothills. Slopes are 9-15 percent. A typical profile exhibits matrix colors of 10YR 2/2 from 0-16 inches when moist, and 10YR 3/2 from 16-27 inches. The following Capistrano series soil type was mapped on the Project site:

• Capistrano Sandy Loam, 9-15 percent slopes (136)

#### **Marina Loamy Sand**

The Marina series consists of gently sloping to moderately steep soils on short rolling dune-like slopes. They formed in old sand dunes near the coast. A typical profile exhibits matrix colors of 10YR 4/3 from 0-12 inches when moist, and 7.5YR 4/4 from 12-27 inches. The following Marina series soil type was mapped on the Project site:

• Marina Loamy Sand, 2-9 percent slopes (162)

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#### Myford Sandy Loam

The Myford series consists of moderately well drained soils on marine terraces. These soils formed in sandy sediments. Slopes ranged from nearly level to a moderately sloping 9 percent, and form 9 to 30 percent, eroded. A typical profile exhibits matrix colors of 10YR 4/3 from 0-1 inch when moist, 7.5YR 4/2 from 1-12 inches, and 7.5YR 3/2 from 12-28 inches. The following Myford series soil types were mapped on the Project site:

- Myford Sandy Loam, 0-2 percent slopes (172)
- Myford Sandy Loam, 2-9 percent slopes (173)
- Myford Sandy Loam, 9-30 percent slopes, eroded (177)

#### Pits

The Pit series consists of very deep, poorly drained soils that formed in fine-textured alluvium weathered from extrusive and basic igneous rocks. Pit soils are on flood plains and in basins. Slopes range from 0 to 5 percent. A typical profile exhibits matrix colors of 10YR 2/1 from 0-4 inches when moist, and 10YR 3/1 from 4-22 inches. The following Pit series soil type was mapped on the Project site:

• Pits (185)

#### Riverwash

Riverwash consists of areas of unconsolidated alluvium, generally stratified and varying widely in texture. Riverwash can be sandy, gravelly, or cobbly. The following Riverwash series soil type was mapped on the Project site:

• Riverwash (191)

#### **Tidal Flats**

Tidal Flats are nearly level areas adjacent to bays and lagoons along the coast. Periodically they are covered by tidal overflow. Some of the higher areas are only covered during very high tides. Tidal flats are stratified clayey to sandy deposits. They are poorly drained and high in salts. The following Tidal Flats series soil type was mapped on the Project site:

• Tidal Flats (211)

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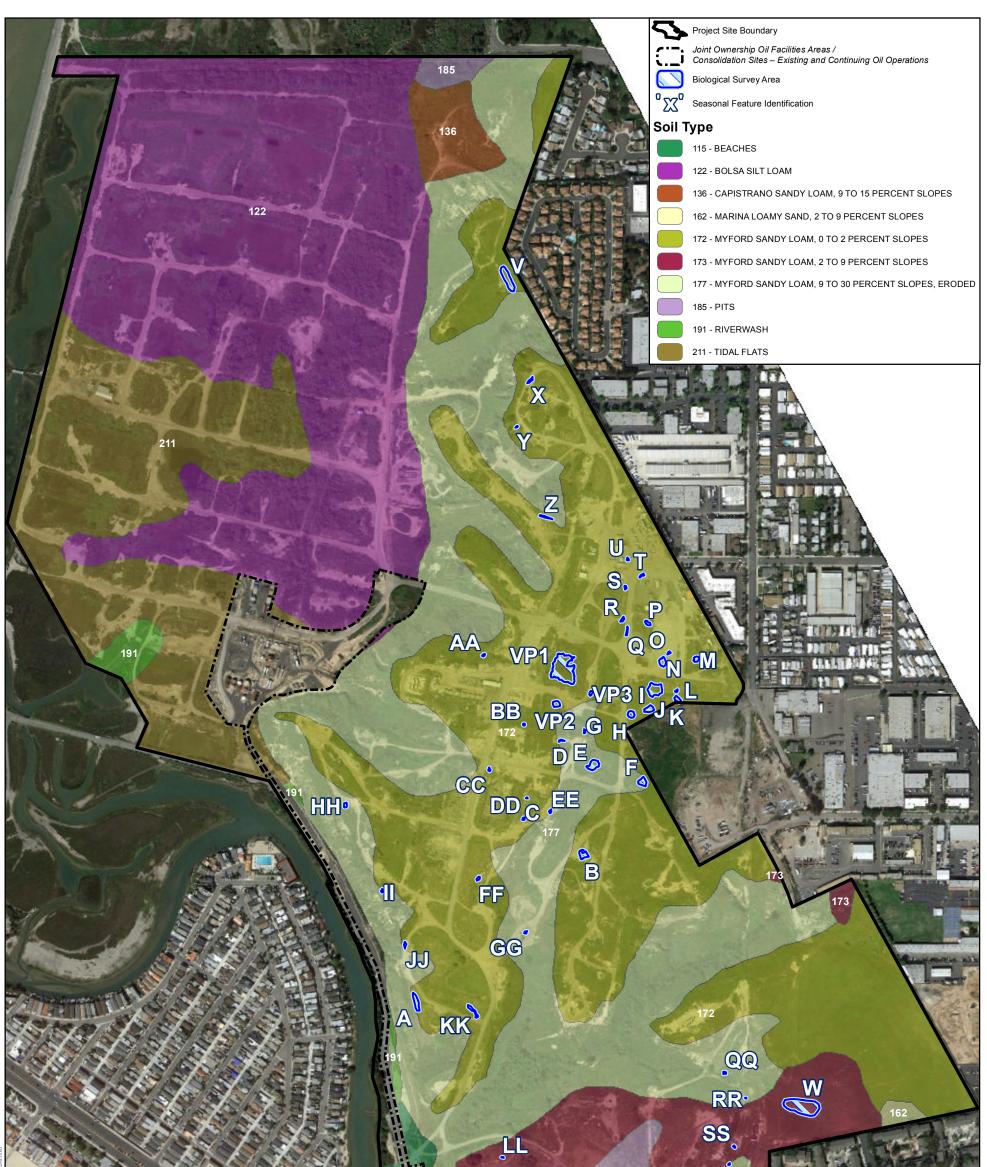


	Image: Windows of the second secon	
N Feet 0 400 800		Figure 3
1 inch = 500 feet	SOURCE: 2011 Aerial provided by Fusco Engineering; USDA NRCS Soils Data; Features Surveyed - Jurisdictional Determination/Delineation of 49 Ponding Features at the Newport Banning Ranch Property, Orange County, California. GLA 2012	Soils
DUDEK	NEWPORT BANNING RANCH	Jurisdictional Determination of Seasonal Features

**Jurisdictional Determination of Seasonal Features** 

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# 5.3 Hydrology

# 5.3.1 Regional and Local Hydrology

The Project site is located in coastal Orange County largely situated on a relatively flat coastal plain southwest of the Puente Hills and Santa Ana Mountains. The coastal plain is heavily developed and consists of pockets of open lands including Seal Beach National Wildlife Refuge, Bolsa Chica Ecological Reserve, Crystal Cove State Park, Laguna Coast Wilderness Park, and Aliso and Wood Park. Newport Beach is located within four distinct watersheds: Newport Bay, Newport Coast, Talbert, and San Diego Creek. The Project site is located within the Talbert Watershed, which drains an approximately 21.4 square mile area with two main tributaries: Greenville-Banning Channel, to the east of the Santa Ana River mouth, and Talbert and Huntington Beach Channels, west of the river mouth. The Project site is located within the Lower Santa Ana River Hydrologic Area and the East Coast Plain Hydrologic Sub-Area 801.11 discharging to the Santa Ana River Tidal Prism and Newport Slough (BonTerra 2011a).

The Project site drainage patterns generally flow from the higher elevations in the east towards the lower elevations to the west. Adjacent off-site drainage from the existing urban areas of Costa Mesa and Newport Beach are conveyed through the larger on site arroyos that convey towards the Santa Ana River Tidal Prism. The Project site contains five geomorphic features that apply to site hydrology, drainage patterns, and sediment transport: lowland, Newport Mesa (upland), bluffs, arroyos, and Semeniuk Slough (BonTerra 2011a).

The Project site contains numerous seasonal features throughout the upland mesa areas. The depressions are likely anthropogenic in nature resulting from over 75 years of active oil operations on the property and are located in low areas, roads, road ruts and shoulders, tire ruts, parking areas, oil sumps, and both abandoned and active oil well pads. *Sections* 5.4.1-5.4.49 describe the results of the seasonal feature delineation and jurisdictional determination for each of the 49 seasonal features.

# 5.3.2 Wetland Hydrology Indicators

Wetland hydrology indicators observed at the site include primary indicators from Group A and Group B. Indicators in Group A are based on the direct observation of surface water or groundwater during a site visit. Group B consists of evidence that the site is subject to flooding or ponding, although it may not be inundated during the site visit. The main hydrology indicators directly observed during field surveys included:

• Surface Water (A1) – direct, visual observation of surface water (flooding or ponding) during the site visit. The USACE technical standard for monitoring hydrology *requires* 14 or more consecutive days of flooding or ponding, or a water table 12 inches (30 cm)

or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (50 percent or higher probability) (USACE 2008).

- Surface Soil Cracks (B6) surface soil cracks consist of shallow cracks that form when fine-grained mineral or organic sediments dry and shrink, often creating a network of cracks or small polygons (USACE 2008).
- Aquatic Invertebrates (B13) presence of numerous live individuals, diapausing insect eggs or crustacean cysts, or dead remains of aquatic invertebrates, such as clams, snails, insects, ostracods, shrimp, and other crustaceans, either on the soil surface or clinging to plants or other emergent objects (USACE 2008).

# Surface Water (A1)

Historic rain data at the Santa Ana Fire Station weather station number CA7888 is listed in *Table* 6. This weather station is approximately seven miles northeast of the Project site, thus rain quantities may be slightly different from the Project site due to the more inland location. However, rain data from areas closer to the Project site (Costa Mesa and Newport Beach) were incomplete, missing data from different months and years. Average rain quantities from 1971-2000 was 13.87 inches annually. As such, the average of this 30 year period is considered normal. Rain amounts occurring in more recent years 2001-2012 can be compared to the 30 year period as 'above' or 'below' normal.

Initial seasonal feature hydrological monitoring occurred in 2000 as part of the GLA wet season fairy shrimp surveys (GLA 2000). During these surveys, five features (Features VP1, VP2, D, MM, and PP) ponded water for a sufficient duration to support fairy shrimp. Additional hydrological monitoring occurred during wet season fairy shrimp surveys conducted during 2007, 2008, 2009, 2010, 2011, and 2012. During 2007-2008 and 2008-2009 wet season fairy shrimp surveys, Feature A was inundated for at least 14 days and supported fairy shrimp. During 2009-2010 wet season fairy shrimp surveys, three features (Features VP1, B, and V) ponded water for a sufficient duration to support fairy shrimp.

During the 2010-2011 rain season (GLA 2011a), GLA began a comprehensive hydrological monitoring program to 1) determine which features exhibited ponding for sufficient duration to meet the minimum thresholds for wetland hydrology, 2) determine which features exhibited ponding for sufficient duration to support listed fairy shrimp and then conduct protocol surveys, and 3) appropriately categorize the features as natural, low areas in roads, road ruts, parking areas, oil sumps, low areas on both abandoned and active oil well pads, etc. As noted in *Table 6*, the 2010-2011 rain season resulted in above normal rain quantities.

Rain Season¹	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Total Rain (Inches)	Above or Below Normal
2011-2012	0.85	1.67	0.63	1.30	0.78	1.51	3.22	0.00	0.00	0.12	0.00	0.00	10.08	Below
2010-2011	2.66	1.30	9.98	1.02	1.91	1.76	0.00	0.45	0.03	0.00	0.00	0.06	19.17	Above
2009-2010	0.62	0.00	3.39	6.01	4.21	0.26	1.25	0.00	0.00	0.02	0.00	0.00	15.76	Above
2008-2009	0.00	1.79	3.69	0.75	3.27	0.04	0.17	0.00	0.10	0.00	0.00	0.00	9.81	Below
2007-2008	0.40	1.19	1.02	3.76	1.95	0.06	0.02	0.17	0.00	0.00	0.00	0.00	8.57	Below
2006-2007	0.02	0.11	0.67	0.03	0.98	0.10	0.34	0.00	0.00	0.00	0.00	0.52	2.77	Below
2005-2006	0.18	0.30	0.58	0.64	1.68	2.13	2.88	0.70	0.02	0.00	*	0.00	9.11	Below
2004-2005	6.97	0.49	3.46	6.98	8.41	0.59	1.30	0.26	0.00	0.00	0.00	0.35	28.81	Above
2003-2004	0.02	0.66	0.75	0.39	4.23	0.52	0.56	0.00	0.00	0.00	0.00	0.00	7.13	Below
2002-2003	0.10	1.80	2.49	0.11	3.99	3.21	1.82	0.82	0.00	0.26	0.00	0.00	14.60	Above
2001-2002	0.00	0.63	1.19	0.67	0.23	0.50	0.23	0.01	0.00	0.00	0.00	0.00	3.46	Below
1971-2000 <sup>2</sup>	0.34	1.17	1.77	3.18	3.05	2.85	0.67	0.25	0.11	0.02	0.12	0.34	13.87	Normal

 Table 6. Historic Rain Data for Santa Ana Fire Station, CA7888

#### Notes:

1 – NOAA 2012

2 – USDA-NRCS 2012c, averages monthly rain amounts from 1971-2000

\* Data missing from NOAA dataset.

During the 2010-2011 rain season (GLA 2011a), hydrological monitoring was conducted at each feature within a few days of each rain event (October 22, October 25, November 2, November 5, November 11, November 22, November 24, December 7, and December 13) to record the number of consecutive days each feature was inundated. For example, the monitoring event on October 22 followed a period of seven straight days of rain and 12 features (Features VP2, B, M, P, R, N, Q, S, T, U, PP, and GG) exhibited ponding. On November 2 (14 days following the initiation of ponding), only six features (Features B, N, S, T, U, and GG) were still inundated. Monitoring continued through the rain events that began on December 16, culminating in two weeks of rain, which resulted in hydrological monitoring data

During the 2011-2012 rain season (GLA 2012b), hydrological monitoring was conducted at each feature beginning on October 12. Surveys were also conducted on October 20; November 9, 17, and 23; December 2, 13, and 19; January 16, 26, and 30; February 3, 16, and 22; March 24; April 2, 7, 14, 17, 21, and 25; and May 1, 2, and 10. During 2011-2012 wet season fairy shrimp surveys, four features (Features X, CC, GG, and HH) ponded water for a sufficient duration to support fairy shrimp. As noted above in *Table 6*, the 2011-2012 rain season resulted in below normal rain quantities.

#### Surface Soil Cracks (B6)

During an October 2012 site visit by Dudek biologists, surface soil cracks were observed at four features (Features G, N, P, and S). In these areas surface soil cracks were shallow creating polygons of cracked soil.

#### **Aquatic Invertebrates (B13)**

A variety of types of aquatic invertebrates including fairy shrimp, ostracods, and cladoceran ephippia have been observed on the Project site. During wet season fairy shrimp surveys in 2000, 2008, 2009, 2010, 2011, and 2012, the common versatile fairy shrimp (*Branchinecta lindahli*) and federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) were observed on the Project site (GLA 2000, GLA 2008b, GLA 2009b, GLA 2010, GLA 2011a, and GLA 2012b). Additionally, fairy shrimp cysts, ostracod shells, and cladoceran ephippia were observed during dry season fairy shrimp surveys in 2012 (ERS 2012). The ability of fairy shrimp cysts to hatch depends on rain frequency, quantities, and inundation periods. As such, it is important to compare annual rain data for subject wet season fairy shrimp surveys to previous years to analyze differences and similarities in normal rain data. Each species has specific requirements for successful cyst hatching.

The common versatile fairy shrimp is known to occurr in a variety of habitats including small areas with short durations of ponding such as grassland swale pools, marshes and anthropogenic created features including road-side ditches, quarries, bulldozed areas, and tire ruts. Cyst hatching best occurs from 5-20°C, poorly at 25°C, and not at all at 30°C. The common versatile fairy shrimp has been observed to hatch and pass through adolescence in 13-14 days in coastal southern California mesa areas (Eriksen and Belk 1999).

The federally endangered San Diego fairy shrimp was thought to be the same species as the common versatile fairy shrimp in 1990 due to the similar range and habitat types and were later identified as two separate species. Typically cysts require 8 days to hatch at 5°C, but at temperatures between 10-15°C that period is shortened to 3-5 days. Higher temperatures do not result in hatching. Once larvae appear, they mature in 7-10 days if temperatures raise and are maintained around 20-22°C. Approximately 10-20 days must pass before maturity and live for a maximum of 42 days (Eriksen and Belk 1999).

# 5.4 Jurisdictional Determination

# 5.4.1 Feature VP1

Feature VP1 is the site of depression, likely caused by standard oil field activities covering approximately 13,262 square feet (0.304 acre) with an approximate depth of 13 centimeters (cm) (*Figure 4* and *Table 3*). Well-used oil field operation roads (two paved and two unpaved) surround feature VP1 near the 17th Street entry/exit gate and traversed by oil field pipelines. Due to the presence of the federally endangered San Diego fairy shrimp, Feature VP1 is surrounded by protective fencing.

# Vegetation

When Feature VP1 was first surveyed in 2000, it supported a predominance of saltgrass (*Distichlis spicata* [FAC]) and creeping spikerush (*Eleocharis macrostachya* [OBL]), with a very limited number of vernal pool associate species such as hairy pepperwort (*Marsilea vestita* [OBL]). However, during the last 12 years, the feature has been colonized and is now dominated by mule fat (*Baccharis salicifolia* [FAC]), saltgrass (FAC), and the non-native annual rabbitsfoot grass (*Polypogon monspeliensis* [FACW]). Non-dominant species within the feature include alkali mallow (*Malvella leprosa* [FACU]), creeping spikerush (OBL), western goldentop (*Euthamia occidentalis* [FACW]), alkali seaheath (*Frankenia salina* [FACW]), and Cuman ragweed (*Ambrosia psilostachya* [FACU]). This sample point passed the Dominance Test and meets the hydrophytic vegetation criterion (*Table 3*).

### Soils

Feature VP1 soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Feature VP1 exhibited a matrix of 2.5Y 3/2 with 10 percent redox of 5YR 4/6, meeting the indicator Redox Depression (F8). Thus, Feature VP1 meets the hydric soils criterion.

### Hydrology

Feature VP1 exhibits surface ponding depths of up to six inches and was inundated for a sufficient duration to support fairy shrimp (GLA 2000), meeting Surface Water (A1) and Saturation (A3) primary indicators. During 1999-2000 wet season fairy shrimp surveys, San Diego fairy shrimp was observed (GLA 2000), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passed the FAC-Neutral Test (D5), a secondary indicator. Feature VP1 has evidence of hydrology and thus meets the hydrology criterion.

#### **Summary of Feature VP1 Characteristics**

Feature VP1 meets three wetland parameters (hydrophytic vegetation, hydric soils and hydrology). Feature VP1 was identified during wetland delineation surveys conducted by GLA in 2009 and the USACE previously accepted jurisdiction over this feature in 2009 (GLA 2008a).

#### 5.4.2 Feature VP2

Feature VP2 is a depression located near the edge of an existing oil well pad and is traversed by oil field pipelines. Feature VP2, south of Feature VP1, is adjacent to a dirt road. This feature covers approximately 919 square feet (0.021 acre).

#### Vegetation

Feature VP2 is dominated by mule fat (FAC), hyssop loosestrife (*Lythrum hyssopifolia* [OBL]), common brassbuttons (*Cotula coronipifolia* [OBL]), and clustered tarweed (*Deinandra fasciculata* [FACU]). Non-dominant species present within the feature include curly dock (*Rumex crispus* [FAC]) and salt heliotrope (*Heliotropium curassavicum* [FACU]). This feature sample point passed the Dominance Test and thus meets the hydrophytic vegetation criterion.

#### Soils

Feature VP2 soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Soils in the upper six inches of this feature exhibited a matrix of 2.5Y 3/2 with five percent redox of 10YR 4/4, meeting the indicator Redox Depression (F8). Thus, Feature VP2 meets the hydric soils criterion.

#### Hydrology

Soils within and adjacent to Feature VP2 are highly compacted, the feature exhibits surface ponding. Feature VP2 exhibits surface ponding depths of up to two inches and was inundated for a sufficient duration to support fairy shrimp (GLA 2000). San Diego fairy shrimp was identified in this feature during 1999-2000 (GLA 2000) and 2010-2011 wet season fairy shrimp surveys (GLA 2011a), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, Feature VP2 has evidence of hydrology and meets the wetland hydrology criterion.



**Jurisdictional Determination of Seasonal Features** 

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#### **Summary of Feature VP2 Characteristics**

While Feature VP2 is highly disturbed due to its location on an active oil well pad, it meets all three wetland criteria: a predominance of plants with an indicator status of FAC or wetter, hydric soils, and wetland hydrology. Feature VP2 was identified during wetland delineation surveys conducted by GLA in 2009 and the USACE previously accepted jurisdiction over this feature in 2009 (GLA 2008a).

### 5.4.3 Feature VP3

Feature VP3 is located immediately east of Feature VP1 (separated by a dirt road) and consists of an anthropogenic bulldozer scrape situated near an existing oil field pipeline. This feature covers approximately 282 square feet (0.006 acre).

#### Vegetation

Feature VP3 supports a mix of upland grasses and weedy annual species. Dominant species include red brome (*Bromus madritensis* ssp. *rubens* [UPL]), and salt sandspurry (*Spergularia marina* [OBL]). Non-dominant species within the feature include Cuman ragweed (FACU), curly dock (FAC), and clustered tarweed (FACU). This feature sample point did not pass the Dominance Test or Prevalence Index test and thus does not support hydrophytic vegetation. Thus, VP3 does not meet the hydrophytic vegetation criterion.

#### Soils

Feature VP3 soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Soils in Feature VP3 are well-drained sandy loam with a matrix of 2.5Y 3/2 and no redoximorphic features. Feature VP3 lacks hydric soils and thus does not meet the hydric soils criterion.

### Hydrology

Feature VP3 was inundated for a sufficient duration during the 2009-2010 rain season to support fairy shrimp, however the feature was inundated for less than 14 days (GLA 2010). During 2009-2010 wet season fairy shrimp surveys San Diego fairy shrimp was observed (GLA 2010). Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature VP3 Characteristics**

This feature meets one wetland parameter (hydrology).

# 5.4.4 Feature A

Feature A is a depression within a grassland area in the southwest quadrant of the site that covers approximately 1,609 square feet (0.037 acre). The depression is potentially the only "natural" depression on the Project site.

### Vegetation

Feature A supports a predominance of hydrophytes in most years. Dominant species include short woollyheads (*Psilocarphus brevissimus* [FACW]) and western goldentop (FACW). Non-dominant species within the feature include annual rabbitsfoot grass (FACW), curly dock (FAC), saltgrass (FAC), clustered tarweed (FACU), and creeping spikerush (OBL). This feature sample point passed the Dominance Test and thus meets the hydrophytic vegetation criterion.

#### Soils

Feature A soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils in Feature A exhibited soils with a matrix of 2.5YR 3/2 and no redoximorphic features. No hydric soil indicators were detected. As such, the feature does not meet the hydric soils criterion.

# Hydrology

During 2007-2008 and 2008-2009 wet season fairy shrimp surveys, Feature A was inundated for at least 14 days (GLA 2008b and GLA 2009b), meeting the Surface Water (A1) primary indicator. Common versatile fairy shrimp was identified in this feature during 2007-2008 (GLA 2008b), 2008-2009 (GLA 2009b), and 2010-2011 (GLA 2011a) wet season fairy shrimp surveys, meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature A Characteristics**

Feature A meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

# 5.4.5 Feature B

Feature B is an area of stockpiled remediated soil adjacent to two inactive or abandoned oil wells that covers approximately 1,297 square feet (0.030 acre).

# Vegetation

This feature is dominated by facultative upland vegetation including clustered tarweed (FACU) and salt heliotrope (FACU). Non-dominant species within the feature include telegraphweed (*Heterotheca grandiflora* [UPL]), curly dock (FAC), and rod wirelettuce (*Stephanomeria virgata* [UPL]). This feature sample point did not pass the Dominance Test or meet the Prevalence Index criteria. Thus, Feature B does not meet the hydrophytic vegetation criterion.

# Soils

Feature B soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). As noted, this area has been used for decades to stockpile soil that has been remediated for purposes of use on the site and thus serves as a borrow area on an as-needed basis. Borrow activities have at times left areas of ponded water following significant rain events. Nevertheless, with a matrix chroma of 2.5YR 3/2 and no redoximorphic features the soils at this location exhibit no hydric field indicators. Thus, Feature B does not meet the hydric soils criterion.

# Hydrology

Feature B was inundated for a sufficient duration during the 2009-2010 and 2010-2011 rain seasons to support fairy shrimp (GLA 2010 and GLA 2011a). Additionally, during 2010-2011 wet season fairy shrimp surveys, Feature B was inundated for at least 14 days (GLA 2011a), meeting the Surface Water (A1) primary indicator. Common versatile fairy shrimp was detected in this feature during 2009-2010 (GLA 2010) and 2010-2011 (GLA 2011a) wet season fairy shrimp surveys, meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature B Characteristics**

Feature B does not meet any of the three wetland criteria.

# 5.4.6 Feature C

Feature C is a depression covering approximately 35.6 square feet (0.001 acre), a depth of approximately 10 cm, and is located within an area of stockpiled concrete in the central portion of the site. Feature C is essentially a man-made feature that was created for the purpose of gaining access to a broken oil field pipeline which traverses the feature. The oil operator did not back-fill the depression following the excavation of the repair area.

# Vegetation

Feature C supports a predominance of non-native plants with wetland indicator status of FAC or wetter including hyssop loosestrife (OBL) and common brassbuttons (OBL). This feature sample point passed the Dominance Test and thus meets the hydrophytic vegetation criterion.

### Soils

Feature C soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Soils exhibited a matrix color of 10YR 3/2 from zero to six inches. The soils are highly laminated and the ped faces exhibit 10 percent redoximorphic features of 7.5YR 3/4 in the layers between the laminations. Dried crude oil was observed in the soil profile at certain locations. This feature sample point does not meet the hydric soils criterion.

# Hydrology

Feature C was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). Common versatile fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011a) and common versatile fairy shrimp, ostracod shells, and cladoceran ephippia were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature C Characteristics**

Feature C meets two of three wetland criteria (hydrophytic vegetation and wetland hydrology).

# 5.4.7 Feature D

Feature D covers approximately 104 square feet (0.002 acre) and was created by anthropogenic excavation for oil field maintenance within an area of intensive oil field activities and is adjacent to an oil field pipeline. Soils in this feature have been documented as contaminated by crude oil and contain debris from oil field operations.

# Vegetation

Feature D is dominated by clustered tarweed (FACU) and common brassbuttons (OBL). Nondominant species within the feature include non-native annual fescue (*Vulpia myuros* [FACU]) and annual rabbitsfoot grass (FACW). The vegetation did not pass the Dominance Test. However, using the Prevalence Index, the feature meets the minimum threshold for wetland vegetation with a score of 2.72. However, a feature sample point that meets the Prevalence Index criteria must also meet the hydric soils and wetland hydrology criteria to meet the hydrophytic vegetation criterion. As discussed below, the wetland hydrology parameter is met but the hydric soils parameter is not. Therefore, the feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature D soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper three inches with a clay loam texture and no redoximorphic features. From a depth of three to five inches, the soils are disturbed and exhibit an underlying oil matrix. Thus, this feature sample point does not meet the hydric soils criterion.

# Hydrology

Feature D was inundated for a sufficient duration during the 1999-2000 rain season to support fairy shrimp (GLA 2000). Common versatile fairy shrimp was detected in this feature during 1999-2000 wet season fairy shrimp surveys (GLA 2000) and during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature D Characteristics**

Feature D meets one of the three wetland criteria (wetland hydrology).

### 5.4.8 Feature E

Feature E is an excavated oil sump created to capture potential oil spills from existing and historic wells. The feature is directly north of an inactive or abandoned oil well and has been documented to contain areas of contaminated soils that will require future remediation. This feature covers approximately 2,129 square feet (0.049 acres).

### Vegetation

Feature E supports two dominant species, mule fat (FAC) and shortpod mustard (*Hirschfeldia incana* [UPL]). Salt heliotrope (FACU) is non-dominant within the feature. The feature failed the Dominance Test and has a Prevalence Index of 3.47. Thus, this feature sample point lacks wetland vegetation and does not meet the hydrophytic vegetation criterion.

# Soils

Feature E soils are mapped as Myford Sandy Loam, 9-30 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches and no redoximorphic features. The soil profile was disturbed by an oil layer from six to twelve inches. Thus, this feature sample point does not meet the hydric soils criterion.

# Hydrology

Feature E was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). San Diego fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature E Characteristics**

Feature E meets one of the three wetland criteria (wetland hydrology).

# 5.4.9 Feature F

Feature F is an anthropogenic depression created by a combination of excavation and berming. The feature covers approximately 1,303 square feet (0.030 acre) and occurs in an upland annual grassland area.

# Vegetation

Feature F supports, as dominant native species, salt sandspurry (OBL) and clustered tarweed (FACU). Non-dominants within the feature are native willow baccharis (*Baccharis salicina* [FACW]) and non-natives star-thistle (*Centaurea melitensis* [UPL]) and shortpod mustard (UPL). The vegetation did not pass the Dominance Test. However, using the Prevalence Index, the feature meets the minimum threshold for wetland vegetation, with a score of 2.62. However, a feature sample point that meets the Prevalence Index criteria must meet the hydric soils and wetland hydrology criteria to satisfy the hydrophytic vegetation indicator. As discussed below, the hydric soils and wetland hydrology parameters were not met. Therefore, Feature F does not meet the hydrophytic vegetation criterion.

### Soils

Feature F soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches with no

redoximorphic features. Thus, this feature sample point lacks hydric soils and does not meet the hydric soils criterion.

### Hydrology

Wetland hydrology indicators were not observed in this feature during delineations, hydrological monitoring, or fairy shrimp surveys (ERS 2012, GLA 2011a, GLA 2012a, and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature F Characteristics**

Feature F does not meet any wetland indicators.

### 5.4.10 Feature G

Feature G is an oil field sump created to contain oil spills and is crossed by a number of oil field pipelines. The feature covers approximately 128 square feet (0.003 acre).

### Vegetation

Feature G supports soft brome (*Bromus hordeaceus* [FACU]), clustered tarweed (FACU), rod wirelettuce (UPL), shortpod mustard (UPL), common brassbuttons (OBL), and Italian thistle (*Carduus pycnocephalus* [UPL]). This feature sample point failed the Dominance Test and does not meet the Prevalence Index criteria. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature G soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). Soils exhibit a matrix color of 2.5YR 3/2 in the upper six inches and contain no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

### Hydrology

Feature G was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). San Diego fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, Dudek observed Surface Soil Cracks (B6) during the October 2012 field survey. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### Summary of Feature G Characteristics

Feature G meets one of the three wetland criteria (wetland hydrology).

# 5.4.11 Feature H

Feature H is an area of disturbed ground within the oil field directly adjacent to well-used oil field operation roads. The feature covers approximately 934 square feet (0.021 acre) and is likely an anthropogenic oil field depression created by excavation.

# Vegetation

Feature H is dominated by native clustered tarweed (FACU) and non-native annual yellow sweetclover (*Melilotus indicus* [FACU]). Non-dominant non-natives present within the feature include soft brome (FACU) and curly dock (FAC). Non-dominant natives include salt sandspurry (OBL) and Cuman ragweed (FACU). The vegetation associated with the feature failed the Dominance Test and does not meet the criteria for the Prevalence Index. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature H soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Soils exhibit a matrix color of 10YR 3/3 in the upper six inches and contain no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

### Hydrology

San Diego fairy shrimp was detected in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature H Characteristics**

Feature H meets one of the three wetland criteria (wetland hydrology).

# 5.4.12 Feature I

Feature I is an anthropogenic depression created by a combination of excavation and berming. The feature covers approximately 1,201 square feet (0.028 acre) and occurs in an annual grassland area.

# Vegetation

Feature I supports two dominant species, which are both non-native: annual yellow sweetclover (FACU) and star-thistle (UPL). Non-dominant species within the feature include soft brome (FACU), shortpod mustard (UPL), curly dock (FAC), and annual rabbitsfoot grass (FACW). Non-dominant natives present in the feature include clustered tarweed (FACU) and salt heliotrope (FACU). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

### Soils

Feature I soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches and contained no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

# Hydrology

Feature I was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). San Diego fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature I Characteristics**

Feature I meets one of the three wetland criteria (wetland hydrology).

# 5.4.13 Feature J

Feature J is a depression likely anthropogenic created that covers approximately 3,810 square feet (0.087 acre) and occurs in an annual grassland area.

# Vegetation

Feature J is dominated by native clustered tarweed (FACU) and non-native soft brome (FACU). Non-dominant species include red brome (UPL), annual yellow sweetclover (FACU), and annual rabbitsfoot grass (FACW). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

# Soils

Feature J soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches and contained no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

# Hydrology

Feature J was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). San Diego fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature J Characteristics**

Feature J meets one of the three wetland criteria (wetland hydrology).

# 5.4.14 Feature K

Feature K is a depression created by anthropogenic excavation of material to create adjacent berms. This feature is located within non-native grassland and covers approximately 621 square feet (0.014 acre).

# Vegetation

Feature K supports as dominant native clustered tarweed (FACU) and non-native annual yellow sweetclover (FACU). Non-dominant species within the feature include non-native shortpod mustard (UPL), soft brome (FACU) and native salt heliotrope (FACU). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

### Soils

Feature K soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches and contained no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp and ostracods shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### Summary of Feature K Characteristics

Feature K meets one of the three wetland criteria (wetland hydrology).

# 5.4.15 Feature L

Feature L covers approximately 127 square feet (0.003 acre) and occurs in an annual grassland area. The feature is likely an anthropogenic excavation created as part of oil field operations. The soil was likely used to create the adjacent berms.

# Vegetation

Feature L is dominated by non-native annual yellow sweetclover (FACU) and native clustered tarweed (FACU) and salt heliotrope (FACU). Occurrences of non-native star-thistle (UPL) are present within the feature. The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

### Soils

Feature L soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches and contained no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

### Hydrology

Fairy shrimp cysts and ostracods shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### Summary of Feature L Characteristics

Feature L meets one of the three wetland criteria (wetland hydrology).

# 5.4.16 Feature M

Feature M covers approximately 608 square feet (0.014 acre) and occurs in the oil field pipe and material storage yard. Standpipes from oil field infrastructure occur within the area in which rainwater collects during and immediately following rain events.

### Vegetation

Feature M is dominated by non-native Spanish false fleabane (*Pulicaria paludosa* [FAC]) and soft brome (FACU). Non-dominant species within the feature include native clustered tarweed (FACU) and mule fat (FAC). Non-dominant non-natives include pampas grass (*Cortaderia selloana* [FACU]) and annual rabbitsfoot grass (FACW). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature M soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches and contained no redoximorphic features. Soils in this feature are not hydric and thus do not meet the hydric soils criterion.

### Hydrology

Feature M was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). Common versatile fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011) and common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature M Characteristics**

Feature M meets one of the three wetland criteria (wetland hydrology).

### 5.4.17 Feature N

Feature N covers approximately 1,258 square feet (0.029 acre) and has a depth of approximately 5-8 centimeters (cm). The feature is located in the gravel oil field pipe and material storage yard and surrounded by well-used oil field operation roads.

# Vegetation

Feature N is dominated by clustered tarweed (FACU) and mule fat (FAC). Non-dominant species within this feature include native western goldentop (FACW), salt heliotrope (FACU), telegraphweed (UPL), and rod wirelettuce (UPL). Non-dominant non-natives include shortpod mustard (UPL) and hyssop loosestrife (FACW). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

# Soils

Feature N soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper four inches and contained no redoximorphic features. As noted, Feature N occurs within a parking and equipment storage area and the soils are highly compacted. Refusal occurred at a depth of four inches. This feature sample point lacks hydric soils and thus does not meet the hydric soils criterion.

# Hydrology

Feature N was inundated for at least 14 days during 2010-2011 wet season fairy shrimp surveys, (GLA 2011a), meeting the Surface Water (A1) primary indicator. Common versatile fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011) and fairy shrimp cysts were present during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, Dudek observed Surface Soil Cracks (B6) during the October 2012 field survey. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### Summary of Feature N Characteristics

Feature N meets one of the three wetland criteria (wetland hydrology).

# 5.4.18 Feature O

Feature O is a depression that occurs within a gravel parking and equipment storage area, surrounded by well-used oil field operation roads, and is located northeast of Feature N. The feature covers approximately 154 square feet (0.004 acre) and has a maximum depth of approximately 2 cm.

# Vegetation

Feature O is dominated by non-native longbeak stork's bill (*Erodium botrys* [FACU]) and native clustered tarweed (FACU). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

# Soils

Feature O soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). A soil pit was not excavated due to the highly compacted character of the parking areas (asphalt/gravel), lack of hydric soils at nearby and adjacent Feature N, and the strong predominance of upland vegetation. Therefore, it is assumed that this feature sample point lacks hydric soils as well and similarly does not meet the hydric soils criterion.

# Hydrology

Wetland hydrology indicators were not observed in this feature during delineations or hydrological monitoring (GLA 2011a, GLA 2012a, and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

# **Summary of Feature O Characteristics**

Feature O does not meet any wetland indicators.

# 5.4.19 Feature P

Feature P is a depression within a soil remediation area near the 17th Street entry to the site. The feature covers approximately 402 square feet (0.009 acre) and has a depth of approximately 5-8 cm. Feature P is the site of a depression, likely caused by anthropogenic activities adjacent to an area where soil is stockpiled for remediation.

### Vegetation

Feature P is dominated by western goldentop (FACW) and common brassbuttons (OBL). Nondominant non-native species within the feature include hyssop loosestrife (FACW) and annual rabbitsfoot grass (FACW). Non-dominant, native species present in the feature include mule fat (FAC) and clustered tarweed (FACU). This feature sample point passed the Dominance Test and thus meets the hydrophytic vegetation criterion.

# Soils

Feature P soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper four inches and did not contain redoximorphic features. From four to five inches the feature has a sand layer and from five to eight inches the matrix is again 10YR 3/2 with no redoximorphic features. Thus, this feature lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Feature P was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). Common versatile fairy shrimp was detected in this feature during 2010-2011 wet season fairy shrimp surveys (GLA 2011) and during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, Dudek observed Surface Soil Cracks (B6) during the October 2012 field survey and this feature sample point passed the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature P Characteristics**

Feature P meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

# 5.4.20 Feature Q

Feature Q is a depression that straddles the earthen shoulder along a well-used access road from the 17th Street gate. Feature Q is a low area within the partially paved and partially dirt roadway and associated shoulder. The feature covers approximately 195 square feet (0.004 acre), has a maximum depth of approximately 5 cm, and experiences ephemeral inundation.

# Vegetation

Feature Q is largely unvegetated with the exception of a narrow strip that consists of earthen shoulder. Two species were detected: annual yellow sweetclover (FACU) and clustered tarweed (FACU). The feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria for hydrophytic vegetation. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

# Soils

Feature Q soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Feature Q occurs on an entry road and is underlain by a combination of asphalt, asphalt

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with a thin layer of sediment, and earthen shoulder. The soils were not evaluated for hydric conditions given the developed nature of the feature and the fact that portions of the feature are underlain by asphalt or highly compacted soil. Therefore, it is assumed that this feature sample point lacks hydric soils and thus does not meet the hydric soils criterion.

# Hydrology

Fairy shrimp cysts and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature Q Characteristics**

Feature Q meets one of the three wetland criteria (wetland hydrology).

# 5.4.21 Feature R

Feature R is a roadside depression, one of a series of depressions occupying the paved parking area, well-used access road, and adjacent earthen shoulder near the 17th Street entrance where rainwater and runoff collects for brief periods during and immediately following storm events. The feature covers approximately 260 square feet (0.006 acre).

#### Vegetation

Feature R is dominated by non-native common brassbuttons (OBL). Non-dominant non-native species within the feature include soft brome (FACU), shortpod mustard (UPL), hyssop loosestrife (FACW), and annual rabbitsfoot grass (FACW). Non-dominant native species present in the feature include Cuman ragweed (FACU) and clustered tarweed (FACU). This feature sample point passed the Dominance Test and thus meets the hydrophytic vegetation criterion.

#### Soils

Feature R soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Feature R exhibits highly compacted soil on dirt along the gravel road shoulder estimated in the upper three inches and refusal at the surface. Thus, soil pits were not attempted in this area. However, given the developed context of this feature, it is assumed that hydric soils are absent. Therefore, this feature sample point does not meet the hydric soils criterion.

### Hydrology

Feature R was inundated for a sufficient duration during the 2010-2011 rain season to support fairy shrimp (GLA 2011a). Common versatile fairy shrimp was detected in this feature during

2010-2011 wet season fairy shrimp surveys (GLA 2011), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature R Characteristics**

Feature R meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

# 5.4.22 Feature S

Feature S is one of a series of depressions along the shoulder of the main well-used access road that is characterized by highly compacted soil and gravel adjacent to the major access road at the 17th Street entrance to the site. The feature covers approximately 128 square feet (0.003 acre) and has a maximum depth of approximately 4 cm.

#### Vegetation

Feature S is dominated by native clustered tarweed (FACU) and non-native common brassbuttons (OBL). Non-dominant species include non-native hyssop loosestrife (FACW), shortpod mustard (UPL), and annual rabbitsfoot grass (FACW). The vegetation did not pass the Dominance Test. However, using the Prevalence Index, the feature meets the minimum threshold for wetland vegetation, with a score of 1.89. However, a feature sample point that meets the Prevalence Index criteria must meet the hydric soils and wetland hydrology indicators to satisfy the hydrophytic vegetation parameter. As discussed below, the wetland hydrology parameter is met but the hydric soils parameter is not. Therefore, the feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature S soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). A soil pit was not excavated due to the highly compacted character of the road shoulder. Therefore, it is assumed that this feature sample point lacks hydric soils and thus does not meet the hydric soils criterion.

### Hydrology

During 2010-2011 wet season fairy shrimp surveys, Feature S was inundated for at least 14 days (GLA 2011a), meeting the Surface Water (A1) primary indicator. Feature S supported Sediment

Deposits (B2), Surface Soil Cracks (B6), and Water-Stained Leaves (B9) as observed by Dudek in October 2012. Thus, this feature sample point meets the wetland hydrology criterion.

#### **Summary of Feature S Characteristics**

Feature S meets one of the three wetland criteria (wetland hydrology).

# 5.4.23 Feature T

Feature T is one of a series of depressions occupying the paved parking area, well-used access road, and adjacent earthen shoulder near the 17th Street entrance. The feature covers approximately 188 square feet (0.004 acre) and has a maximum depth of approximately 12-15 cm.

#### Vegetation

Feature T is a low area at the edge of an asphalt access road near the 17th Street entrance to the Project site and is unvegetated. Therefore, this feature sample point lacks hydrophytic vegetation and does not meet the hydrophytic vegetation criterion.

#### Soils

Feature T soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Feature T occurs on a major site access road and nearly all of the area that exhibits ponding is paved with asphalt. Collection of soil data was limited. Therefore, it is assumed that this feature sample point lacks hydric soils and thus does not meet the hydric soils criterion.

#### Hydrology

During 2010-2011 wet season fairy shrimp surveys, Feature T was inundated for at least 14 days (GLA 2011a), meeting the Surface Water (A1) primary indicator. Common versatile fairy shrimp was detected in this feature during 2010-2011 and 2011-2012 wet season fairy shrimp surveys (GLA 2011a and GLA 2012b), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature T Characteristics**

Feature T meets one of the three wetland criteria (wetland hydrology).

# 5.4.24 Feature U

Feature U is one of a series of depressions occupying the paved parking area, well-used access road, and adjacent earthen shoulder near the 17th Street entrance. The feature covers approximately 97.0 square feet (0.002 acre) and has a maximum depth of approximately 4 cm.

#### Vegetation

Feature U is a low area at the edge of an asphalt access road near the 17th Street entrance to the Project site and is unvegetated. Therefore, this feature sample point lacks hydrophytic vegetation and does not meet the hydrophytic vegetation criterion.

#### Soils

Feature U soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Feature U occurs in an area paved with asphalt and as a result the collection of soil data was limited. Therefore, it is assumed that this feature sample point lacks hydric soils and does not meet the hydric soils criterion.

### Hydrology

During 2010-2011 wet season fairy shrimp surveys, Feature U was inundated for at least 14 days (GLA 2011a), meeting the Surface Water (A1) primary indicator. However, this feature is lined with tank bottom slurry and is underlain with highly compacted soils creating an impervious surface allowing water to pond. The ponding in this feature is due to anthropogenic additions and not an indicator of wetland hydrology. Thus, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature U Characteristics**

Feature U does not contain characteristic primary or secondary wetland indicators.

### 5.4.25 Feature V

Feature V is a depression on an inactive or abandoned oil well pad near the northeast corner of the Project site that covers approximately 3,918 square feet (0.090 acre).

### Vegetation

Feature V is dominated by mule fat (FAC), shortpod mustard (UPL), and curly dock (FAC). Non-dominant species include salt heliotrope (FACU), and alkali seaheath (FACW). This feature sample point passed the Dominance Test and thus meets the hydrophytic vegetation criterion.

# Soils

Feature V soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches and contained no redoximorphic features. Thus, Feature V lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Feature V was inundated for a sufficient duration during the 2009-2010 rain season to support fairy shrimp (GLA 2010). Common versatile fairy shrimp was detected in this feature during 2009-2010 wet season fairy shrimp surveys (GLA 2010), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point contains evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature V Characteristics**

Feature V meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

### 5.4.26 Feature W

Feature W is located in the southeast quadrant of the site within an annual grassland depression with residences adjacent to the south. The feature was likely created during grading activities in the 1960s and covers approximately 11,477 square feet (0.263 acre).

### Vegetation

Feature W is dominated by red brome (UPL), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum* [FAC]), and shortpod mustard (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

### Soils

Feature W soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches and contained no redoximorphic features. At a depth of six inches there was a layer of dense redox that appears relictual based on the color contrast and sharp edges. Thus, this was not considered to be indicative of hydric soils. This feature sample point does not have hydric soils and does not meet the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature W Characteristics**

Feature W meets one of the three wetland criteria (wetland hydrology).

# 5.4.27 Feature X

Feature X is one of a series of depressions and road ruts within a well-used access road on the Project site. The feature covers approximately 291 square feet (0.007 acre) and has a maximum depth of approximately 7-8 cm.

# Vegetation

Feature X is mostly unvegetated with limited quantities of upland grasses and forbs including dominant native clustered tarweed (FACU) and non-native common brassbuttons (OBL). Non-dominant species within the feature include non-native soft brome (FACU) and annual rabbitsfoot grass (FACW). The vegetation did not pass the Dominance Test. However, using the Prevalence Index, the feature meets the minimum threshold for wetland vegetation, with a score of 3.00. However, a feature sample point that meets the Prevalence Index criteria must meet the hydric soils and wetland hydrology indicators to satisfy the hydrophytic vegetation parameter. As discussed below, the wetland hydrology parameter is met but the hydric soils parameter is not. Therefore, the feature sample point does not have hydrophytic vegetation and does not meet the hydrophytic vegetation criterion.

### Soils

Feature X soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). Feature X occurs on a major site access road the soils of which are highly compacted due to vehicular road use. The soils exhibited a matrix color of 5YR 3/3 in the upper six inches with no redoximorphic features. Thus, the feature sample point lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Feature X was inundated for a sufficient duration during the 2011-2012 rain season to support fairy shrimp (GLA 2012b). Additionally, during the 2012-2013 rain season, Feature X was

inundated for at least 14 days, meeting the Surface Water (A1) primary indicator. Common versatile fairy shrimp was detected in this feature during 2011-2012 wet season fairy shrimp surveys (GLA 2012b) and common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### Summary of Feature X Characteristics

Feature X meets one of the three wetland criteria (wetland hydrology).

#### 5.4.28 Feature Y

Feature Y lies fully within a site access road well-used by vehicular traffic. The feature covers approximately 53.3 square feet (0.001 acre) and has a maximum depth of approximately 7 cm.

#### Vegetation

Feature Y is dominated by annual rabbitsfoot grass (FACW), star-thistle (UPL), mule fat (FAC), and Menzies' goldenbush (*Isocoma menziesii* [UPL]). Non-dominant within the feature is native clustered tarweed (FACU). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, the feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature Y soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 7.5YR 3/3 in the upper six inches and contained no redoximorphic features. Thus, the feature sample point lacks hydric soils and does not meet the hydric soils criterion.

### Hydrology

During the 2012-2013 rain season, Feature Y was inundated for at least 14 days, meeting the Surface Water (A1) primary indicator. Common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature Y Characteristics**

Feature Y meets one of the three wetland criteria (wetland hydrology).

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# 5.4.29 Feature Z

Feature Z consists of an anthropogenic excavated trench constructed to contain oil spills from oil field pipelines that run over the trench. The feature is linear in shape and covers approximately 312 square feet (0.007 acre).

# Vegetation

Feature Z is dominated by mule fat (FAC), clustered tarweed (FACU), and shortpod mustard (UPL). Non-dominant species within the herb stratum include Jersey cudweed (*Pseudognaphalium luteoalbum* [FAC]), curly dock (FAC), annual rabbitsfoot grass (FACW), and Canadian horseweed (*Conyza canadensis* [FACU]). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, the feature sample point does not meet the hydrophytic vegetation criterion.

### Soils

Feature Z soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a color matrix of 10YR 3/2 in the upper five inches with a clay loam texture and no redoximorphic features. At a depth of five to 12 inches, the soil profile exhibited a color matrix of 10YR 3/3 with a sandy loam texture and no redoximorphic features. This feature sample point lacks hydric soils and thus does not meet the hydric soils criterion.

### Hydrology

Common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

### **Summary of Feature Z Characteristics**

Feature Z meets one of the three wetland criteria (wetland hydrology).

# 5.4.30 Feature AA

Feature AA consists of a depression on an inactive or abandoned oil well pad that covers approximately 108 square feet (0.002 acre) and has a maximum depth of approximately 6.5 cm.

# Vegetation

Feature AA is dominated by clustered tarweed (FACU) and annual yellow sweetclover (FACU). Non-dominant species include red brome (UPL), star-thistle (UPL), annual rabbitsfoot grass (FACW), and annual fescue (FACU). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. This feature sample point does not have hydrophyticic vegetation and thus does not meet the hydrophytic vegetation criterion.

### Soils

Feature AA soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches and contained no redoximorphic features. As such, Feature AA lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Wetland hydrology indicators were not observed in this feature during delineations, hydrological monitoring, or fairy shrimp surveys (ERS 2012, GLA 2012a, and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

### **Summary of Feature AA Characteristics**

Feature AA does not meet any wetland indicators.

# 5.4.31 Feature BB

Feature BB consists of a depression that covers approximately 84.0 square feet (0.002 acre) within an oil field pipeline array south of two active oil wells.

### Vegetation

Feature BB is dominated by soft brome (FACU) and red brome (UPL). Non-dominant species include star-thistle (UPL). The supported palette failed the basic dominance test for hydrophytic vegetation and did not meet the Prevalence Index criteria. Thus, Feature BB does not have hydrophytic vegetation and does not meet the hydrophytic vegetation criterion.

### Soils

Feature BB soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches and contained no

redoximorphic features. Feature BB lacks hydric soils and thus does not meet the hydric soils criterion.

### Hydrology

Fairy shrimp cysts and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature BB Characteristics**

Feature BB meets one of the three wetland criteria (wetland hydrology).

# 5.4.32 Feature CC

Feature CC is a pit excavated for the purpose of repairing an oil field pipeline directly adjacent to a well-used oil field operation road. The feature covers approximately 116 square feet (0.003 acre) and has a maximum depth of approximately 15 cm.

### Vegetation

Feature CC is mostly bare and is dominated by hyssop loosestrife (FACW). This feature sample point passed the Dominance Test and meets the hydrophytic vegetation criterion.

#### Soils

Feature CC soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches with a sandy clay loam texture and no redoximorphic features. Thus, the feature sample point lacks hydric soils and does not meet the hydric soils criterion.

### Hydrology

Feature CC was inundated for a sufficient duration during the 2011-2012 rain season to support fairy shrimp (GLA 2012b). Common versatile fairy shrimp was detected in this feature during 2011-2012 wet season fairy shrimp surveys (GLA 2012b) and common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature CC Characteristics**

Feature CC meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

### 5.4.33 Feature DD

Feature DD consists of a depression within an area of stockpiled concrete adjacent to a dirt road that covers approximately 131 square feet (0.003 acre) and has a maximum depth of approximately 4.5 cm.

#### Vegetation

Feature DD is dominated by clustered tarweed (FACU). Menzies' goldenbush (UPL) is also present but is not a dominant species. This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature DD soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 7.5YR 3/3 in the upper six inches with no redoximorphic features. Feature DD lacks hydric soils and thus does not meet the hydric soils criterion.

#### Hydrology

Common versatile fairy shrimp, ostracod shells, and cladoceran ephippia were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature DD Characteristics**

Feature DD meets one of the three wetland criteria (wetland hydrology).

### 5.4.34 Feature EE

Feature EE consists of a depression on an inactive or abandoned oil well pad that ponds water, covers approximately 139 square feet (0.003 acre), and has a depth of approximately 3-6 cm.

#### Vegetation

Feature EE is dominated by native clustered tarweed (FACU) and non-native annual rabbitsfoot grass (FACW). Non-dominant species present within the feature include star-thistle (UPL), curly dock (FAC), and Menzies' goldenbush (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Therefore, this feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature EE soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The feature occurs in a well pad supporting highly compacted soils and asphalt. The soils were not evaluated for hydric conditions given the developed nature of the feature and the fact that portions of the feature are comprised of asphalt. Therefore, it is assumed that this feature sample point lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

# **Summary of Feature EE Characteristics**

Feature EE meets one of the three wetland criteria (wetland hydrology).

# 5.4.35 Feature FF

Feature FF consists of a depression on an inactive or abandoned oil well pad that covers approximately 223 square feet (0.005 acre) and adjacent to an oil field pipeline. The feature overlays an abandoned oil well and it is believed that the depression formed as the soils above the remediated well settled following remediation.

# Vegetation

Feature FF is dominated by non-native star-thistle (UPL) and native clustered tarweed (FACU). Non-dominant species present within the feature include red brome (UPL), fivehorn smotherweed (*Bassia hyssopifolia* [FAC]), prickly Russian thistle (*Salsola tragus* [FACU]), shortpod mustard (UPL), and Menzies' goldenbush (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, this feature sample point does not meet the hydrophytic vegetation criterion.

#### Soils

Feature FF soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches with no redoximorphic features. Thus, Feature FF does not have hydric soils and does not meet the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature FF Characteristics**

Feature FF meets one of the three wetland criteria (wetland hydrology).

# 5.4.36 Feature GG

Feature GG is within an active oil well site and consists of a series of depressions and road ruts that occurs at a low point within a major well-used access road on site. Prior to installation of the well the area was already part of an existing road. The feature covers approximately 120 square feet (0.003 acre) and has a depth of approximately 7-8 cm.

# Vegetation

The feature is mostly unvegetated with limited quantities of upland grasses and forbs including shortpod mustard (UPL) and red brome (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, feature GG does not meet the hydrophytic vegetation criterion.

#### Soils

Feature GG soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). Feature GG occurs on a major site access road and is highly compacted due to numerous vehicle trips. The soils exhibited a matrix color of 10YR 3/2 in the upper six inches with no redoximorphic features. Feature GG does not exhibit hydric soils and does not meet the hydric soils criterion.

# Hydrology

During 2010-2011 wet season fairy shrimp surveys and during the 2012-2013 rain season, Feature GG was inundated for at least 14 days (GLA 2011a), meeting the Surface Water (A1) primary indicator. Additionally, Feature GG was inundated for a sufficient duration during the 2011-2012 rain season to support fairy shrimp (GLA 2012b). Common versatile fairy shrimp was detected in this feature during 2011-2012 wet season fairy shrimp surveys (GLA 2012b) and during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature GG Characteristics**

Feature GG meets one of the three wetland criteria (wetland hydrology).

# 5.4.37 Feature HH

Feature HH is a depression adjacent to an inactive or abandoned oil well covering approximately 318 square feet (0.007 acre) with a maximum depth of approximately 8 cm.

#### Vegetation

Feature HH is dominated by native clustered tarweed (FACU). Non-dominant species present within the feature include mule fat (FAC), willow baccharis (UPL), salt heliotrope (FACU) and annual yellow sweetclover (FACU). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature HH does not meet the hydrophytic vegetation criterion.

#### Soils

Feature HH soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/3 in the upper six inches with no redoximorphic features. Thus, Feature HH lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Feature HH was inundated for a sufficient duration during the 2011-2012 rain season to support fairy shrimp (GLA 2012b). Common versatile fairy shrimp was detected in this feature during 2011-2012 wet season fairy shrimp surveys (GLA 2012b) and during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature HH Characteristics**

Feature HH meets one of the three wetland criteria (wetland hydrology).

#### 5.4.38 Feature II

Feature II was likely created by an anthropogenic bulldozer scrape adjacent to an inactive or abandoned oil well pad. The feature covers approximately 103 square feet (0.002 acre) with a depth greater than 3 cm.

#### Vegetation

Feature II is dominated by native salt heliotrope (FACU). Non-dominant species include clustered tarweed (FACU), hyssop loosestrife (FACW) and annual rabbitsfoot grass (FACW). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature II lacks hydrophytic vegetation and does not meet the hydrophytic vegetation criterion.

#### Soils

Feature II soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 4/2 in the upper four inches with a well-drained loamy sand texture. Redoximorphic features were absent. Refusal occurred at a depth of four inches. Thus, Feature II lacks hydric soils and does not meet the hydric soils criterion.

#### Hydrology

Fairy shrimp cysts and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature II Characteristics**

Feature II meets one of the three wetland criteria (wetland hydrology).

#### 5.4.39 Feature JJ

Feature JJ consists of a roadside depression adjacent to an oil field pipeline along a well-used oil field operation road along the western boundary of the site. The feature covers approximately 210 square feet (0.005 acre).

#### Vegetation

Feature JJ supports one dominant species: non-native star-thistle (UPL). Additional occurrences include Cuman ragweed (FACU), clustered tarweed (FACU], salt heliotrope (FACU), and California brittlebush (*Encelia californica* [UPL]). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature JJ does not meet the hydrophytic vegetation criterion.

#### Soils

Feature JJ soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 4/2 in the upper four inches with no redoximorphic features and a well-drained loamy sand texture. Refusal occurred at a depth of four inches. Thus, Feature JJ lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Wetland hydrology indicators were not observed in this feature during delineations, hydrological monitoring, or fairy shrimp surveys (ERS 2012, GLA 2012a, and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature JJ Characteristics**

Feature JJ does not meet any wetland indicators.

# 5.4.40 Feature KK

Feature KK occupies an area of a former oil field road directly north of a well-used oil field operation road. The feature covers approximately 745 square feet (0.017 acre).

#### Vegetation

Feature KK is dominated by native pale spikerush (*Eleocharis palustris* [OBL]) and shortpod mustard (UPL). Non-dominant species present within the feature include soft brome (FACU), curly dock (FAC), annual rabbitsfoot grass (FACW), and star-thistle (UPL). Non-dominant species include clustered tarweed (FACU), Cuman ragweed (FACU), salt heliotrope (FACU), and western goldentop (FACW). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature KK does not meet the hydrophytic vegetation criterion.

#### Soils

Feature KK soils are mapped as Myford Sandy Loam, 0-2 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10 YR 3/2 in the upper six inches with a clay loam texture. The profile exhibited 20 percent redoximorphic features in the upper four inches with a color of 7.5YR 3/4, meeting the indicator Redox Depression (F8). As such, Feature KK exhibits hydric soils and meets the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### Summary of Feature KK Characteristics

Feature KK meets two of the three wetland criteria (hydric soils and wetland hydrology).

# 5.4.41 Feature LL

Feature LL consists of a depression that appears to be from a bulldozer scrape covering approximately 26.2 square feet (0.001 acre) with a maximum depth of approximately 4 cm.

# Vegetation

Feature LL is dominated by soft brome (FACU) and prairie plantain (*Plantago elongata* [FACW]). Non-dominant species within the feature include red brome (UPL), curly dock (FAC), clustered tarweed (FACU), saltgrass (FAC) and Menzies' goldenbush (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature LL does not meet the hydrophytic vegetation criterion.

#### Soils

Feature LL soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper four inches with no redoximorphic features and a sandy clay loam texture. Refusal occurred at a depth of four inches. Thus, Feature LL lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature LL Characteristics**

Feature LL meets one of the three wetland criteria (wetland hydrology).

# 5.4.42 Feature MM

Feature MM consists of a depression adjacent to an oil field pipeline within a former oil field road that covers approximately 141 square feet (0.003 acre).

#### Vegetation

Feature MM is dominated by annual rabbitsfoot grass (FACW) and common brassbuttons (OBL). Non-dominant species include soft brome (FACU), curly dock (FAC), clustered tarweed (FACU), pale spikerush (OBL), annual yellow sweetclover (FACU), and annual fescue (FACU). This feature sample point passed the Dominance Test and meets the hydrophytic vegetation criterion.

#### Soils

Feature MM soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper five inches with no redoximorphic features and a sandy clay loam texture. Thus, Feature MM lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Feature MM was inundated for a sufficient duration during the 1999-2000 rain season to support fairy shrimp (GLA 2000). Common versatile fairy shrimp was detected in this feature during 1999-2000 wet season fairy shrimp surveys (GLA 2000) and common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature MM Characteristics**

Feature MM meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

#### 5.4.43 Feature NN

Feature NN consists of an almost imperceptible depression covering approximately 132 square feet (0.003 acre) with a maximum depth of approximately 7 cm.

#### Vegetation

Feature NN is dominated by curly dock (FAC) and hare barley (*Hordeum murinum* ssp. *leporinum* [FACU]). Non-dominant species include soft brome (FACU), ripgut brome (*Bromus diandrus* [UPL]), and longbeak stork's bill (FACU). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature NN does not meet the hydrophytic vegetation criterion.

#### Soils

Feature NN soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper five inches with no redoximorphic features and a sandy loam texture. Thus, Feature NN lacks hydric soils and does not meet the hydric soils criterion.

#### Hydrology

Wetland hydrology indicators were not observed in this feature during delineations, hydrological monitoring, or fairy shrimp surveys (ERS 2012, GLA 2012a, and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature NN Characteristics**

Feature NN does not meet any wetland indicators.

#### 5.4.44 Feature OO

Feature OO consists of a depression within an oil field access road covering approximately 41.2 square feet (0.001 acre) with a maximum depth of approximately 6 cm.

#### Vegetation

While Feature OO is limited in size, it exhibits a diversity of species; however, salt sandspurry (OBL) was the only dominant species observed. Associated species include longbeak stork's bill (FACU), soft brome (FACU), annual fescue (FACU), common brassbuttons (OBL), clustered tarweed (FACU), shortpod mustard (UPL), and red brome (UPL). This feature sample point passed the Dominance Test and meets the hydrophytic vegetation criterion.

#### Soils

Feature OO soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 in the upper six inches with no redoximorphic features and a sandy loam texture. Thus, Feature OO does not have hydric soils and does not meet the hydric soils criterion.

# Hydrology

Common versatile fairy shrimp were present in this feature during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature OO Characteristics**

Feature OO meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

# 5.4.45 Feature PP

Feature PP consists of a depression that covers approximately 47.1 square feet (0.001 acre) adjacent to a well-used paved oil field operation road.

#### Vegetation

Feature PP is dominated by annual rabbitsfoot grass (FACW). Non-dominant species present within the feature include common brassbuttons (OBL), curly dock (FAC), and clustered tarweed (FACU). This feature sample point passed the Dominance Test and meets the hydrophytic vegetation criterion.

#### Soils

Feature PP soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a matrix color of 10YR 3/2 with no redoximorphic features in the upper three inches. The profile exhibited redoximorphic features from three to four inches with a color matrix of 10YR 3/3. While the soil exhibits redox, it does not meet the minimum thickness for Redox Depression (F8) and is therefore not considered hydric. Thus, Feature PP does not meet the hydric soils criterion.

# Hydrology

Feature PP was inundated for a sufficient duration during the 1999-2000 rain season to support fairy shrimp (GLA 2000). Common versatile fairy shrimp was detected in this feature during 1999-2000 wet season fairy shrimp surveys (GLA 2000) and during 2012 dry season fairy shrimp surveys (ERS 2012), meeting the Aquatic Invertebrates (B13) primary indicator. Additionally, this feature sample point passes the FAC-Neutral Test (D5), a secondary indicator. Thus, this feature sample point has evidence of hydrology and meets the wetland hydrology criterion.

#### **Summary of Feature PP Characteristics**

Feature PP meets two of the three wetland criteria (hydrophytic vegetation and wetland hydrology).

# 5.4.46 Feature QQ

Feature QQ consists of a depression that covers approximately 141 square feet (0.003 acre) adjacent to a dirt oil field operation road within the southeastern portion of the site.

# Vegetation

Feature QQ is dominated by Menzies' goldenbush (UPL), shortpod mustard (UPL), longbeak stork's bill (FAC), and soft brome (FACU). Non-dominant species within Feature QQ include annual fescue (FACU), curly dock (FAC), redstem stork's bill (*Erodium cicutarium* [UPL]), and Italian thistle (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature QQ does not meet the hydrophytic vegetation criterion.

#### Soils

Feature QQ soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a color matrix of 2.5YR 3/3 in the upper twelve inches with

no redoximorphic features, and a sandy loam texture. Thus, this feature sample point lacks hydric soils and does not meet the hydric soils criterion.

#### Hydrology

Wetland hydrology indicators were not observed in this feature during delineations, hydrological monitoring, or fairy shrimp surveys (GLA 2011b, GLA 2012a, GLA 2012b, and ERS 2012); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature QQ Characteristics**

Feature QQ does not meet any wetland indicators.

#### 5.4.47 Feature RR

Feature RR consists of a depression that covers approximately 22.1 square feet (0.001 acre) and consists of a pair of tire ruts.

#### Vegetation

Feature RR is dominated by clustered tarweed (FACU) and soft brome (FACU) and annual fescue (FACU). Non-dominant species within the feature include longbeak stork's bill (FACU), curly dock (FAC), star-thistle (UPL), and redstem stork's bill (UPL). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature RR does not meet the hydrophytic vegetation criterion.

#### Soils

Feature RR soils are mapped as Myford Sandy Loam, 9-30 percent slopes, eroded by the USDA-NRCS (2012b). The soils exhibited a color matrix of 2.5YR 3/3 in the upper six inches with no redoximorphic features and a sandy loam texture. Thus, this feature lacks hydric soils and does not meet the hydric soils criterion.

#### Hydrology

Wetland hydrology indicators were not observed in this feature during delineations or hydrological monitoring (GLA 2012a and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature RR Characteristics**

Feature RR does not meet any wetland indicators.

#### 5.4.48 Feature SS

Feature SS consists of a depression adjacent to an inactive or abandoned oil well that covers approximately 86.0 square feet (0.002 acre) within the southeastern portion of the site.

#### Vegetation

Feature SS is dominated by native deerweed (*Acmispon glaber* [UPL]) and annual fescue (FACU). Non-dominant species within the feature include Menzies' goldenbush (UPL), telegraphweed (UPL), star-thistle (UPL), curly dock (FAC). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature SS does not meet the hydrophytic vegetation criterion.

#### Soils

Feature SS soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a color matrix of 2.5YR 3/3 in the upper six inches with no redoximorphic features and a sandy loam texture. Thus, this feature sample point lacks hydric soils and does not meet the hydric soils criterion.

# Hydrology

Wetland hydrology indicators were not observed in this feature during delineations or hydrological monitoring (GLA 2012a and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature SS Characteristics**

Feature SS does not meet any wetland indicators.

# 5.4.49 Feature TT

Feature TT consists of a depression that covers approximately 40.3 square feet (0.001 acre) within the southeaster portion of the site.

#### Vegetation

Feature TT is dominated by soft brome (FACU), Menzies' goldenbush (UPL), and annual yellow sweetclover (FACU). Non-dominant species present within the feature include curly dock (FAC)

and longbeak stork's bill (FACU). This feature sample point failed the Dominance Test and did not meet the Prevalence Index criteria. Thus, Feature TT does not meet the hydrophytic vegetation criterion.

#### Soils

Feature TT soils are mapped as Myford Sandy Loam, 2-9 percent slopes by the USDA-NRCS (2012b). The soils exhibited a color matrix of 2.5YR 3/3 in the upper six inches with no redoximorphic features and a sandy loam texture.

#### Hydrology

Wetland hydrology indicators were not observed in this feature during delineations or hydrological monitoring (GLA 2012a and GLA 2012b); therefore, this feature sample point lacks wetland hydrology and does not meet the hydrology criterion.

#### **Summary of Feature TT Characteristics**

Feature TT does not meet any wetland indicators.

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# 6.0 OILFIELD ABANDONMENT AND SOIL REMEDIATION EXEMPTION

Activities on Banning Ranch associated with oilfield abandonment and soil remediation are exempt from regulation under the California Coastal Act (California Coastal Zone Conservation Commission 1973). Exempt activities are defined as oil production, operation, maintenance, abandonment, and soil remediation. Fuscoe Engineering, Inc. provided Global Information Systems (GIS) shape files (i.e. graphic layer) depicting the limits of the exemption area (Fuscoe 2012). Based on a review of GIS data, forty-two seasonal features were determined to be wholly (n=33) or partially (n=9) located within the exemption area designated for oil field operations and maintenance (*Figure 5*). Seven seasonal features (A, K, L, W, BB, II, and NN) were outside of the exemption area. Seasonal features that are 100 percent situated within the exemption area were not considered subject to the regulatory authority of the California Coastal Commission (CCC) regardless of the wetland assessment results. If, however, the majority (i.e. greater than 50 percent) of a seasonal features extends outside of the exemption area and is positive for wetland criterion, then it was determined that the feature is under the CCC's regulatory authority.

Seasonal Feature	Percent outside of OASR	CCC Exempt	Seasonal Feature	Percent within OASR	CCC Exempt	Seasonal Feature	Percent within OASR	CCC Exempt
VP1	93	No	0	100	Yes	FF	100	Yes
VP2	83	No	Р	100	Yes	GG	100	Yes
VP3	59	No	Q	100	Yes	HH	100	Yes
А	0	No	R	100	Yes	II	0	No
В	100	Yes	S	100	Yes	JJ	100	Yes
С	100	Yes	Т	100	Yes	KK	92	No
D	100	Yes	U	100	Yes	LL	66	No
E	100	Yes	V	100	Yes	MM	52	No
F	100	Yes	W	0	No	NN	0	No
G	100	Yes	Х	100	Yes	00	100	Yes
Н	3	Yes	Y	100	Yes	PP	100	Yes
I	26	Yes	Z	100	Yes	QQ	100	Yes

Table 7. Percent of Seasonal Features Affected by Oilfield Abandonment and Soil Remediation andDetermination of Exemption from the California Coastal Act

# Table 7. Percent of Seasonal Features Affected by Oilfield Abandonment and Soil Remediation andDetermination of Exemption from the California Coastal Act

J	62	No	AA	100	Yes	RR	100	Yes
K	0	No	BB	0	No	SS	100	Yes
L	0	No	CC	100	Yes	TT	100	Yes
М	100	Yes	DD	100	Yes			
Ν	100	Yes	EE	100	Yes			

#### Table 7. Summary of Seasonal Features Affected by Oilfield Abandonment and Soil Remediation

Seasonal	Percent Impacted by OASR	
Feature		Description of Seasonal Feature and Oilfield Abandonment and Soil Remediation Impact
VP1	_1	Impacted by pipeline corridor.
VP2	_1	Impacted by pipeline corridor.
VP3	_1	Feature is located immediately east of Feature VP1 (separated by a dirt road) and is likely the result of an anthropogenic bulldozer scrape situated near and existing oil field pipeline. Impacted by pipeline corridor.
А	-	Appears to be a natural feature.
В	$\checkmark$	Feature is an area of stockpiled remediated soil adjacent to two inactive or abandoned oil wells. Impacted by recognized environmental conditions and potential environmental concerns and soil remediation.
С	$\checkmark$	Feature was created to gain access to a broken oil field pipeline, which traverses the feature. Impacted by recognized environmental conditions and potential environmental concerns, historical abandonment, and soil remediation.
D	$\checkmark$	Feature is adjacent to an oil field pipeline. Impacted by historical abandonment.
E	$\checkmark$	Feature is an excavated oil sump created to capture potential oil spills from existing and historic wells. Feature is directly north of an inactive or abandoned oil well and has been documented to contain areas of contaminated soils that will require future remediation. Impacted by oil sump, historical abandonment, and soil remediation.
F	$\checkmark$	Feature is likely an anthropogenic depression created by a combination of excavation and placement of a berm. Impacted by historical abandonment and soil remediation.
G	$\checkmark$	Feature is an oil field sump created to contain oil spills and is crossed by a number of oil field pipelines. Impacted by pipeline corridor and historical abandonment.
Н	$\checkmark$	Feature is an area of disturbed ground within the oil field directly adjacent to well-used oil field operation roads. Impacted by historical abandonment.
I	$\checkmark$	Feature is likely an anthropogenic depression created by a combination of excavation and berming. Impacted by historical abandonment.

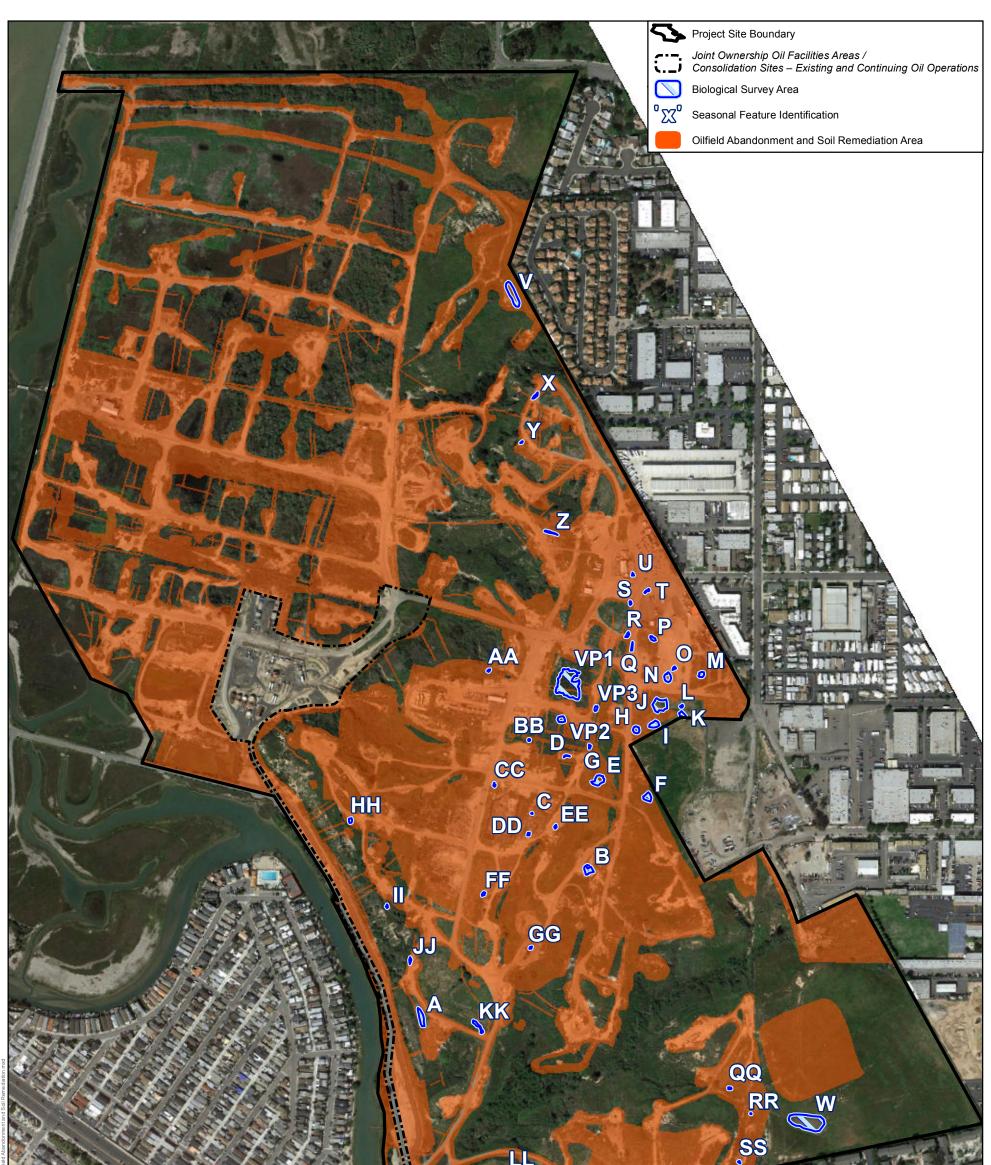
#### Table 7. Summary of Seasonal Features Affected by Oilfield Abandonment and Soil Remediation

Seasonal Feature	Percent Impacted by OASR	Description of Seasonal Feature and Oilfield Abandonment and Soil Remediation Impact
reature	_1	Feature is likely anthropogenic created. Impacted by historical abandonment.
K		Feature is a depression likely created by anthropogenic excavation of material to create adjacent berms.
n .		
L	-	Feature is likely an anthropogenic excavation as part of oil field operations.
М	$\checkmark$	Feature occurs in the oil field pipe and material storage yard. Impacted by recognized environmental conditions and potential environmental concerns and historical abandonment.
Ν	$\checkmark$	Feature is located in the gravel oil field pipe and material storage yard surrounded by well-used oil field operation roads. Impacted by recognized environmental conditions and potential environmental concerns and historical abandonment.
0	$\checkmark$	Feature is a depression that occurs within a gravel parking and equipment storage area surrounded by well-used oil field operation roads. Impacted by recognized environmental conditions and potential environmental concerns and historical abandonment.
Р	$\checkmark$	Feature is a depression within a soil remediation area near the 17th Street entry to the site. Impacted by recognized environmental conditions and potential environmental concerns and historical abandonment.
Q	$\checkmark$	Feature is a depression that straddles the earthen road shoulder of a well-used access road from the 17th Street gate. Impacted by recognized historical abandonment.
R	$\checkmark$	Feature is a roadside depression, one of a series of depressions occupying the paved parking area, well-used access road, and adjacent earthen shoulder near the 17th Street gate. Impacted by recognized historical abandonment.
S	$\checkmark$	Feature is one of a series of depressions along the road shoulder of the main well-used access road near the 17th Street gate. Impacted by recognized historical abandonment.
Т	$\checkmark$	Feature is one of a series of depressions along the road shoulder of the main well-used access road near the 17th Street gate. Impacted by recognized environmental conditions and potential environmental concerns and historical abandonment.
U	$\checkmark$	Feature is one of a series of depressions along the road shoulder of the main well-used access road near the 17th Street gate. Impacted by recognized environmental conditions and potential environmental concerns and historical abandonment.
V	✓	Feature is a depression on an inactive or abandoned oil well pad. Impacted by historical abandonment.
W	-	Feature is within an annual grassland depression.
Х	$\checkmark$	Feature is one of a series of depressions and road ruts within a well-used access road. Impacted by historical abandonment.
Y	$\checkmark$	Feature consists of a depression that lies fully within a site access road well-used by vehicular traffic. Impacted by historical abandonment.
Z	$\checkmark$	Feature is likely an anthropogenic excavated trench constructed to contain oil spills from oil field pipelines that run over the trench. Impacted by pipeline corridor and historical abandonment.
AA	$\checkmark$	Feature is a depression on an inactive or abandoned oil well pad. Impacted by soil remediation.
BB	-	Feature is a depression within an oil field pipeline array south of two active oil wells.
CC	$\checkmark$	Feature is a pit excavated for the purpose of repairing an oil field pipeline directly adjacent to a well-used oil field operation road.

Seasonal	Percent Impacted by OASR	
Feature		Description of Seasonal Feature and Oilfield Abandonment and Soil Remediation Impact
		Impacted by recognized environmental conditions and potential environmental concerns, historical abandonment, and soil
		remediation.
DD	$\checkmark$	Impacted by recognized environmental conditions and potential environmental concerns, historical abandonment, and soil
		remediation.
EE	✓	Impacted by historical abandonment and soil remediation.
FF	$\checkmark$	Feature is a depression on an inactive or abandoned oil well pad adjacent to an oil field pipeline. Impacted by historical
		abandonment and soil remediation.
GG	$\checkmark$	Feature is within an active oil well site and consists of a series of depression and road ruts within a major well-used access
	,	road. Impacted by historical abandonment and soil remediation.
HH	✓	Feature is a depression adjacent to an inactive or abandoned oil well. Impacted by historical abandonment.
	-	Feature was likely created by an anthropogenic bulldozer scrape adjacent to an inactive or abandoned oil well pad.
JJ	$\checkmark$	Feature is a roadside depression adjacent to an oil field pipeline along a well-used oil field operation road. Impacted by pipeline
00		corridor and historical abandonment.
КК	_1	Feature occupies an area of a former oil field road directly north of a well-used oil field operation road. Impacted by pipeline
		corridor and historical abandonment.
LL	_1	Impacted by historical abandonment.
ММ	_1	Feature is a depression adjacent to an oil field pipeline within a former oil field road. Impacted by pipeline corridor and historical
		abandonment.
NN	-	
00	$\checkmark$	Feature is depression within an oil field access road. Impacted by recognized environmental conditions and potential
		environmental concerns.
PP	~	Feature is a depression adjacent to a well-used oil field operation road. Impacted by historical abandonment.
QQ	✓	Feature is a depression adjacent to a dirt oil field operation road. Impacted by soil remediation.
RR	✓	Feature is a pair of tire ruts. Impacted by historical abandonment and soil remediation.
SS	✓	Feature is a depression adjacent to an inactive or abandoned oil well. Impacted by historical abandonment and soil remediation.
TT	$\checkmark$	Feature is a depression. Impacted by soil remediation.

#### Notes:

1 – Oilfield Abandonment and Soil Remediation impacts are greater than zero but less than or equal to 50 percent, therefore feature is not determined to be exempt



<ul> <li>Last saved by subcarding - Diff. VHO TRO AMA Diff.</li> <li>Last saved by subcarding - Diff. Ama Diff.</li> </ul>		PP O O O O O O O O O O O O O O O O O O O
N Feet 0 400 800	SOURCE: 2011 Aerial provided by Fusco Engineering; Oil Facilities provided by Fuscoe Engineering; Biological Survey Areas - Jurisdictional Determination/Delineation of 49 Ponding Features at the Newport Banning Ranch Property, Orange County, California. GLA 2012	Figure 5 Oilfield Abandonment and Soil Remediation
DUDEK	NEWPORT BANNING RANCH	Jurisdictional Determination of Seasonal Features

**Jurisdictional Determination of Seasonal Features** 

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# 7.0 JURISDICTIONAL DETERMINATION

Of the 49 seasonal features, 35 of them are greater than 50 percent within oil operation facility areas and/or the oil operation abandonment and remediation footprint (i.e. exemption zone) and, therefore, are not identified as jurisdictional or subject to review under the CCA (*Figure 5*). The remaining 14 seasonal features that are greater than 50 percent outside of the exemption zone are Features VP1, VP2, VP3, A, J, K, L, W, BB, II, KK, LL, MM. These features are all subject to review under the CCA if a wetland criterion was observed. A summary of the jurisdictional determination for all relevant regulatory agencies and seasonal features is presented in *Table 8* and displayed on *Figure 6*. The jurisdictional features are briefly discussed below in decreasing order of the number of wetland criterion present.

Features VP1 and VP2 met three wetland parameters (hydrophytic vegetation, hydric soils and hydrology), thus under joint jurisdiction of USACE and CCC. Additionally, San Diego fairy shrimp was observed within Features VP1 and VP2, which also subjects them to jurisdiction under the Endangered Species Act of 1973 and USFWS jurisdiction. Additionally, Features VP1 and VP2 were identified during wetland delineation surveys conducted by GLA in 2009; whereas the USACE previously accepted jurisdiction over these feature (GLA 2008a).

Features A and MM met two wetland parameters (hydrophytic vegetation and hydrology), while feature KK also met two wetland parameters, but for hydric soils and hydrology. These three features all fall under the jurisdiction of the CCC.

Features K, L, W, BB, II, LL only met one wetland parameter (hydrology), thus they would solely fall under the CCC jurisdiction.

Features VP3 and J met the criteria for one wetland parameter (hydrology). It also contains habitat for the San Diego fairy shrimp; therefore, USACE and USFWS are expected to have jurisdiction over these seasonal features.

Within the oil abandonment and remediation footprint (i.e. CCC exempt), the San Diego fairy shrimp was observed in Features E, G, H, and I and thus subject to jurisdiction under the USACE and USFWS.

Generally, the RWQCB has potential to take jurisdiction over all seasonal features discussed above under the State's Porter-Cologne Water Quality Control Act and Clean Water Act, Section 401, where applicable.

Seasonal Feature NN did not display wetland indicators; therefore, agencies are not expected to take jurisdiction for NN under their applicable regulations.

Seasonal Feature	Regulatory Agency						
	USACE/USFWS	RWQCB	CCC				
VP1	√1,2	✓	✓ <i>✓</i>				
VP2	<b>√</b> 1,2	$\checkmark$	✓				
VP3	<b>√</b> 1	$\checkmark$	✓				
A	-	$\checkmark$	✓				
В	-	$\checkmark$	-				
С	-	$\checkmark$	-				
D	-	✓	-				
E	<b>√</b> 1	✓	-				
F	-	✓	-				
G	<b>√</b> 1	✓	-				
Н	<b>√</b> 1	✓	-				
l	<b>√</b> 1	$\checkmark$	-				
J	<b>√</b> 1	$\checkmark$	✓				
K	-	✓	√				
L	-	✓	✓				
М	-	✓	-				
Ν	-	✓	-				
0	-	✓	-				
Р	-	✓	-				
Q	-	✓	-				
R	-	✓	-				
S	-	✓	-				
Т	-	✓	-				
U	-	✓	-				
V	-	✓	-				
W	-	✓	√				
Х	-	✓	-				
Y	-	✓	-				
Z	-	$\checkmark$	-				
AA	-	$\checkmark$	-				
BB	-	$\checkmark$	$\checkmark$				
CC	-	$\checkmark$	-				
DD	-	$\checkmark$	-				
EE	-	$\checkmark$	-				
FF	-	$\checkmark$	-				
GG	-	$\checkmark$	-				
HH	-	$\checkmark$	-				
II	-	$\checkmark$	✓				
JJ	-	$\checkmark$	-				
KK	-	$\checkmark$	✓				
LL	-	$\checkmark$	✓				
MM	-	$\checkmark$	$\checkmark$				
NN	-	✓	√				

**Table 8. Jurisdictional Determination of Seasonal Features** 

Seasonal Feature	Regulatory Agency							
	USACE/USFWS	RWQCB	222					
00	-	$\checkmark$	-					
PP	-	$\checkmark$	-					
QQ	-	$\checkmark$	-					
RR	-	~	-					
SS	-	$\checkmark$	-					
TT	-	$\checkmark$	-					

#### **Table 8. Jurisdictional Determination of Seasonal Features**

Notes:

<sup>1</sup> – Seasonal feature contains federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*)
 <sup>2</sup> – USACE previously accepted jurisdiction over seasonal feature in 2009

# INTENTIONALLY LEFT BLANK



**Jurisdictional Determination of Seasonal Features** 

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#### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Newport Banning Ranch	City/County:Ora	ange County	Sampli	Sampling Date: 10-4-12		
Applicant/Owner: Newport Banning Ranch LLC		State:CA	Sampli	ng Point:VP1		
Investigator(s): J. Davis IV, T. Wotipka, H. Moine	Section, Towns	hip, Range:Section 20,	Г6S, R10W			
Landform (hillslope, terrace, etc.): Terrace	Local relief (cor	ncave, convex, none): $C_{01}$	ncave	Slope (%):<2		
Subregion (LRR):C - Mediterranean California	t:33.6344947418	Long:-117.9437	72956	Datum:WGS 84		
Soil Map Unit Name: Myford sandy loam 0-2% slopes		NWI c	lassification:N	A		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)						
Are Vegetation Soil or Hydrology signifi	cantly disturbed?	Are "Normal Circumsta	nces" present?	Yes 💿 No 🔿		
Are Vegetation Soil or Hydrology X natura	ally problematic?	(If needed, explain any	answers in Re	marks.)		
SUMMARY OF FINDINGS - Attach site map show	wing sampling po	pint locations, trans	sects, impo	rtant features, etc.		
Hydrophytic Vegetation Present? Yes  No	)					
Hydric Soil Present? Yes 💿 No 🔘	Is the Sa	ampled Area				
Wetland Hydrology Present? Yes   No	within a	Wetland? Yes	s 💿 🛛 No	0		

Remarks: CCC wetland since at least one wetland criterion was met.

#### VEGETATION

	Absolute	Dominant	Indicator	Dominance Test w	vorkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar	nt Species	S		
1.				That Are OBL, FAC	W, or FA	C: 3	(	A)
2.				Total Number of Do	minant			
3.				Species Across All		3	(	B)
4.				Percent of Dominar	nt Snecier	2		
Total Cover Sapling/Shrub Stratum	r: %			That Are OBL, FAC			0 % (	A/B)
1.Baccharis salicifolia	30	Yes	FAC	Prevalence Index	workshee	et:		
2.		·		Total % Cover	of:	Multiply	by:	
3.		·		OBL species	15	x 1 =	15	
4.				FACW species	50	x 2 =	100	
5.		·		FAC species	50	x 3 =	150	
Total Cover	30 %			FACU species	10	x 4 =	40	
Herb Stratum				UPL species	5	x 5 =	25	
1.Polypogon monspeliensis	50	Yes	FACW	Column Totals:	130	(A)	330	(B)
<sup>2</sup> .Lythrum hyssopifolia	5	No	OBL					
<sup>3</sup> . Conyza canadensis	10	No	FACU	Prevalence In			2.54	
<sup>4</sup> . <i>Distichlis spicata</i>	20	Yes	FAC	Hydrophytic Vege				
5. Eleocharis macrostachya	10	No	OBL	X Dominance Tes				
6.Hirschfeldia incana	5	No	UPL	× Prevalence Ind				
7				Morphological / data in Rem		ns' (Provide s n a separate s		ıg
8				Problematic Hy			,	)
Total Cover Woody Vine Stratum	100%			,		- 3		
1.				<sup>1</sup> Indicators of hydrid	c soil and	l wetland hyd	rology m	nust
2.				be present.				
Total Cover	: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum0 % Cover	of Biotic C	Crust 0	%	Present?	Yes 🖲	No 🔿		
Remarks: Vegetation data was collected by GLA on	ı 6-9-12 (	see handw	ritten data	form).				

#### SOIL

								5 a		
Profile Des	scription: (Describe te	o the de	pth needed to docur	nent the	e indicator	or confirm	n the absence of in	ndicators.)		
Depth	Matrix		Redox	Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remar	ks	
0-6	2.5Y 3/2	90	5YR 4/6	10	С	М	clay loam			
					·					
						·				
				·						
<sup>1</sup> Type: C=0	Concentration, D=Deple	etion, RM	I=Reduced Matrix.	<sup>2</sup> Locatio	on: PL=Por	e Lining, R	C=Root Channel, N	л=Matrix.		
<sup>3</sup> Soil Textu	res: Clay, Silty Clay, S	andy Cla	y, Loam, Sandy Clay	Loam, S	Sandy Loan	n, Clay Loa			·	
Hydric Soil	Indicators: (Applicable	e to all LF	RRs, unless otherwise	noted.)			Indicators for P	Problematic Hydric Soi	ls:	
Histoso	ol (A1)		Sandy Redo	x (S5)			1 cm Muck (A9) (LRR C)			
	Epipedon (A2)		Stripped Ma	. ,				(A10) ( <b>LRR B</b> )		
	Histic (A3)		Loamy Muc	•	. ,		Reduced Vertic (F18)			
	gen Sulfide (A4)		Loamy Gley				Red Parent Material (TF2)			
	ed Layers (A5) (LRR C	)	Depleted M		,		Other (Explain in Remarks)			
	luck (A9) (LRR D)		Redox Dark							
	ed Below Dark Surface	(A11)	Depleted D		. ,					
	Dark Surface (A12)		Redox Dep		(F8)		4 maliontons of h			
· · ·	Mucky Mineral (S1)		Vernal Pool	s (F9)				ydrophytic vegetation Irology must be preser		
	Gleyed Matrix (S4)						wetianu nyu	rology must be preser	п.	
	Layer (if present):									
Type:nc	-							-	-	
	nches):none						Hydric Soil Pres	sent? Yes 💿	No	
	Soils data collected b	-	· ·			/				
	Myford soils are deep		•	soils, n	nedium to	rapid rui	noff, very slow pe	ermeability, formed	on terraces	
(	(Dudek updated the soil type).									

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)						
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)						
Surface Water (A1)	Sediment Deposits (B2) ( <b>Riverine</b> )						
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )						
X     Saturation (A3)       X     Aquatic Invertebrates (B13)	Drainage Patterns (B10)						
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)						
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots	(C3) Thin Muck Surface (C7)						
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)						
Surface Soil Cracks (B6)	Saturation Visible on Aerial Imagery (C9)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)						
Water-Stained Leaves (B9)	X FAC-Neutral Test (D5)						
Field Observations:							
Surface Water Present? Yes  No Depth (inches): 2-6							
Water Table Present? Yes No      Depth (inches):							
Saturation Present? Yes  Ves Ves Depth (inches): Wetland	d Hydrology Present? Yes 💿 No 🔿						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	vailable:						
Remarks:*Surface Water* Based on previous observations - did not pond in 2011/2012	2 (noted by GLA on 6-9-12 hand written data						
form).	· · ·						
*Aquatic Invertebrates* San Diego fairy shrimp was identified in feature dur	ing 1999-2000 wet season fairy shrimp survey						
(Dudek updated data form with shrimp data).							

#### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Newport Banning Ranch			City/County:Orange County			Sampling Date: 10-4-12		
Applicant/Owner: Newport Banning Ranch LLC				Sta	te:CA	Samplin	g Point:VP2	
Investigator(s): J. Davis IV, T. Wotipka,	H. Moine		Section, Townsh	nip, Range:Section	on 20, T6S,	R10W		
Landform (hillslope, terrace, etc.): Terrace			Local relief (concave, convex, none): Concave Slope					(%):<2
Subregion (LRR):C - Mediterranean Cali	fornia	Lat:33.6	6339931559	Long:-11	7.9438446	57	Datum:	WGS 84
Soil Map Unit Name: Myford sandy loam	0-2% slop	es			NWI classi	fication:NA	1	
Are climatic / hydrologic conditions on the si	te typical for	r this time of ye	ear?Yes 💿	No 🔿 (If r	io, explain in	Remarks.)		
Are Vegetation Soil or Hydro	logy	significantly	disturbed?	Are "Normal Ci	rcumstances	present?	Yes 💿	No 🔿
Are Vegetation Soil or Hydro	logy	naturally pro	oblematic?	(If needed, expl	ain any ansv	vers in Rem	narks.)	
SUMMARY OF FINDINGS - Attac	h site ma	ap showing	sampling po	oint locations	, transect	s, impor	tant featu	res, etc.
Hydrophytic Vegetation Present?	Yes 💽	No 🔘						
Hydric Soil Present?	Yes 💽	No 🔘	Is the Sa	mpled Area				
	Yes 💽	No 🔘		Wetland?	Yes 🦲	No	0	
Remarks CCC watland since at least o	no wotland	l oritorion wa	as mot					

Remarks:CCC wetland since at least one wetland criterion was met.

#### VEGETATION

	Absolute	Dominant	Indicator	Dominance Test v	vorkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Domina	nt Specie	s		
1				That Are OBL, FAC	W, or FA	C:	3 (	(A)
2.				_ Total Number of Do	minant			
3.				Species Across All			4 (	(B)
4.				- - Percent of Domina	at Casaia			
Total Co	over: %			That Are OBL, FAC		-	5.0 % (	A/B)
Sapling/Shrub Stratum							5.0 %	,
1 Baccharis salicifolia	5	Yes	FAC	Prevalence Index		et:		
2.				Total % Cover	of:	Multip	oly by:	
3.				OBL species	50	x 1 =	50	
4.				FACW species		x 2 =	0	
5.				FAC species	13	x 3 =	39	
Total Co	ver: 5 %			FACU species	22	x 4 =	88	
Herb Stratum				UPL species		x 5 =	0	
<sup>1</sup> Lythrum hyssopifolium	30	Yes	OBL	Column Totals:	85	(A)	177	(B)
<sup>2</sup> .Cotula coronopifolia	20	Yes	OBL					
<sup>3</sup> . Deinandra fasciculata	20	Yes	FACU	Prevalence Ir			2.08	
<sup>4</sup> .Rumex crispus	8	No	FAC	Hydrophytic Vege				
5. Heliotropium curassivicum	2	No	FACU	X Dominance Te				
6.				Prevalence Inc				
7				Morphological				ng
8.				- Problematic Hy		•	. ,	<b>`</b>
Total Co	ver: 80 %				yuropriyuc	vegetation		)
Woody Vine Stratum				<sup>1</sup> Indicators of hydri	e soil and	d wotland b	vdrology n	ouet
1				be present.	c son and		yurology n	nust
2				-				
Total Co	ver: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 15 % % Co	ver of Biotic C	Crust 0	%	Present?	Yes 🖲	No (	$\supset$	
Remarks: Vegetation data collected by GLA on 6	5-9-12 (see c	riginal ha	ndwritten	data form).				

#### SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	 Matrix			Feature				,	
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>			Texture <sup>3</sup>	Remark	s	
0-6	2.5Y 3/2	95	10YR 4/4	5	С	М	clay loam		
						·			
						·			
51	 Concentration, D=Deplo res: Clay, Silty Clay, S					-	C=Root Channel, M= am, Silty Clay Loam, S		Sand, Sand.
Histoso Histic E Black H Hydrog Stratifie 1 cm M Deplete	Indicators: (Applicable of (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) (LRR C Nuck (A9) (LRR D) ed Below Dark Surface Dark Surface (A12)	)	Rs, unless otherwise         Sandy Redox         Stripped Ma         Loamy Mucl         Loamy Gley         Depleted Ma         Redox Dark         Depleted Dark         X         Redox Depreted Dark         X         X         Redox Depreted Dark	(S5) trix (S6) ky Miner ed Matri atrix (F3 Surface ark Surfa	al (F1) x (F2) ) (F6) nce (F7)		1 cm Muck (/ 2 cm Muck (/ Reduced Ve Red Parent I	oblematic Hydric Soils A9) (LRR C) A10) (LRR B) rtic (F18) Material (TF2) ain in Remarks)	
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pools	s (F9)				drophytic vegetation a blogy must be present	
Restrictive Layer (if present):									
Type: <u>no</u> Depth (i	nches): <u>none</u>						Hydric Soil Prese	ent? Yes 💿	No 🔿
Remarks: Soil data collected by GLA on 6-9-12 (see original handwritten data form). Myford soils are deep, moderately well drained soils, medium to rapid runoff, very slow permeability, formed on terraces (Dudek updated soil type).									

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)					
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)					
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )					
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )					
X Saturation (A3)	X Aquatic Invertebrates (B13)	Drainage Patterns (B10)					
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)					
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livi	ng Roots (C3) Thin Muck Surface (C7)					
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)					
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)					
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)					
Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present? Yes  No	Depth (inches): 2						
Water Table Present? Yes O No 💽	Depth (inches):						
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspec	ions), if available:					
Remarks:*Surface Water Present* Based on	previous observations during norr	nal rainfall pattern (recorded by GLA on 6-9-12					
handwritten data form).							
*Aquatic Invertebrates* San Diego fairy shrimp was identified in this feature during 1999-2000 and 2010-2011 wet season							
fairy shrimp surveys (Dudek updated data form with shrimp data).							
US Army Corps of Engineers							
o miny corps of Englicers							

Project/Site: Newport Banning Rance	City/County:Ora	ange County	Sampling Date: 10-4-12					
Applicant/Owner: Newport Banning I	Ranch LLC			Stat	te:CA	Sampling Poir	nt:VP3	
Investigator(s): J. Davis IV, T. Wotip	ka, H. Moine		Section, Towns	hip, Range:Sectio	on 20, T6S, R	210W		
Landform (hillslope, terrace, etc.): Terr	ace		Local relief (cor	ncave, convex, no	ne):Concave	S	Slope (%):<2	
Subregion (LRR):C - Mediterranean	California	Lat:33.	6341543365	Long:-11	7.94325527	Da	atum:WGS 84	
Soil Map Unit Name: Myford sandy lo	oam 0-2% sloj	pes			NWI classific	ation:NA		
Are climatic / hydrologic conditions on t	he site typical fo	or this time of ye	ear?Yes 💿	No 🔿 (If n	- no, explain in R	emarks.)		
Are Vegetation Soil or H	lydrology	significantly	y disturbed?	Are "Normal Cir	rcumstances" p	present? Yes	No ()	
Are Vegetation Soil or H	lydrology	naturally pr	oblematic?	plematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - A	ttach site m	ap showing	g sampling po	oint locations	, transects,	, important	features, etc.	
Hydrophytic Vegetation Present?	Yes	No 💿						
Hydric Soil Present?	Yes 🕥	No 💿	Is the Sa	ampled Area				
Wetland Hydrology Present?	Yes 🜘	No 🔘	within a	Wetland?	Yes 🔿	No 🔘		

	Absolute	Dominant		Dominance Test w	orkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar				
1				That Are OBL, FAC	W, or FA	C:	1	(A)
2.				Total Number of Do	minant			
3.				Species Across All			2	(B)
4.				- Demonstrat Demoisson				
Total Cove	r: %			<ul> <li>Percent of Dominar That Are OBL, FAC</li> </ul>			50.0 %	(A/B)
Sapling/Shrub Stratum	,.					0.	30.0 %	(700)
1.				Prevalence Index	workshee	et:		
2.				Total % Cover	of:	Mul	tiply by:	_
3.				OBL species	25	x 1 =	25	
4.				FACW species		x 2 =	0	
5.				FAC species	5	x 3 =	15	
Total Cove	r: %			FACU species	20	x 4 =	80	
Herb Stratum				UPL species	35	x 5 =	175	
<sup>1</sup> Bromus madritensis rubens	35	Yes	UPL	Column Totals:	85	(A)	295	(B)
<sup>2</sup> .Spergularia salina	25	Yes	OBL					
<sup>3</sup> .Ambrosia psilostachya	15	No	FACU	Prevalence In			3.47	
<sup>4</sup> .Rumex crispus	5	No	FAC	Hydrophytic Vege				
5. Deinandra fasciculata	5	No	FACU	Dominance Tes	st is >50%	0		
6.				Prevalence Ind	ex is ≤3.0	) <sup>1</sup>		
7.				Morphological / data in Rem				ing
8.								
Total Cove	85 %			Problematic Hy	arophytic	vegetati	on (Explain	1)
Woody Vine Stratum	05 /0			4				
1				<sup>1</sup> Indicators of hydric be present.	c soil and	l wetland	hydrology	must
2				be present.				
Total Cove	r: %			Hydrophytic Vegetation				
	r of Biotic (		%	Present?	Yes ()	No	lacksquare	
Remarks: Vegetation data collected by GLA (6-9-1	2 handwr	itten data	form).	-				

Profile Des	scription: (Describe t	o the de	pth needed to docu	ment the i	ndicator of	or confirm	the absence of indic	ators.)		
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks		
0-6	2.5Y 3/2	0	none							
$\frac{1}{1}$ Type: C=(	Concentration, D=Depl	otion PM		<sup>2</sup> L contion	· DI =Doro	Lining D(	C=Root Channel, M=M	lotrix		
51						-		t Loam, Silt, Loamy San	d Sand	
	Indicators: (Applicable				lay Loan	, oldy 200		lematic Hydric Soils		
Histoso			Sandy Redo	-			1 cm Muck (As	-		
	Epipedon (A2)		Stripped M	( )			2 cm Muck (A1	, ( ,		
	Histic (A3)		Loamy Mud	. ,	l (F1)		Reduced Verti	, , ,		
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Parent Material (TF2)			
Stratifie	ed Layers (A5) (LRR C	;)	Depleted N	latrix (F3)			Other (Explain in Remarks)			
1 cm N	luck (A9) (LRR D)		Redox Dar	k Surface (	F6)					
·	ed Below Dark Surface	e (A11)	Depleted D		. ,					
	Dark Surface (A12)		Redox Dep		-8)					
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				ophytic vegetation and		
	Gleyed Matrix (S4)						wetland hydrolo	gy must be present.		
Restrictive	e Layer (if present):									
Type:no	one									
Depth (ii	nches):none						Hydric Soil Presen	t? Yes 🔿 No (	$\odot$	
Remarks: §	Soil data collected by	y GLA o	on 6-9-12 (see orig	inal hand	written d	ata form)				
Ν	Myford soils are dee	p, mode	rately well drained	l soils, me	edium to	rapid run	off, very slow perm	eability, formed on te	erraces	
(	Dudek updated soil	type).								

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots	(C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No  No Depth (inches):	
Water Table Present? Yes No      No      Depth (inches):	
Saturation Present? Yes No  Depth (inches): Wetlar Wetlar	nd Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:
Remarks:* Does not hold water for 14 days even during substantial rains (noted by GI	LA on 6-9-12 handwritten data form).
*Aquatic Invertebrates* San Diego fairy shrimp identified in this feature du	
(Dudek updated data form with shrimp data).	
-	

Project/Site: Newport Banning Rand	City/County:Oran	nge County	Sampling Date: 10-4-12					
Applicant/Owner: Newport Banning		Stat	e:CA	Sampling I	Point:A			
Investigator(s): J. Davis IV, T. Wotig	oka, H. Moine		Section, Townsh	ip, Range:Sectio	on 20, T6S,	R10W		
Landform (hillslope, terrace, etc.): Terr	ace		Local relief (con	cave, convex, noi	ne):Concave	;	Slope (%	):<2
Subregion (LRR):C - Mediterranean	California	Lat:33.	6297050009	Long:-11	7.94619628	37	Datum: W0	<b>JS</b> 84
Soil Map Unit Name: Myford sandy 1	oam 0-2% slop	es			NWI classif	cation:NA		
Are climatic / hydrologic conditions on	he site typical for	r this time of ye	ear?Yes 💿	No 🔿 (If n	o, explain in l	Remarks.)		
Are Vegetation Soil or H	Hydrology	significantly	/ disturbed?	Are "Normal Cir	cumstances"	present? Y	'es 💿 🛛 I	No 🔿
Are Vegetation Soil or H	lydrology	naturally pr	oblematic?	(If needed, expl	ain any answ	ers in Remar	rks.)	
SUMMARY OF FINDINGS - A	ttach site ma	ap showing	y sampling po	int locations	, transects	s, importa	nt feature	es, etc.
Hydrophytic Vegetation Present?	Yes 间	No 🔘						
Hydric Soil Present?	Yes 🔵	No 💿	Is the Sa	mpled Area				
Wetland Hydrology Present?	Yes 💿	No 🕥	within a V	Wetland?	Yes 🔿	No 🦲	D	
Remarks:CCC wetland since at le	ast one wetland	l criterion wa	as met.					

	Absolute	Dominant		Dominance Test wo	rksheet			
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant	Species	6		
1				That Are OBL, FACW	l, or FAC	C: 2	(	(A)
2				Total Number of Dom	inant			
3.				Species Across All St		2	(	(B)
4.				Percent of Dominant	Snecies			
Total Cove	r: %			That Are OBL, FACW			.0% (	A/B)
Sapling/Shrub Stratum				<b>_</b>	<u> </u>			
1				Prevalence Index wo				
2.				Total % Cover of	<u>:</u>	Multiply	by:	
3.				OBL species	10	x 1 =	10	
4.				FACW species	70	x 2 =	140	
5.				FAC species	10	x 3 =	30	
Total Cover	. %			FACU species	5	x 4 =	20	
Herb Stratum				UPL species		x 5 =	0	
<sup>1</sup> Psilocarphus brevissimus	40	Yes	FACW	Column Totals:	95	(A)	200	(B)
<sup>2</sup> .Euthamia occidentalis	20	Yes	FACW					
<sup>3</sup> .Polypogon monspeliensis	10	No	FACW	Prevalence Index = B/A = 2.11				
4. Rumex crispus	5	No	FAC	Hydrophytic Vegeta				
5. Distichlis spicata	5	No	FAC	X Dominance Test				
6. Deinandra fasciculata	5	No	FACU	Prevalence Index	(is ≤3.0	1		
7. Eleocharis macrostachya	10	No	OBL	<ul> <li>Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>				
8.				- Problematic Hydr		•	,	、
Total Cover	95 %				opnytic	vegetation	(Explain)	)
Woody Vine Stratum	20 10			1				
1				<sup>1</sup> Indicators of hydric s be present.	soil and	wetland hyd	rology n	nust
2				be present.				
Total Cover	: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 5 % % Cover	of Biotic C	Crust	) %		/es 💿	No 🔿		
Remarks: Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten	data form).				

UUIL								Camping Point	· <u> </u>	
Profile Des	scription: (Describe t	to the de	pth needed to docu	ment the	indicator (	or confirm	the absence of i	ndicators.)		
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	irks	
0-6	2.5Y 3/2	100	none							
<sup>1</sup> Type: C=0	Concentration, D=Depl	etion. RM	I=Reduced Matrix.	<sup>2</sup> Location	: PL=Pore	Linina. R	C=Root Channel, N	/=Matrix.		
	res: Clay, Silty Clay, S								ny Sand, Sand.	
Hydric Soil	Indicators: (Applicabl	e to all Li	RRs, unless otherwis	e noted.)		-	Indicators for F	Problematic Hydric So	ils:	
Histos	ol (A1)		Sandy Redo	ox (S5)			1 cm Muck	(A9) ( <b>LRR C</b> )		
Histic I	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muck	(A10) ( <b>LRR B</b> )		
Black I	Histic (A3)		Loamy Mu	cky Minera	al (F1)		Reduced \	/ertic (F18)		
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	: (F2)		Red Parent Material (TF2)			
Stratifi	ed Layers (A5) (LRR C	;)	Depleted N	/latrix (F3)			Other (Explain in Remarks)			
1 cm N	/luck (A9) (LRR D)		Redox Dar	k Surface	(F6)					
Deplet	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	ce (F7)					
Thick [	Dark Surface (A12)		Redox Dep	pressions (	F8)					
Sandy	Mucky Mineral (S1)		Vernal Poo	ols (F9)			<sup>4</sup> Indicators of h	ydrophytic vegetation	and	
Sandy	Gleyed Matrix (S4)						wetland hyd	Irology must be prese	nt.	
Restrictive	e Layer (if present):									
Type:no	one									
Depth (i	inches):none						Hydric Soil Pre	sent? Yes 🔿	No 💿	
	Soil data collected by									
	Myford soils are dee	1 /	rately well drained	l soils, m	edium to	rapid run	off, very slow p	ermeability, forme	d on terraces	
(	Dudek updated soil	type).								

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3	3) 🗍 Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes  No Depth (inches):	
Water Table Present? Yes No      No      Depth (inches):	
(included capital) inigo,	lydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava	ilable:
Remarks:*Surface Water Present* During 2007-2008 and 2008-2009 wet season fairy shi	rimp surveys, this feature was inundated for
at least 14 days (noted by GLA on 6-9-12 handwritten data form)	
*Aquatic Invertebrates* Common versatile fairy shrimp detected during 2007-2	008, 2008-2009, and 2010-2011 wet season
fairy shrimp surveys (Dudek updated data form with shrimp data).	
US Army Corps of Engineers	

Project/Site: Newport Banning Rance	City/County:Ora	ange County	Sampling Date: 10-4-12					
Applicant/Owner: Newport Banning I	Ranch LLC			Sta	te:CA	Sampling	Point:B	
Investigator(s): J. Davis IV, T. Wotip	ka, H. Moine		Section, Towns	hip, Range:Section	on 20, T6S, l	R10W		
Landform (hillslope, terrace, etc.): Terr	ace		Local relief (cor	ncave, convex, no	one):Concave	;	Slope (%):<2	
Subregion (LRR):C - Mediterranean	California	Lat:33.	6318378739	Long:-11	17.94336096	57	Datum: WGS 84	
Soil Map Unit Name: Myford sandy lo	bam 0-2% sloj	pes			NWI classifi	cation:NA		
Are climatic / hydrologic conditions on t	he site typical fo	or this time of ye	ear?Yes 💽	No 🔿  (If r	no, explain in F	Remarks.)		
Are Vegetation Soil or H	lydrology	significantly	/ disturbed?	Are "Normal Ci	rcumstances"	present?	res 💿 🛛 No 🔿	
Are Vegetation Soil or H	lydrology	naturally pr	oblematic?	plematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - A	ttach site m	ap showing	sampling po	oint locations	, transects	s, importa	ant features, etc.	
Hydrophytic Vegetation Present?	Yes 🔘	No 💿						
Hydric Soil Present?	Yes 🔘	No 💿	Is the Sa	ampled Area				
Wetland Hydrology Present?	Yes 🜘	No 🔘	within a	Wetland?	Yes 🔿	No (		

A)
B)
A/B)
(B)
g
lusi
(E

SOIL	
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Profile Des	scription: (Describe t	o the de	pth needed to docu	ment the	indicator	or confirm	n the absence of indicators.)			
Depth	 Matrix			x Feature			,			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup> Rer	narks		
0-6	2.5Y 3/2	100	none				sandy clay loam			
• •	Concentration, D=Deple						C=Root Channel, M=Matrix.			
<sup>3</sup> Soil Textu	res: Clay, Silty Clay, S	andy Cla	y, Loam, Sandy Clay	Loam, Sa	andy Loam	, Clay Loa	am, Silty Clay Loam, Silt Loam, Silt, Lo	-		
Hydric Soil	Indicators: (Applicable	e to all Li	RRs, unless otherwise	e noted.)			Indicators for Problematic Hydric	Soils:́:		
Histos	ol (A1)		Sandy Redo	x (S5)			1 cm Muck (A9) (LRR C)			
Histic I	Epipedon (A2)		Stripped M	. ,			2 cm Muck (A10) (LRR B)			
	Histic (A3)		Loamy Muc	•	. ,		Reduced Vertic (F18)			
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Parent Material (TF2)			
Stratifi	ed Layers (A5) (LRR C	)	Depleted N	atrix (F3)			Other (Explain in Remarks)			
1 cm N	/luck (A9) (LRR D)		Redox Darl	Surface	(F6)					
Deplet	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	ce (F7)					
Thick [	Dark Surface (A12)		Redox Dep	ressions (	F8)					
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)			<sup>4</sup> Indicators of hydrophytic vegetation	on and		
Sandy	Gleyed Matrix (S4)						wetland hydrology must be pre	sent.		
Restrictive	e Layer (if present):									
Туре:										
Depth (i	,						Hydric Soil Present? Yes 🔿	No 💿		
Remarks: S	Soil data collected by	y GLA o	on 6-9-12 (see orig	inal hanc	lwritten d	ata form	h).			
1	Myford soils are dee	p, mode	rately well drained	soils, m	edium to	rapid rui	noff, very slow permeability, form	ed on terraces		
(	Dudek updated soil	type).								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livir	ng Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)	
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)	
Field Observations:		
Surface Water Present? Yes  No	Depth (inches):	
Water Table Present? Yes O No 💽	Depth (inches):	
Saturation Present? Yes O No 🖲	Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🦳
(includes capillary fringe) Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, provious inspect	
Describe Recorded Data (stream gauge, monitori	ng well, aerial priotos, previous inspect	
•	• • •	this feature was inundated for at least 14 days (Dudek
updated data form with inundation		
*Aquatic Invertebrates* Versatile f	airy shrimp was detected during 2	009-2010 and 2010-2011 wet season fairy shrimp
surveys (Dudek updated data form	with shrimp data).	

Project/Site: Newport Banning Ranch	_ City/County:Or	ange County	Sampling Date: 10-4-12				
Applicant/Owner: Newport Banning Ranch LLC			ç	State:CA	Sampling Po	pint:C	
Investigator(s): J. Davis IV, T. Wotipka, H. Moi	ne	Section, Township, Range:Section 20, T6S, R10W					
Landform (hillslope, terrace, etc.): Terrace		Local relief (co	ncave, convex,	none): Concave		Slope (%):<2	
Subregion (LRR):C - Mediterranean California	Lat:33.	.6326434548	Long:	-117.94433405		Datum:WGS 84	
Soil Map Unit Name: Myford sandy loam 0-2% s	slopes			NWI classifie	cation:NA		
Are climatic / hydrologic conditions on the site typica	al for this time of y	vear?Yes 💽	No 🔿 🛛 (	(If no, explain in F	Remarks.)		
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes  No							
Are Vegetation Soil or Hydrology	] naturally p	roblematic?	(If needed, e	explain any answe	ers in Remarks	s.)	
SUMMARY OF FINDINGS - Attach site	map showing	g sampling p	oint locatio	ns, transects	, importan	t features, etc.	
Hydrophytic Vegetation Present? Yes (	No 🔘						
Hydric Soil Present? Yes	No 💿	Is the S	ampled Area				
Wetland Hydrology Present? Yes (	No 🔘	within a	Wetland?	Yes 🔿	No 🖲		
Remarks: CCC wetland since at least one wet	land criterion w	as met. Appear	s to be anthro	pogenic created	1.		

	Absolute	Dominant		Dominance Test v	vorkshee	t:		
Tree Stratum (Use scientific names.) 1.	% Cover	Species?	Status	Number of Domina That Are OBL, FAC			2	(A)
2.				Total Number of De	ominant			
3.				Species Across All			2	(B)
4.				<ul> <li>Percent of Domina</li> </ul>	nt Spacia			
Total Cove	r: %			That Are OBL, FAC		-	0.0%	(A/B)
Sapling/Shrub Stratum						-	00.0 /0	、
1				Prevalence Index				
2				Total % Cover	of:	Multi	ply by:	
3.				OBL species	60	x 1 =	60	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cover	r: %			FACU species		x 4 =	0	
Herb Stratum				UPL species		x 5 =	0	
<sup>1</sup> .Lythrum hyssopifolia	40	Yes	OBL	Column Totals:	60	(A)	60	(B)
<sup>2</sup> .Cotula coronopifolia	20	Yes	OBL	- Drevelence Ir	day = D/	A _	1 00	
3				Prevalence Index = B/A = 1.00				
4.				Hydrophytic Vege				
5.				X Dominance Te				
6.				Prevalence Inc				
7				Morphological				ng
8.				- Problematic H			,	
Total Cover	60 %				yaropriyac	, vegetatio		')
Woody Vine Stratum				<sup>1</sup> Indicators of hydri		l wotland k	audrology (	munt
1				be present.		i wellanu i	iyurology	nusi
2				-				
Total Cover	r: %			Hydrophytic Vegetation				
	r of Biotic (		) %	Present?	Yes 🖲	No	0	
Remarks: Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten	data form).				

### SOIL

Profile Des	cription: (Describe)	to the de	pth needed to docun	ent the	indicator	or confir	m the absence of i	indicators.)
Depth	Matrix			Feature			in the absence of	indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks
0-6	10YR 3/2	90	7.5YR 3/4	10	С	PL	loam	soil highly laminated with oil
			·					mixed in
					·			
<sup>1</sup> Type: C=C	Concentration, D=Dep	letion, RN	I=Reduced Matrix.	<sup>2</sup> Locatio	n: PL=Por	e Lining, F	RC=Root Channel,	M=Matrix.
<sup>3</sup> Soil Textur	es: Clay, Silty Clay, S	andy Cla						n, Silt Loam, Silt, Loamy Sand, Sand.
Hydric Soil	Indicators: (Applicabl	e to all Ll	RRs, unless otherwise	noted.)			Indicators for I	Problematic Hydric Soils <sup>4</sup> :
Histoso			Sandy Redox				1 cm Muc	k (A9) ( <b>LRR C</b> )
	pipedon (A2)		Stripped Ma	· · ·				k (A10) ( <b>LRR B</b> )
	listic (A3)		Loamy Mucl					Vertic (F18)
	en Sulfide (A4) ed Layers (A5) ( <b>LRR C</b>	•)	Loamy Gley					nt Material (TF2) olain in Remarks)
	uck (A9) (LRR D)	•)	Redox Dark	`	,			
	ed Below Dark Surface	e (A11)	Depleted Da		. ,			
	ark Surface (A12)	( )	Redox Depr					
Sandy I	Mucky Mineral (S1)		Vernal Pool	s (F9)			<sup>4</sup> Indicators of h	hydrophytic vegetation and
	Gleyed Matrix (S4)						wetland hyd	drology must be present.
Restrictive	Layer (if present):							
Туре:								
Depth (ir	·						-	esent? Yes 🔿 No 💿
	•••		•	-			site lacks wetland	hydrology in most years. Soil
	•		9-12 (see original h					
Ν	Ayford soils are dee	ep, mode	rately well drained	soils, n	nedium to	rapid ru	noff, very slow p	ermeability, on terraces (Dudek).
HYDROLO								
							Occurrent	
-	/drology Indicators:		<b>(</b> - i t)					y Indicators (2 or more required)
	icators (any one indica	ator is sui		(0.4.4)				er Marks (B1) ( <b>Riverine</b> )
	e Water (A1)		Salt Crust					ment Deposits (B2) ( <b>Riverine</b> )
	ater Table (A2)		Biotic Crus	. ,				Deposits (B3) ( <b>Riverine</b> )
	ion (A3)		Aquatic Inv					hage Patterns (B10)
	Marks (B1) ( <b>Nonriveri</b>	,	) Hydrogen : ) Oxidized R			Living Po		Season Water Table (C2)
	ent Deposits (B2) ( <b>Nor</b> eposits (B3) ( <b>Nonriver</b>				-	-		Muck Surface (C7) fish Burrows (C8)
	e Soil Cracks (B6)	me)	Recent Iro		``	,		ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (I						ow Aquitard (D3)
	Stained Leaves (B9)				(indiad)			Neutral Test (D5)
Field Obse	· · · ·							
		es 💿	No 🔿 Depth (inc	ches):				
		es ()	No ( Depth (inc	·				

(includes capillary fringe) Wetland Hydrology Present? Wetland Hydrology Present?

Depth (inches):

No 💿

Yes 🔿

Remarks:\*Surface Water Present\* Surface ponding < 14 days during most years. Pond in 2012 was < 7 days (data from GLA data form 6-9-12).

\*Aquatic Invertebrates\* Common versatile fairy shrimp was detected during 2010-2011 wet season fairy shrimp surveys and common versatile fairy shrimp, ostracod shells, and cladoceran ephippia were present during 2012 dry season fairy shrimp surveys(updated by Dudek).

Saturation Present?

No (

Yes

Project/Site: Newport Banning Ranc		City/County:Ora	nge County	Sampling Date: 10-4-12				
Applicant/Owner: Newport Banning R	anch LLC			Stat	e:CA	Sampling Po	pint:D	
Investigator(s): J. Davis IV, T. Wotip	ka, H. Moine		Section, Townsh	nip, Range:Sectio	on 20, T6S, R	10W		
Landform (hillslope, terrace, etc.): Terra	Local relief (cor	ncave, convex, noi	ne):Concave		Slope (%):< 2			
Subregion (LRR):C - Mediterranean	California	Lat:33.0	6334716772	Long:-11	7.94375849		Datum:WGS 84	
Soil Map Unit Name: Myford sandy lo	am 9-30% slo	opes, eroded			NWI classific	ation:NA		
Are climatic / hydrologic conditions on th	ne site typical fo	or this time of ye	ear?Yes 💿	No 🔿 (If n	o, explain in R	emarks.)		
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes  No								
Are Vegetation Soil or H	ydrology	naturally pro	oblematic?	blematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - At	tach site m	ap showing	sampling po	oint locations	, transects,	importan	t features, etc.	
Hydrophytic Vegetation Present?	Yes 🔘	No 💿						
Hydric Soil Present?	Yes 🔵	No 💿	Is the Sa	mpled Area				
Wetland Hydrology Present? Yes  No			within a Wetland? Yes			) No 🖲		

	Absolute	Dominant		Dominance Test w	vorkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominal				
1				That Are OBL, FAC	W, or FA	<b>C:</b> 1	Ĺ	(A)
2				Total Number of Do	ominant			
3.				Species Across All		4	2	(B)
4.				- Demont of Deminer	at Casaio			
Total Cove	r: %			<ul> <li>Percent of Dominar</li> <li>That Are OBL, FAC</li> </ul>		-	).0 %	(A/B)
Sapling/Shrub Stratum							.0 /0	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1.				Prevalence Index	workshe	et:		
2.				Total % Cover	of:	Multip	ly by:	-
3.				OBL species	35	x 1 =	35	
4.				FACW species	5	x 2 =	10	
5.				FAC species		x 3 =	0	
Total Cover	: %			FACU species	50	x 4 =	200	
Herb Stratum	, -			UPL species	50	x 5 =	0	
1. Cotula coronopifolia	35	Yes	OBL	Column Totals:	90	(A)	245	(B)
<sup>2</sup> .Deinandra fasciculata	40	Yes	FACU					
3. Vulpia myuros	10	No	FACU	Prevalence In			2.72	
4. Polypogon monspeliensis	5	No	FACW	Hydrophytic Vege	tation Inc	dicators:		
5.				Dominance Te	st is >50%	6		
6.				× Prevalence Ind	lex is ≤3.0	) <sup>1</sup>		
7.				Morphological				ng
8.				data in Rem				
Total Cover	90 %			Problematic Hy	/drophytic	: Vegetation	' (Explain	1)
Woody Vine Stratum	90 %							
1.				<sup>1</sup> Indicators of hydri	c soil and	l wetland hy	/drology	must
2.				be present.				
Total Cover	: %			Hydrophytic				
% Bare Ground in Herb Stratum 10 % % Cover	of Biotic C	Crust 0	) %	Vegetation Present?	Yes 🔿	No 🤆	D	
Remarks: Vegetation data collected by GLA on 6-9	-12 (see d	original ha	ndwritten	data form).				
		-						

Brofilo Doc	cription: (Describe t	a tha da	ath peopled to decu	mont the	indicator	or confirm	m the cheenee of	indicators )			
Depth	Matrix			x Feature			in the absence of	indicators.)			
(inches)	Color (moist)	%	Color (moist)	<u>× i eature</u> %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remarks			
0-3	10YR 3/3	100	none				clay loam				
3-5								Disturbed soil with oil matri			
3-3									<u>IX</u>		
								Refusal at 5"			
51	Concentration, D=Depl					-	RC=Root Channel,				
					andy Loam	, Clay Loa		n, Silt Loam, Silt, Loamy Sand, S	and.		
	Indicators: (Applicable	e to all LF	·	,				Problematic Hydric Soils <sup>4</sup> :			
Histoso	( )		Sandy Redo	. ,			1 cm Muck (A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	. ,			2 cm Muck (A10) (LRR B)				
	listic (A3) Jen Sulfide (A4)		Loamy Muc	•	. ,			Reduced Vertic (F18) Red Parent Material (TF2)			
	ed Layers (A5) (LRR C	)	Depleted M		• •			plain in Remarks)			
	luck (A9) (LRR D)	/	Redox Darl	``'				,			
Deplete	ed Below Dark Surface	(A11)	Depleted D	ark Surfa	ce (F7)						
Thick E	Dark Surface (A12)		Redox Dep	ressions (	(F8)						
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)				hydrophytic vegetation and			
Sandy	Gleyed Matrix (S4)						wetland hy	drology must be present.			
Restrictive	Layer (if present):										
Type:											
Depth (inches):						Hydric Soil Pre	esent? Yes 🔿 No 💿				
Remarks: S	Soil data collected by	GLA o	on 6-9-12 (see orig	inal hanc	lwritten d	ata form	ı).				
Myford soils are deep, moderately well drained soils, medium to rapid rund						noff, very slow p	permeability, formed on terra	ces			
(	Dudek updated soil	type).									

Wetland Hydrology Indicators:	/etland Hydrology Indicators:						
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)					
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )					
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )					
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)					
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)					
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living R	coots (C3) Thin Muck Surface (C7)					
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C8)						
Surface Soil Cracks (B6)	s (C6) Saturation Visible on Aerial Imagery (C9)						
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)						
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present? Yes O No 💽	Depth (inches):						
Water Table Present? Yes O No 💽	Depth (inches):						
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): We	etland Hydrology Present? Yes 💿 No 🔿					
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspections	s), if available:					
Remarks:No ponding or saturation in 2011-2	012 (noted on handwritten GLA data	form 6-9-12).					
1 0		ring 1999-2000 wet season fairy shrimp surveys and					
-	ys (Dudek updated data form with shi	• • • • •					
· · · ·	- · · ·	• ·					

Project/Site: Newport Banning Ranc		City/County:Ora	nge County	Sampling Date: 10-4-12				
Applicant/Owner: Newport Banning F	anch LLC			Sta	te:CA	Sampling I	Point:E	
Investigator(s): J. Davis IV, T. Wotip	ka, H. Moine		Section, Township, Range:Section 20, T6S, R10W					
Landform (hillslope, terrace, etc.): Terra	Local relief (cor	icave, convex, no	ne):Concave		Slope (%):<2			
Subregion (LRR):C - Mediterranean	Lat:33.0	6331241823	Long:-11	7.94320007	6	Datum:WGS 84		
Soil Map Unit Name: Myford sandy lo	am 9-30% sl	opes, eroded			NWI classific	cation:NA		
Are climatic / hydrologic conditions on the	ne site typical fo	or this time of ye	ear? Yes 💿	No 🔿  (If r	- no, explain in F	Remarks.)		
Are Vegetation Soil or H	ydrology	significantly	/ disturbed?	Are "Normal Ci	rcumstances"	present? Y	es 💿 🛛 No 🔿	
Are Vegetation Soil or H	ydrology	naturally pr	oblematic?	(If needed, expl	ain any answe	ers in Remai	ks.)	
SUMMARY OF FINDINGS - A	tach site m	ap showing	ı sampling po	oint locations	, transects	, importa	nt features, etc.	
Hydrophytic Vegetation Present?	Yes	No 💿						
Hydric Soil Present?	Yes 🔘	No 💿	Is the Sa	mpled Area				
Wetland Hydrology Present? Yes  No			within a Wetland? Yes 🔿 No 💿					

	Absolute	Dominant		Dominance Test	vorkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Domina				
1				That Are OBL, FAC	CW, or FA	C:	1	(A)
2.				Total Number of D	ominant			
3.				Species Across All			2	(B)
4.				- Dereent of Demine	nt Chaolog			
Total Cove	r: %			<ul> <li>Percent of Domina That Are OBL, FAG</li> </ul>			50.0 %	(A/B)
Sapling/Shrub Stratum					<i></i> , 01170	0.	30.0 %	(/ 00)
1.Baccharis salicifolia	70	Yes	FAC	Prevalence Index	workshee	et:		
2.				Total % Cover	of:	Mu	ltiply by:	_
3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species	70	x 3 =	210	
Total Cover	70 %			FACU species	5	x 4 =	20	
Herb Stratum	10 10			UPL species	20	x 5 =	100	
<sup>1</sup> .Hirschfeldia incana	20	Yes	UPL	Column Totals:	20 95	(A)	330	(B)
<sup>2</sup> .Heliotropium curassavicum	5	No	FACU					
3.				Prevalence Index = B/A = 3.47				
4.				Hydrophytic Vege	etation Inc	licators:		
5.				Dominance Te	est is >50%	0		
6.		·		Prevalence Inc	dex is ≤3.0	) <sup>1</sup>		
7.				Morphological	Adaptatio	ns <sup>1</sup> (Prov	ide support	ng
8.				data in Rer				
Total Cover	25 %			Problematic H	ydrophytic	Vegetati	ion' (Explair	1)
Woody Vine Stratum	25 70							
1.				<sup>1</sup> Indicators of hydr	ic soil and	l wetland	hydrology	must
2.				be present.				
Total Cover	. %			Hydrophytic				
% Bare Ground in Herb Stratum5 % % Cover	of Biotic C	Crust 0	) %	Vegetation Present?	Yes 🔿	No		
Remarks: Vegetation data collected by GLA on 6-9	-12 (see d	original ha	ndwritten	data form).				
	-	-		-				

SOIL
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	scription: (Describe t	the de	•			or confirm	n the absence of	indicators.)			
Depth	Matrix	<u> </u>		x Feature	-		<b>—</b> , 3	-			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rem	arks		
0-6	10YR 3/2	100	none	none			clay loam				
6-12	10YR 3/2	100	none				clay loam	disturbed with oil			
$\frac{1}{1}$	Concentration, D=Depl	otion PN		<sup>2</sup> l contion		Lining E	C=Root Channel,				
	res: Clay, Silty Clay, S					-			my Sand, Sand		
	Indicators: (Applicable				andy Louin	, oldy Lot		Problematic Hydric Se			
Histoso			Sandy Redo					k (A9) (LRR C)	/113.		
	Epipedon (A2)		Stripped Ma	( )			2  cm Muck (A10) (LRR B)				
	Histic (A3)		Loamy Muc	. ,	al (F1)		Reduced Vertic (F18)				
Hydrog	gen Sulfide (A4)		Loamy Gley	•	• •			nt Material (TF2)			
Stratifie	ed Layers (A5) ( <b>LRR C</b>	;)	Depleted M	atrix (F3)			Other (Ex	plain in Remarks)			
1 cm N	luck (A9) (LRR D)		Redox Dark	Surface	(F6)						
	ed Below Dark Surface	e (A11)	Depleted D		( )						
	Dark Surface (A12)		Redox Dep		F8)						
	Mucky Mineral (S1)		Vernal Pool	s (F9)				hydrophytic vegetation			
	Gleyed Matrix (S4)						wetland hyd	drology must be pres	ent.		
	Layer (if present):										
Type:no	one										
Depth (ii	nches):none						Hydric Soil Pre	esent? Yes 🔿	No 💽		
	Soil data collected by	~	, U				· · · · · · · · · · · · · · · · · · ·				
	Myford soils are dee	1 ·	erately well drained	soils, m	edium to	rapid ru	noff, very slow p	ermeability, forme	d on terraces		
(	Dudek updated soil	type).									
1											

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient	)	Water Marks (B1) ( <b>Riverine</b> )
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roo	ots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (0	C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No (	Depth (inches):	
Water Table Present? Yes O No (	Depth (inches):	
Saturation Present? Yes No ( (includes capillary fringe)	Depth (inches): Wetla	and Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitor		
Remarks: Ponds only in extreme years. Did	not pond or have saturated soils in 2011/	/2012 (data collected by GLA on 6-9-12
handwritten data form).		
	• •	e during 2010-2011 wet season fairy shrimp
surveys (Dudek updated data form	with shrimp data).	
US Army Corps of Engineers		

Project/Site: Newport Banning Ranch	City/County:Ora	ange County	Sampling Date: 10-4-12				
Applicant/Owner: Newport Banning Ranch LLC		State:CA	Sampling Point:F				
Investigator(s): J. Davis IV, T. Wotipka, H. Moine	Section, Towns	hip, Range: Section 20, T6S, 1	R10W				
Landform (hillslope, terrace, etc.): Terrace	Local relief (co	ncave, convex, none): Concave	Slope (%):<2				
Subregion (LRR):C - Mediterranean California	at:33.6328896337	Long:-117.94235677	71 Datum: WGS 84				
Soil Map Unit Name: Myford sandy loam 9-30% slopes, en	oded	NWI classifi	ication:NA				
Are climatic / hydrologic conditions on the site typical for this tir	ne of year? Yes 💿	No (If no, explain in I	Remarks.)				
Are Vegetation Soil or Hydrology sign	ficantly disturbed?	Are "Normal Circumstances"	present? Yes 💿 No 🔿				
Are Vegetation Soil or Hydrology natu	rally problematic?	(If needed, explain any answ	ers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes 🦳 No (							
Hydric Soil Present? Yes No (		ampled Area					
Wetland Hydrology Present? Yes No (	within a	Wetland? Yes ()	No 💿				

Remarks:

	Absolute	Dominant		Dominance Test w	orkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar	nt Specie	S		
1				That Are OBL, FAC	W, or FA	C: 1		(A)
2.				Total Number of Do	minant			
3.				Species Across All		2		(B)
4.				Demonstrat Demoisson				
Total Cove	r: %			<ul> <li>Percent of Dominar That Are OBL, FAC</li> </ul>		-	.0 %	(A/B)
Sapling/Shrub Stratum					, 0	J. 50	.0 70	(100)
1.				Prevalence Index	workshee	et:		
2.				Total % Cover	of:	Multipl	y by:	
3.				OBL species	25	x 1 =	25	
4.			·	FACW species	10	x 2 =	20	
5.				FAC species		x 3 =	0	
Total Cover	. %			FACU species	20	x 4 =	80	
Herb Stratum	. ,0			UPL species	8	x 5 =	40	
<sup>1</sup> .Deinandra fasciculata	20	Yes	FACU	Column Totals:	63	(A)	165	(B)
2. Centaurea melitensis	5	No	UPL				100	( )
<sup>3.</sup> Spergularia marina	25	Yes	OBL	Prevalence In			2.62	
4. Baccharis salicina	10	No	FACW	Hydrophytic Vege	tation Inc	dicators:		
5. <i>Hirschfeldia incana</i>	3	No	UPL	Dominance Te	st is >50%	6		
6.				× Prevalence Ind	ex is ≤3.0	) <sup>1</sup>		
7.				Morphological				ng
8.						n a separate	,	
Total Cover	63 %		·	Problematic Hy	drophytic	vegetation'	(Explain	)
Woody Vine Stratum	05 %							
1				<sup>1</sup> Indicators of hydric	c soil and	wetland hy	drology r	nust
2.				be present.				
Total Cover	: %			Hydrophytic				
	of Biotic C		) %	Vegetation Present?	Yes ()	No 🖲	)	
Remarks: Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten o	data form).				

Profile Des	cription: (Describe t	o the de	oth needed to docu	ment the	indicator	or confirr	n the absence of in	dicators.)	
Depth	Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	rks
0-6	10YR 3/2		none				loam		
4									
51	Concentration, D=Depl					-	C=Root Channel, M		
	es: Clay, Silty Clay, S				indy Loam	, Clay Loa			
	Indicators: (Applicable	e to all LF						oblematic Hydric So	ils:
Histoso			Sandy Redo	· · ·				(A9) (LRR C)	
	Epipedon (A2) Histic (A3)		Stripped Ma	. ,				(A10) ( <b>LRR B</b> )	
	en Sulfide (A4)		Loamy Gle	-			Reduced Vertic (F18) Red Parent Material (TF2)		
	ed Layers (A5) (LRR C	:)	Depleted M		(12)		Other (Explain in Remarks)		
	luck (A9) (LRR D)	)	Redox Darl	· · /	(F6)			ant in romanic)	
	ed Below Dark Surface	e (A11)	Depleted D		. ,				
	ark Surface (A12)	· · ·	Redox Dep		. ,				
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)			<sup>4</sup> Indicators of hy	drophytic vegetation	and
Sandy	Gleyed Matrix (S4)						wetland hydr	ology must be prese	nt.
Restrictive	Layer (if present):								
Type:no	ne								
Depth (ir	nches):none						Hydric Soil Pres	sent? Yes 🔿	No 💿
Remarks: S	boil data collected b	y GLA c	on 6-9-12 (see orig	inal hand	lwritten d	lata form	L).	~	
	Ayford soils are dee	-	, U				,	rmeability, formed	d on terraces
	Dudek updated soil	L ·	2				• I	•	

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livi	ng Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes 🔿 No 💿	Depth (inches):	
Water Table Present? Yes O No 💿	Depth (inches):	
Saturation Present? Yes No  (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes 🔿 No 💿
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspec	tions), if available:
Remarks: Ponds only in extreme years - No po	nding in 2011/2012 per GLA we	t season survey.
Hydrology data collected by GLA or	n 6-9-12 (see original handwritte	n data form).
Wetland hydrology indicators were a	not observed in this feature durin	g delineations, hydrological monitoring, or fairy shrimp
surveys (Dudek updated data form w	vith wetland hydrology indicators	s data).
US Army Corps of Engineers		

Project/Site: Newport Banning Ranch	City/County:Orange County	Sampling Date: 10-4-12
Applicant/Owner: Newport Banning Ranch LLC	State:C	A Sampling Point:G
Investigator(s): J. Davis IV, T. Wotipka, H. Moine	Section, Township, Range:Section 2	0, T6S, R10W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none):	Concave Slope (%):<2
Subregion (LRR):C - Mediterranean California Lat:33.	6336057532 Long:-117.9	43356426 Datum: WGS 84
Soil Map Unit Name: Myford sandy loam 9-30% slopes, eroded	NV	VI classification:NA
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 💿 No 🔿 (If no, e	xplain in Remarks.)
Are Vegetation Soil or Hydrology Significantly	v disturbed? Are "Normal Circum	nstances" present? Yes 💿 No 🔿
Are Vegetation Soil or Hydrology naturally pr	oblematic? (If needed, explain a	any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, tra	ansects, important features, etc.
Hydrophytic Vegetation Present? Yes 🔵 No 💿		
Hydric Soil Present? Yes 🕥 No 💽	Is the Sampled Area	
Wetland Hydrology Present? Yes 💿 No 🔘	within a Wetland?	Yes 🔿 No 💿
Remarks: CCC wetland since at least one wetland criterion wa	as met.	

	Absolute % Cover	Dominant		Dominance Test w	orkshee	et:		
Tree Stratum (Use scientific names.)		Species?	Status	Number of Domina				
1				That Are OBL, FAC	W, or FA	AC: 0	(	(A)
2.				Total Number of Do	minant			
3.				Species Across All		0	(	(B)
4.				- Demonst of Deminer				
Total Cove	er: %			<ul> <li>Percent of Dominar</li> <li>That Are OBL, FAC</li> </ul>			% (	(A/B)
Sapling/Shrub Stratum					, or i i	0	70 (	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1.				Prevalence Index	workshe	et:		
2.				Total % Cover	of:	Multiply	by:	-
3.				OBL species	1	x 1 =	1	
4.		·		FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
	er: %			FACU species	8	x 4 =	32	
Herb Stratum	,,,			UPL species	11	x 5 =	55	
1.Bromus hordeaceus	5	No	FACU	Column Totals:	20	(A)	88	(B)
<sup>2</sup> .Deinandra fasciculata	3	No	FACU	-				
<sup>3</sup> . Stephanomeria virgata	4	No	UPL	Prevalence In	dex = B	/A =	4.40	
<sup>4</sup> . <i>Hirschfeldia incana</i>	5	No	UPL	Hydrophytic Vege	tation In	dicators:		
5. Cotula coronopifolia	1	No	OBL	Dominance Te	st is >50	%		
6. Carduus pycnocephalus	2	No	UPL	Prevalence Ind	ex is ≤3.	0 <sup>1</sup>		
7.				Morphological				ng
8.						on a separate	,	
Total Cove	er: 20 %	·		- Problematic Hy	drophyti	c Vegetation'	(Explain)	)
Woody Vine Stratum	20 70							
1				<sup>1</sup> Indicators of hydri	c soil an	d wetland hyd	Irology n	nust
2.				be present.				
Total Cove	er: %			Hydrophytic				
% Bare Ground in Herb Stratum 80 % % Cove	er of Biotic C	Crust	%	Vegetation Present?	Yes ()	No 🖲		
Remarks: Vegetation data collected by GLA on 6-9	9-12 (see c	original ha	ndwritten	data form).				

|--|

								1 9	
Profile Des	cription: (Describe to	o the de	pth needed to docu	nent the	indicator (	or confirm	the absence of i	ndicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	irks
0-6	2.5Y 3/2	100	none						
<sup>1</sup> Type: C=C	Concentration, D=Deple	etion, RM	I=Reduced Matrix.	<sup>2</sup> Locatior	n: PL=Pore	Lining, R	C=Root Channel, N	//=Matrix.	
	es: Clay, Silty Clay, S								ny Sand, Sand.
	Indicators: (Applicable				-			Problematic Hydric So	-
Histoso			Sandy Redo				1 cm Muck (A9) ( <b>LRR C</b> )		
Histic E	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck	(A10) ( <b>LRR B</b> )	
Black H	Histic (A3)		Loamy Muc	ky Minera	al (F1)		Reduced Vertic (F18)		
Hydrog	jen Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent Material (TF2)		
	ed Layers (A5) (LRR C	)	Depleted M	, ,			Other (Explain in Remarks)		
	luck (A9) ( <b>LRR D</b> )		Redox Dark		· /				
· · ·	ed Below Dark Surface	(A11)	Depleted D		. ,				
	Dark Surface (A12)		Redox Dep		(F8)		4		
·	Mucky Mineral (S1)		Vernal Poo	s (F9)			<sup>4</sup> Indicators of hydrophytic vegetation and		
Sandy Gleyed Matrix (S4)							wetland hydrology must be present.		
	Layer (if present):								
Type:no	ne								
Depth (ii	nches):none						Hydric Soil Pre	sent? Yes 🔿	No 💿
Remarks: S	Soil data collected by	GLA	on 6-9-12 (see orig	inal hand	lwritten d	ata form)	).		
Ν	Ayford soils are deep	p, mode	rately well drained	soils, m	edium to	rapid run	off, very slow p	ermeability, forme	1 on terraces
(	Dudek updated soil	type).					-		

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livi	ng Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
X Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No	Depth (inches):	
Water Table Present? Yes O No	Depth (inches):	
Saturation Present? Yes No ( (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspec	tions), if available:
Remarks: Ponds in extreme years. No pondin	g or saturation in 2011/2012 per C	LA wet season survey (data from GLA handwritten
data form 6-9-12).	6	
,	fairy shrimp was detected during	2010-2011 wet season fairy shrimp surveys (Dudek
updated data form with shrimp data		
*Surface Soil Cracks* observed by		
-		
US Army Corps of Engineers		

Project/Site: Newport Banning Ranch	City/County:Or	ange County	Sampling Date: 10-4-12				
Applicant/Owner: Newport Banning Ranch LLC		State:CA	Sampling Point:H				
Investigator(s): J. Davis IV, T. Wotipka, H. Moine	Section, Towns	ship, Range:Section 20, T6S, R	10W				
Landform (hillslope, terrace, etc.): Terrace	Local relief (co	oncave, convex, none): Concave	Slope (%):<2				
Subregion (LRR): <u>C</u> - Mediterranean California	Lat:33.6338535811	Long:-117.942562527	Datum: WGS 84				
Soil Map Unit Name: Myford sandy loam 0-2% slopes		NWI classifica	ation:NA				
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes 💽	No 🔿 (If no, explain in Re	emarks.)				
Are Vegetation Soil or Hydrology Si	gnificantly disturbed?	Are "Normal Circumstances" p	resent? Yes 💿 No 🔿				
Are Vegetation Soil or Hydrology na	aturally problematic?	(If needed, explain any answer	s in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes 🕥 No							
Hydric Soil Present? Yes 🕥 No	Is the S	ampled Area					

Hydric Soli Present?	res	$\bigcirc$		Is the Sampled Area			
Wetland Hydrology Present?	Yes	$\overline{\bullet}$	No 🔘	within a Wetland?	Yes 🔿	No 🖲	
Remarks: CCC wetland since at least one wetland criterion was met.							
Lacks basin topography, high number of ground squirrel burrows, loose alluvial soils, upland vegetation primarily prevalent							
(Dudek 10-4-12).							

	Absolute	Dominant		Dominance Test w	orkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominan	t Species	S		
1				That Are OBL, FAC	W, or FA	C: 0		(A)
2.				Total Number of Dor	minant			
3.				Species Across All S		2		(B)
4.								
Total Cove	r: %			<ul> <li>Percent of Dominan That Are OBL, FAC</li> </ul>		-	) %	(A/B)
Sapling/Shrub Stratum	,.				w, or i / (	0.0	%0	(~0)
1.				Prevalence Index v	vorkshee	et:		
2.				Total % Cover of	of:	Multiply	by:	
3.				OBL species	5	x 1 =	5	
4.	·			FACW species		x 2 =	0	
5				FAC species	5	x 3 =	15	
Total Cover	- - %			FACU species	85	x 4 =	340	
Herb Stratum	. ,0			UPL species	05	x 5 =	0	
<sup>1</sup> .Deinandra fasciculata	40	Yes	FACU	Column Totals:	95	(A)	360	(B)
2. Melilotus indicus	25	Yes	FACU	-				
3. Bromus hordeaceus	15	No	FACU	Prevalence Inc			3.79	
<sup>4</sup> . <i>Spergularia marina</i>	5	No	OBL	Hydrophytic Veget	ation Inc	licators:		
5. Ambrosia psilostachya	5	No	FACU	Dominance Tes	t is >50%	0		
6.Rumex crispus	5	No	FAC	Prevalence Inde	ex is ≤3.0	) <sup>1</sup>		
7.				Morphological A		ns <sup>1</sup> (Provide s n a separate s		ng
8.							,	、
Total Cover	95 %			Problematic Hyd	aropnytic	vegetation	Explain	)
Woody Vine Stratum	15 10							
1				<sup>1</sup> Indicators of hydric be present.	soil and	I wetland hyd	rology r	nust
2.								
Total Cover	r: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 5 % % Cover	r of Biotic C	Crust 0	%		Yes ()	No 💽		
Remarks: Vegetation data collected by GLA on 6-9	-12 (see d	original ha	ndwritten o	data form).				
- •		-						

									·
Profile Des	cription: (Describe t	to the dep	oth needed to docur	nent the i	ndicator of	or confirm	n the absence of i	indicators.)	
Depth	Matrix		Redo	x Features	6				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	rks
0-6	10YR 3/3		none				loam		
				· ·					
				· ·					
								-	
				· ·					
<sup>1</sup> Type: C=C	Concentration, D=Depl	letion, RM	=Reduced Matrix.	<sup>2</sup> Location	: PL=Pore	Lining, R	C=Root Channel, I	M=Matrix.	
<sup>3</sup> Soil Textur	es: Clay, Silty Clay, S	andy Clay	/, Loam, Sandy Clay			-			ny Sand, Sand.
Hydric Soil	Indicators: (Applicabl	e to all LR	Rs, unless otherwise	e noted.)			Indicators for I	Problematic Hydric So	ils:
Histoso	ol (A1)		Sandy Redo	x (S5)			1 cm Mucl	k (A9) ( <b>LRR C</b> )	
Histic E	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mucl	k (A10) ( <b>LRR B</b> )	
Black H	listic (A3)		Loamy Muc	ky Minera	l (F1)		Reduced V	Vertic (F18)	
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parer	nt Material (TF2)	
Stratifie	ed Layers (A5) ( <b>LRR C</b>	;)	Depleted M	· · ·			Other (Exp	plain in Remarks)	
1 cm M	luck (A9) ( <b>LRR D</b> )		Redox Dark	Surface (	(F6)				
	ed Below Dark Surface	e (A11)	Depleted D		. ,				
	Oark Surface (A12)		Redox Dep		F8)				
-	Mucky Mineral (S1)		Vernal Pool	s (F9)				nydrophytic vegetation	
	Gleyed Matrix (S4)						wetland hyd	drology must be prese	nt.
Restrictive	Layer (if present):								
Type:no	ne								
Depth (ir	nches):none						Hydric Soil Pre	esent? Yes 🔿	No 💿
Remarks: S	oil data collected b	y GLA o	n 6-9-12 (see origi	inal hand	written d	ata form)	).		
Ν	Ayford soils are dee	ep, moder	rately well drained	soils, me	edium to	rapid run	off, very slow p	ermeability, forme	d on terraces
(.	Dudek updated soil	type).				-		-	
	-	-							

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) ( <b>Riverine</b> )
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots	(C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	5) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 💿 Depth (inches):	
Water Table Present? Yes No      No Depth (inches):	
Saturation Present? Yes No  Depth (inches): Wetlan Wetlan	nd Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:
Remarks:No ponding in 2011/2012 per GLA wet season survey (GLA handwritten dat	ta form 6-9-12).
*Aquatic Invertebrates* San Diego fairy shrimp detected in this feature durin	· · · · · · · · · · · · · · · · · · ·
updated data form with shrimp data).	
1 /	

Project/Site: Newport Banning Ranch		City/County:Or	Sampling Date: 10-4-12					
Applicant/Owner: Newport Banning R	anch LLC			Stat	e:CA	Sampling I	Point:I	
Investigator(s): J. Davis IV, T. Wotipl	ka, H. Moine		Section, Township, Range: Section 20, T6S, R10W					
Landform (hillslope, terrace, etc.): Terra		Local relief (concave, convex, none): Concave Slope					%):<2	
Subregion (LRR):C - Mediterranean C	Lat:33.0	633930204	Long:-11	7.94225375	5	Datum: V	VGS 84	
Soil Map Unit Name: Myford sandy lo	am 0-2% sloj	pes			NWI classifi	cation:NA		
Are climatic / hydrologic conditions on th	ne site typical fo	or this time of ye	ear?Yes 💿	No 🔿 (If n	o, explain in F	Remarks.)		
Are Vegetation Soil or Hy	ydrology	significantly	v disturbed?	Are "Normal Cir	cumstances"	present? Y	es 💽	No 🔿
Are Vegetation Soil or H	ydrology	naturally pro	oblematic?	(If needed, expl	ain any answe	ers in Remar	<sup>-</sup> ks.)	
SUMMARY OF FINDINGS - At	tach site m	ap showing	sampling p	oint locations	, transects	, importa	nt featu	res, etc.
Hydrophytic Vegetation Present?	Yes 🔘	No 💿						
Hydric Soil Present?	Yes 🔘	No 💿	Is the S	ampled Area				
Wetland Hydrology Present?	No 🕥	within a Wetland? Yes 🔿 No 🖲						
Remarks:CCC wetland since at lea	st one wetlan	d criterion wa	as met.					

	Absolute	Dominant		Dominance Test w	orkshee	et:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar	nt Specie	S		
1				That Are OBL, FAC	W, or FA	C: 0		(A)
2.				Total Number of Do	minant			
3.				Species Across All		2		(B)
4.				Percent of Dominar	t Cnasia	•		
Total Cove	r: %			That Are OBL, FAC		-	) % (	(A/B)
Sapling/Shrub Stratum						0.0	/0	()
1				Prevalence Index		et:		
2.				Total % Cover	of:	Multiply	by:	
3.				OBL species		x 1 =	0	
4.				FACW species	3	x 2 =	6	
5.				FAC species	3	x 3 =	9	
Total Cover	. %			FACU species	50	x 4 =	200	
Herb Stratum				UPL species	25	x 5 =	125	
<sup>1</sup> .Melilotus indicus	20	Yes	FACU	Column Totals:	81	(A)	340	(B)
<sup>2</sup> .Deinandra fasciculata	10	No	FACU					
3. Bromus hordeaceus	15	No	FACU	Prevalence In			4.20	
4. Centaurea melitensis	20	Yes	UPL	Hydrophytic Veget				
5. Hirschfeldia incana	5	No	UPL	Dominance Tes				
6. <i>Heliotropium curassavicum</i>	5	No	FACU	Prevalence Ind	ex is ≤3.0	0 <sup>1</sup>		
7. Rumex crispus	3	No	FAC	Morphological /		ons <sup>1</sup> (Provide s		ng
8. Polypogon monspeliensis	3	No	FACW	- Problematic Hy		' .	,	`
Total Cover	81 %				uropriyu	vegetation	(Explain	)
Woody Vine Stratum				1	.,			
1				<sup>1</sup> Indicators of hydric be present.	c soll and	a wetland hyd	irology r	nust
2				-				
Total Cover	: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 19 % % Cover	of Biotic C	Crust 0	%	Present?	Yes ()	No 💽		
Remarks: Vegetation data collected by GLA on 6-9	-12 (see c	original ha	ndwritten	data form).				

								eamping rom	·		
Profile Des	cription: (Describe	to the de	oth needed to docu	ment the	indicator of	or confirm	n the absence of i	indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	arks		
0-6	10YR 3/3		none				loam				
		·									
		·									
		·									
		·									
	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.										
					andy Loam	, Clay Loa					
	Indicators: (Applicabl	le to all LF		-				Problematic Hydric So	vils:		
Histosc	ol (A1)		Sandy Redo	ox (S5)			1 cm Mucl	k (A9) ( <b>LRR C</b> )			
	pipedon (A2)		Stripped M	• •				k (A10) ( <b>LRR B</b> )			
	listic (A3)		Loamy Mu	•	. ,		Reduced Vertic (F18)				
	en Sulfide (A4)		Loamy Gle	•	• •			nt Material (TF2)			
	ed Layers (A5) ( <b>LRR C</b>	<b>C</b> )	Depleted N	. ,			Other (Exp	plain in Remarks)			
	luck (A9) ( <b>LRR D</b> )		Redox Dar		· · /						
Deplete	ed Below Dark Surface	e (A11)	Depleted D		• •						
Thick D	ark Surface (A12)		Redox Dep	ressions (	(F8)						
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)				nydrophytic vegetatior			
Sandy	Gleyed Matrix (S4)						wetland hyd	drology must be prese	ent.		
Restrictive	Layer (if present):										
Type:no	ne										
Depth (ir	nches):none						Hydric Soil Pre	esent? Yes 🔿	No 💿		
Remarks: S	oil data collected b	y GLA o	on 6-9-12 (see orig	inal hanc	lwritten d	ata form)	).				
Ν	Ayford soils are dee	ep, mode	rately well drained	l soils, m	edium to	rapid run	off, very slow p	ermeability, forme	d on terraces		
(.	Dudek updated soil	type).	-			*	- 1	-			

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	X Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living	Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C8)	
Surface Soil Cracks (B6)	bils (C6) Saturation Visible on Aerial Imagery (C9)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No 💿	Depth (inches):	
Water Table Present? Yes O No 💽	Depth (inches):	
Saturation Present? Yes No ( includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitorin		
Remarks: Ponding only in extreme years - no	ponding in 2011/2012 per GLA we	et season survey (data collected by GLA 6-9-12
handwritten data form).	r	······································
,	fairy shrimp was detected during 2	010-2011 wet season fairy shrimp surveys (Dudek
updated data form with shrimp data		
i i i	·	
US Army Corps of Engineers		

Project/Site: Newport Banning Rance	h		City/County:Ora	ange County		Sampling Date:10-4-12		
Applicant/Owner: Newport Banning H	Ranch LLC			Stat	te:CA	Sampling P	oint:J	
Investigator(s): J. Davis IV, T. Wotip	ka, H. Moine		Section, Township, Range:Section 20, T6S, R10W					
Landform (hillslope, terrace, etc.): Terr	ace		Local relief (cor	ncave, convex, no		Slope (%):<2		
Subregion (LRR):C - Mediterranean	California	Lat:33.	- 6342101571	Long:-11	7.94216000	001 Datum: WGS 84		
Soil Map Unit Name: Myford sandy lo	bam 0-2% slop	pes			NWI classific	ation:NA		
Are climatic / hydrologic conditions on t	he site typical fo	or this time of ye	ear?Yes 💿	No 🔿 (If n	- io, explain in R	emarks.)		
Are Vegetation Soil or H	lydrology	significantly	v disturbed?	Are "Normal Cir	rcumstances"	present? Ye	es 💿 🛛 No 🔿	
Are Vegetation Soil or H	lydrology	naturally pr	oblematic?	blematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - A	ttach site m	ap showing	sampling po	oint locations	, transects	, importar	nt features, etc.	
Hydrophytic Vegetation Present?	Yes	No 💿						
Hydric Soil Present?	Yes 🔘	No 💿	Is the Sa	ampled Area				
Wetland Hydrology Present?	Yes 🜘	No 🔘	within a	Wetland?	Yes 🔿	No 🖲		

	Absolute	Dominant		Dominance Test w	orksheet	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar				
1				That Are OBL, FAC	W, or FA	C:	0	(A)
2.				_ Total Number of Do	minant			
3.				Species Across All			2	(B)
4.				- Demonstrat Deminent				
Total Cove	r: %			<ul> <li>Percent of Dominar</li> <li>That Are OBL, FAC</li> </ul>		-	0.0 %	(A/B)
Sapling/Shrub Stratum					11, 01170	0.	J.U 70	(700)
1.				Prevalence Index	workshee	et:		
2.				Total % Cover	of:	Multi	ply by:	_
3.				OBL species		x 1 =	0	
4.	·			FACW species	5	x 2 =	10	
5.				FAC species		x 3 =	0	
Total Cover	: %		·	FACU species	45	x 4 =	180	
Herb Stratum	. ,0			UPL species	+ <i>J</i> 5	x 5 =	25	
<sup>1</sup> .Deinandra fasciculata	25	Yes	FACU	Column Totals:	55	(A)	215	(B)
2. Bromus hordeaceus	15	Yes	FACU					
3. Bromus rubens	5	No	UPL	Prevalence In	dex = B/A	Α =	3.91	
<sup>4</sup> . <i>Melilotus indicus</i>	5	No	FACU	Hydrophytic Vege	ation Ind	licators:		
5. Polypogon monspeliensis	5	No	FACW	Dominance Tes	st is >50%	, 0		
6.			·	Prevalence Ind	ex is ≤3.0	) <sup>1</sup>		
7.		·	·	Morphological	Adaptation	ns <sup>1</sup> (Provic	le supporti	ng
8.			·	data in Rem				
Total Cover	55 %			- Problematic Hy	drophytic	Vegetatio	n' (Explair	I)
Woody Vine Stratum	JJ %							
1.				<sup>1</sup> Indicators of hydrid	c soil and	l wetland h	nydrology	must
2.		-		be present.				
Total Cover	: %	-		Hydrophytic				
% Bare Ground in Herb Stratum 55 % % Cover	of Biotic C	Crust 0	) %	Vegetation Present?	Yes 🔿	No	$   \mathbf{O} $	
Remarks: Vegetation data collected by GLA on 6-9	-12 (see d	original ha	ndwritten	data form).				

Profile Des	scription: (Describe t	o the de	oth needed to docur	nent the	indicator of	or confirm	n the absence of inc	dicators.)			
Depth	Matrix			k Feature	s						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	irks		
0-6	10YR 3/3		none				loam				
				·							
	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.										
	Indicators: (Applicable					,, <u>_</u>		oblematic Hydric Sc			
Histoso Histic E Black H Hydrog Stratifie 1 cm W Deplete		)	Sandy Redo Stripped Ma Loamy Muc Depleted M Redox Dark Depleted D Redox Dep	x (S5) atrix (S6) ky Minera ved Matrix atrix (F3) x Surface ark Surface	(F2) (F6) ce (F7)		1 cm Muck ( 2 cm Muck ( Reduced Ve Red Parent	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> )			
Sandy	Mucky Mineral (S1)		Vernal Pool		( )			drophytic vegetatior			
	Gleyed Matrix (S4)						wetiand hydro	ology must be prese	ent.		
Restrictive	e Layer (if present):										
Type:no	one										
Depth (ir	nches):none						Hydric Soil Pres	ent? Yes 🔿	No 💿		
Ν	Soil data collected by Myford soils are dee Dudek updated soil	p, mode						rmeability, forme	d on terraces		

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)     X     Aquatic Invertebrates (B13)		Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)		Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	oots (C3) Thin Muck Surface (C7)	
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils	(C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No	Depth (inches):	
Water Table Present? Yes O No 💽	Depth (inches):	
Saturation Present? Yes O No ( includes capillary fringe)	Depth (inches): We	tland Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspections	), if available:
Remarks: Ponds only in extreme years - no po	onding in 2011-2012 per GLA wet sea	son surveys (data collected on handwritten data
form by GLA, 6-9-12).		•
*Aquatic Invertebrates* San Diego	fairy shrimp detected during 2010-20	11 wet season fairy shrimp surveys (Dudek updated
data form with shrimp data).		
US Among of Engineers		
US Army Corps of Engineers		

Project/Site: Newport Banning Rand	ch		City/County:Ora	nge County	Sampling Date: 10-4-12			
Applicant/Owner: Newport Banning	Ranch LLC			Stat	e:CA	Sampling Point:K		
Investigator(s): J. Davis IV, T. Wotij	oka, H. Moine		Section, Townsh	ip, Range:Sectio	on 20, T6S,	R10W		
Landform (hillslope, terrace, etc.): Terr	ace		Local relief (con	cave, convex, noi	ne):Concave	ave Slope (%):<2		
Subregion (LRR):C - Mediterranean	California	Lat:33.0	)3	Datum: WGS 84				
Soil Map Unit Name: Myford sandy l	oam 0-2% slop	bes			NWI classif	ication:NA		
Are climatic / hydrologic conditions on	the site typical fo	r this time of ye	ear?Yes 💿	No 🔿 (lf n	o, explain in	Remarks.)		
Are Vegetation Soil or I	Hydrology	significantly	/ disturbed?	Are "Normal Cir	cumstances"	present? Y	es 💿 🛛 No 🔿	
Are Vegetation Soil or I	Hydrology	naturally pr	oblematic?	(If needed, expl	ain any answ	ers in Remar	ˈks.)	
SUMMARY OF FINDINGS - A	ttach site ma	ap showing	sampling po	int locations	transects	s, importa	nt features, etc.	
Hydrophytic Vegetation Present?	Yes	No 💿						
Hydric Soil Present?	Yes 🕥	No 💿	Is the Sa	mpled Area				
Wetland Hydrology Present? Yes  No  Within a Wetland? Yes  Yes						No 🦲	D	
Remarks:CCC wetland since at le	ast one wetland	d criterion wa	as met.					

	Absolute	Dominant		Dominance Test worksheet	:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant Species			
1				That Are OBL, FACW, or FAC	C: 0		(A)
2				Total Number of Dominant			
3.				Species Across All Strata:	2		(B)
4.				Percent of Dominant Species			
Total Cove	r: %			That Are OBL, FACW, or FAC		0/2	(A/B)
Sapling/Shrub Stratum					0.0	/0	()
1.				Prevalence Index workshee	et:		
2.				Total % Cover of:	Multiply	by:	-
3.				OBL species	x 1 =	0	
4.		·		FACW species	x 2 =	0	
5.				FAC species	x 3 =	0	
Total Cover	. %			FACU species 77	x 4 =	308	
Herb Stratum	, -			UPL species 10	x 5 =	50	
<sup>1</sup> .Deinandra fasciculata	50	Yes	FACU	Column Totals: 87	(A)	358	(B)
<sup>2</sup> .Melilotus indicus	20	Yes	FACU				
3. Hirschfeldia incana	10	No	UPL	Prevalence Index = B/A		4.11	
4. Bromus hordeaceus	5	No	FACU	Hydrophytic Vegetation Ind	icators:		
5. Heliotropium curassavicum	2	No	FACU	Dominance Test is >50%	)		
6.				Prevalence Index is ≤3.0	1		
7.				Morphological Adaptation			ng
8.				data in Remarks or or		,	、
Total Cover	87 %			Problematic Hydrophytic	Vegetation' (I	zxplair	)
Woody Vine Stratum	07 /0						
1				<sup>1</sup> Indicators of hydric soil and be present.	wetland hydr	ology	must
2.				be present.			
Total Cover	: %			Hydrophytic			
% Bare Ground in Herb Stratum 13 % % Cover	of Biotic C	Crust	%	Vegetation Present? Yes ()	No 🖲		
Remarks: Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten	data form).			

								earnphing i ein	
Profile Des	cription: (Describe t	to the de	oth needed to docu	ment the	indicator (	or confirm	the absence of in	dicators.)	
Depth	Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	arks
0-6	10YR 3/3		none						
	<u> </u>								
4									
	Concentration, D=Depl					-	C=Root Channel, M		
	es: Clay, Silty Clay, S				andy Loam	, Clay Loar			-
	Indicators: (Applicabl	e to all LF		-				oblematic Hydric So	bils:
Histoso	. ,		Sandy Redo	· · ·				(A9) (LRR C)	
	Epipedon (A2) Histic (A3)		Stripped M		J (E1)		Reduced Ve	(A10) ( <b>LRR B</b> )	
	en Sulfide (A4)		Loamy Gle	-	. ,			Material (TF2)	
	ed Layers (A5) (LRR C	:)	Depleted M		(1 -)			ain in Remarks)	
	luck (A9) ( <b>LRR D</b> )		Redox Dar	( )	(F6)			,	
	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	ce (F7)				
	Dark Surface (A12)		Redox Dep	ressions (	F8)				
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				drophytic vegetation	
Sandy	Gleyed Matrix (S4)						wetland hydr	ology must be prese	ent.
Restrictive	Layer (if present):								
Type:no	ne								
Depth (ir	nches):none						Hydric Soil Pres	ent? Yes 🔿	No 💿
Remarks: S	oil data collected b	y GLA o	on 6-9-12 (see orig	inal hand	lwritten d	ata form)			
Ν	Ayford soils are dee	ep, mode	rately well drained	l soils, m	edium to	rapid run	off, very slow per	rmeability, forme	d on terraces
(.	Dudek updated soil	type).							

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient	;)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	diment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots         ft Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)	
Sediment Deposits (B2) (Nonriverine)	Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)         Water-Stained Leaves (B9)       Hydrogen Sulfide Odor (C1)	
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed S	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No (	Depth (inches):	
Water Table Present? Yes O No (	Depth (inches):	
Saturation Present? Yes No ( (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes   No
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspect	
	5	,,
6-9-12). *Aquatic Invertebrates* Common	versatile fairy shrimp and ostracod	LA wet season survey (GLA handwritten data form shells were present in this feature during 2012 dry
US Army Corps of Engineers	k updated data form with aquatic in	

City/County:Orange Cour	nty	Sampling	Date:10-4-12
	State:CA	Sampling	Point:
Section, Township, Range	Section 20, T6S,	R10W	
Local relief (concave, conv	vex, none):Concav	e	Slope (%):<2
6341949008 Lc	ong:-117.9417892	83	Datum: WGS 84
	NWI classi	fication:NA	
ear? Yes 💿 No 🔿	(If no, explain in	Remarks.)	
y disturbed? Are "Nor	mal Circumstances	" present? Y	′es 💿 🛛 No 🔿
roblematic? (If neede	d, explain any ansv	vers in Rema	rks.)
g sampling point loca	tions, transect	s, importa	ant features, etc.
Is the Sampled Are	ea		
within a Wetland?	Yes 🔿	) No 🤅	
as met.			
	Section, Township, Range Local relief (concave, conv 6341949008 Lo ear? Yes • No () y disturbed? Are "Nor roblematic? (If neede g sampling point loca Is the Sampled Are within a Wetland?	Section, Township, Range:Section 20, T6S, Local relief (concave, convex, none):Concav 6341949008 Long:-117.9417892 NWI classi ear? Yes • No • (If no, explain in y disturbed? Are "Normal Circumstances roblematic? (If needed, explain any answ g sampling point locations, transect Is the Sampled Area within a Wetland? Yes	State: CA       Sampling         Section, Township, Range: Section 20, T6S, R10W         Local relief (concave, convex, none): Concave         6341949008       Long:-117.941789283         NWI classification: NA         ear? Yes • No • (If no, explain in Remarks.)         y disturbed?       Are "Normal Circumstances" present? Yeolematic?         (If needed, explain any answers in Remarks.)         y asampling point locations, transects, importation         Is the Sampled Area         within a Wetland?       Yes • No •

Tree Stratum       (Use scientific names.)       % Cover       Species?       Status       Number of Dominant Species         1.		Absolute	Dominant		Dominance Test worksheet:	
2.		% Cover	Species?	Status		
3.     Total Number of Dominant Species       4.     Total Cover: %       Sapling/Shrub Stratum     Total Cover: %       1.     Percent of Dominant Species       2.     Total % Cover of: %       3.     Multiply by:       3.     OBL species     x 1 = 0       4.     FACW species     x 2 = 0       5.     FACW species     x 3 = 0       1.     FACW species     x 3 = 0       FACW species     x 4 = 180       UPL species     5       1.     UPL species       2.     OBL species       3.     15       Yes     FACU       Prevalence Index = B/A = 4.10       Herb Stratum     10       Yes     FACU       2.     OBL species       1.     Yes       FACU species     S = 25       Column Totals:     50       A.     Dominance Test is >50%       Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	1				That Are OBL, FACW, or FAC: 0	(A)
4.       Total Cover:       %         Sapling/Shrub Stratum       Total Cover:       %         1.       Percent of Dominant Species       That Are OBL, FACW, or FAC:       0.0 %       (A/B)         2.       .       .       Prevalence Index worksheet:       Total % Cover of:       Multiply by:         3.       .       .       .       .       .       .         4.       .       .       .       .       .       .       .       .         5.       .	2				Total Number of Dominant	
Sapling/Shrub Stratum       Total Cover:       %       Percent of Dominant Species         1.	3.				Species Across All Strata: 3	(B)
Sapling/Shrub Stratum       Total Cover:       %       That Are OBL, FACW, or FAC:       0,0 %       (A/B)         1.       .	4.				Percent of Dominant Species	
Saping/Shrub Stratum       Prevalence Index worksheet:         1.		r: %				(A/B)
2.       Total % Cover of:       Multiply by:         3.       .       .       .         4.       .       .       .         5.       .       .       .         Herb Stratum       .       .       .         1. Melilotus indicus       20       Yes       FACU         2. Deinandra fasciculata       15       Yes       FACU         3. Heliotropium curassavicum       10       Yes       FACU         4. Centaurea melitensis       5       No       UPL         5.       .       .       .       Dominance Test is >50%         6.       .       .       .       .       .         7.       .       .       .       .       .         Woody Vine Stratum       .       .       .       .       .         10       Yes       FACU       Prevalence Index is <50.						
3.       OBL species $x 1 = 0$ 4.       FACW species $x 2 = 0$ 5.       FAC species $x 3 = 0$ FAC species $x 3 = 0$ FACU species $x 3 = 0$ FACU species $x 3 = 0$ FACU species $x 5 = 25$ Column Totals       5         1.       Meliotropium curassavicum         1.       10         Yes       FACU         Prevalence Index = B/A =       4.10         Hydrophytic Vegetation Indicators:       Dominance Test is >50%         6.       Prevalence Index is $\leq 3.0^1$ 7.       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         9.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)						
4.FACW species $x 2 = 0$ 5.Total Cover:%Herb StratumFAC species $x 3 = 0$ 1.Melilotus indicus20Yes2.Deinandra fasciculata15Yes3.Heliotropium curassavicum10Yes4.Centaurea melitensis5No5.Image: Stratum10Yes7.Image: Stratum108.Image: StratumImage: Stratum10.YesFACU9.Image: StratumImage: Stratum10.Image: StratumImage: Stratum10.YesFACU9.Image: StratumImage: Stratum10.Image: StratumImage: Stratum10.Image: StratumImage: Stratum10.Image: StratumImage: Stratum10.Image: StratumImage: Stratum10.Image: Stratum <t< td=""><td>2</td><td></td><td></td><td></td><td></td><td>_</td></t<>	2					_
5.       Total Cover:       %       FAC species $x 3 =$ 0         Herb Stratum       Total Cover:       %       FACU species $45$ $x 4 =$ 180         1.       Melilotus indicus       20       Yes       FACU       FACU       Column Totals:       50       (A)       205       (B)         2.       Deinandra fasciculata       15       Yes       FACU       Prevalence Index = B/A =       4.10         4.       Centaurea melitensis       5       No       UPL       UPL       Hydrophytic Vegetation Indicators:       0         6.	3.				OBL species x 1 =	)
Total Cover:%Herb StratumFACU species $45$ $x 4 =$ 1801.Melilotus indicus20YesFACU2.Deinandra fasciculata15YesFACU3.Heliotropium curassavicum10YesFACU4.Centaurea melitensis5NoUPL5	4.				FACW species x 2 =	)
Herb Stratum       Index of entropy in the second sec	5.				FAC species x 3 =	)
1.Melilotus indicus       20       Yes       FACU       Column Totals:       50       (A)       205       (B)         2.Deinandra fasciculata       15       Yes       FACU       Prevalence Index = B/A =       4.10         3.Heliotropium curassavicum       10       Yes       FACU       Hydrophytic Vegetation Indicators:         4.Centaurea melitensis       5       No       UPL       Hydrophytic Vegetation Indicators:         5.	Total Cover	: %			FACU species 45 x 4 = 13	30
2. Deinandra fasciculata       15       Yes       FACU       Prevalence Index = B/A =       4.10         3. Heliotropium curassavicum       10       Yes       FACU       Prevalence Index = B/A =       4.10         4. Centaurea melitensis       5       No       UPL       Hydrophytic Vegetation Indicators:       Dominance Test is >50%         6.	Herb Stratum				UPL species $5 \times 5 = 2$	5
2: Deinandra fasciculata       15       Yes       FACU       Prevalence Index = B/A =       4.10         3: Heliotropium curassavicum       10       Yes       FACU       Hydrophytic Vegetation Indicators:         4: Centaurea melitensis       5       No       UPL       Hydrophytic Vegetation Indicators:         5.	<sup>1</sup> Melilotus indicus	20	Yes	FACU	Column Totals: 50 (A) 20	)5 (B)
3. Heliotropium curassavicum       10       Yes       FACU       Hydrophytic Vegetation Indicators:         4. Centaurea melitensis       5       No       UPL       Hydrophytic Vegetation Indicators:         5.	<sup>2</sup> .Deinandra fasciculata	15	Yes	FACU		
5.	<sup>3</sup> . <i>Heliotropium curassavicum</i>	10	Yes	FACU		10
6.       Prevalence Index is ≤3.0 <sup>1</sup> 7.       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         8.       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         Woody Vine Stratum       10 %	4. Centaurea melitensis	5	No	UPL	Hydrophytic Vegetation Indicators:	
7.	5.				Dominance Test is >50%	
8.	6.				Prevalence Index is $\leq 3.0^1$	
8.	7.					
Woody Vine Stratum	8.					<i>′</i>
Woody Vine Stratum		50 %			- Problematic Hydrophytic Vegetation (Exp	iain)
1 Indicators of hydric soil and wetland hydrology must		00 /0				
be present.	1					gy must
2	2					
Total Cover: % Hydrophytic	Total Cover	: %				
% Bare Ground in Herb Stratum       50 %       % Cover of Biotic Crust       %       Vegetation         %       %       %       %       %       %	% Bare Ground in Herb Stratum $50 \%$ % Cover	of Biotic C	Crust	%		
Remarks: Vegetation data collected by GLA on 6-9-12 (see original handwritten data form).	Remarks: Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten	data form).	

Profile Des	cription: (Describe to	o the dep	oth needed to docu	ment the i	indicator of	or confirm	n the absence of i	ndicators.)	
Depth	Matrix		Redo	x Features	6				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	arks
0-6	10YR 3/3		none				loam		
	- <u> </u>								
<sup>1</sup> Type: C=C	Concentration, D=Deple	tion, RM	=Reduced Matrix.	<sup>2</sup> Location	: PL=Pore	Lining, R	C=Root Channel, N	M=Matrix.	
<sup>3</sup> Soil Textur	es: Clay, Silty Clay, Sa	andy Clay	/, Loam, Sandy Clay	Loam, Sa	ndy Loam	, Clay Loa	m, Silty Clay Loam	n, Silt Loam, Silt, Loar	ny Sand, Sand.
Hydric Soil	Indicators: (Applicable	to all LR	Rs, unless otherwise	e noted.)			Indicators for P	Problematic Hydric So	oils:
Histoso	ol (A1)		Sandy Redo	x (S5)			1 cm Muck	(A9) ( <b>LRR C</b> )	
Histic E	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muck	(A10) ( <b>LRR B</b> )	
Black H	listic (A3)		Loamy Muc	ky Minera	l (F1)		Reduced \	/ertic (F18)	
Hydrog	en Sulfide (A4)		Loamy Gle	yed Matrix	(F2)			nt Material (TF2)	
Stratifie	ed Layers (A5) (LRR C)		Depleted N	· ,			Other (Exp	olain in Remarks)	
	luck (A9) (LRR D)		Redox Darl		. ,				
Deplete	ed Below Dark Surface	(A11)	Depleted D	ark Surfac	ce (F7)				
Thick D	Oark Surface (A12)		Redox Dep	ressions (	F8)				
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)			<sup>4</sup> Indicators of h	ydrophytic vegetatior	1 and
Sandy	Gleyed Matrix (S4)						wetland hyd	Irology must be prese	ent.
Restrictive	Layer (if present):								
Type:no	ne								
Depth (ir	nches):none						Hydric Soil Pre	sent? Yes 🔿	No 💿
Remarks: S	oil data collected by	GLA o	n 6-9-12 (see orig	inal hand	lwritten d	ata form)	).		
Ν	Ayford soils are deep	, moder	ately well drained	soils, m	edium to	rapid run	off, very slow p	ermeability, forme	d on terraces
()	Dudek updated soil t	ype).				-		-	

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3)	X Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots (C3)	
Sediment Deposits (B2) (Nonriverine)	Roots (C3) Thin Muck Surface (C7)	
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C8)	
Surface Soil Cracks (B6)	ils (C6) Saturation Visible on Aerial Imagery (C9)	
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)	
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No 💽	Depth (inches):	
Water Table Present? Yes O No 💽	Depth (inches):	
Saturation Present? Yes No ( (includes capillary fringe)	Depth (inches):	Vetland Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspection	ns), if available:
Remarks: Ponds only briefly in extreme years	- no ponding in 2011/2012 per GLA	A wet season survey (GLA handwritten data form
6-9-12).		
*Aquatic Invertebrates* Fairy shrin	np cysts and ostracod shells were pro	esent in this feature during 2012 dry season fairy
1 · · · · ·	a form with aquatic invertebrates da	<u> </u>
	*	

Project/Site: Newport Banning Ranch	City/County:Orange County		Sampling Date: 10-	4-12
Applicant/Owner: Newport Banning Ranch LLC State: CA Sampling Point: M				
Investigator(s): J. Davis IV, T. Wotipka, H. Moine	Section, Township, Range:Sec	ction 20, T6S, F	R10W	
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex,	none):Concave	Slope	(%):<2
Subregion (LRR):C - Mediterranean California Lat:33.	- 6346539413 Long:	-117.94145478	Datum:	WGS 84
Soil Map Unit Name: Myford sandy loam 0-2% slopes		NWI classific	cation:NA	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 💿 No 🔿 (	(If no, explain in R	emarks.)	
Are Vegetation Soil or Hydrology significantly	v disturbed? Are "Normal	Circumstances"	oresent? Yes 💿	No 🔿
Are Vegetation Soil or Hydrology naturally pr	oblematic? (If needed, e	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing	sampling point locatio	ns, transects	, important feat	ures, etc.
Hydrophytic Vegetation Present? Yes 🕥 No 💿				
Hydric Soil Present? Yes 🕥 No 💽	Is the Sampled Area			
Wetland Hydrology Present? Yes  No	within a Wetland?	Yes 🔿	No 💿	
Remarks: CCC wetland since at least one wetland criterion wa	as met.			

	Absolute	Dominant		Dominance Test w	vorkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Domina	nt Specie	s		
1				That Are OBL, FAC	W, or FA	C:	l	(A)
2				Total Number of Do	ominant			
3.				Species Across All		1	2	(B)
4.				<ul> <li>Percent of Dominar</li> </ul>	nt Snacia	e		
Total Cove	er: %			That Are OBL, FAC			0.0 %	(A/B)
Sapling/Shrub Stratum								( )
1				Prevalence Index				
2.				Total % Cover	of:	Multip	ly by:	-
3.				OBL species		x 1 =	0	
4.				FACW species	3	x 2 =	6	
5.				FAC species	50	x 3 =	150	
Total Cove	r: %			FACU species	40	x 4 =	160	
Herb Stratum				UPL species		x 5 =	0	
<sup>1</sup> .Pulicaria paludosa	45	Yes	FAC	Column Totals:	93	(A)	316	(B)
<sup>2</sup> .Deinandra fasciculata	5	No	FACU					
<sup>3</sup> .Cortaderia selloana	5	No	FACU	Prevalence In			3.40	
<sup>4</sup> .Baccharis salicifolia	5	No	FAC	Hydrophytic Vege				
5. Bromus hordeaceus	30	Yes	FACU	Dominance Te				
6. Polypogon monspeliensis	3	No	FACW	Prevalence Ind				
7				Morphological data in Rem	Adaptatio	ons <sup>1</sup> (Provide	e supportii	ng
8.				- Problematic Hy		•		)
Total Cove	r: 93 %				uopnyuo	vegetation	(Explain	)
Woody Vine Stratum				1 Indiantara of hudri	م مونا معم	d watland by	drology	munt
1				<sup>1</sup> Indicators of hydrid be present.	c son and	a wettand ny	arology r	nust
2								
Total Cove	r: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 7 % % Cove	r of Biotic C	Crust	%	Present?	Yes ()	No 🤆	D	
Remarks: Vegetation data collected by GLA on 6-9	-12 (see c	original ha	ndwritten	data form).				

	scription: (Describe t	o the dep				or confirm	n the absence of i	ndicators.)	
Depth	Matrix	0/		x Features		Loc <sup>2</sup>	Tautura 3	Dama	ul a
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	LOC-	Texture <sup>3</sup>	Rema	ITKS
0-6	10YR 3/3	1	none				loam		
	Concentration, D=Deple					-	C=Root Channel, N		
	res: Clay, Silty Clay, S				indy Loam	, Clay Loa			
	Indicators: (Applicable	e to all LR	·	,				Problematic Hydric So	ils:
Histoso	( )		Sandy Redo	( )				(A9) ( <b>LRR C</b> )	
	Epipedon (A2)		Stripped M	. ,				(A10) ( <b>LRR B</b> )	
	Histic (A3)		Loamy Muc	•	. ,			/ertic (F18)	
	gen Sulfide (A4)		Loamy Gle	•	: (F2)			t Material (TF2)	
	ed Layers (A5) (LRR C	)	Depleted N	. ,	(50)		Other (Exp	olain in Remarks)	
	/luck (A9) (LRR D)	(	Redox Darl		. ,				
	ed Below Dark Surface	(A11)	Depleted D		. ,				
	Dark Surface (A12)		Redox Dep		F8)		4 adjactors of b	u duo alexatio u o a ototio a	- a a al
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	is (F9)				ydrophytic vegetatior Irology must be prese	
	• • • •						welland hyd	nology must be prese	л <b>ц.</b>
	e Layer (if present):								
Type:no								-	-
	nches):none						Hydric Soil Pre	sent? Yes 🔿	No 💿
	Soil data collected by		, U			,	·		
	Myford soils are deep		ately well drained	l soils, m	edium to	rapid run	noff, very slow p	ermeability, forme	d on terraces
(	Dudek updated soil	type).							

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	)	Water Marks (B1) (Riverine)
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )
Saturation (A3) Aquatic Invertebrates (B13)		Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)		ng Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Crayfish Burrows (C8)	
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No 💽	Depth (inches):	
Water Table Present? Yes O No 💽	Depth (inches):	
Saturation Present? Yes No ( (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	tions), if available:
Remarks: Ponds briefly during large events -	No ponding in 2011/2012 per GL	A wet season survey (data collected by GLA on 6-9-12
handwritten data form).		
*Aquatic Invertebrates* Common v	versatile fairy shrimp was detected	l during surveys 2010-2011 wet season fairy shrimp
surveys and common versatile fairy	shrimp and ostracod shells were	present in this feature during 2012 dry season fairy
shrimp surveys (Dudek updated dat	ta form with aquatic invertebrate of	lata).
US Army Corps of Engineers		

Project/Site: Newport Banning Rand	h		City/County:Ora	ange County		Sampling	Date:10-4-12
Applicant/Owner: Newport Banning I	Ranch LLC			Stat	te:CA	Sampling	Point:N
Investigator(s): J. Davis IV, T. Wotip	ka, H. Moine		Section, Towns	hip, Range:Sectio	on 20, T6S, F	R10W	
Landform (hillslope, terrace, etc.): Terr	ace		Local relief (co	ncave, convex, no	ne):Concave		Slope (%):<2
Subregion (LRR):C - Mediterranean	California	Lat:33.	6346074478	Long:-11	7.94203081	8	Datum:WGS 84
Soil Map Unit Name: Myford sandy le	bam 0-2% slop	pes			NWI classific	ation:NA	
Are climatic / hydrologic conditions on t	he site typical fo	or this time of y	ear?Yes 💿	No 🔿 (If n	io, explain in F	emarks.)	
Are Vegetation Soil or H	lydrology	significantly	y disturbed?	Are "Normal Cir	rcumstances"	present? Y	res 💿 🛛 No 🔿
Are Vegetation Soil or H	lydrology	naturally pr	oblematic?	(If needed, expl	ain any answe	rs in Rema	rks.)
SUMMARY OF FINDINGS - A	ttach site m	ap showing	g sampling p	oint locations	, transects	, importa	nt features, etc.
Hydrophytic Vegetation Present?	Yes 🔘	No 💿					
Hydric Soil Present?	Yes 🔘	No 💿	Is the Sa	ampled Area			
Wetland Hydrology Present?	Yes 🜘	No 🔘	within a	Wetland?	Yes 🔿	No (	

	Absolute	Dominant	Indicator	Dominance Test w	orkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar	nt Species	S		
1				That Are OBL, FAC	W, or FA	C: 1		(A)
2.				Total Number of Do	minant			
3.				Species Across All S		2		(B)
4.				<ul> <li>Percent of Dominan</li> </ul>	t Spacia			
Total Cove	r: %			That Are OBL, FAC			0 %	(A/B)
Sapling/Shrub Stratum							5 /0	. ,
1.Baccharis salicifolia	25	Yes	FAC	Prevalence Index v				
2.				Total % Cover of	of:	Multiply	by:	
3.				OBL species	2	x 1 =	2	
4.				FACW species	5	x 2 =	10	
5.		·		FAC species	25	x 3 =	75	
Total Cover	25 %			FACU species	35	x 4 =	140	
Herb Stratum				UPL species	7	x 5 =	35	
<sup>1</sup> .Deinandra fasciculata	30	Yes	FACU	Column Totals:	74	(A)	262	(B)
<sup>2</sup> .Euthamia occidentalis	5	No	FACW					
<sup>3</sup> . <i>Heliotropium curassavicum</i>	5	No	FACU	Prevalence Inc			3.54	
<sup>4</sup> . <i>Heterotheca grandflora</i>	3	No	UPL	Hydrophytic Veget				
5. Hirschfeldia incana	2	No	UPL	Dominance Tes	st is >50%	6		
6. Lythrum hyssopifolia	2	No	OBL	Prevalence Inde	ex is ≤3.0	) <sup>1</sup>		
7.Stephanomeria virgata	2	No	UPL	Morphological A	Adaptatio	ns <sup>1</sup> (Provide s n a separate s	supportii	ng
8.				- Problematic Hy				`
Total Cover	49 %				uropriyiic	vegetation	, схріані	)
Woody Vine Stratum				1 maliantena of lavaluia		المعرفة منالم		
1				<sup>1</sup> Indicators of hydric be present.	; soir and	a wetland hyd	rology r	nust
2				-				
Total Cover	: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum <u>26 %</u> % Cover	of Biotic C	Crust 0	%	Present?	Yes ()	No 💿		
Remarks: (veg. for entire feature) "parking" area.				1				
Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten	data form).				

SOIL

Profile Des	cription: (Describe t	o the der	oth needed to docu	nent the	indicator	or confirm	the absence of i	ndicators.)		
Depth	Matrix			k Feature				,		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	arks	
0-4	10YR 3/3		none							
4 (refusal)										
				- <u> </u>						
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.										
	<sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.									
Hydric Soil I	ndicators: (Applicabl	e to all LR	Rs, unless otherwise	noted.)			Indicators for F	Problematic Hydric So	ils:	
Histosol	l (A1)		Sandy Redo	x (S5)			1 cm Muck	(A9) ( <b>LRR C</b> )		
Histic E	pipedon (A2)		Stripped Ma	. ,			2 cm Muck (A10) (LRR B)			
Black H	istic (A3)		Loamy Muc	•	. ,		Reduced Vertic (F18)			
Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent Material (TF2)			
Stratifie	d Layers (A5) (LRR C	:)	Depleted M	atrix (F3)			Other (Explain in Remarks)			
1 cm Mu	uck (A9) ( <b>LRR D</b> )		Redox Dark	Surface	(F6)					
Deplete	d Below Dark Surface	e (A11)	Depleted D	ark Surfa	ce (F7)					
Thick D	ark Surface (A12)		Redox Dep	ressions (	(F8)					
Sandy N	Mucky Mineral (S1)		Vernal Poo	s (F9)			<sup>4</sup> Indicators of h	ydrophytic vegetatior	i and	
Sandy C	Gleyed Matrix (S4)						wetland hyd	Irology must be prese	ent.	
Restrictive	Layer (if present):									
Type:nor	ne									
Depth (in	ches):none						Hydric Soil Pre	sent? Yes 🔿	No 💿	
	oil data collected b									
Μ	lyford soils are dee	p, mode	rately well drained	soils, m	edium to	rapid run	off, very slow p	ermeability, forme	d on terraces	
(I	(Dudek updated soil type).									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	)	Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )
High Water Table (A2)	Drift Deposits (B3) ( <b>Riverine</b> )	
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
X Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No 💽	Depth (inches):	
Water Table Present? Yes O No	Depth (inches):	
Saturation Present? Yes No ( (includes capillary fringe)	Wetland Hyd	drology Present? Yes 💿 No 🔿
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspections), if availa	ble:
Remarks:*Surface Water* Feature inundated	l for at least 14 days during 2010-2011 wet sea	son fairy shrimp surveys. Ponds briefly in
extreme years - in 2011-2012 maxi	mum ponding duration was 6 days per GLA w	et season survey (data collected on GLA
handwritten data form 6-9-12).		
	versatile fairy shrimp was detected during 2010	
fairy shrimp cysts were present dur	ing 2012 dry season fairy shrimp surveys (Duc	dek updated data form with shrimp data).
<u>*Surface Soil Cracks* and soil ribb</u> US Army Corps of Engineers	oning observed by Dudek 10-4-12	±
US Army Corps of Eligneets		

Project/Site: Newport Banning Ranch	_ City/County:Ora	ange County	Sampling	ampling Date:10-4-12					
Applicant/Owner: Newport Banning Ranch LLC	2		:	State:CA	Sampling	Point:O			
Investigator(s): J. Davis IV, T. Wotipka, H. Mc	oine	Section, Towns	Section, Township, Range:Section 20, T6S, R10W						
Landform (hillslope, terrace, etc.): Terrace		Local relief (concave, convex, none):Concave Slope (					(%):<2		
Subregion (LRR): C - Mediterranean California	Lat:33	.6347396694	Long:	-117.94192409	9	Datum:	WGS 84		
Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification: NA									
Are climatic / hydrologic conditions on the site typic	cal for this time of y	/ear?Yes 💽	No	(If no, explain in F	Remarks.)				
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes  No									
Are Vegetation Soil or Hydrology	naturally p	roblematic?	(If needed, e	explain any answe	ers in Rema	rks.)			
SUMMARY OF FINDINGS - Attach site	e map showing	g sampling po	oint locatio	ns, transects	, importa	ant featu	ires, etc.		
Hydrophytic Vegetation Present? Yes	No 💿								
Hydric Soil Present? Yes	No 💿	Is the Sa	ampled Area						
Wetland Hydrology Present? Yes No  No  Wetland? Yes No									
Remarks:Depression in asphalt/gravel. Park	ing area								
No soils - parking lot									

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 0 (A)
2.				Total Number of Dominant
3.				Species Across All Strata: 2 (B)
4.				
Total Cove	r: %		·	- Percent of Dominant Species
Sapling/Shrub Stratum	1. %			That Are OBL, FACW, or FAC: $0.0 \%$ (A/B)
1.				Prevalence Index worksheet:
2.		·		Total % Cover of: Multiply by:
3.				OBL species $x = 0$
4.				FACW species $x 2 = 0$
				FAC species $x_3 = 0$
5				
Total Cover Herb Stratum	: %			FACU species $11 \times 4 = 44$
	0	N7		UPL species $x 5 = 0$
1.Deinandra fasciculata	8	Yes	FACU	Column Totals: 11 (A) 44 (B)
2.Erodium botrys	3	Yes	FACU	Provolance Index = P/A = (1.00)
3.				Prevalence Index = B/A = 4.00
4.				Hydrophytic Vegetation Indicators:
5.				Dominance Test is >50%
6.				Prevalence Index is ≤3.0 <sup>1</sup>
7.		·		Morphological Adaptations <sup>1</sup> (Provide supporting
8.		·		data in Remarks or on a separate sheet)
Total Cover		·		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum	11 %			
1.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2.				be present.
Total Cover	: %	·		Hydrophytic
	- %			Vegetation
% Bare Ground in Herb Stratum 89 % % Cover	of Biotic C	Crust 0	) %	Present? Yes No 💿
Remarks: Vegetation data collected by GLA on 6-9	-12 (see d	original ha	ndwritten	data form).
		0		·

SOIL

-		o the depth n				or confirm	the absence of in	dicators.)			
Depth	Matrix			K Features			3	-			
(inches) (	Color (moist)	% (	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Remar	ks		
				· ·							
·				· ·							
·											
<sup>1</sup> Type: C=Conce	entration, D=Deple	tion, RM=Re	duced Matrix.	<sup>2</sup> Location	: PL=Pore	Lining, RC	C=Root Channel, M	=Matrix.			
<sup>3</sup> Soil Textures: C	<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand.										
Hydric Soil Indica	ators: (Applicable	to all LRRs,	unless otherwise	noted.)	-	-	Indicators for Pr	oblematic Hydric Soi	4 S:		
Histosol (A1		,	Sandy Redo	-				(A9) ( <b>LRR C</b> )			
Histic Epiped	don (A2)		Stripped Ma	atrix (S6)			2 cm Muck (A10) ( <b>LRR B</b> )				
Black Histic			Loamy Muc	ky Minera	l (F1)		Reduced Vertic (F18)				
Hydrogen Su	ulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent Material (TF2)				
Stratified Lay	yers (A5) (LRR C	)	Depleted M	atrix (F3)			Other (Explain in Remarks)				
1 cm Muck (	A9) ( <b>LRR D</b> )		Redox Dark	Surface (	F6)						
Depleted Be	low Dark Surface	(A11)	Depleted Da	ark Surfac	e (F7)						
	Surface (A12)		Redox Depr	,	F8)						
	y Mineral (S1)		Vernal Pool	s (F9)				drophytic vegetation			
Sandy Gleye	ed Matrix (S4)						wetland hydr	ology must be preser	it.		
Restrictive Laye	er (if present):										
Туре:											
Depth (inches	s):						Hydric Soil Pres	sent? Yes 🔿	No 💿		
Remarks: None	- parking lot (C	LA handwr	itten data form	6-9-12)	A soil p	it was not	t excavated due to	o the highly compa	cted character		
	1 0 (			,	1			medium to rapid ru			
	permeability, fo	1 0	· •		<b>1</b>		,	1	· ·		

Primary Indicators (any one indicator is sufficient)       Water Marks (B1) (Riverine)         Surface Water (A1)       Salt Crust (B11)       Sediment Deposits (B2) (Riverine)         High Water Table (A2)       Biotic Crust (B12)       Drift Deposits (B3) (Riverine)         Saturation (A3)       Aquatic Invertebrates (B13)       Drainage Patterns (B10)         Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots (C3)       Thin Muck Surface (C7)         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (B7)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       FAC-Neutral Test (D5)
High Water Table (A2)       Biotic Crust (B12)       Drift Deposits (B3) (Riverine)         Saturation (A3)       Aquatic Invertebrates (B13)       Drainage Patterns (B10)         Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots (C3)       Thin Muck Surface (C7)         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)
Saturation (A3)       Aquatic Invertebrates (B13)       Drainage Patterns (B10)         Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots (C3)       Thin Muck Surface (C7)         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)
Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots (C3)       Thin Muck Surface (C7)         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (B7)         Other (Explain in Remarks)       Shallow Aquitard (D3)
Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Living Roots (C3)       Thin Muck Surface (C7)         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (B7)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)
Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)       Crayfish Burrows (C8)         Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (B7)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)
Surface Soil Cracks (B6)       Recent Iron Reduction in Plowed Soils (C6)       Saturation Visible on Aerial Imagery (C9)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Water-Stained Leaves (B9)
Field Observations:
Surface Water Present? Yes No  Pepth (inches):
Water Table Present?     Yes O     No (     Depth (inches):
Saturation Present?       Yes       No       Depth (inches):       Wetland Hydrology Present?       Yes       No       No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks: Very shallow depression - only ponds briefly in extreme years - no ponding in 2011/2012 per GLA wet season survey (GI
handwritten data form 6-9-12).
Light soil cracking/soil ribboning observed by Dudek 10-4-12.
Wetland hydrology indicators were not observed in this feature during delineations or hydrological monitoring.
US Army Corps of Engineers

Project/Site: Newport Banning Ranch			City/County:Or	ange County	Sampling Date: 10-4-12				
Applicant/Owner: Newport Banning Ran	ich LLC				State:CA	Sampling Point:P			
Investigator(s): J. Davis IV, T. Wotipka	, H. Moine		Section, Township, Range:Section 20, T6S, R10W						
Landform (hillslope, terrace, etc.): Terrace	<u>)</u>		Local relief (concave, convex, none):Concave				Slope (%):<2		
Subregion (LRR):C - Mediterranean Ca	lifornia	Lat:33.	6351618882	Long	:-117.9422927	03	Datum:	WGS 84	
Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification:NA									
Are climatic / hydrologic conditions on the	site typical fo	or this time of ye	ear?Yes 💽	No	(If no, explain in	Remarks.)			
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes  No								No 🔿	
Are Vegetation Soil or Hyde	ology	naturally pr	oblematic?	(If needed,	explain any answ	ers in Rema	rks.)		
SUMMARY OF FINDINGS - Atta	ch site ma	ap showing	sampling p	oint locatio	ons, transect	s, importa	ant featu	ires, etc.	
Hydrophytic Vegetation Present?	Yes 💽	No 🔘							
Hydric Soil Present?	Yes 🔘	No 💿	Is the S	ampled Area					
Wetland Hydrology Present?	Yes 💽	No 🔘		a Wetland?	Yes C	No 🤆	Ð		
Remarks:Feature is part of soil remed CCC wetland since at least			5	ent to soil sto	ockpile.				

	Absolute	Dominant		Dominance Test w	orkshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominar				
1				That Are OBL, FAC	W, or FA	C: 2		(A)
2.				Total Number of Do	minant			
3.				Species Across All		2	1	(B)
4.				- Devector of Development				
Total Cove	r: %			<ul> <li>Percent of Dominan</li> <li>That Are OBL, FAC</li> </ul>			).0 %	(A/B)
Sapling/Shrub Stratum					, or i / i	100	J.U 70	(700)
1.				Prevalence Index v	workshee	et:		
2.				Total % Cover of	of:	Multipl	y by:	_
3.				OBL species	35	x 1 =	35	
4.				FACW species	40	x 2 =	80	
5.				FAC species	5	x 3 =	15	
Total Cover	: %			FACU species	8	x 4 =	32	
Herb Stratum	,,,,			UPL species	0	x 5 =	0	
1. Cotula coronopifolia	30	Yes	OBL	Column Totals:	88	(A)	162	(B)
<sup>2</sup> .Euthamia occidentalis	35	Yes	FACW			_		
3. Lythrum hyssopifolium	5	No	OBL	Prevalence In	dex = B/	A =	1.84	
<sup>4</sup> .Baccharis salicifolia	5	No	FAC	Hydrophytic Veget	ation Inc	licators:		
5. Polypogon monspeliensis	5	No	FACW	Dominance Tes	st is >50%	0		
6.Deinandra fasciculata	8	No	FACU	× Prevalence Ind	ex is ≤3.0	) <sup>1</sup>		
7.				Morphological A	Adaptatio	ns <sup>1</sup> (Provide	supporti	ng
8.				data in Rem				
Total Cover	88 %			- Problematic Hy	drophytic	Vegetation	(Explain	)
Woody Vine Stratum	00 %							
1.				<sup>1</sup> Indicators of hydric	c soil and	I wetland hy	drology r	nust
2.				be present.				
Total Cover	: %			Hydrophytic				
% Bare Ground in Herb Stratum 12 % % Cover	of Biotic C	Crust	) %	Vegetation Present?	Yes 💿	No (	)	
Remarks: Vegetation data collected by GLA on 6-9	-12 (see o	original ha	ndwritten	data form).				

SOIL	
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Profile Des	cription: (Describe	to the de	oth needed to docu	nent the i	indicator o	or confir	m the absence of i	indicators.)			
Depth	Matrix			x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	<sup>r</sup> ks		
0-4	10YR 3/2		none				sandy loam				
4-5							sandy lens				
5-8	10YR 3/2		none				clay loam				
							·				
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand.											
	Indicators: (Applicabl	•			indy Loann	, olay 200		Problematic Hydric Soi			
Histosc			Sandy Redo	,				k (A9) (LRR C)	13.		
	Epipedon (A2)		Stripped Ma	( )			$\square$ 2 cm Muck (A10) ( <b>LRR B</b> )				
	listic (A3)		Loamy Muc	· · ·	l (F1)		Reduced Vertic (F18)				
	en Sulfide (A4)		Loamy Gley	•	. ,			Red Parent Material (TF2)			
	ed Layers (A5) (LRR C	<b>;</b> )	Depleted M		( )		Other (Explain in Remarks)				
	luck (A9) (LRR D)	- /	Redox Dark	. ,	(F6)			,			
	ed Below Dark Surface	e (A11)	Depleted D		· /						
	Dark Surface (A12)		Redox Dep		. ,						
	Mucky Mineral (S1)		Vernal Poo	```	- /		<sup>4</sup> Indicators of h	hydrophytic vegetation	and		
-	Gleyed Matrix (S4)			( )				drology must be prese			
Restrictive	Layer (if present):										
Type:no	ne										
	nches):none						Hydric Soil Pre	esent? Yes 🔿	No 💿		
Remarks: S	oil data collected b	y GLA o	on 6-9-12 (see origi	inal hand	lwritten d	ata form	n).				
		•	-					ermeability, formed	on terraces		
(	(Dudek updated soil type).										

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)			
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)			
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) ( <b>Riverine</b> )			
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )			
Saturation (A3)					
Water Marks (B1) (Nonriverine)					
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livi	ng Roots (C3) Thin Muck Surface (C7)			
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)			
X Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6) Saturation Visible on Aerial Imagery (C9)			
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present? Yes  No	Depth (inches):				
Water Table Present? Yes O No	Depth (inches):				
Saturation Present? Yes O No ( (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes   No			
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	tions), if available:			
Remarks:*Surface Water Present* Ponds for	less than 14 days during most year	ars. Maximum ponding duration in $2011/2012 = 7$ days			
per GLA wet season survey (data c	ollected on GLA handwritten data	form 6-9-12).			
*Aquatic Invertebrates* Common	versatile fairy shrimp was detected	l during 2010-2011 wet season fairy shrimp surveys and			
during 2012 dry season fairy shrim	p surveys. (Dudek updated data fo	rm with shrimp data).			
*Surface Soil Cracks* Surface soil	cracks and soil ribboning observe	d by Dudek 10-4-12.			
US Army Corps of Engineers					

Project/Site: Newport Banning Rand	City/County:Orange County			Sampling Date: 10-4-12			
Applicant/Owner: Newport Banning I		Sta	ite:CA	Sampling Point:Q			
Investigator(s): J. Davis IV, T. Wotig	Section, Township, Range:Section 20, T6S, R10W						
Landform (hillslope, terrace, etc.): Terr	Local relief (co	ncave, convex, no	Slope (%):<2				
Subregion (LRR):C - Mediterranean	635037623	Long:-1	Long:-117.942648188 Datum:WGS				
Soil Map Unit Name: Myford sandy 1	oam 0-2% slo	pes			NWI classifie	cation:NA	
Are climatic / hydrologic conditions on t	he site typical fo	or this time of y	ear?Yes 💿	No 🔿 (If r	no, explain in F	Remarks.)	
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 💿 No 🔿							
Are Vegetation Soil or H	oblematic?	(If needed, exp	lain any answe	ers in Rema	rks.)		
SUMMARY OF FINDINGS - A	ttach site m	ap showing	g sampling p	oint locations	, transects	, importa	nt features, etc.
Hydrophytic Vegetation Present?	Yes 🔘	No 💿					
Hydric Soil Present?	Yes 🔘	No 💿	Is the S	ampled Area			
Wetland Hydrology Present?	Yes 🜘	No 🔘	within a	Wetland?	Yes 🔿	No (	

	Absolute	Dominant		Dominance Test wor	ksheet:			
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant S				
1				That Are OBL, FACW,	or FAC:	0		(A)
2.				Total Number of Domi	nant			
3.				Species Across All Stra		2		(B)
4.						_		
Total Cove	r: %			<ul> <li>Percent of Dominant S That Are OBL, FACW,</li> </ul>		0.0	0/	(A/B)
Sapling/Shrub Stratum	. 70				or r Ao.	0.0	%	(70)
1.				Prevalence Index wo	rksheet:			
2.				Total % Cover of:		Multiply	by:	_
3.	·	·		OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5		·		FAC species		x 3 =	0	
Total Cover	r: %			FACU species	9	x 4 =	36	
Herb Stratum	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			UPL species	/	x 5 =	0	
<sup>1</sup> .Deinandra fasciculata	4	Yes	FACU	Column Totals:	9 (	A)	36	(B)
2. Melilotus indicus	5	Yes	FACU		9	,,,	50	(-)
3.		·		Prevalence Index	< = B/A :	-	4.00	
4.				Hydrophytic Vegetati	on Indic	ators:		
5				Dominance Test is	s >50%			
6.		·		Prevalence Index	is ≤3.0¹			
7.				Morphological Ada	aptations	<sup>1</sup> (Provide s	upporti	ng
8.				- data in Remark	s or on a	a separate s	sheet)	
Total Cover				Problematic Hydro	phytic V	egetation <sup>1</sup> (	Explain	)
Woody Vine Stratum	. 9 %							
1.				<sup>1</sup> Indicators of hydric se	oil and v	vetland hyd	rology	must
2.				be present.		-		
Total Cover	r: %			Hydrophytic				
	,.			Vegetation				
% Bare Ground in Herb Stratum 91 % % Cover	r of Biotic C	Crust 0	%	Present? Ye	es 🔿	No 💽		
Remarks: Vegetation data collected by GLA on 6-19-12 (see original handwritten data form).								

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture <sup>3</sup>	Rema	irks
4									
	<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand.								
					ndy Loam,	, Clay Loar			-
	ndicators: (Applicabl	e to all LRRs	, unless otherwise	noted.)				Problematic Hydric Sc	ils:
Histosol			Sandy Redo	· · /				(A9) ( <b>LRR C</b> )	
· 🖵 🛛 '	pipedon (A2)		Stripped Ma	( )				(A10) ( <b>LRR B</b> )	
Black Hi			Loamy Muc	-				/ertic (F18)	
	Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)							t Material (TF2)	
	l Layers (A5) ( <b>LRR C</b>	:)	Depleted M	. ,			Other (Exp	lain in Remarks)	
	ick (A9) ( <b>LRR D</b> )		Redox Dark		,				
	d Below Dark Surface	e (A11)	Depleted Da		. ,				
	ark Surface (A12)		Redox Depr	`	F8)		4		
	lucky Mineral (S1)		Vernal Pool	s (F9)				ydrophytic vegetatior	
	Bleyed Matrix (S4)						wetland hyd	rology must be prese	nt.
Restrictive I	_ayer (if present):								
Type:non	e								
Depth (ind	ches):none						Hydric Soil Pre	sent? Yes 🔿	No 💿
Remarks: A	rea is partly asphal	t and partly	compacted eart	hen road	l shoulder	r (GLA ha	andwritten data	form 6-19-12).	
M	yford soils are dee	p, moderate	ely well drained	soils, me	edium to	rapid run	off, very slow pe	ermeability, forme	1 on terraces
(E	udek updated soil	type).				-		-	

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)					
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)					
Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)				
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) ( <b>Riverine</b> )				
Saturation (A3)	X Aquatic Invertebrates (B13)	Drainage Patterns (B10)				
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)				
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livin	g Roots (C3) Thin Muck Surface (C7)				
Drift Deposits (B3) (Nonriverine)	Drift Deposits (B3) (Nonriverine)					
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed S	Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)					
Field Observations:						
Surface Water Present? Yes  No	Depth (inches): <2					
Water Table Present? Yes O No 💽	able Present? Yes O No   Depth (inches):					
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes   No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						
Remarks:*Surface Water Present* Area does not pond for 14 days during normal rainfall year. Does pond water for >14 during						
extreme years such as $2010/2011$ . Maximum ponding in $2011/2012 = 6$ days per GLA wet season survey (GLA handwritten						
data form 6-19-12).						
*Aquatic Invertebrates* Fairy shrimp cysts and ostracod shells were present in this feature during 2012 dry season fairy						
shrimp surveys (Dudek updated data form with aquatic invertebrate data).						
US Army Corps of Engineers						

City/County:Orange County		Sampling Date:	:10-4-12			
State	e:CA	Sampling Point	R			
Section, Township, Range:Sectio	n 20, T6S, R	.10W				
Local relief (concave, convex, nor	ne):Concave	SI	lope (%):<2			
.6352092271 Long:-11	7.942725278	B Dat	tum:WGS 84			
Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification:NA						
rear? Yes 💿 No 🔿 (If no	o, explain in R	emarks.)				
y disturbed? Are "Normal Cire	cumstances" p	resent? Yes	No 🔿			
roblematic? (If needed, expla	ain any answei	rs in Remarks.)				
g sampling point locations,	transects,	important fo	eatures, etc.			
Is the Sampled Area						
within a Wetland?	Yes 🔿	No 💿				
highly compacted						
	Stat Section, Township, Range:Sectio Local relief (concave, convex, nor 6352092271 Long:-11 ear? Yes  No  (If ne y disturbed? Are "Normal Cirroblematic? (If needed, explanation g sampling point locations, Is the Sampled Area	State: <u>CA</u> Section, Township, Range:Section 20, T6S, R Local relief (concave, convex, none): <u>Concave</u> 6352092271 Long:-117.942725278 NWI classific ear? Yes  No  (If no, explain in R y disturbed? Are "Normal Circumstances" p roblematic? (If needed, explain any answel g sampling point locations, transects, Is the Sampled Area within a Wetland? Yes	State: CA       Sampling Point         Section, Township, Range: Section 20, T6S, R10W       Section 20, T6S, R10W         Local relief (concave, convex, none): Concave       S         6352092271       Long:-117.942725278       Data         NWI classification: NA       NWI classification: NA         ear? Yes (•)       No (•) (If no, explain in Remarks.)         y disturbed?       Are "Normal Circumstances" present? Yes (•)         roblematic?       (If needed, explain any answers in Remarks.)         g sampling point locations, transects, important for the sampled Area       No (•)         within a Wetland?       Yes (•)       No (•)			

CCC wetland since at least one wetland criterion was met.

	Absolute	Dominant	Indicator	Dominance Test w	orkshee	et:	-	
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominan	it Specie	s		
1.				That Are OBL, FAC			(	(A)
2.				Total Number of Do	minant			
3.				Species Across All S		1	(	(B)
4.								
Total Cove	r: %			<ul> <li>Percent of Dominan</li> <li>That Are OBL, FAC</li> </ul>		-	.0% (	A/B)
Sapling/Shrub Stratum						100	.0 %	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1.				Prevalence Index v	vorkshe	et:		
2.				Total % Cover of	of:	Multiply	/ by:	
3.				OBL species	38	x 1 =	38	
4.				FACW species	2	x 2 =	4	
5.				FAC species		x 3 =	0	
Total Cover	: %			FACU species	24	x 4 =	96	
Herb Stratum				UPL species	3	x 5 =	15	
1. Cotula coronopifolia	35	Yes	OBL	Column Totals:	67	(A)	153	(B)
<sup>2</sup> Ambrosia psilostachya	7	No	FACU					
<sup>3</sup> . Deinandra fasciculata	7	No	FACU	Prevalence Inc			2.28	
4. Bromus hordeaceus	10	No	FACU	Hydrophytic Veget				
5. Hirschfeldia incana	3	No	UPL	X Dominance Tes				
6. Lythrum hyssopifolia	3	No	OBL	Prevalence Inde	ex is ≤3.0	0 <sup>1</sup>		
7. Polypogon monspeliensis	2	No	FACW	Morphological A		ons <sup>1</sup> (Provide on a separate		ng
8.				- Problematic Hy			,	<b>`</b>
Total Cover	67 %				uropriyu	e vegetation	(Explain)	)
Woody Vine Stratum				1 undianteur of buddie		م المعام الم		
1				<sup>1</sup> Indicators of hydric be present.	soli and	a wettand nyo	rology n	nust
2				-				
Total Cover	. %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 33 % % Cover	of Biotic C	Crust 0	%		Yes 💿	No (		
Remarks: Vegetation data collected by GLA on 6-9	-12 (see d	original ha	ndwritten	data form).				

~~~

| SOIL                         |                                                                                                                                   |                  |                      |                             |                   |                  |                            | Sampling Point: R                    |  |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------|-----------------------------|-------------------|------------------|----------------------------|--------------------------------------|--|
| Profile Descriptio           | n: (Describe to                                                                                                                   | the depth ne     | eded to docum        | nent the i                  | indicator         | or confirm       | the absence of i           | indicators.)                         |  |
| Depth                        | Matrix                                                                                                                            | -                |                      | Features                    |                   |                  |                            |                                      |  |
|                              | plor (moist)                                                                                                                      | % Co             | lor (moist)          | %                           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>       | Remarks                              |  |
| 0-3 est.                     |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      | · ·                         |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
| ,                            |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
| <sup>1</sup> Type: C=Concent | tration D-Donlati                                                                                                                 | on DM-Dodu       | and Matrix           | <sup>2</sup> l. o o o tio n |                   | Lining D(        | <br>C=Root Channel, I      |                                      |  |
| • •                          | •                                                                                                                                 |                  |                      |                             |                   | -                |                            | n, Silt Loam, Silt, Loamy Sand, San  |  |
| Hydric Soil Indicate         |                                                                                                                                   |                  |                      |                             | indy Loan         |                  |                            | Problematic Hydric Soils:            |  |
| Histosol (A1)                | ors: (Applicable t                                                                                                                | o all LKKS, ull  | Sandy Redox          | -                           |                   |                  |                            | k (A9) (LRR C)                       |  |
| Histic Epipedo               | on (A2)                                                                                                                           | F                | Stripped Ma          | . ,                         |                   |                  |                            | k (A10) ( <b>LRR B</b> )             |  |
| Black Histic (A              |                                                                                                                                   | F                | Loamy Muc            | · ,                         | l (F1)            |                  |                            | Vertic (F18)                         |  |
| Hydrogen Sulf                |                                                                                                                                   |                  | Loamy Gley           | -                           |                   |                  |                            | nt Material (TF2)                    |  |
| Stratified Laye              | ers (A5) (LRR C)                                                                                                                  |                  | Depleted Matrix (F3) |                             |                   |                  | Other (Explain in Remarks) |                                      |  |
| 1 cm Muck (As                | 9) ( <b>LRR D</b> )                                                                                                               |                  | Redox Dark           | Surface (                   | (F6)              |                  |                            |                                      |  |
| Depleted Belo                | w Dark Surface (A                                                                                                                 | \11)             | Depleted Da          | ark Surfac                  | ce (F7)           |                  |                            |                                      |  |
| Thick Dark Su                | rface (A12)                                                                                                                       |                  | Redox Depr           | essions (                   | F8)               |                  |                            |                                      |  |
| Sandy Mucky                  |                                                                                                                                   |                  | Vernal Pool          | s (F9)                      |                   |                  |                            | nydrophytic vegetation and           |  |
| Sandy Gleyed                 |                                                                                                                                   |                  |                      |                             |                   |                  | wetland hyd                | drology must be present.             |  |
| Restrictive Layer            | (if present):                                                                                                                     |                  |                      |                             |                   |                  |                            |                                      |  |
| Type:none                    |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
| Depth (inches):              | NA                                                                                                                                |                  |                      |                             |                   |                  | Hydric Soil Pre            | esent? Yes 🔿 No 💿                    |  |
| Remarks: Highly              | compacted soil                                                                                                                    | on dirt road     | shoulder - re        | efusal at                   | surface -         | no hydric        | indicators (red            | ox) in upper 3".                     |  |
| Soil dat                     | ta collected by (                                                                                                                 | GLA on 6-9-      | 12 (see origi        | nal hand                    | lwritten d        | lata form)       |                            |                                      |  |
| Myford                       | l soils are deep,                                                                                                                 | moderately       | well drained         | soils, me                   | edium to          | rapid run        | off, very slow p           | ermeability, on terraces (Dudel      |  |
|                              |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
| HYDROLOGY                    |                                                                                                                                   |                  |                      |                             |                   |                  |                            |                                      |  |
| Wetland Hydrolog             | gy Indicators:                                                                                                                    |                  |                      |                             |                   |                  | Secondar                   | y Indicators (2 or more required)    |  |
| Primary Indicators           | (any one indicato                                                                                                                 | r is sufficient) |                      |                             |                   |                  | Wate                       | er Marks (B1) ( <b>Riverine</b> )    |  |
| Surface Water                |                                                                                                                                   |                  | Salt Crust           | (B11)                       |                   |                  |                            | ment Deposits (B2) (Riverine)        |  |
|                              | . ,                                                                                                                               |                  |                      |                             |                   |                  |                            | Deposits (B3) ( <b>Riverine</b> )    |  |
| Saturation (A3               | High Water Table (A2) Biotic Crust (B12) Saturation (A3) X Aquatic Invertebrates (B13)                                            |                  |                      |                             |                   |                  |                            | age Patterns (B10)                   |  |
| `                            | Saturation (A3)       X       Aquatic Invertebrates (B13)         Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C1) |                  |                      |                             |                   |                  |                            | Season Water Table (C2)              |  |
|                              | osits (B2) (Nonriv                                                                                                                |                  | Oxidized F           |                             |                   | Livina Roo       |                            | Muck Surface (C7)                    |  |
|                              | (B3) (Nonriverine                                                                                                                 |                  | Presence             |                             | -                 | -                |                            | fish Burrows (C8)                    |  |
| Surface Soil C               |                                                                                                                                   | ,                | Recent Iro           |                             | •                 | ,                |                            | ration Visible on Aerial Imagery (C9 |  |
|                              | ible on Aerial Ima                                                                                                                | gery (B7)        | Other (Exp           |                             |                   | ( -              | ,                          | ow Aquitard (D3)                     |  |
| Water-Stained                |                                                                                                                                   | 5 7 ( )          |                      |                             |                   |                  |                            | Neutral Test (D5)                    |  |
| Field Observation            | . ,                                                                                                                               |                  |                      |                             |                   |                  |                            | · · /                                |  |
| Surface Water Pre            |                                                                                                                                   | No ()            | Depth (ind           | ches):                      | <1                |                  |                            |                                      |  |
|                              |                                                                                                                                   |                  |                      |                             | ~ *               |                  |                            |                                      |  |

| Saturation Present?         | Yes 🔿            | No 💽         | Depth (inches):                     |                            |     |
|-----------------------------|------------------|--------------|-------------------------------------|----------------------------|-----|
| (includes capillary fringe) | $\sim$           | $\bigcirc$   |                                     | Wetland Hydrology Present? | Yes |
| Describe Recorded Data      | (stream gauge, r | nonitoring v | vell, aerial photos, previous inspe | ctions), if available:     |     |

Depth (inches):

Depth (inches):

Remarks: Maximum of 7 days ponding observed in 2010 <1" deep (data collected on GLA handwritten data form 6-9-12). \*Aquatic Invertebrates\* Common versatile fairy shrimp was detected during 2010-2011 wet season fairy shrimp surveys (Dudek updated data form with shrimp data).

Water Table Present?

Saturation Present?

Yes 🔿

No 💿

С

No

| Project/Site: Newport Banning Ranc                                      | City/County:Orange County                                                                             |                   |               | Sampling Date: 10-4-12 |                  |             |                   |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------|---------------|------------------------|------------------|-------------|-------------------|
| Applicant/Owner: Newport Banning Ranch LLC                              |                                                                                                       |                   |               | Stat                   | te:CA            | Sampling    | Point:S           |
| Investigator(s): J. Davis IV, T. Wotip                                  | Section, Townsh                                                                                       | nip, Range:Sectio | on 20, T6S, F | R10W                   |                  |             |                   |
| Landform (hillslope, terrace, etc.): Terra                              | Local relief (cor                                                                                     | ncave, convex, no | ne):Concave   |                        | Slope (%):<2     |             |                   |
| Subregion (LRR):C - Mediterranean (                                     | California                                                                                            | Lat:33.           | 6356690332    | Long:-11               | 7.94268029       | 6           | Datum:WGS 84      |
| Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification:NA |                                                                                                       |                   |               |                        |                  |             |                   |
| Are climatic / hydrologic conditions on the                             | ne site typical fo                                                                                    | or this time of y | ear?Yes 💿     | No 🔿 (If n             | io, explain in F | Remarks.)   |                   |
| Are Vegetation Soil or H                                                | Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes  No |                   |               |                        |                  |             |                   |
| Are Vegetation Soil or H                                                | ydrology                                                                                              | naturally pr      | roblematic?   | (If needed, expl       | ain any answe    | ers in Rema | rks.)             |
| SUMMARY OF FINDINGS - At                                                | tach site m                                                                                           | ap showing        | g sampling po | pint locations         | , transects      | , importa   | nt features, etc. |
| Hydrophytic Vegetation Present?                                         | Yes                                                                                                   | No 💿              |               |                        |                  |             |                   |
| Hydric Soil Present?                                                    | Yes 🔘                                                                                                 | No 💿              | Is the Sa     | mpled Area             |                  |             |                   |
| Wetland Hydrology Present?                                              | Yes 🜘                                                                                                 | No 🔘              | within a      | Wetland?               | Yes 🔿            | No (        |                   |

|                                                  | Absolute    | Dominant    |           | Dominance Test w                  | orkshee    | t:             |             |                                         |
|--------------------------------------------------|-------------|-------------|-----------|-----------------------------------|------------|----------------|-------------|-----------------------------------------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominar                 |            |                |             |                                         |
| 1                                                |             |             |           | That Are OBL, FAC                 | W, or FA   | C:             | 1           | (A)                                     |
| 2                                                |             |             |           | Total Number of Do                | minant     |                |             |                                         |
| 3.                                               |             |             |           | Species Across All                |            |                | 2           | (B)                                     |
| 4.                                               |             |             |           | Percent of Dominar                | t Spacia   | •              |             |                                         |
| Total Cove                                       | r: %        |             |           | That Are OBL, FAC                 |            |                | 0.0 %       | (A/B)                                   |
| Sapling/Shrub Stratum                            |             |             |           |                                   |            | C.             | 0.0 /0      | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| 1.                                               |             |             |           | Prevalence Index v                | workshe    | et:            |             |                                         |
| 2.                                               |             |             |           | Total % Cover                     | of:        | Multip         | oly by:     | -                                       |
| 3.                                               |             |             |           | OBL species                       | 43         | x 1 =          | 43          |                                         |
| 4.                                               | ·           | ·           |           | FACW species                      | 2          | x 2 =          | 4           |                                         |
| 5.                                               |             |             | ·         | FAC species                       |            | x 3 =          | 0           |                                         |
| Total Cover                                      | %           |             |           | FACU species                      | 15         | x 4 =          | 60          |                                         |
| Herb Stratum                                     |             |             |           | UPL species                       | 2          | x 5 =          | 10          |                                         |
| <sup>1</sup> .Cotula coronopifolia               | 40          | Yes         | OBL       | Column Totals:                    | 62         | (A)            | 117         | (B)                                     |
| <sup>2</sup> .Deinandra fasciculata              | 15          | Yes         | FACU      |                                   |            |                |             |                                         |
| <sup>3</sup> .Hirschfeldia incana                | 2           | No          | UPL       | Prevalence In                     |            |                | 1.89        |                                         |
| 4. Lythrum hyssopifolium                         | 3           | No          | OBL       | Hydrophytic Veget                 |            |                |             |                                         |
| 5. Polypogon monspeliensis                       | 2           | No          | FACW      | Dominance Tes                     | st is >50% | 6              |             |                                         |
| 6.                                               |             |             |           | Prevalence Ind                    | ex is ≤3.0 | D <sup>1</sup> |             |                                         |
| 7.                                               |             |             |           | Morphological /                   |            |                |             | ng                                      |
| 8.                                               | ·           |             | ·         | data in Rem                       |            |                |             |                                         |
| Total Cover                                      | 62 %        |             |           | - Problematic Hy                  | drophytic  | c Vegetation   | i' (Explair | 1)                                      |
| Woody Vine Stratum                               | 02 70       |             |           |                                   |            |                |             |                                         |
| 1.                                               |             |             |           | <sup>1</sup> Indicators of hydric | c soil and | d wetland h    | ydrology    | must                                    |
| 2.                                               |             |             |           | be present.                       |            |                |             |                                         |
| Total Cover                                      | %           |             |           | Hydrophytic                       |            |                |             |                                         |
| % Bare Ground in Herb Stratum% Cover             | of Biotic C | Crust       | %         | Vegetation<br>Present?            | Yes ()     | No (           | •           |                                         |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see o  | original ha | ndwritten | data form).                       |            |                |             |                                         |
|                                                  |             | -           |           |                                   |            |                |             |                                         |
|                                                  |             |             |           |                                   |            |                |             |                                         |
|                                                  |             |             |           |                                   |            |                |             |                                         |

SOIL

| Depth         | Matrix                                         |                     |               | x Features                         |                           |                            |                                                             |  |  |  |
|---------------|------------------------------------------------|---------------------|---------------|------------------------------------|---------------------------|----------------------------|-------------------------------------------------------------|--|--|--|
| (inches)      | Color (moist)                                  | <u>%</u> <u>C</u> ( | olor (moist)  | % <u>Type</u> 1<br>                | <u>Loc</u> <sup>2</sup> _ | Texture <sup>3</sup>       | Remarks                                                     |  |  |  |
|               |                                                |                     |               | <br>                               | ·                         |                            |                                                             |  |  |  |
| •••           | ncentration, D=Deple                           |                     |               | <sup>2</sup> Location: PL=Pore     | -                         |                            | -<br>-<br>M=Matrix.<br>n, Silt Loam, Silt, Loamy Sand, Sand |  |  |  |
|               | dicators: (Applicable                          |                     |               |                                    |                           |                            | Problematic Hydric Soils <sup>4</sup> :                     |  |  |  |
| Histosol (    |                                                | []<br>[             | Sandy Redo    | •                                  |                           |                            | ck (A9) (LRR C)                                             |  |  |  |
| Histic Epi    | ipedon (A2)                                    |                     | Stripped Ma   | atrix (S6)                         |                           | 2 cm Muc                   | ck (A10) ( <b>LRR B</b> )                                   |  |  |  |
| Black His     |                                                | Ī                   |               | ky Mineral (F1)                    |                           | Reduced Vertic (F18)       |                                                             |  |  |  |
|               | n Sulfide (A4)                                 | . [                 |               | yed Matrix (F2)                    |                           |                            | nt Material (TF2)                                           |  |  |  |
|               | Layers (A5) (LRR C                             | ) [                 | Depleted M    |                                    |                           | Other (Ex                  | plain in Remarks)                                           |  |  |  |
|               | ck (A9) ( <b>LRR D</b> )<br>Below Dark Surface | (Δ11) [             |               | < Surface (F6)<br>ark Surface (F7) |                           |                            |                                                             |  |  |  |
|               | rk Surface (A12)                               |                     |               | ressions (F8)                      |                           |                            |                                                             |  |  |  |
|               | ucky Mineral (S1)                              | L                   | Vernal Poo    |                                    |                           | <sup>4</sup> Indicators of | hydrophytic vegetation and                                  |  |  |  |
|               | leyed Matrix (S4)                              | L                   |               | . ,                                |                           |                            | drology must be present.                                    |  |  |  |
| Restrictive L | ayer (if present):                             |                     |               |                                    |                           |                            |                                                             |  |  |  |
| Type:         |                                                |                     |               |                                    |                           |                            |                                                             |  |  |  |
| Depth (inc    | hes):                                          |                     | _             |                                    |                           | Hydric Soil Pr             | esent? Yes 🔿 No 💿                                           |  |  |  |
| Remarks: Gr   | avel and soil highl                            | y compacted.        | Refusal at su | urface. Area lacks                 | wetland hy                | drology there              | efore cannot have hydric soils.                             |  |  |  |
| So            | il data collected by                           | y GLA on 6-9        | -12 (see orig | inal handwritten d                 | lata form).               |                            |                                                             |  |  |  |
| Му            | yford soils are deep                           | p, moderately       | well drained  | soils, medium to                   | rapid runo                | ff, very slow j            | permeability, on terraces (Dudel                            |  |  |  |
| YDROLOG       | GY                                             |                     |               |                                    |                           |                            |                                                             |  |  |  |
| Netland Hyd   | Irology Indicators:                            |                     |               |                                    |                           | Seconda                    | ry Indicators (2 or more required)                          |  |  |  |
|               | ators (any one indica                          | tor is sufficient   | )             |                                    |                           | _ Wate                     | er Marks (B1) ( <b>Riverine</b> )                           |  |  |  |
| X Surface V   | Nater (A1)                                     |                     | Salt Crust    | (B11)                              |                           | Sedi                       | iment Deposits (B2) (Riverine)                              |  |  |  |
|               | ter Table (A2)                                 |                     | Biotic Cru    | st (B12)                           |                           | Drift                      | Deposits (B3) (Riverine)                                    |  |  |  |
| Saturatio     | ( )                                            |                     | Aquatic In    | vertebrates (B13)                  |                           |                            | nage Patterns (B10)                                         |  |  |  |
| Water Ma      | arks (B1) ( <b>Nonriverir</b>                  | ne)                 |               | Sulfide Odor (C1)                  |                           |                            | Season Water Table (C2)                                     |  |  |  |
| X Sediment    | t Deposits (B2) ( <b>Non</b>                   | riverine)           |               | Rhizospheres along                 | -                         |                            | Muck Surface (C7)                                           |  |  |  |
| ·             | osits (B3) ( <b>Nonriveri</b>                  | ine)                | Presence      | of Reduced Iron (C4                | 4)                        |                            | /fish Burrows (C8)                                          |  |  |  |
| X Surface S   | Soil Cracks (B6)                               |                     | Recent Iro    | on Reduction in Plow               | ved Soils (C6             | 5) 🗌 Satu                  | ration Visible on Aerial Imagery (C                         |  |  |  |
| Inundatio     | on Visible on Aerial In                        | nagery (B7)         | Other (Ex     | olain in Remarks)                  |                           | Shal                       | llow Aquitard (D3)                                          |  |  |  |

| X Water-Stained Leaves (                                                                                   | B9)          |              | FAC-Neutral Test (D5) |                                                                |  |  |  |
|------------------------------------------------------------------------------------------------------------|--------------|--------------|-----------------------|----------------------------------------------------------------|--|--|--|
| Field Observations:                                                                                        |              |              |                       |                                                                |  |  |  |
| Surface Water Present?                                                                                     | Yes 💽        | No 🔿         | Depth (inches):       |                                                                |  |  |  |
| Water Table Present?                                                                                       | Yes 🔿        | No 💿         | Depth (inches):       |                                                                |  |  |  |
| Saturation Present?<br>(includes capillary fringe)                                                         | Yes 🔿        | No 💿         | Depth (inches):       | Wetland Hydrology Present? Yes   No                            |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: |              |              |                       |                                                                |  |  |  |
| Remarks:*Surface Water                                                                                     | Present* Fe  | ature was    | inundated for at le   | east 14 days during 2010-2011 wet season fairy shrimp surveys. |  |  |  |
| Hydrology data                                                                                             | collected by | GLA on       | 6-9-12 (see origin    | al handwritten data form).                                     |  |  |  |
| Surface soil crac                                                                                          | ks, water ar | nd silt stai | ned vegetation, an    | d sediment deposits observed by Dudek 10-4-12.                 |  |  |  |
|                                                                                                            |              |              |                       |                                                                |  |  |  |

| Project/Site: Newport Banning Ranch                                                                                   | City/County:Orange County |                   |                  | Sampling Date: 10-4-12 |               |                   |  |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------|------------------|------------------------|---------------|-------------------|--|
| Applicant/Owner: Newport Banning Ranch LLC                                                                            |                           |                   | Stat             | e:CA                   | Sampling F    | Point:T           |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine                                                                    |                           | Section, Township | o, Range:Sectio  | on 20, T6S, F          | 210W          |                   |  |
| Landform (hillslope, terrace, etc.): Terrace                                                                          | Local relief (conc        | ave, convex, noi  | ne):Concave      |                        | Slope (%):<2  |                   |  |
| Subregion (LRR):C - Mediterranean California                                                                          | 6358448729                | Long:-11          | 7.94239915       | 5                      | Datum: WGS 84 |                   |  |
| Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification: NA                                              |                           |                   |                  |                        |               |                   |  |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.) |                           |                   |                  |                        |               |                   |  |
| Are Vegetation Soil or Hydrology s                                                                                    | ignificantly              | v disturbed?      | Are "Normal Cir  | cumstances"            | present? Y    | res 💿 🛛 No 🔿      |  |
| Are Vegetation Soil or Hydrology r                                                                                    | naturally pro             | oblematic?        | (If needed, expl | ain any answe          | rs in Remar   | rks.)             |  |
| SUMMARY OF FINDINGS - Attach site map                                                                                 | showing                   | sampling poi      | nt locations     | transects              | , importa     | nt features, etc. |  |
| Hydrophytic Vegetation Present? Yes 🕥 N                                                                               | o 💽                       |                   |                  |                        |               |                   |  |
| Hydric Soil Present? Yes 🕥 N                                                                                          | 0 💿                       | Is the Sam        | pled Area        |                        |               |                   |  |
| Wetland Hydrology Present? Yes ( N                                                                                    | within a W                |                   | Yes 🔿            | No 🧿                   | Ð             |                   |  |
| Remarks: Feature is asphalt area with oil field entry way from 17th Street entrance.                                  |                           |                   |                  |                        |               |                   |  |

CCC wetland since at least one wetland criterion was met.

|                                                 | Absolute      | Dominant    |             | Dominance Test workshe                         | et:                           |         |       |
|-------------------------------------------------|---------------|-------------|-------------|------------------------------------------------|-------------------------------|---------|-------|
| Tree Stratum (Use scientific names.)            | % Cover       | Species?    | Status      | Number of Dominant Specie                      |                               |         |       |
| 1                                               |               |             |             | That Are OBL, FACW, or F                       | AC: 0                         |         | (A)   |
| 2                                               |               |             |             | Total Number of Dominant                       |                               |         |       |
| 3.                                              |               |             |             | Species Across All Strata:                     | 0                             |         | (B)   |
| 4.                                              |               |             |             | <ul> <li>Percent of Dominant Specie</li> </ul> | 20                            |         |       |
| Total Cove                                      | -<br>%        |             |             | That Are OBL, FACW, or F                       |                               | %       | (A/B) |
| Sapling/Shrub Stratum                           |               |             |             |                                                | U                             | /0      | ()    |
| 1                                               |               |             |             | Prevalence Index workshe                       |                               |         |       |
| 2.                                              |               |             |             | Total % Cover of:                              | Multiply                      | by:     | -     |
| 3.                                              |               |             |             | OBL species                                    | x 1 =                         | 0       |       |
| 4.                                              |               |             |             | FACW species                                   | x 2 =                         | 0       |       |
| 5.                                              |               |             |             | FAC species                                    | x 3 =                         | 0       |       |
| Total Cove                                      | r: %          |             |             | FACU species                                   | x 4 =                         | 0       |       |
| Herb Stratum                                    |               |             |             | UPL species                                    | x 5 =                         | 0       |       |
| 1.                                              |               |             |             | Column Totals:                                 | (A)                           | 0       | (B)   |
| 2.                                              |               |             |             | -                                              | ( )                           |         | . ,   |
| 3.                                              |               |             |             | Prevalence Index = E                           |                               |         |       |
| 4.                                              |               |             |             | Hydrophytic Vegetation Ir                      | ndicators:                    |         |       |
| 5.                                              |               |             |             | Dominance Test is >50                          | 1%                            |         |       |
| 6.                                              |               |             |             | Prevalence Index is ≤3                         | .0 <sup>1</sup>               |         |       |
| 7.                                              |               |             |             | Morphological Adaptati                         | ons <sup>1</sup> (Provide s   | upport  | ing   |
| 8.                                              |               |             |             | data in Remarks or                             |                               | ,       |       |
| Total Cove                                      | r: «          |             |             | - Problematic Hydrophyt                        | ic Vegetation <sup>1</sup> (I | Explair | ו)    |
| Woody Vine Stratum                              | . %           |             |             |                                                |                               |         |       |
| 1.                                              |               |             |             | <sup>1</sup> Indicators of hydric soil ar      | nd wetland hydr               | ology   | must  |
| 2.                                              |               |             |             | be present.                                    |                               |         |       |
| Total Cove                                      | r: %          |             |             | Hydrophytic                                    |                               |         |       |
| % Bare Ground in Herb Stratum % % Cove          | r of Biotic ( | Privat      | 0/          | Vegetation<br>Present? Yes                     |                               |         |       |
|                                                 |               |             | %           |                                                |                               |         |       |
| Remarks: Unvegetated. On edges, main roadway ar | ea unvege     | etated (dat | a collected | l by GLA 6-9-12 handwritt                      | ten data form)                | •       |       |
|                                                 |               |             |             |                                                |                               |         |       |
|                                                 |               |             |             |                                                |                               |         |       |
|                                                 |               |             |             |                                                |                               |         |       |

SOIL

| Profile Description: (Describe to the dep                                                                                                                 | Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                                       |                                 |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------|--|--|--|--|--|--|
| Depth Matrix                                                                                                                                              | Redox Features                                                                                                      |                                       |                                 |  |  |  |  |  |  |
| (inches) Color (moist) %                                                                                                                                  | Color (moist) % Type <sup>1</sup>                                                                                   | Loc <sup>2</sup> Texture <sup>3</sup> | Remarks                         |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
| <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.                     |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
| <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sar |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
| Hydric Soil Indicators: (Applicable to all LR                                                                                                             | Rs, unless otherwise noted.)                                                                                        | Indicators for F                      | Problematic Hydric Soils:       |  |  |  |  |  |  |
| Histosol (A1)                                                                                                                                             | Sandy Redox (S5)                                                                                                    |                                       | k (A9) ( <b>LRR C</b> )         |  |  |  |  |  |  |
| Histic Epipedon (A2)                                                                                                                                      | Stripped Matrix (S6)                                                                                                |                                       | k (A10) ( <b>LRR B</b> )        |  |  |  |  |  |  |
| Black Histic (A3)                                                                                                                                         | Loamy Mucky Mineral (F1)                                                                                            |                                       | Vertic (F18)                    |  |  |  |  |  |  |
| Hydrogen Sulfide (A4)                                                                                                                                     | Loamy Gleyed Matrix (F2)                                                                                            |                                       | nt Material (TF2)               |  |  |  |  |  |  |
| Stratified Layers (A5) (LRR C)                                                                                                                            | Depleted Matrix (F3)                                                                                                | Other (Exp                            | plain in Remarks)               |  |  |  |  |  |  |
| 1 cm Muck (A9) (LRR D)                                                                                                                                    | Redox Dark Surface (F6)                                                                                             |                                       |                                 |  |  |  |  |  |  |
| Depleted Below Dark Surface (A11)                                                                                                                         | Depleted Dark Surface (F7)                                                                                          |                                       |                                 |  |  |  |  |  |  |
| Thick Dark Surface (A12)                                                                                                                                  | Redox Depressions (F8)                                                                                              | <sup>4</sup> Indicators of h          | hydrophytic vegetation and      |  |  |  |  |  |  |
| Sandy Gleyed Matrix (S4)                                                                                                                                  |                                                                                                                     |                                       | drology must be present.        |  |  |  |  |  |  |
| Restrictive Layer (if present):                                                                                                                           |                                                                                                                     | wettand rije                          | alongy must be present.         |  |  |  |  |  |  |
| Type:                                                                                                                                                     |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |
|                                                                                                                                                           |                                                                                                                     | Ubadaia Osil Da                       |                                 |  |  |  |  |  |  |
| Depth (inches):                                                                                                                                           |                                                                                                                     | Hydric Soil Pre                       | 0 0                             |  |  |  |  |  |  |
| Remarks: Area is asphalt with limited a                                                                                                                   | 1                                                                                                                   |                                       |                                 |  |  |  |  |  |  |
| <b>2</b> 17                                                                                                                                               | rately well drained soils, medium to ra                                                                             | apid runoff, very slow p              | ermeability, formed on terraces |  |  |  |  |  |  |
| (Dudek updated soil type).                                                                                                                                |                                                                                                                     |                                       |                                 |  |  |  |  |  |  |

| Wetland Hydrology Indicators:                        |                                        | Secondary Indicators (2 or more required)               |
|------------------------------------------------------|----------------------------------------|---------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient) |                                        | Water Marks (B1) (Riverine)                             |
| X Surface Water (A1)                                 | Salt Crust (B11)                       | Sediment Deposits (B2) ( <b>Riverine</b> )              |
| High Water Table (A2)                                | Biotic Crust (B12)                     | Drift Deposits (B3) ( <b>Riverine</b> )                 |
| Saturation (A3)                                      | Aquatic Invertebrates (B13)            | Drainage Patterns (B10)                                 |
| Water Marks (B1) (Nonriverine)                       | Hydrogen Sulfide Odor (C1)             | Dry-Season Water Table (C2)                             |
| Sediment Deposits (B2) (Nonriverine)                 | Oxidized Rhizospheres along Livi       | ng Roots (C3) Thin Muck Surface (C7)                    |
| Drift Deposits (B3) (Nonriverine)                    | Presence of Reduced Iron (C4)          | Crayfish Burrows (C8)                                   |
| Surface Soil Cracks (B6)                             | Recent Iron Reduction in Plowed        | Soils (C6) Saturation Visible on Aerial Imagery (C9)    |
| Inundation Visible on Aerial Imagery (B7)            | Other (Explain in Remarks)             | Shallow Aquitard (D3)                                   |
| Water-Stained Leaves (B9)                            |                                        | FAC-Neutral Test (D5)                                   |
| Field Observations:                                  |                                        |                                                         |
| Surface Water Present? Yes  No                       | Depth (inches):                        |                                                         |
| Water Table Present? Yes O No 💿                      | Depth (inches):                        |                                                         |
| Saturation Present? Yes No  No                       | Depth (inches):                        | Wetland Hydrology Present? Yes   No                     |
| Describe Recorded Data (stream gauge, monitoring     | g well, aerial photos, previous inspec | ions), if available:                                    |
|                                                      |                                        |                                                         |
| Remarks:*Wetland Hydrology Present* Area             | ponded for $> 14$ days during mos      | st years; however ponding is on asphalt (data collected |
| by GLA 6-9-12 handwritten data for                   | m). Feature was inundated for at       | least 14 days during 2010-2011 wet season fairy         |
| shrimp surveys.                                      |                                        |                                                         |
| *Aquatic Invertebrates* Common ve                    | ersatile fairy shrimp was detected     | during 2010-2011 and 2011-2012 wet season fairy         |
| shrimp surveys (Dudek updated data                   | form with shrimp data).                |                                                         |
| US Army Corps of Engineers                           |                                        |                                                         |

| Project/Site: Newport Banning Ranc                                                                     |                                             | City/County:Ora   | ange County                | Sampling Date: 10-4-12 |                     |                                               |                    |  |  |  |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------|----------------------------|------------------------|---------------------|-----------------------------------------------|--------------------|--|--|--|
| Applicant/Owner: Newport Banning H                                                                     | Ranch LLC                                   |                   |                            | Sta                    | ate:CA              | Sampling                                      | Point:U            |  |  |  |
| Investigator(s): J. Davis IV, T. Wotip                                                                 | ka, H. Moine                                |                   | Section, Towns             | hip, Range:Secti       | on 20, T6S,         | R10W                                          |                    |  |  |  |
| Landform (hillslope, terrace, etc.): Terr                                                              | andform (hillslope, terrace, etc.): Terrace |                   |                            |                        |                     | Local relief (concave, convex, none): Concave |                    |  |  |  |
| Subregion (LRR):C - Mediterranean                                                                      | California                                  | Lat:33.           | .6360751861                | 46                     | Datum:WGS 84        |                                               |                    |  |  |  |
| Soil Map Unit Name: Myford sandy lo                                                                    | oam 0-2% sloj                               | pes               |                            |                        | NWI classif         | ication:NA                                    |                    |  |  |  |
| Are climatic / hydrologic conditions on t                                                              | he site typical fo                          | or this time of y | rear?Yes 💿                 | No 🔿 (If               | –<br>no, explain in | Remarks.)                                     |                    |  |  |  |
| Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes • No |                                             |                   |                            |                        |                     |                                               |                    |  |  |  |
| Are Vegetation Soil or H                                                                               | lydrology                                   | naturally p       | roblematic?                | (If needed, exp        | olain any answ      | ers in Rema                                   | arks.)             |  |  |  |
| SUMMARY OF FINDINGS - A                                                                                | ttach site m                                | ap showing        | g sampling p               | oint locations         | s, transects        | s, import                                     | ant features, etc. |  |  |  |
| Hydrophytic Vegetation Present?                                                                        | Yes 🔘                                       | No 💿              |                            |                        |                     |                                               |                    |  |  |  |
| Hydric Soil Present?                                                                                   | Yes 🕥                                       | No 💿              | Is the Sa                  | ampled Area            |                     |                                               |                    |  |  |  |
| Wetland Hydrology Present?                                                                             | Yes 🔘                                       | No 💿              | within a Wetland? Yes O No |                        |                     |                                               |                    |  |  |  |
| Remarks: Feature is low area in asj                                                                    | phalt parking a                             | area - no soil    | s or vegetation            |                        |                     |                                               |                    |  |  |  |
| CCC wetland since at lea                                                                               | ast one wetlan                              | d criterion w     | as met.                    |                        |                     |                                               |                    |  |  |  |
|                                                                                                        |                                             |                   |                            |                        |                     |                                               |                    |  |  |  |

|                                                    | Absolute      | Dominant  |             | Dominance Test worksheet                                                            | :                            |          |
|----------------------------------------------------|---------------|-----------|-------------|-------------------------------------------------------------------------------------|------------------------------|----------|
| Tree Stratum (Use scientific names.)               | % Cover       | Species?  | Status      | Number of Dominant Species                                                          |                              |          |
| 1                                                  |               |           |             | That Are OBL, FACW, or FAC                                                          | C: 0                         | (A)      |
| 2.                                                 |               |           |             | Total Number of Dominant                                                            |                              |          |
| 3.                                                 | _             |           |             | Species Across All Strata:                                                          | 0                            | (B)      |
| 4.                                                 |               |           |             |                                                                                     | -                            |          |
| Total Cove                                         | - %           |           |             | <ul> <li>Percent of Dominant Species</li> <li>That Are OBL, FACW, or FAC</li> </ul> |                              | (A/B)    |
| Sapling/Shrub Stratum                              | //            |           |             |                                                                                     | ): 0 %                       | ) (A/D)  |
| 1.                                                 |               |           |             | Prevalence Index workshee                                                           | t:                           |          |
| 2.                                                 |               |           |             | Total % Cover of:                                                                   | Multiply by:                 |          |
| 3.                                                 |               |           |             | OBL species                                                                         | x 1 =                        | 0        |
| 4.                                                 |               |           |             | FACW species                                                                        | x 2 =                        | 0        |
| 5                                                  |               |           |             | FAC species                                                                         | x 3 =                        | 0        |
| Total Cove                                         | r: %          |           |             | FACU species                                                                        |                              | 0        |
| Herb Stratum                                       | . /0          |           |             | UPL species                                                                         |                              | 0        |
| 1.                                                 |               |           |             |                                                                                     |                              |          |
| 2.                                                 |               | ·         |             | Column Totals:                                                                      | (A)                          | 0 (B)    |
| 3.                                                 |               | ·         |             | Prevalence Index = B/A                                                              | x =                          |          |
| 4.                                                 |               |           |             | Hydrophytic Vegetation Ind                                                          | icators:                     |          |
| 5.                                                 |               | ·         |             | Dominance Test is >50%                                                              | 1                            |          |
| 6.                                                 |               |           |             | Prevalence Index is ≤3.0                                                            | 1                            |          |
| 7.                                                 |               |           |             | Morphological Adaptation                                                            |                              |          |
| 8.                                                 |               |           |             | data in Remarks or on                                                               |                              | ,        |
| Total Cove                                         | r'            |           |             | Problematic Hydrophytic                                                             | Vegetation <sup>1</sup> (Exp | olain)   |
| Woody Vine Stratum                                 | . %           |           |             |                                                                                     |                              |          |
| 1.                                                 |               |           |             | <sup>1</sup> Indicators of hydric soil and                                          | wetland hydrold              | ogy must |
| 2.                                                 |               |           |             | be present.                                                                         |                              |          |
| Total Cove                                         | r: %          |           |             | Hydrophytic                                                                         |                              |          |
| Bare Ground in Herb Stratum % % Cove               | n of Diotio ( |           | <i></i>     | Vegetation                                                                          |                              |          |
|                                                    | r of Biotic C |           | %           | Present? Yes 🔿                                                                      | No 💽                         |          |
| Remarks: No vegetation - asphalt parking area (per | GLA 6-9       | -12 handw | ritten data | form)                                                                               |                              |          |
|                                                    |               |           |             |                                                                                     |                              |          |
|                                                    |               |           |             |                                                                                     |                              |          |
|                                                    |               |           |             |                                                                                     |                              |          |

SOIL

|                           | ription: (Describe t                                                                                                                  | o the depth    |                  |            |                   | or confirm       | the absence of in                | dicators.)            |                     |  |  |  |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|------------|-------------------|------------------|----------------------------------|-----------------------|---------------------|--|--|--|
| Depth                     | Matrix                                                                                                                                |                |                  | x Features |                   | 2                | <b>T</b> ( 3                     | 5                     |                     |  |  |  |
| (inches)                  | Color (moist)                                                                                                                         | %              | Color (moist)    | %          | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>             | Rema                  | arks                |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           |                                                                                                                                       |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
| <sup>1</sup> Type: C=Co   | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
| <sup>3</sup> Soil Texture | s: Clay, Silty Clay, S                                                                                                                | andy Clay, Lo  | oam, Sandy Clay  | Loam, Sa   | ndy Loam          | , Clay Loar      | m, Silty Clay Loam,              | Silt Loam, Silt, Loan | my Sand, Sand.      |  |  |  |
| Hydric Soil Ir            | dicators: (Applicable                                                                                                                 | e to all LRRs, | unless otherwise | e noted.)  |                   |                  | Indicators for Pr                | oblematic Hydric So   | oils <sup>4</sup> : |  |  |  |
| Histosol                  | (A1)                                                                                                                                  |                | Sandy Redo       | x (S5)     |                   |                  | 1 cm Muck (A9) (LRR C)           |                       |                     |  |  |  |
| Histic Ep                 | pipedon (A2)                                                                                                                          |                | Stripped Ma      | atrix (S6) |                   |                  | 2 cm Muck (A10) ( <b>LRR B</b> ) |                       |                     |  |  |  |
| Black Hi                  | ( )                                                                                                                                   |                | Loamy Muc        | •          | . ,               |                  | Reduced Vertic (F18)             |                       |                     |  |  |  |
|                           | n Sulfide (A4)                                                                                                                        |                | Loamy Gle        |            | (F2)              |                  |                                  | Material (TF2)        |                     |  |  |  |
|                           | Layers (A5) (LRR C                                                                                                                    | )              | Depleted M       | . ,        |                   |                  | Other (Explain in Remarks)       |                       |                     |  |  |  |
|                           | ck (A9) ( <b>LRR D</b> )                                                                                                              |                | Redox Darl       |            | ,                 |                  |                                  |                       |                     |  |  |  |
|                           | Below Dark Surface                                                                                                                    | (A11)          | Depleted D       |            | . ,               |                  |                                  |                       |                     |  |  |  |
|                           | ark Surface (A12)                                                                                                                     |                | Redox Dep        |            | -8)               |                  | 41                               |                       |                     |  |  |  |
|                           | lucky Mineral (S1)                                                                                                                    |                | Vernal Poo       | IS (F9)    |                   |                  | ,                                | drophytic vegetation  |                     |  |  |  |
|                           | ileyed Matrix (S4)                                                                                                                    |                |                  |            |                   |                  | wettand nydi                     | ology must be prese   | ent.                |  |  |  |
|                           | _ayer (if present):                                                                                                                   |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
| Туре:                     |                                                                                                                                       |                |                  |            |                   |                  |                                  | _                     | _                   |  |  |  |
| Depth (ind                | ches):                                                                                                                                |                |                  |            |                   |                  | Hydric Soil Pres                 | sent? Yes 🔿           | No 💿                |  |  |  |
|                           | sphalt parking area                                                                                                                   |                |                  |            |                   |                  |                                  |                       |                     |  |  |  |
|                           | yford soils are dee                                                                                                                   |                | ely well drained | soils, me  | edium to          | rapid run        | off, very slow pe                | rmeability, forme     | d on terraces       |  |  |  |
| (D                        | udek updated soil                                                                                                                     | type).         |                  |            |                   |                  |                                  |                       |                     |  |  |  |

| Wetland Hydrology Indicators:                        |                                                                      | Secondary Indicators (2 or more required)     |  |  |
|------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------|--|--|
| Primary Indicators (any one indicator is sufficient) |                                                                      | Water Marks (B1) (Riverine)                   |  |  |
| Surface Water (A1)                                   | Salt Crust (B11)                                                     | Sediment Deposits (B2) ( <b>Riverine</b> )    |  |  |
| High Water Table (A2)                                | Biotic Crust (B12)                                                   | Drift Deposits (B3) ( <b>Riverine</b> )       |  |  |
| Saturation (A3)                                      | Aquatic Invertebrates (B13)                                          | Drainage Patterns (B10)                       |  |  |
| Water Marks (B1) (Nonriverine)                       | Hydrogen Sulfide Odor (C1)                                           | Dry-Season Water Table (C2)                   |  |  |
| Sediment Deposits (B2) (Nonriverine)                 | Oxidized Rhizospheres along Living Roo                               | ots (C3) Thin Muck Surface (C7)               |  |  |
| Drift Deposits (B3) (Nonriverine)                    | Presence of Reduced Iron (C4)                                        | Crayfish Burrows (C8)                         |  |  |
| Surface Soil Cracks (B6)                             | Recent Iron Reduction in Plowed Soils (C                             | C6) Saturation Visible on Aerial Imagery (C9) |  |  |
| Inundation Visible on Aerial Imagery (B7)            | Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) |                                               |  |  |
| Water-Stained Leaves (B9)                            |                                                                      | FAC-Neutral Test (D5)                         |  |  |
| Field Observations:                                  |                                                                      |                                               |  |  |
| Surface Water Present? Yes O No 💿                    | Depth (inches):                                                      |                                               |  |  |
| Water Table Present? Yes O No                        | Depth (inches):                                                      |                                               |  |  |
| Saturation Present? Yes O No (•)                     | Depth (inches):                                                      |                                               |  |  |
| (includes capillary fringe)                          |                                                                      | and Hydrology Present? Yes O No               |  |  |
| Describe Recorded Data (stream gauge, monitoring     | j well, aenai photos, previous inspections),                         |                                               |  |  |
|                                                      |                                                                      |                                               |  |  |
|                                                      |                                                                      | 011 wet season fairy shrimp surveys. However, |  |  |
|                                                      |                                                                      | mpacted soils creating an impervious surface  |  |  |
| allowing water to pond. The ponding                  | in this feature is due to anthropogenic                              | e additions and not an indicator of wetland   |  |  |
| hydrology.                                           |                                                                      |                                               |  |  |
| Hydrology data collected by GLA on                   | 6-9-12 (see original handwritten data                                | form).                                        |  |  |
| US Amore Come of Engineers                           |                                                                      |                                               |  |  |

| Project/Site: Newport Banning Rand        | ite: Newport Banning Ranch City/Cour |                    |                   |                   |               | Sampling Date: 10-4-12 |               |      |
|-------------------------------------------|--------------------------------------|--------------------|-------------------|-------------------|---------------|------------------------|---------------|------|
| Applicant/Owner: Newport Banning          | Ranch LLC                            |                    |                   | Stat              | e:CA          | Sampling               | Point:V       |      |
| Investigator(s): J. Davis IV, T. Wotij    | oka, H. Moine                        |                    | Section, Townsh   | nip, Range:Sectio | on 20, T6S,   | R10W                   |               |      |
| Landform (hillslope, terrace, etc.): Terr | ace                                  |                    | Local relief (cor | icave, convex, no | ne):Concave   | e                      | Slope (%):<   | 2    |
| Subregion (LRR):C - Mediterranean         | California                           | Lat:33.            | 6400738873        | Datum: WGS        | 84            |                        |               |      |
| Soil Map Unit Name: Myford sandy 1        | oam 0-2% slo                         | pes                |                   |                   | NWI classif   | ication:NA             |               |      |
| Are climatic / hydrologic conditions on   | the site typical fo                  | or this time of ye | ear?Yes 💿         | No 🔿 (If n        | o, explain in | Remarks.)              |               |      |
| Are Vegetation Soil or I                  | -lydrology                           | significantly      | y disturbed?      | Are "Normal Cir   | cumstances"   | present? Y             | ′es 💿 🛛 No    | 0    |
| Are Vegetation Soil or I                  | Hydrology                            | naturally pr       | oblematic?        | (If needed, expl  | ain any answ  | ers in Rema            | rks.)         |      |
| SUMMARY OF FINDINGS - A                   | ttach site m                         | ap showing         | g sampling po     | oint locations    | transects     | s, importa             | ant features, | etc. |
| Hydrophytic Vegetation Present?           | Yes 💿                                | No 🔘               |                   |                   |               |                        |               |      |
| Hydric Soil Present?                      | Yes 🔵                                | No 💿               | Is the Sa         | mpled Area        |               |                        |               |      |
| Wetland Hydrology Present?                | Yes 💿                                | No 💿               | within a          | Ð                 |               |                        |               |      |
| Remarks:CCC wetland since at le           | ast one wetlan                       | d criterion wa     | as met.           |                   |               |                        |               |      |
|                                           |                                      |                    |                   |                   |               |                        |               |      |

|                                                   | Absolute    | Dominant    |           | Dominance Test v                   | vorksheet   | t:             |              |      |
|---------------------------------------------------|-------------|-------------|-----------|------------------------------------|-------------|----------------|--------------|------|
| Tree Stratum (Use scientific names.)              | % Cover     | Species?    | Status    | Number of Domina                   |             |                |              |      |
| 1                                                 |             |             |           | That Are OBL, FAC                  | W, or FA    | C:             | 2            | (A)  |
| 2                                                 |             |             |           | Total Number of Do                 | ominant     |                |              |      |
| 3.                                                |             |             |           | Species Across All Strata: 3       |             |                | 3            | (B)  |
| 4.                                                |             |             |           | - Percent of Domina                | nt Spaciae  |                |              |      |
| Total Cover                                       | . %         |             |           | That Are OBL, FACW, or FAC: 66.7 % |             |                | (A/B)        |      |
| Sapling/Shrub Stratum                             |             |             |           |                                    |             |                | ( )          |      |
| 1.Baccharis salicifolia                           | 15          | Yes         | FAC       | Prevalence Index                   |             |                |              |      |
| 2.                                                |             |             |           | Total % Cover                      | of:         | Mul            | ltiply by:   | -    |
| 3.                                                |             |             |           | OBL species                        |             | x 1 =          | 0            |      |
| 4.                                                |             |             |           | FACW species                       | 3           | x 2 =          | 6            |      |
| 5.                                                |             |             |           | FAC species                        | 40          | x 3 =          | 120          |      |
| Total Cover                                       | 15 %        |             |           | FACU species                       | 7           | x 4 =          | 28           |      |
| Herb Stratum                                      |             |             |           | UPL species                        | 60          | x 5 =          | 300          |      |
| <sup>1</sup> .Hirschfeldia incana                 | 60          | Yes         | UPL       | Column Totals:                     | 110         | (A)            | 454          | (B)  |
| 2. Rumex crispus                                  | 25          | Yes         | FAC       |                                    | 110         | (, ,)          | 101          | ( )  |
| <sup>3</sup> . <i>Heliotropium curassavicum</i>   | 7           | No          | FACU      | Prevalence Ir                      | dex = B/A   | A =            | 4.13         |      |
| 4. Frankenia salina                               | 3           | No          | FACW      | Hydrophytic Vege                   | tation Ind  | licators:      |              |      |
| 5.                                                |             |             |           | 🖌 🗙 Dominance Te                   | st is >50%  | 0              |              |      |
| 6.                                                |             |             |           | Prevalence Inc                     | lex is ≤3.0 | ) <sup>1</sup> |              |      |
| 7.                                                |             |             |           | Morphological                      |             |                |              | ing  |
| 8.                                                |             |             |           | data in Rem                        |             | •              | . '          |      |
| Total Cover                                       | 95 %        |             |           | - Problematic Hy                   | drophytic   | Vegetati       | on' (Explaii | ו)   |
| Woody Vine Stratum                                | JJ 70       |             |           |                                    |             |                |              |      |
| 1.                                                |             |             |           | <sup>1</sup> Indicators of hydri   | c soil and  | l wetland      | hydrology    | must |
| 2.                                                |             |             |           | be present.                        |             |                |              |      |
| Total Cover                                       | %           |             |           | Hydrophytic<br>Vegetation          |             |                |              |      |
|                                                   | of Biotic C |             | %         | Present?                           | Yes 💿       | No             | 0            |      |
| Remarks: Vegetation data collected by GLA on 6-9- | -12 (see o  | original ha | ndwritten | data form).                        |             |                |              |      |
|                                                   |             |             |           |                                    |             |                |              |      |
|                                                   |             |             |           |                                    |             |                |              |      |
|                                                   |             |             |           |                                    |             |                |              |      |

| Color (moist)         %         Type1         Loc2         Texture3         Remarks           0-6         10YR 3/2         100         none         sandy clay loam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                          |            |                       |            |                   |                  |                                  | oumphing i onit    |                |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------|------------|-----------------------|------------|-------------------|------------------|----------------------------------|--------------------|----------------|--|--|
| Color (moist)       %       Color (moist)       %       Type!       Loc2       Texture3       Remarks         0-6       10YR 3/2       100       none       sandy clay loam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Profile Des              | scription: (Describe                                                                                                     | to the de  | •                     |            |                   | or confirm       | m the absence of indic           | cators.)           |                |  |  |
| 0-6       10YR 3/2       100       none       sandy clay loam         0-6       10YR 3/2       100       none       sandy clay loam         1       1       1       1       1       1         1       1       1       1       1       1       1         1       1       1       1       1       1       1       1       1         1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Depth                    |                                                                                                                          |            |                       |            |                   |                  |                                  |                    |                |  |  |
| Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.         Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand.         Iydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils!         Histic Epipedon (A2)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         2 sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>4</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (inches)                 | Color (moist)                                                                                                            | %          | Color (moist)         | %          | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>             | Rema               | rks            |  |  |
| Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loam, Silt, Loamy Sand, Sand.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>4</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       4Indicators of hydrophytic vegetation and wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0-6                      | 10YR 3/2                                                                                                                 | 100        | none                  |            |                   |                  | sandy clay loam                  |                    |                |  |  |
| Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loam, Silt, Loamy Sand, Sand.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>4</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       4         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       4         Sandy Gleyed Matrix (S4)       Wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                                                                          |            |                       |            |                   |                  |                                  |                    |                |  |  |
| Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loam, Silt, Loamy Sand, Sand.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>4</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       4         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       4         Sandy Gleyed Matrix (S4)       Wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                                                                          |            |                       |            |                   |                  |                                  |                    |                |  |  |
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| Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loam, Silt, Loamy Sand, Sand.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>4</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       4         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       4         Sandy Gleyed Matrix (S4)       Wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                                                                          |            |                       |            |                   |                  |                                  |                    |                |  |  |
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| Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loam, Silt, Loamy Sand, Sand.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>4</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       4         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       4         Sandy Gleyed Matrix (S4)       Wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <sup>1</sup> Type: C=0   | Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. |            |                       |            |                   |                  |                                  |                    |                |  |  |
| Histosol (A1)Sandy Redox (S5)1 cm Muck (A9) (LRR C)Histic Epipedon (A2)Stripped Matrix (S6)2 cm Muck (A10) (LRR B)Black Histic (A3)Loamy Mucky Mineral (F1)Reduced Vertic (F18)Hydrogen Sulfide (A4)Loamy Gleyed Matrix (F2)Red Parent Material (TF2)Stratified Layers (A5) (LRR C)Depleted Matrix (F3)Other (Explain in Remarks)1 cm Muck (A9) (LRR D)Redox Dark Surface (F6)Other (Explain in Remarks)Depleted Below Dark Surface (A11)Depleted Dark Surface (F7)Hick Carls of hydrophytic vegetation and wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <sup>3</sup> Soil Textur | res: Clay, Silty Clay, S                                                                                                 | andy Cla   |                       |            |                   |                  |                                  |                    | ny Sand, Sand. |  |  |
| Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thick Dark Surface (A12)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>4</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Hydric Soil              | Indicators: (Applicabl                                                                                                   | e to all L | RRs, unless otherwise | noted.)    |                   |                  | Indicators for Prob              | lematic Hydric So  | ils:           |  |  |
| Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Hick Carls | Histoso                  | ol (A1)                                                                                                                  |            | Sandy Redo            | x (S5)     |                   |                  | 1 cm Muck (A9) ( <b>LRR C</b> )  |                    |                |  |  |
| Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Hick Dark Surface (A12)         Thick Dark Surface (A12)       Redox Depressions (F8)       4Indicators of hydrophytic vegetation and wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Histic E                 | Epipedon (A2)                                                                                                            |            | Stripped Ma           | atrix (S6) |                   |                  | 2 cm Muck (A10) (LRR B)          |                    |                |  |  |
| Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       Wernal Pools (F9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Black H                  | Histic (A3)                                                                                                              |            | Loamy Muc             | ky Minera  | al (F1)           |                  |                                  |                    |                |  |  |
| 1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Hydrog                   | gen Sulfide (A4)                                                                                                         |            | Loamy Gley            | ed Matrix  | (F2)              |                  | Red Parent Ma                    | aterial (TF2)      |                |  |  |
| Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Stratifie                | ed Layers (A5) (LRR C                                                                                                    | )          | Depleted M            | atrix (F3) |                   |                  | Other (Explain                   | in Remarks)        |                |  |  |
| Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1 cm N                   | luck (A9) ( <b>LRR D</b> )                                                                                               |            | Redox Dark            | Surface    | (F6)              |                  |                                  |                    |                |  |  |
| Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>4</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Deplet                   | ed Below Dark Surface                                                                                                    | e (A11)    | Depleted D            | ark Surfa  | ce (F7)           |                  |                                  |                    |                |  |  |
| Sandy Gleyed Matrix (S4)       wetland hydrology must be present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Thick [                  | Dark Surface (A12)                                                                                                       |            | Redox Dep             | ressions ( | (F8)              |                  |                                  |                    |                |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sandy                    | Mucky Mineral (S1)                                                                                                       |            | Vernal Pool           | s (F9)     |                   |                  | <sup>4</sup> Indicators of hydro | ophytic vegetation | and            |  |  |
| Restrictive Layer (if present):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sandy                    | Gleyed Matrix (S4)                                                                                                       |            |                       |            |                   |                  | wetland hydrold                  | gy must be prese   | nt.            |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Restrictive              | E Layer (if present):                                                                                                    |            |                       |            |                   |                  |                                  |                    |                |  |  |
| Type:none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Type:no                  | one                                                                                                                      |            |                       |            |                   |                  |                                  |                    |                |  |  |
| Depth (inches):none Hydric Soil Present? Yes No (•)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Depth (i                 | nches):none                                                                                                              |            |                       |            |                   |                  | Hydric Soil Presen               | t? Yes 🔿           | No 💿           |  |  |
| Remarks: Soil data collected by GLA on 6-9-12 (see original handwritten data form).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                          | v GLA      | on 6-9-12 (see origi  | nal hand   | lwritten d        | ata form         | ).                               | ~                  | ~              |  |  |
| Myford soils are deep, moderately well drained soils, medium to rapid runoff, very slow permeability, formed on terraces                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                                                                                                          | -          | · · · ·               |            |                   |                  | ·                                | eability, formed   | 1 on terraces  |  |  |
| (Dudek updated soil type).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | •                                                                                                                        | 1 /        | stately wen arannoa   | 55115, III |                   |                  | ion, very siew perm              | , 101110           |                |  |  |

| Wetland Hydrology Indicators:                           |                                                      | Secondary Indicators (2 or more required)  |  |
|---------------------------------------------------------|------------------------------------------------------|--------------------------------------------|--|
| Primary Indicators (any one indicator is sufficient)    |                                                      | Water Marks (B1) (Riverine)                |  |
| Surface Water (A1)                                      | Salt Crust (B11)                                     | Sediment Deposits (B2) ( <b>Riverine</b> ) |  |
| High Water Table (A2)                                   | Biotic Crust (B12)                                   | Drift Deposits (B3) (Riverine)             |  |
| Saturation (A3)                                         | Aquatic Invertebrates (B13)                          | Drainage Patterns (B10)                    |  |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)                           | Dry-Season Water Table (C2)                |  |
| Sediment Deposits (B2) (Nonriverine)                    | ) Thin Muck Surface (C7)                             |                                            |  |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)                        | Crayfish Burrows (C8)                      |  |
| Surface Soil Cracks (B6)                                | Saturation Visible on Aerial Imagery (C9)            |                                            |  |
| Inundation Visible on Aerial Imagery (B7)               | Shallow Aquitard (D3)                                |                                            |  |
| Water-Stained Leaves (B9)                               |                                                      | FAC-Neutral Test (D5)                      |  |
| Field Observations:                                     |                                                      |                                            |  |
| Surface Water Present? Yes O No 💿                       | Depth (inches):                                      |                                            |  |
| Water Table Present? Yes O No 💿                         | Depth (inches):                                      |                                            |  |
| Saturation Present? Yes No  (includes capillary fringe) | Depth (inches): Wetland Hy                           | /drology Present? Yes 💿 No 🔿               |  |
| Describe Recorded Data (stream gauge, monitoring        | well, aerial photos, previous inspections), if avail | able:                                      |  |
|                                                         |                                                      |                                            |  |
| Remarks: Ponds only in extreme years (data col          | lected on GLA handwritten data form 6-9-1            | 12).                                       |  |
|                                                         | rsatile fairy shrimp were detected during the        | ,                                          |  |
| surveys (Dudek updated data form wi                     | ith shrimp data).                                    |                                            |  |
|                                                         | -                                                    |                                            |  |
|                                                         |                                                      |                                            |  |
|                                                         |                                                      |                                            |  |

| Project/Site: Newport Banning Rand        | h                  |                    | City/County:Ora                  | inge County       | Sampling Date: 10-4-12 |             |                    |  |
|-------------------------------------------|--------------------|--------------------|----------------------------------|-------------------|------------------------|-------------|--------------------|--|
| Applicant/Owner: Newport Banning I        | Ranch LLC          |                    |                                  | Sta               | te:CA                  | Sampling    | Point:W            |  |
| Investigator(s): J. Davis IV, T. Wotig    | ka, H. Moine       |                    | Section, Townsl                  | nip, Range:Sectio | on 20, T6S,            | R10W        |                    |  |
| Landform (hillslope, terrace, etc.): Terr | ace                |                    | Local relief (cor                | ncave, convex, no | ne):Concave            | e           | Slope (%):<2       |  |
| Subregion (LRR):C - Mediterranean         | California         | Lat:33.            | 6282611351                       | Datum:WGS 84      |                        |             |                    |  |
| Soil Map Unit Name: Myford sandy 1        | 5 slop             | pes                |                                  |                   | NWI classif            | fication:NA |                    |  |
| Are climatic / hydrologic conditions on t | he site typical fo | or this time of ye | ear?Yes 💿                        | No 🔿 (If r        | no, explain in         | Remarks.)   |                    |  |
| Are Vegetation Soil or H                  | lydrology          | significantly      | v disturbed?                     | Are "Normal Ci    | rcumstances'           | present?    | Yes 💿 🛛 No 🔿       |  |
| Are Vegetation Soil or H                  | lydrology          | naturally pr       | oblematic?                       | (If needed, exp   | lain any answ          | ers in Rema | ırks.)             |  |
| SUMMARY OF FINDINGS - A                   | ttach site m       | ap showing         | sampling po                      | oint locations    | , transect             | s, importa  | ant features, etc. |  |
| Hydrophytic Vegetation Present?           | Yes                | No 💿               |                                  |                   |                        |             |                    |  |
| Hydric Soil Present?                      | Yes 🔘              | No 💿               | Is the Sa                        | mpled Area        |                        |             |                    |  |
| Wetland Hydrology Present?                | Yes 💽              | No 🔘               | o ● within a Wetland? Yes ○ No ● |                   |                        |             |                    |  |
| Remarks: CCC wetland since at least       | ast one wetlan     | d criterion wa     | as met.                          |                   |                        |             |                    |  |
|                                           |                    |                    |                                  |                   |                        |             |                    |  |

|                                                  | Absolute       | Dominant    |              | Dominance Test w                                                  | orksheet    | :          |            |       |
|--------------------------------------------------|----------------|-------------|--------------|-------------------------------------------------------------------|-------------|------------|------------|-------|
| Tree Stratum (Use scientific names.)             | % Cover        | Species?    | Status       | Number of Domina                                                  | nt Species  | 5          |            |       |
| 1                                                |                |             |              | That Are OBL, FAC                                                 | W, or FA    | C:         | 1          | (A)   |
| 2.                                               |                |             |              | Total Number of Do                                                | ominant     |            |            |       |
| 3.                                               |                |             |              | Species Across All                                                |             | í          | 3          | (B)   |
| 4.                                               |                |             |              | -<br>Boroopt of Dominar                                           | at Spacia   |            |            |       |
| Total Cov                                        | ver: %         |             |              | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: 33.3 % |             |            | 33%        | (A/B) |
| Sapling/Shrub Stratum                            |                |             |              |                                                                   |             |            | 1.5 /0     | ()    |
| 1.Hirschfeldia incana                            | 20             | Yes         | UPL          | Prevalence Index                                                  |             |            |            |       |
| 2.Hordeum marinum ssp. gussoneanum               | 25             | Yes         | FAC          | Total % Cover                                                     | of:         | Multip     | ly by:     | -     |
| 3. Bromus rubens                                 | 20             | Yes         | UPL          | OBL species                                                       | 8           | x 1 =      | 8          |       |
| 4. Rumex crispus                                 | 10             | No          | FAC          | FACW species                                                      | 3           | x 2 =      | 6          |       |
| 5.Eleocharis macrostachya                        | 5              | No          | OBL          | FAC species                                                       | 40          | x 3 =      | 120        |       |
| Total Cov                                        | er: 80 %       |             |              | FACU species                                                      | 2           | x 4 =      | 8          |       |
| Herb Stratum                                     |                |             |              | UPL species                                                       | 47          | x 5 =      | 235        |       |
| <sup>1</sup> .Lythrum hyssopifolia               | 3              | No          | OBL          | Column Totals:                                                    | 100         | (A)        | 377        | (B)   |
| 2.Bromus diandrus                                | 5              | No          | UPL          |                                                                   | - • •       |            | 011        | . ,   |
| 3. Eremocarpus setigerus                         | 2              | No          | UPL          | Prevalence In                                                     | dex = B/A   | 4 =        | 3.77       |       |
| 4. Cyperus eragrostis                            | 3              | No          | FACW         | Hydrophytic Vege                                                  | tation Ind  | icators:   |            |       |
| 5. Picris echioides                              | 2              | No          | FACU         | Dominance Te                                                      | st is >50%  | )          |            |       |
| 6. Distichlis spicata                            | 5              | No          | FAC          | Prevalence Ind                                                    | lex is ≤3.0 | 1          |            |       |
| 7.                                               |                | ·           |              | Morphological                                                     |             |            |            | ng    |
| 8.                                               |                |             |              | data in Rem                                                       |             |            |            |       |
| Total Cov                                        | er: 20 %       |             |              | Problematic Hy                                                    | /drophytic  | Vegetation | 1 (Explain | )     |
| Woody Vine Stratum                               | 20 %           |             |              |                                                                   |             |            |            |       |
| 1.                                               |                |             |              | <sup>1</sup> Indicators of hydri                                  | c soil and  | wetland h  | drology    | must  |
| 2.                                               |                |             |              | be present.                                                       |             |            |            |       |
| Total Cov                                        | er: %          |             |              | Hydrophytic                                                       |             |            |            |       |
| % Bare Ground in Herb Stratum0 % Cov             | er of Biotic C | Crust 0     | %            | Vegetation<br>Present?                                            | Yes ()      | No (       | Ð          |       |
| Remarks: Sapling/Shrub Stratum - additional Herb | Stratum t      | hat did not | t fit in Her | b Stratum field.                                                  |             |            |            |       |
| Vegetation data collected by GLA on 5-           | 26-11 (see     | original h  | andwritter   | n data form).                                                     |             |            |            |       |
|                                                  |                |             |              |                                                                   |             |            |            |       |
|                                                  |                |             |              |                                                                   |             |            |            |       |

| Profile Des              | cription: (Describe        | to the dep  | pth needed to docu   | ment the   | indicator         | or confirm       | n the absence of                | indicators.)             |               |  |  |
|--------------------------|----------------------------|-------------|----------------------|------------|-------------------|------------------|---------------------------------|--------------------------|---------------|--|--|
| Depth                    | Matrix                     |             |                      | x Feature  |                   |                  |                                 |                          |               |  |  |
| (inches)                 | Color (moist)              | %           | Color (moist)        | %          | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>            | Rema                     | ırks          |  |  |
| 0-6                      | 10YR 3/2                   |             | None                 |            |                   |                  |                                 |                          |               |  |  |
| 6-12                     |                            |             |                      |            |                   |                  |                                 | layers of redox          | •             |  |  |
|                          |                            |             |                      |            |                   |                  |                                 | appears relictual        | <u>.</u>      |  |  |
|                          |                            |             |                      |            |                   |                  |                                 |                          |               |  |  |
| <sup>3</sup> Soil Textur |                            | andy Cla    | y, Loam, Sandy Clay  | Loam, Sa   |                   |                  |                                 | m, Silt Loam, Silt, Loar | -             |  |  |
|                          | Indicators: (Applicabl     | e to all LF | Rs, unless otherwise | e noted.)  |                   |                  |                                 | Problematic Hydric So    | ils:          |  |  |
| Histoso                  |                            |             | Sandy Redo           | . ,        |                   |                  | 1 cm Muck (A9) ( <b>LRR C</b> ) |                          |               |  |  |
|                          | pipedon (A2)               |             | Stripped M           | . ,        |                   |                  | 2 cm Muck (A10) (LRR B)         |                          |               |  |  |
|                          | listic (A3)                |             | Loamy Mud            | •          | . ,               |                  | Reduced Vertic (F18)            |                          |               |  |  |
|                          | en Sulfide (A4)            |             | Loamy Gle            | 5          | . ,               |                  |                                 | nt Material (TF2)        |               |  |  |
| Stratifie                | ed Layers (A5) (LRR C      | ;)          | Depleted N           | ( )        |                   |                  | Other (Explain in Remarks)      |                          |               |  |  |
| 1 cm M                   | luck (A9) ( <b>LRR D</b> ) |             | Redox Dar            | k Surface  | (F6)              |                  |                                 |                          |               |  |  |
| Deplete                  | ed Below Dark Surface      | e (A11)     | Depleted D           | ark Surfa  | ce (F7)           |                  |                                 |                          |               |  |  |
| Thick D                  | ark Surface (A12)          |             | Redox Dep            | ressions ( | (F8)              |                  |                                 |                          |               |  |  |
| Sandy                    | Mucky Mineral (S1)         |             | Vernal Poo           | ls (F9)    |                   |                  | <sup>4</sup> Indicators of      | hydrophytic vegetation   | and           |  |  |
| Sandy                    | Gleyed Matrix (S4)         |             |                      |            |                   |                  | wetland hy                      | drology must be prese    | nt.           |  |  |
| Restrictive              | Layer (if present):        |             |                      |            |                   |                  |                                 |                          |               |  |  |
| Type:                    |                            |             |                      |            |                   |                  |                                 |                          |               |  |  |
| Depth (ir                | nches):                    |             |                      |            |                   |                  | Hydric Soil Pr                  | esent? Yes 🔿             | No 💽          |  |  |
| Remarks: S               | oil data collected b       | y GLA c     | on 5-26-11 (see ori  | ginal har  | ndwritten         | data forn        | n).                             |                          |               |  |  |
| Ν                        | Ayford soils are dee       | p, mode     | rately well drained  | l soils, m | edium to          | rapid run        | off, very slow j                | permeability, forme      | d on terraces |  |  |
| ()                       | Dudek updated soil         | type).      | -                    |            |                   | -                |                                 | •                        |               |  |  |

| Wetland Hydrology Indicators:                           |                                      | -                 | Secondary Indicators (2 or more required) |
|---------------------------------------------------------|--------------------------------------|-------------------|-------------------------------------------|
| Primary Indicators (any one indicator is sufficient)    |                                      |                   | Water Marks (B1) (Riverine)               |
| Surface Water (A1)                                      | Salt Crust (B11)                     |                   | Sediment Deposits (B2) (Riverine)         |
| High Water Table (A2)                                   | Biotic Crust (B12)                   |                   | Drift Deposits (B3) (Riverine)            |
| Saturation (A3)                                         | Aquatic Invertebrates (B13)          |                   | Drainage Patterns (B10)                   |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)           |                   | Dry-Season Water Table (C2)               |
| Sediment Deposits (B2) (Nonriverine)                    | Oxidized Rhizospheres along Livir    | ng Roots (C3)     | Thin Muck Surface (C7)                    |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)        |                   | Crayfish Burrows (C8)                     |
| Surface Soil Cracks (B6)                                | Recent Iron Reduction in Plowed S    | Soils (C6)        | Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aerial Imagery (B7)               | Other (Explain in Remarks)           |                   | Shallow Aquitard (D3)                     |
| Water-Stained Leaves (B9)                               |                                      |                   | FAC-Neutral Test (D5)                     |
| Field Observations:                                     |                                      |                   |                                           |
| Surface Water Present? Yes O No 💿                       | Depth (inches):                      |                   |                                           |
| Water Table Present? Yes O No 💿                         | Depth (inches):                      |                   |                                           |
| Saturation Present? Yes No  (includes capillary fringe) | Depth (inches):                      | Wetland Hyd       | rology Present? Yes 💿 No 🔿                |
| Describe Recorded Data (stream gauge, monitoring we     | ell, aerial photos, previous inspect | ions), if availab | le:                                       |
|                                                         |                                      |                   |                                           |
| Remarks: Ponds only in extreme years - did not po       | ond in 2011/2012 per GLA we          | et season surv    | ev.                                       |
| Hydrology data collected by GLA on 6-                   | 1                                    |                   |                                           |
| *Aquatic Invertebrates* Common versa                    | , e                                  | ,                 | resent in this feature during 2012 dry    |
| season fairy shrimp surveys (Dudek upo                  |                                      | -                 | <b>U U</b>                                |
|                                                         |                                      |                   |                                           |
|                                                         |                                      |                   |                                           |
| US Army Corps of Engineers                              |                                      |                   |                                           |

| LC                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Stat                                                                                                                                                                                                        | e:CA                                                                                                                                                                                                                                                                                                                      | Sampling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Doint 37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant/Owner: Newport Banning Ranch LLC |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                           | Sampling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Point.X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Moine                                      | Section, Township                                                                                                                                                                                                                                                                                                                                                                                                                                         | , Range:Sectio                                                                                                                                                                                              | on 20, T6S, R                                                                                                                                                                                                                                                                                                             | 210W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                            | Local relief (conca                                                                                                                                                                                                                                                                                                                                                                                                                                       | ave, convex, noi                                                                                                                                                                                            | ne):Concave                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Slope (%):<2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ia Lat:33                                  | 6386198632                                                                                                                                                                                                                                                                                                                                                                                                                                                | Long:-11                                                                                                                                                                                                    | 7.944341996                                                                                                                                                                                                                                                                                                               | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Datum: WGS 84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| % slopes                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                             | NWI classific                                                                                                                                                                                                                                                                                                             | ation:NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| pical for this time of                     | year?Yes 💿 🛛 I                                                                                                                                                                                                                                                                                                                                                                                                                                            | No 🔿  (If n                                                                                                                                                                                                 | o, explain in R                                                                                                                                                                                                                                                                                                           | emarks.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| significant                                | ly disturbed?                                                                                                                                                                                                                                                                                                                                                                                                                                             | Are "Normal Cir                                                                                                                                                                                             | cumstances" p                                                                                                                                                                                                                                                                                                             | present?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | res 💿 🛛 No 🔿                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| naturally p                                | problematic?                                                                                                                                                                                                                                                                                                                                                                                                                                              | (If needed, expl                                                                                                                                                                                            | ain any answe                                                                                                                                                                                                                                                                                                             | rs in Rema                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | irks.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ite map showin                             | g sampling poir                                                                                                                                                                                                                                                                                                                                                                                                                                           | nt locations                                                                                                                                                                                                | , transects,                                                                                                                                                                                                                                                                                                              | , importa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ant features, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| No 💿                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| No 💿                                       | Is the Sam                                                                                                                                                                                                                                                                                                                                                                                                                                                | pled Area                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| No                                         | within a W                                                                                                                                                                                                                                                                                                                                                                                                                                                | etland?                                                                                                                                                                                                     | Yes 🔿                                                                                                                                                                                                                                                                                                                     | No (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                            | Lat:33          iia       Lat:33         % slopes       significant         impical for this time of gradient       significant         impical for this time of gradient       naturally gradient         impical for this time of gradient       naturally gradient         impical for this time of gradient       naturally gradient         intermap showin       No         No       No         No       No         No       No         No       No | Local relief (conca<br>tia Lat:33.6386198632<br>% slopes<br>pical for this time of year? Yes • N<br>significantly disturbed?<br>naturally problematic?<br>site map showing sampling poir<br>No • Is the Sam | Local relief (concave, convex, nor<br>tia Lat:33.6386198632 Long:-11<br>% slopes<br>rpical for this time of year? Yes  No (If n<br>significantly disturbed? Are "Normal Cir<br>naturally problematic? (If needed, expla<br>Site map showing sampling point locations,<br>No  No  Is the Sampled Area<br>within a Wetland? | Local relief (concave, convex, none): Concave         tia       Lat:33.6386198632       Long:-117.944341996         % slopes       NWI classific         rpical for this time of year? Yes • No • (If no, explain in R         significantly disturbed?       Are "Normal Circumstances" p         naturally problematic?       (If needed, explain any answe         site map showing sampling point locations, transects         No •       Is the Sampled Area         No •       Within a Wetland? | Local relief (concave, convex, none): Concave         tia       Lat:33.6386198632       Long:-117.944341996         % slopes       NWI classification:NA         rpical for this time of year? Yes • No • (If no, explain in Remarks.)         significantly disturbed?       Are "Normal Circumstances" present?         naturally problematic?       (If needed, explain any answers in Remarks.)         ite map showing sampling point locations, transects, importation         No •       Is the Sampled Area         within a Wetland?       Yes • No • |

|                                                  | Absolute    | Dominant   |        | Dominance Test w                       | vorkshee    | t:             |               |       |
|--------------------------------------------------|-------------|------------|--------|----------------------------------------|-------------|----------------|---------------|-------|
| Tree Stratum (Use scientific names.)<br>1.       | % Cover     | Species?   | Status | Number of Dominal<br>That Are OBL, FAC |             |                | 1             | (A)   |
| 2.                                               |             |            |        | Total Number of Do                     | ominant     |                |               |       |
| 3.                                               |             |            |        | Species Across All                     |             |                | 2             | (B)   |
| 4                                                |             |            |        | <ul> <li>Percent of Dominar</li> </ul> | nt Species  | 3              |               |       |
| Copling/Shrub Stratum                            | r: %        |            |        | That Are OBL, FAC                      |             |                | 50.0 %        | (A/B) |
| Sapling/Shrub Stratum                            |             |            |        | Prevalence Index                       | werkehe     |                |               |       |
| 1                                                |             |            |        |                                        |             |                | Mark - Kern   |       |
| 2                                                |             |            |        | Total % Cover                          |             |                | Itiply by:    | -     |
| 3                                                |             |            |        | OBL species                            | 15          | x 1 =          | 15            |       |
| 4.                                               |             |            |        | FACW species                           | 5           | x 2 =          | 10            |       |
| 5.                                               |             |            |        | FAC species                            |             | x 3 =          | 0             |       |
| Total Cover                                      | : %         |            |        | FACU species                           | 35          | x 4 =          | 140           |       |
| Herb Stratum                                     |             |            |        | UPL species                            |             | x 5 =          | 0             |       |
| <sup>1</sup> Cotula coronipifolia                | 15          | Yes        | OBL    | Column Totals:                         | 55          | (A)            | 165           | (B)   |
| <sup>2</sup> .Deinandra fasciculata              | 25          | Yes        | FACU   |                                        |             |                |               |       |
| <sup>3</sup> .Polypogon monspeliensis            | 5           | No         | FACW   | Prevalence In                          |             |                | 3.00          |       |
| 4. Bromus hordeaceus                             | 10          | No         | FACU   | Hydrophytic Vege                       |             |                |               |       |
| 5.                                               |             |            |        | Dominance Te                           | st is >50%  | 6              |               |       |
| 6.                                               |             |            |        | Prevalence Ind                         | lex is ≤3.0 | ) <sup>1</sup> |               |       |
| 7.                                               |             |            |        | Morphological                          |             |                |               | ing   |
| 8.                                               |             | ·          |        | data in Rem                            |             |                | . '           |       |
| Total Cover                                      | 55 %        |            |        | - Problematic Hy                       | drophytic   | : Vegetat      | ion' (Explair | ו)    |
| Woody Vine Stratum                               | JJ 70       |            |        |                                        |             |                |               |       |
| 1.                                               |             |            |        | <sup>1</sup> Indicators of hydri       | c soil and  | l wetland      | l hydrology   | must  |
| 2.                                               |             |            |        | be present.                            |             |                |               |       |
| Total Cover                                      | %           |            |        | Hydrophytic<br>Vegetation              |             |                |               |       |
| % Bare Ground in Herb Stratum 45 % % Cover       | of Biotic C | Crust (    | ) %    | Present?                               | Yes 🔿       | No             | $\bullet$     |       |
| Remarks: *Hydrophytic Vegetation Present* Area i | s road wi   | th road ru | ts.    | 1                                      |             |                |               |       |
| Vegetation data collected by GLA on 6-9          |             |            |        | data form).                            |             |                |               |       |
|                                                  |             | 0          |        | /                                      |             |                |               |       |
|                                                  |             |            |        |                                        |             |                |               |       |

| Profile Des           | scription: (Describe t   | o the de | pth needed to docu  | ment the    | indicator         | or confirm       | n the absence of i                       | ndicators.)            |                |  |  |
|-----------------------|--------------------------|----------|---------------------|-------------|-------------------|------------------|------------------------------------------|------------------------|----------------|--|--|
| Depth                 | Matrix                   |          |                     | x Features  |                   |                  |                                          |                        |                |  |  |
| (inches)              | Color (moist)            | %        | Color (moist)       | %           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>                     | Rema                   | arks           |  |  |
| 0-6                   | 5YR 3/3                  | 100      | none                |             |                   |                  | clay loam                                |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |
| <sup>1</sup> Type: C= | Concentration, D=Depl    | etion RM |                     |             |                   | Lining R         | C=Root Channel, N                        | M=Matrix               |                |  |  |
| • •                   | res: Clay, Silty Clay, S |          |                     |             |                   | -                |                                          |                        | mv Sand, Sand. |  |  |
|                       | Indicators: (Applicable  |          |                     |             |                   | , <b>,</b>       | Indicators for Problematic Hydric Soils: |                        |                |  |  |
|                       | ol (A1)                  |          | Sandy Redo          | -           |                   |                  |                                          | (A9) (LRR C)           |                |  |  |
|                       | Epipedon (A2)            |          | Stripped M          | ( )         |                   |                  |                                          | (A10) ( <b>LRR B</b> ) |                |  |  |
|                       | Histic (A3)              |          | Loamy Muc           | . ,         | al (F1)           |                  |                                          | /ertic (F18)           |                |  |  |
| Hydrog                | gen Sulfide (A4)         |          | Loamy Gle           | yed Matrix  | (F2)              |                  | Red Paren                                | nt Material (TF2)      |                |  |  |
| Stratifi              | ed Layers (A5) (LRR C    | ;)       | Depleted N          | latrix (F3) |                   |                  | Other (Exp                               | plain in Remarks)      |                |  |  |
| 1 cm N                | Muck (A9) (LRR D)        |          | Redox Darl          | k Surface   | (F6)              |                  |                                          |                        |                |  |  |
| Deplet                | ted Below Dark Surface   | e (A11)  | Depleted D          | ark Surfac  | ce (F7)           |                  |                                          |                        |                |  |  |
| Thick I               | Dark Surface (A12)       |          | Redox Dep           | ,           | F8)               |                  |                                          |                        |                |  |  |
| -                     | Mucky Mineral (S1)       |          | Vernal Poo          | ls (F9)     |                   |                  |                                          | ydrophytic vegetatior  |                |  |  |
| Sandy                 | Gleyed Matrix (S4)       |          |                     |             |                   |                  | wetland hyd                              | frology must be prese  | ent.           |  |  |
| Restrictive           | e Layer (if present):    |          |                     |             |                   |                  |                                          |                        |                |  |  |
| Type:no               | one                      |          |                     |             |                   |                  |                                          |                        |                |  |  |
| Depth (i              | inches):NA               |          |                     |             |                   |                  | Hydric Soil Pre                          | esent? Yes 🔿           | No 💿           |  |  |
| Remarks: S            | Soil data collected by   | y GLA o  | on 6-9-12 (see orig | inal hand   | lwritten d        | ata form         | ).                                       |                        |                |  |  |
| 1                     | Myford soils are dee     | p, mode  | rately well drained | l soils, m  | edium to          | rapid rur        | noff, very slow p                        | ermeability, forme     | d on terraces  |  |  |
| (                     | (Dudek updated soil      | type).   | -                   |             |                   | -                | - 1                                      | -                      |                |  |  |
|                       |                          |          |                     |             |                   |                  |                                          |                        |                |  |  |

| Wetland Hydrology Indicators:                           |                                         | Secondary Indicators (2 or more required)             |
|---------------------------------------------------------|-----------------------------------------|-------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)    | Water Marks (B1) (Riverine)             |                                                       |
| X Surface Water (A1)                                    | Salt Crust (B11)                        | Sediment Deposits (B2) ( <b>Riverine</b> )            |
| High Water Table (A2)                                   | Biotic Crust (B12)                      | Drift Deposits (B3) ( <b>Riverine</b> )               |
| Saturation (A3)                                         | X Aquatic Invertebrates (B13)           | Drainage Patterns (B10)                               |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)              | Dry-Season Water Table (C2)                           |
| Sediment Deposits (B2) (Nonriverine)                    | Oxidized Rhizospheres along Livi        | ng Roots (C3) 🔲 Thin Muck Surface (C7)                |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)           | Crayfish Burrows (C8)                                 |
| Surface Soil Cracks (B6)                                | Recent Iron Reduction in Plowed         | Soils (C6) Saturation Visible on Aerial Imagery (C9)  |
| Inundation Visible on Aerial Imagery (B7)               | Other (Explain in Remarks)              | Shallow Aquitard (D3)                                 |
| Water-Stained Leaves (B9)                               |                                         | FAC-Neutral Test (D5)                                 |
| Field Observations:                                     |                                         |                                                       |
| Surface Water Present? Yes  No                          | Depth (inches): 2-3                     |                                                       |
| Water Table Present? Yes O No 💽                         | Depth (inches):                         |                                                       |
| Saturation Present? Yes No ( includes capillary fringe) | Depth (inches):                         | Wetland Hydrology Present? Yes 💿 No 🔿                 |
| Describe Recorded Data (stream gauge, monitorin         | ng well, aerial photos, previous inspec | tions), if available:                                 |
|                                                         |                                         |                                                       |
| Remarks:*Wetland Hydrology Present* Area                | pond for $> 14$ days within ruts. A     | Area is major access road (hydrology data on original |
| GLA handwritten data form 6-9-12)                       | ). Feature inundated for at least 14    | days during 2012-2013 rain season.                    |
| *Aquatic Invertebrates* Common v                        | ersatile fairy shrimp observed du       | ring 2011-2012 wet season fairy shrimp surveys and    |
| common versatile fairy shrimp and                       | ostracod shells were present in the     | s feature during 2012 dry season fairy shrimp surveys |
| (Dudek updated data form with aqu                       | atic invertebrates data).               |                                                       |
| US Army Corps of Engineers                              |                                         |                                                       |

| Project/Site: Newport Banning Ranch                    | City/County:Ora        | ange County      |                    | Sampling [      | Date:10-4    | -12      |               |
|--------------------------------------------------------|------------------------|------------------|--------------------|-----------------|--------------|----------|---------------|
| Applicant/Owner: Newport Banning Ranch LLC             | 2                      |                  | Stat               | e:CA            | Sampling F   | Point:Y  |               |
| Investigator(s): J. Davis IV, T. Wotipka, H. Mo        | ine                    | Section, Towns   | hip, Range:Sectio  | n 20, T6S, l    | R10W         |          |               |
| Landform (hillslope, terrace, etc.): Terrace           |                        | Local relief (co | ncave, convex, nor | ne):Concave     |              | Slope (  | <b>%</b> ):<2 |
| Subregion (LRR):C - Mediterranean California           | Lat:33.0               | 637956545        | Long:-11           | 7.94456765      | 7            | Datum:   | WGS 84        |
| Soil Map Unit Name: Myford sandy loam 0-2%             | slopes                 |                  |                    | NWI classifi    | cation:NA    |          |               |
| Are climatic / hydrologic conditions on the site typic | al for this time of ye | ear?Yes 💿        | No 🔿 (If n         | o, explain in F | Remarks.)    |          |               |
| Are Vegetation Soil or Hydrology                       | significantly          | v disturbed?     | Are "Normal Cir    | cumstances"     | present? Y   | es 💽     | No 🔿          |
| Are Vegetation Soil or Hydrology                       | naturally pro          | oblematic?       | (If needed, expla  | ain any answe   | ers in Remar | ks.)     |               |
| SUMMARY OF FINDINGS - Attach site                      | e map showing          | sampling p       | oint locations,    | transects       | , importa    | nt featu | res, etc.     |
| Hydrophytic Vegetation Present? Yes                    | No 💿                   |                  |                    |                 |              |          |               |
| Hydric Soil Present? Yes                               | No 💿                   | Is the Sa        | ampled Area        |                 |              |          |               |
| Wetland Hydrology Present? Yes (                       |                        | Wetland?         | Yes 🔿              | No 🦲            | )            |          |               |
| Remarks: CCC wetland since at least one wet            | land criterion wa      | as met.          |                    |                 |              |          |               |

|                                                  | Absolute      | Dominant    |           | Dominance Test v                | workshee                                                                                           | t:             |             |       |
|--------------------------------------------------|---------------|-------------|-----------|---------------------------------|----------------------------------------------------------------------------------------------------|----------------|-------------|-------|
| Tree Stratum (Use scientific names.)             | % Cover       | Species?    | Status    | Number of Domina                |                                                                                                    |                |             |       |
| 1                                                |               |             |           | That Are OBL, FAC               | CW, or FA                                                                                          | C:             | 2           | (A)   |
| 2                                                |               |             |           | _ Total Number of D             | ominant                                                                                            |                |             |       |
| 3.                                               |               |             |           | Species Across All              |                                                                                                    |                | 4           | (B)   |
| 4.                                               | _             |             |           | Percent of Domina               | nt Spacia                                                                                          |                |             |       |
| Total Cove                                       | r: %          |             |           | That Are OBL, FAC               |                                                                                                    | -              | 0.0 %       | (A/B) |
| Sapling/Shrub Stratum                            |               |             |           |                                 |                                                                                                    | C C            | 0.0 /0      |       |
| 1.Baccharis salicifolia                          | 5             | Yes         | FAC       | Prevalence Index                |                                                                                                    | et:            |             |       |
| 2. Isocoma menziesii                             | 2             | Yes         | UPL       | Total % Cover                   | of:                                                                                                | Multi          | ply by:     |       |
| 3.                                               |               |             |           | OBL species                     |                                                                                                    | x 1 =          | 0           |       |
| 4.                                               |               | ·           |           | FACW species                    | 20                                                                                                 | x 2 =          | 40          |       |
| 5.                                               |               | ·           |           | FAC species                     | 5                                                                                                  | x 3 =          | 15          |       |
| Total Cover                                      | r: 7 %        |             |           | FACU species                    | 5                                                                                                  | x 4 =          | 20          |       |
| Herb Stratum                                     |               |             |           | UPL species                     | 17                                                                                                 | x 5 =          | 85          |       |
| <sup>1</sup> .Deinandra fasciculata              | 5             | No          | FACU      | Column Totals:                  | 47                                                                                                 | (A)            | 160         | (B)   |
| 2. Polypogon monspeliensis                       | 20            | Yes         | FACW      | _                               |                                                                                                    | ( )            | 100         | . ,   |
| <sup>3</sup> . <i>Centaurea melitensis</i>       | 15            | Yes         | UPL       | Prevalence Ir                   | ndex = B/                                                                                          | A =            | 3.40        |       |
| 4.                                               |               | ·           |           | Hydrophytic Vege                | etation Inc                                                                                        | licators:      |             |       |
| 5.                                               |               | ·           |           | Dominance Te                    | est is >50%                                                                                        | 0              |             |       |
| 6.                                               |               |             |           | Prevalence Inc                  | dex is ≤3.0                                                                                        | ) <sup>1</sup> |             |       |
| 7.                                               |               |             |           |                                 | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                |             |       |
| 8.                                               |               | ·           |           |                                 |                                                                                                    |                |             |       |
| Total Cover                                      | r: 40 %       |             |           | - Problematic H                 | ydrophytic                                                                                         | Vegetatio      | n' (Explain | )     |
| Woody Vine Stratum                               | 40 %          |             |           |                                 |                                                                                                    |                |             |       |
| 1.                                               |               |             |           | <sup>1</sup> Indicators of hydr | ic soil and                                                                                        | l wetland h    | nydrology r | nust  |
| 2.                                               |               |             |           | be present.                     |                                                                                                    |                |             |       |
| Total Cover                                      | r: %          |             |           | Hydrophytic                     |                                                                                                    |                |             |       |
| % Bare Ground in Herb Stratum 53 % % Cover       | r of Biotic ( | Crust 0     | %         | Vegetation<br>Present?          | Yes ()                                                                                             | No             |             |       |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see d    | original ha | ndwritten | data form).                     |                                                                                                    |                |             |       |
|                                                  |               |             |           |                                 |                                                                                                    |                |             |       |
|                                                  |               |             |           |                                 |                                                                                                    |                |             |       |
|                                                  |               |             |           |                                 |                                                                                                    |                |             |       |

| Profile Des            | scription: (Describe t                      | to the de | pth needed to docume    | ent the      | indicator of      | or confirm       | n the absence of in              | ndicators.)          |                |  |  |
|------------------------|---------------------------------------------|-----------|-------------------------|--------------|-------------------|------------------|----------------------------------|----------------------|----------------|--|--|
| Depth                  | Matrix                                      |           | Redox I                 | Feature      | S                 |                  |                                  |                      |                |  |  |
| (inches)               | Color (moist)                               | %         | Color (moist)           | %            | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>             | Rema                 | irks           |  |  |
| 0-4                    | 7.5YR 3/3                                   | 100       | none                    | none         |                   |                  | clay loam                        |                      |                |  |  |
| 4-6                    | 7.5YR 3/3                                   | 100       | none                    |              |                   |                  | clay loam                        |                      |                |  |  |
|                        |                                             |           |                         |              |                   |                  |                                  |                      |                |  |  |
|                        |                                             |           | · · _                   |              |                   |                  |                                  |                      |                |  |  |
|                        |                                             |           | · ·                     |              |                   |                  |                                  |                      |                |  |  |
|                        |                                             |           |                         |              |                   |                  |                                  |                      |                |  |  |
|                        |                                             |           |                         |              |                   |                  |                                  |                      |                |  |  |
|                        |                                             |           |                         |              |                   |                  |                                  |                      |                |  |  |
|                        |                                             |           |                         |              |                   |                  |                                  |                      |                |  |  |
| <sup>1</sup> Type: C=0 | Concentration, D=Depl                       | etion RN  | I=Reduced Matrix 2      | <br>Locatior |                   | Lining R         | C=Root Channel, M                | 1=Matrix             |                |  |  |
|                        |                                             |           | y, Loam, Sandy Clay L   |              |                   | -                |                                  |                      | ny Sand, Sand. |  |  |
|                        |                                             | •         | RRs, unless otherwise n |              |                   |                  |                                  | roblematic Hydric Sc | •              |  |  |
| Histos                 | ol (A1)                                     |           | Sandy Redox             | (S5)         |                   |                  | 1 cm Muck (A9) ( <b>LRR C</b> )  |                      |                |  |  |
| Histic E               | Epipedon (A2)                               |           | Stripped Matr           | ix (S6)      |                   |                  | 2 cm Muck (A10) ( <b>LRR B</b> ) |                      |                |  |  |
|                        | Histic (A3)                                 |           | Loamy Mucky             |              | . ,               |                  | Reduced V                        | ( )                  |                |  |  |
|                        | gen Sulfide (A4)                            |           | Loamy Gleye             |              | (F2)              |                  |                                  | t Material (TF2)     |                |  |  |
|                        | ed Layers (A5) (LRR C                       | ;)        | Depleted Mat            | ` '          | (50)              |                  | Other (Expl                      | lain in Remarks)     |                |  |  |
|                        | luck (A9) (LRR D)                           | ( ) )     | Redox Dark S            |              | ( )               |                  |                                  |                      |                |  |  |
|                        | ed Below Dark Surface<br>Dark Surface (A12) | e (A11)   | Depleted Dar            |              | · · /             |                  |                                  |                      |                |  |  |
|                        | Mucky Mineral (S1)                          |           | Vernal Pools            |              | FO)               |                  | <sup>4</sup> Indicators of h     | drophytic vegetatior | and            |  |  |
|                        | Gleyed Matrix (S4)                          |           |                         | (13)         |                   |                  |                                  | rology must be prese |                |  |  |
|                        | E Layer (if present):                       |           |                         |              |                   |                  |                                  |                      |                |  |  |
| Type:nc                |                                             |           |                         |              |                   |                  |                                  |                      |                |  |  |
|                        | nches):NA                                   |           |                         |              |                   |                  | Hydric Soil Pres                 | sent? Yes 🔿          | No 💿           |  |  |
|                        |                                             | V GL A    | on 6-9-12 (see origin   | al hand      | writton d         | ata form         |                                  |                      |                |  |  |
|                        |                                             |           | rately well drained s   |              |                   |                  |                                  | ermeability forme    | d on terraces  |  |  |
|                        | Dudek updated soil                          |           | atory well drailled s   | 0115, 111    |                   | i apiù i ui      | ion, very slow pe                | incaointy, ionite    | 1 on whates    |  |  |
|                        | Dudek updated soll                          | type).    |                         |              |                   |                  |                                  |                      |                |  |  |

| Wetland Hydrology Indicators:                                 |                                          | Secondary Indicators (2 or more required)             |
|---------------------------------------------------------------|------------------------------------------|-------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)          | )                                        | Water Marks (B1) (Riverine)                           |
| X Surface Water (A1)                                          | Salt Crust (B11)                         | Sediment Deposits (B2) ( <b>Riverine</b> )            |
| High Water Table (A2)                                         | Biotic Crust (B12)                       | Drift Deposits (B3) ( <b>Riverine</b> )               |
| Saturation (A3)                                               | Aquatic Invertebrates (B13)              | Drainage Patterns (B10)                               |
| Water Marks (B1) (Nonriverine)                                | Hydrogen Sulfide Odor (C1)               | Dry-Season Water Table (C2)                           |
| Sediment Deposits (B2) (Nonriverine)                          | Oxidized Rhizospheres along Livi         | ng Roots (C3) Thin Muck Surface (C7)                  |
| Drift Deposits (B3) (Nonriverine)                             | Presence of Reduced Iron (C4)            | Crayfish Burrows (C8)                                 |
| Surface Soil Cracks (B6)                                      | Recent Iron Reduction in Plowed          | Soils (C6) Saturation Visible on Aerial Imagery (C9)  |
| Inundation Visible on Aerial Imagery (B7)                     | Other (Explain in Remarks)               | Shallow Aquitard (D3)                                 |
| Water-Stained Leaves (B9)                                     |                                          | FAC-Neutral Test (D5)                                 |
| Field Observations:                                           |                                          |                                                       |
| Surface Water Present? Yes O No                               | Depth (inches):                          |                                                       |
| Water Table Present? Yes O No 🕢                               | Depth (inches):                          |                                                       |
| Saturation Present? Yes O No (<br>(includes capillary fringe) | Depth (inches):                          | Wetland Hydrology Present? Yes   No                   |
| Describe Recorded Data (stream gauge, monitori                | ing well, aerial photos, previous inspec | tions), if available:                                 |
|                                                               |                                          |                                                       |
| Remarks:Ponding observed during extreme n                     | rainfall conditions of 2010-2011 w       | ith = 189% of normal. No ponding or saturation during |
| 2011-2012 per GLA wet season su                               | rvey. Feature inundated for at leas      | t 14 days during 2012-2013 rain season.               |
| Hydrology data collected by GLA                               | on 6-9-12 (see original handwritte       | n data form).                                         |
| *Aquatic Invertebrates* Common                                | versatile fairy shrimp and ostracod      | shells were present in this feature during 2012 dry   |
| season fairy shrimp surveys (Dude                             | k updated data form with aquatic i       | nvertebrates data).                                   |
| US Army Corps of Engineers                                    |                                          |                                                       |

| Project/Site: Newport Banning Ranch                                 | City/County:Oran      | nge County                                             | Sampling Date: 10-4-12      |  |  |  |  |
|---------------------------------------------------------------------|-----------------------|--------------------------------------------------------|-----------------------------|--|--|--|--|
| Applicant/Owner: Newport Banning Ranch LLC                          |                       | State:CA                                               | Sampling Point:Z            |  |  |  |  |
| Investigator(s): J. Davis, T. Wotipka, H. Moine                     | Section, Townsh       | ip, Range:Section 20, T6S,                             | R10W                        |  |  |  |  |
| Landform (hillslope, terrace, etc.): Terrace                        | Local relief (con     | cave, convex, none):Concav                             | e Slope (%):<2              |  |  |  |  |
| Subregion (LRR):C - Mediterranean California                        | Lat:33.6366716278     | Long:-117.9440730                                      | 45 Datum: WGS 84            |  |  |  |  |
| Soil Map Unit Name: Myford sandy loam 0-2% slopes                   |                       | NWI classi                                             | ication:NA                  |  |  |  |  |
| Are climatic / hydrologic conditions on the site typical for this t | ime of year? Yes 💿    | No (If no, explain in                                  | Remarks.)                   |  |  |  |  |
| Are Vegetation Soil or Hydrology sig                                | nificantly disturbed? | Are "Normal Circumstances'                             | present? Yes 💿 No 🔿         |  |  |  |  |
| Are Vegetation Soil or Hydrology nat                                | urally problematic?   | blematic? (If needed, explain any answers in Remarks.) |                             |  |  |  |  |
| SUMMARY OF FINDINGS - Attach site map sh                            | owing sampling po     | int locations, transect                                | s, important features, etc. |  |  |  |  |
| Hydrophytic Vegetation Present? Yes 🦳 No                            | •                     |                                                        |                             |  |  |  |  |
| Hydric Soil Present? Yes 🕥 No                                       | Is the Sat            | mpled Area                                             |                             |  |  |  |  |
| Wetland Hydrology Present? Yes  No                                  | within a \            | Wetland? Yes (                                         | No 💿                        |  |  |  |  |

Remarks: Feature is excavated trench to contain potential spills from pipeline.

CCC wetland since at least one wetland criterion was met.

|                                                  | Absolute    | Dominant    | Indicator | Dominance Test w                                 | orkshee    | t:                                           |           |        |
|--------------------------------------------------|-------------|-------------|-----------|--------------------------------------------------|------------|----------------------------------------------|-----------|--------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominar                                | nt Species | S                                            |           |        |
| 1                                                |             |             |           | That Are OBL, FAC                                |            |                                              | (         | (A)    |
| 2.                                               |             |             |           | Total Number of Dominant                         |            |                                              |           |        |
| 3.                                               |             |             |           | Species Across All S                             |            | 3                                            | (         | (B)    |
| 4.                                               |             |             |           | Percent of Dominan                               | t Spacia   | _                                            |           |        |
| Total Cove                                       | r: %        |             |           | That Are OBL, FAC                                |            |                                              | 3 % (     | A/B)   |
| Sapling/Shrub Stratum                            |             |             |           |                                                  |            |                                              | ) /o 、    | , ,    |
| 1 Baccharis salicifolia                          | 30          | Yes         | FAC       | Prevalence Index v                               |            |                                              |           |        |
| 2.                                               |             |             |           | Total % Cover of                                 | of:        | Multiply                                     | by:       |        |
| 3.                                               |             |             |           | OBL species                                      |            | x 1 =                                        | 0         |        |
| 4.                                               |             |             |           | FACW species                                     | 1          | x 2 =                                        | 2         |        |
| 5.                                               |             |             |           | FAC species                                      | 36         | x 3 =                                        | 108       |        |
| Total Cover                                      | : 30 %      |             |           | FACU species                                     | 8          | x 4 =                                        | 32        |        |
| Herb Stratum                                     |             |             |           | UPL species                                      | 5          | x 5 =                                        | 25        |        |
| <sup>1</sup> .Hirschfeldia incana                | 5           | Yes         | UPL       | Column Totals:                                   | 50         | (A)                                          | 167       | (B)    |
| <sup>2</sup> .Deinandra fasciculata              | 5           | Yes         | FACU      |                                                  |            |                                              |           |        |
| <sup>3</sup> .Pseudognaphalium luteoalbum        | 3           | No          | FAC       | Prevalence Inc                                   |            |                                              | 3.34      |        |
| <sup>4</sup> . Conyza canadensis                 | 3           | No          | FACU      | Hydrophytic Veget                                |            |                                              |           |        |
| 5.Rumex crispus                                  | 3           | No          | FAC       | Dominance Tes                                    | st is >50% | 6                                            |           |        |
| 6. Polypogon monspeliensis                       | 1           | No          | FACW      | Prevalence Inde                                  | ex is ≤3.0 | ) <sup>1</sup>                               |           |        |
| 7.                                               |             |             |           | Morphological A                                  |            | ns <sup>1</sup> (Provide s<br>n a separate s |           | ıg     |
| 8.                                               |             |             |           |                                                  |            |                                              | ,         | 、<br>、 |
| Total Cover                                      | 20 %        |             |           | Problematic Hy                                   | arophytic  | vegetation (                                 | (Explain) | ,      |
| Woody Vine Stratum                               | 20 /0       |             |           | 1                                                |            |                                              |           |        |
| 1                                                |             |             |           | <sup>1</sup> Indicators of hydric<br>be present. | soil and   | I wetland hyd                                | rology n  | nust   |
| 2                                                |             |             |           |                                                  |            |                                              |           |        |
| Total Cover                                      | : %         |             |           | Hydrophytic<br>Vegetation                        |            |                                              |           |        |
| % Bare Ground in Herb Stratum $50 \%$ % Cover    | of Biotic C | Crust0      | ) %       |                                                  | Yes ()     | No 🖲                                         |           |        |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see c  | original ha | ndwritten | data form).                                      |            |                                              | ·         |        |
|                                                  |             |             |           |                                                  |            |                                              |           |        |
|                                                  |             |             |           |                                                  |            |                                              |           |        |

| Profile Des | cription: (Describe t | to the de | pth needed to document the indicator or conf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | irm the absence of in         | dicators.)                     |
|-------------|-----------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| Depth       | Matrix                |           | Redox Features                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |                                |
| (inches)    | Color (moist)         | %         | Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Texture <sup>3</sup>          | Remarks                        |
| 0-5         | 10YR 3/2              | 100       | none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | clay loam                     |                                |
| 5-12        | 10YR 3/3              | 100       | none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | sandy loam                    |                                |
|             |                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
|             |                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
|             |                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
|             |                       |           | · · · · · · · · · · · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · · · · _ = \cdot _ = \cdot _ · _ = \cdot _ = \: = \cdot _ = \: = \: = \: = \: = \: = \: = \: = \: = \: = |                               |                                |
|             |                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
|             |                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
|             |                       | ation DA  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               | NA-A.S.                        |
|             | Concentration, D=Depl |           | I=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining<br>y, Loam, Sandy Clay Loam, Sandy Loam, Clay L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                               |                                |
|             |                       |           | Rs, unless otherwise noted.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                               | oblematic Hydric Soils:        |
| Histoso     |                       |           | Sandy Redox (S5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                               | (A9) (LRR C)                   |
|             | Epipedon (A2)         |           | Stripped Matrix (S6)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               | (A10) ( <b>LRR B</b> )         |
|             | listic (A3)           |           | Loamy Mucky Mineral (F1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reduced Ve                    |                                |
|             | en Sulfide (A4)       |           | Loamy Gleyed Matrix (F2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               | Material (TF2)                 |
|             | ed Layers (A5) (LRR C | :)        | Depleted Matrix (F3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               | ain in Remarks)                |
|             | luck (A9) (LRR D)     | /         | Redox Dark Surface (F6)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                               | ,                              |
|             | ed Below Dark Surface | e (A11)   | Depleted Dark Surface (F7)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |                                |
| · · ·       | Dark Surface (A12)    | ( )       | Redox Depressions (F8)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |                                |
|             | Mucky Mineral (S1)    |           | Vernal Pools (F9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <sup>4</sup> Indicators of hy | drophytic vegetation and       |
|             | Gleyed Matrix (S4)    |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ,                             | ology must be present.         |
| Restrictive | Layer (if present):   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
| Type:No     | one                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                                |
| Depth (ii   | nches):NA             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Hydric Soil Pres              | sent? Yes 🔿 No 💿               |
| Remarks: S  | oil data collected b  | y GLA o   | on 6-9-12 (see original handwritten data for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | rm).                          |                                |
| N           | Ayford soils are dee  | p, mode   | rately well drained soils, medium to rapid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | runoff, very slow pe          | rmeability, formed on terraces |
| (           | Dudek updated soil    | type).    | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | _                             |                                |

| Wetland Hydrology Indicators:                           |                                            | Secondary Indicators (2 or more required)             |
|---------------------------------------------------------|--------------------------------------------|-------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)    |                                            | Water Marks (B1) (Riverine)                           |
| Surface Water (A1)                                      | Sediment Deposits (B2) ( <b>Riverine</b> ) |                                                       |
| High Water Table (A2)                                   | Biotic Crust (B12)                         | Drift Deposits (B3) ( <b>Riverine</b> )               |
| Saturation (A3)                                         | X Aquatic Invertebrates (B13)              | Drainage Patterns (B10)                               |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)                 | Dry-Season Water Table (C2)                           |
| Sediment Deposits (B2) (Nonriverine)                    | Oxidized Rhizospheres along Livi           | ng Roots (C3) 🔲 Thin Muck Surface (C7)                |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)              | Crayfish Burrows (C8)                                 |
| Surface Soil Cracks (B6)                                | Recent Iron Reduction in Plowed            | Soils (C6) Saturation Visible on Aerial Imagery (C9)  |
| Inundation Visible on Aerial Imagery (B7)               | Other (Explain in Remarks)                 | Shallow Aquitard (D3)                                 |
| Water-Stained Leaves (B9)                               |                                            | FAC-Neutral Test (D5)                                 |
| Field Observations:                                     |                                            |                                                       |
| Surface Water Present? Yes O No 💿                       | Depth (inches):                            |                                                       |
| Water Table Present? Yes O No 💿                         | Depth (inches):                            |                                                       |
| Saturation Present? Yes No ( includes capillary fringe) | Depth (inches):                            | Wetland Hydrology Present? Yes 💿 No 🔿                 |
| Describe Recorded Data (stream gauge, monitorir         | ng well, aerial photos, previous inspec    | tions), if available:                                 |
|                                                         |                                            |                                                       |
| Remarks:Brief ponding during extreme 2010/              | /2011 rainfall year.                       |                                                       |
| No ponding or saturation in 2011/20                     |                                            | season survey.                                        |
| Hydrology data collected by GLA of                      | 1                                          |                                                       |
|                                                         |                                            | l shells were present in this feature during 2012 dry |
| season fairy shrimp surveys (Dudek                      | •                                          | · · · ·                                               |
|                                                         | · ·                                        | ,                                                     |
| US Army Corps of Engineers                              |                                            |                                                       |

| Project/Site: Newport Banning Ranch          |                 |                    | City/County:Ora  | ange County        | Sampling Date: 10-4-12 |             |             |            |
|----------------------------------------------|-----------------|--------------------|------------------|--------------------|------------------------|-------------|-------------|------------|
| Applicant/Owner: Newport Banning Rar         |                 | Sta                | te:CA            | Samplin            | ng Point:AA            |             |             |            |
| Investigator(s): J. Davis IV, T. Wotipka     | , H. Moine      |                    | Section, Towns   | hip, Range:Section | on 20, T6S             | R10W        |             |            |
| Landform (hillslope, terrace, etc.): Terrace | •               |                    | Local relief (co | ncave, convex, no  | ne):Concav             | ve          | Slope       | (%):<2     |
| Subregion (LRR):C - Mediterranean Ca         | lifornia        | Lat:33.            | 6346830052       | Long:-1            | 17.9450966             | 31          | Datum:      | WGS 84     |
| Soil Map Unit Name: Myford sandy loan        | n 0-2% sloj     | pes                |                  |                    | NWI class              | fication:NA | A           |            |
| Are climatic / hydrologic conditions on the  | site typical fo | or this time of ye | ear?Yes 💿        | No 🔿 (If r         | no, explain in         | Remarks.)   | )           |            |
| Are Vegetation Soil or Hydr                  | ology           | significantly      | v disturbed?     | Are "Normal Ci     | rcumstances            | " present?  | Yes 💽       | No 🔿       |
| Are Vegetation Soil or Hydr                  | rology          | naturally pr       | oblematic?       | (If needed, exp    | lain any ans           | vers in Ren | narks.)     |            |
| SUMMARY OF FINDINGS - Atta                   | ch site m       | ap showing         | sampling p       | oint locations     | , transect             | s, impor    | tant feat   | ures, etc. |
| Hydrophytic Vegetation Present?              | Yes 🔘           | No 💿               |                  |                    |                        |             |             |            |
| Hydric Soil Present?                         | Yes 🔘           | No 🜘               | Is the Sa        | ampled Area        |                        |             |             |            |
| Wetland Hydrology Present?                   | Yes 🔘           | No 🜘               | within a         | Wetland?           | Yes (                  | No          | $(\bullet)$ |            |

Remarks:

|                                               | Absolute    | Dominant    | Indicator   | Dominance Test w                                             | orkshee    | t:                                           |          |       |
|-----------------------------------------------|-------------|-------------|-------------|--------------------------------------------------------------|------------|----------------------------------------------|----------|-------|
| Tree Stratum (Use scientific names.)          | % Cover     | Species?    | Status      | Number of Domina                                             | nt Species | S                                            |          |       |
| 1.                                            |             |             |             | That Are OBL, FAC                                            |            |                                              |          | (A)   |
| 2.                                            |             |             |             | Total Number of Do                                           | minant     |                                              |          |       |
| 3.                                            |             |             |             | Species Across All                                           |            | 2                                            |          | (B)   |
| 4.                                            |             |             |             |                                                              |            |                                              |          |       |
| Total Cove                                    | r: %        |             |             | <ul> <li>Percent of Dominar<br/>That Are OBL, FAC</li> </ul> |            |                                              | ) %      | (A/B) |
| Sapling/Shrub Stratum                         |             |             |             |                                                              |            | 0.0                                          | 70       | (700) |
| 1.                                            |             |             |             | Prevalence Index                                             | workshee   | et:                                          |          |       |
| 2.                                            |             |             |             | Total % Cover                                                | of:        | Multiply                                     | by:      | -     |
| 3.                                            |             |             |             | OBL species                                                  |            | x 1 =                                        | 0        |       |
| 4.                                            |             |             |             | FACW species                                                 | 2          | x 2 =                                        | 4        |       |
| 5.                                            |             |             |             | FAC species                                                  |            | x 3 =                                        | 0        |       |
| Total Cover                                   | %           |             |             | FACU species                                                 | 37         | x 4 =                                        | 148      |       |
| Herb Stratum                                  |             |             |             | UPL species                                                  | 10         | x 5 =                                        | 50       |       |
| <sup>1</sup> .Deinandra fasciculata           | 20          | Yes         | FACU        | Column Totals:                                               | 49         | (A)                                          | 202      | (B)   |
| <sup>2</sup> .Melilotus indicus               | 15          | Yes         | FACU        |                                                              |            |                                              |          |       |
| 3. Bromus rubens                              | 5           | No          | UPL         | Prevalence In                                                |            |                                              | 4.12     |       |
| 4. Centaurea melitensis                       | 5           | No          | UPL         | Hydrophytic Vege                                             |            |                                              |          |       |
| 5. Polypogon monspeliensis                    | 2           | No          | FACW        | Dominance Te                                                 |            |                                              |          |       |
| 6.Vulpia myuros                               | 2           | No          | FACU        | Prevalence Ind                                               |            |                                              |          |       |
| 7.                                            |             |             |             | Morphological                                                |            | ns <sup>1</sup> (Provide s<br>n a separate s |          | ng    |
| 8.                                            |             |             |             | - Problematic Hy                                             |            |                                              | ,        |       |
| Total Cover                                   | 49 %        |             |             |                                                              | arophytic  | vegetation                                   | ,⊏xpiain | )     |
| Woody Vine Stratum                            |             |             |             | 1                                                            | .,         |                                              |          |       |
| 1                                             |             |             |             | <sup>1</sup> Indicators of hydrid<br>be present.             | c soil and | i wetland hyd                                | rology r | must  |
| 2                                             |             |             |             | -                                                            |            |                                              |          |       |
| Total Cover                                   | : %         |             |             | Hydrophytic                                                  |            |                                              |          |       |
| % Bare Ground in Herb Stratum $51 \%$ % Cover | of Biotic C | Crust       | %           | Vegetation<br>Present?                                       | Yes ()     | No 💿                                         |          |       |
| Remarks: Low area adjacent to well pad.       |             |             |             | -                                                            |            |                                              |          |       |
| Vegetation data collected by GLA on 6-9       | -12 (see o  | original ha | ndwritten o | data form).                                                  |            |                                              |          |       |
|                                               |             |             |             |                                                              |            |                                              |          |       |

|                        |                               |            |                     |                       |                   |                  |                      | 1 I J                  |                |
|------------------------|-------------------------------|------------|---------------------|-----------------------|-------------------|------------------|----------------------|------------------------|----------------|
| Profile Des            | cription: (Describe t         | to the dep | oth needed to docur | nent the              | indicator (       | or confirm       | the absence of i     | ndicators.)            |                |
| Depth                  | Matrix                        |            | Redo                | k Feature             | s                 |                  |                      |                        |                |
| (inches)               | Color (moist)                 | %          | Color (moist)       | %                     | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup> | Rema                   | arks           |
| 0-6                    | 10YR 3/3                      |            | none                |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     | ·                     |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |
| <sup>1</sup> Type: C=C | Concentration, D=Depl         | etion, RM  | =Reduced Matrix.    | <sup>2</sup> Locatior | n: PL=Pore        | Lining, RO       | C=Root Channel, N    | //=Matrix.             |                |
|                        | es: Clay, Silty Clay, S       |            |                     |                       |                   |                  |                      |                        | my Sand, Sand. |
|                        | Indicators: (Applicabl        |            |                     |                       | -                 | -                |                      | Problematic Hydric So  | -              |
| Histoso                |                               |            | Sandy Redo          |                       |                   |                  |                      | (A9) ( <b>LRR C</b> )  |                |
| Histic E               | pipedon (A2)                  |            | Stripped Ma         | atrix (S6)            |                   |                  | 2 cm Muck            | (A10) ( <b>LRR B</b> ) |                |
| Black H                | listic (A3)                   |            | Loamy Muc           | ky Minera             | al (F1)           |                  | Reduced V            | /ertic (F18)           |                |
| Hydrog                 | en Sulfide (A4)               |            | Loamy Gley          | ed Matrix             | (F2)              |                  | Red Paren            | t Material (TF2)       |                |
|                        | ed Layers (A5) ( <b>LRR C</b> | ;)         | Depleted M          | ( )                   |                   |                  | Other (Exp           | olain in Remarks)      |                |
|                        | uck (A9) ( <b>LRR D</b> )     |            | Redox Dark          |                       | · /               |                  |                      |                        |                |
|                        | ed Below Dark Surface         | e (A11)    | Depleted D          |                       | . ,               |                  |                      |                        |                |
|                        | ark Surface (A12)             |            | Redox Dep           |                       | (F8)              |                  | 4                    |                        |                |
|                        | Mucky Mineral (S1)            |            | Vernal Poo          | s (F9)                |                   |                  |                      | ydrophytic vegetatior  |                |
|                        | Gleyed Matrix (S4)            |            |                     |                       |                   |                  | wetland hyd          | Irology must be prese  | int.           |
|                        | Layer (if present):           |            |                     |                       |                   |                  |                      |                        |                |
| Type:no:               | ne                            |            |                     |                       |                   |                  |                      |                        |                |
| Depth (ir              | nches):none                   |            |                     |                       |                   |                  | Hydric Soil Pre      | sent? Yes 🔿            | No 💽           |
| Remarks: S             | oil data collected b          | y GLA c    | n 6-9-12 (see orig  | nal hanc              | lwritten d        | ata form)        | ).                   |                        |                |
| Ν                      | Ayford soils are dee          | p, mode    | rately well drained | soils, m              | edium to          | rapid run        | off, very slow p     | ermeability, forme     | d on terraces  |
| (]                     | Dudek updated soil            | type).     |                     |                       |                   |                  |                      |                        |                |
|                        |                               |            |                     |                       |                   |                  |                      |                        |                |

| Wetland Hydrology Indicators:                                 |                                           | Secondary Indicators (2 or more required)                |
|---------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------|
| Primary Indicators (any one indicator is sufficien            | t)                                        | Water Marks (B1) (Riverine)                              |
| Surface Water (A1)                                            | Salt Crust (B11)                          | Sediment Deposits (B2) ( <b>Riverine</b> )               |
| High Water Table (A2)                                         | Biotic Crust (B12)                        | Drift Deposits (B3) ( <b>Riverine</b> )                  |
| Saturation (A3)                                               | Aquatic Invertebrates (B13)               | Drainage Patterns (B10)                                  |
| Water Marks (B1) (Nonriverine)                                | Hydrogen Sulfide Odor (C1)                | Dry-Season Water Table (C2)                              |
| Sediment Deposits (B2) (Nonriverine)                          | Oxidized Rhizospheres along Livir         | ng Roots (C3) Thin Muck Surface (C7)                     |
| Drift Deposits (B3) (Nonriverine)                             | Presence of Reduced Iron (C4)             | Crayfish Burrows (C8)                                    |
| Surface Soil Cracks (B6)                                      | Recent Iron Reduction in Plowed           | Soils (C6) Saturation Visible on Aerial Imagery (C9)     |
| Inundation Visible on Aerial Imagery (B7)                     | Other (Explain in Remarks)                | Shallow Aquitard (D3)                                    |
| Water-Stained Leaves (B9)                                     |                                           | FAC-Neutral Test (D5)                                    |
| Field Observations:                                           |                                           |                                                          |
| Surface Water Present? Yes O No (                             | Depth (inches):                           |                                                          |
| Water Table Present? Yes O No (                               | Depth (inches):                           |                                                          |
| Saturation Present? Yes O No (<br>(includes capillary fringe) | Depth (inches):                           | Wetland Hydrology Present? Yes O No 💿                    |
| Describe Recorded Data (stream gauge, monito                  | ring well, aerial photos, previous inspec | tions), if available:                                    |
|                                                               |                                           |                                                          |
| Remarks: Ponds briefly in extreme years.                      |                                           |                                                          |
| No ponding in 2011-2012 per GL                                | A wet season survey.                      |                                                          |
| Hydrology data collected by GLA                               | on 6-9-12 (see original handwritte        | n data form).                                            |
| Wetland hydrology indicators wer                              | re not observed in this feature durin     | g delineations, hydrological monitoring, or fairy shrimp |
| surveys.                                                      |                                           |                                                          |
| US Army Corps of Engineers                                    |                                           |                                                          |

| Project/Site: Newport Banning Rand        | City/County:Orange County |                    |                   | Sampling Date: 10-4-12 |                  |             |                   |
|-------------------------------------------|---------------------------|--------------------|-------------------|------------------------|------------------|-------------|-------------------|
| Applicant/Owner: Newport Banning I        |                           | Stat               | te:CA             | Sampling I             | Point:BB         |             |                   |
| Investigator(s): J. Davis IV, T. Wotip    | ka, H. Moine              |                    | Section, Townsl   | hip, Range:Sectio      | on 20, T6S, F    | R10W        |                   |
| Landform (hillslope, terrace, etc.): Terr | ace                       |                    | Local relief (cor | ncave, convex, no      | ne):Concave      |             | Slope (%):<2      |
| Subregion (LRR):C - Mediterranean         | California                | Lat:33.0           | 6336946663        | Long:-11               | 7.94439583       | 8           | Datum:WGS 84      |
| Soil Map Unit Name: Myford sandy le       | bam 0-2% slop             | pes                |                   |                        | NWI classific    | ation:NA    |                   |
| Are climatic / hydrologic conditions on t | he site typical fo        | or this time of ye | ear?Yes 💿         | No 🔿 (If n             | io, explain in F | emarks.)    |                   |
| Are Vegetation Soil or H                  | lydrology                 | significantly      | / disturbed?      | Are "Normal Cir        | rcumstances"     | present? Y  | es 💿 🛛 No 🔿       |
| Are Vegetation Soil or H                  | lydrology                 | naturally pr       | oblematic?        | (If needed, expl       | ain any answe    | rs in Remar | ks.)              |
| SUMMARY OF FINDINGS - A                   | ttach site m              | ap showing         | sampling po       | oint locations         | , transects      | , importa   | nt features, etc. |
| Hydrophytic Vegetation Present?           | Yes 🔘                     | No 💿               |                   |                        |                  |             |                   |
| Hydric Soil Present?                      | Yes 🔘                     | No 💿               | Is the Sa         | ampled Area            |                  |             |                   |
| Wetland Hydrology Present?                | Yes 🜘                     | No 🔘               | within a          | Wetland?               | Yes 🔿            | No 🤇        |                   |

|                                                  | Absolute    | Dominant    |           | Dominance Test worksheet:                                                    |  |  |  |  |
|--------------------------------------------------|-------------|-------------|-----------|------------------------------------------------------------------------------|--|--|--|--|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominant Species                                                   |  |  |  |  |
| 1                                                |             |             |           | That Are OBL, FACW, or FAC: $0$ (A)                                          |  |  |  |  |
| 2                                                |             |             |           | _ Total Number of Dominant                                                   |  |  |  |  |
| 3.                                               |             |             |           | Species Across All Strata: 2 (B)                                             |  |  |  |  |
| 4.                                               |             |             |           | <ul> <li>Percent of Dominant Species</li> </ul>                              |  |  |  |  |
| Total Cove                                       | r: %        |             |           | That Are OBL, FACW, or FAC: 0.0 % (A/B)                                      |  |  |  |  |
| Sapling/Shrub Stratum                            |             |             |           |                                                                              |  |  |  |  |
| 1.                                               |             |             |           | Prevalence Index worksheet:                                                  |  |  |  |  |
| 2.                                               |             |             |           | Total % Cover of: Multiply by:                                               |  |  |  |  |
| 3.                                               |             |             |           | OBL species x 1 = 0                                                          |  |  |  |  |
| 4.                                               |             |             |           | FACW species $x 2 = 0$                                                       |  |  |  |  |
| 5.                                               |             |             |           | FAC species $x 3 = 0$                                                        |  |  |  |  |
| Total Cover                                      | : %         |             |           | FACU species $60 \times 4 = 240$                                             |  |  |  |  |
| Herb Stratum                                     | ,.          |             |           | UPL species $40 \times 5 = 200$                                              |  |  |  |  |
| <sup>1</sup> .Bromus hordeaceus                  | 60          | Yes         | FACU      | Column Totals: 100 (A) 440 (B)                                               |  |  |  |  |
| 2. Bromus rubens                                 | 25          | Yes         | UPL       |                                                                              |  |  |  |  |
| 3. Centaurea melitensis                          | 15          | No          | UPL       | Prevalence Index = $B/A = 4.40$                                              |  |  |  |  |
| 4.                                               |             | ·           |           | Hydrophytic Vegetation Indicators:                                           |  |  |  |  |
| 5.                                               | ·           | ·           |           | Dominance Test is >50%                                                       |  |  |  |  |
| 6.                                               |             |             |           | Prevalence Index is ≤3.0 <sup>1</sup>                                        |  |  |  |  |
| 7.                                               |             |             |           | Morphological Adaptations <sup>1</sup> (Provide supporting                   |  |  |  |  |
| 8.                                               |             | ·           |           | data in Remarks or on a separate sheet)                                      |  |  |  |  |
| Total Cover                                      | 100%        |             |           | <ul> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul> |  |  |  |  |
| Woody Vine Stratum                               | 100%        |             |           |                                                                              |  |  |  |  |
| 1.                                               |             |             |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must            |  |  |  |  |
| 2.                                               |             |             |           | - be present.                                                                |  |  |  |  |
| Total Cover                                      | : %         |             |           | Hydrophytic                                                                  |  |  |  |  |
| % Bare Ground in Herb Stratum0 % Cover           | of Biotic C | Crust 0     | %         | Vegetation<br>Present? Yes No •                                              |  |  |  |  |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see d  | original ha | ndwritten | data form).                                                                  |  |  |  |  |
|                                                  | -           | -           |           |                                                                              |  |  |  |  |
|                                                  |             |             |           |                                                                              |  |  |  |  |
|                                                  |             |             |           |                                                                              |  |  |  |  |

| Profile De                              | scription: (Describe t                                                                                    | o the depth | n needed to docu                                                               | ment the                                                         | indicator         | or confirm       | n the absence of ir                              | ndicators.)                               |                         |             |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------|------------------|--------------------------------------------------|-------------------------------------------|-------------------------|-------------|
| Depth                                   | Matrix                                                                                                    | p           |                                                                                | x Feature                                                        |                   |                  |                                                  |                                           |                         |             |
| (inches)                                | Color (moist)                                                                                             | %           | Color (moist)                                                                  | %                                                                | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>                             |                                           | Remarks                 |             |
| 0-6                                     | 10YR 3/2                                                                                                  | n           | one                                                                            |                                                                  |                   |                  | sandy loam                                       |                                           |                         |             |
|                                         |                                                                                                           | <br>        |                                                                                | <br><br>                                                         |                   |                  |                                                  |                                           |                         |             |
|                                         | Concentration, D=Depleres: Clay, Silty Clay, S                                                            |             |                                                                                |                                                                  |                   |                  | C=Root Channel, M                                |                                           | ilt, Loamy S            | Sand, Sand. |
|                                         | Indicators: (Applicable                                                                                   |             |                                                                                |                                                                  |                   | , <b>,</b>       | Indicators for P                                 |                                           |                         | ,           |
| Histos<br>Histic I<br>Black I<br>Hydrog | ol (A1)<br>Epipedon (A2)<br>Histic (A3)<br>gen Sulfide (A4)<br>ed Layers (A5) (LRR C<br>Muck (A9) (LRR D) |             | Sandy Redo<br>Stripped M<br>Loamy Muc<br>Loamy Gle<br>Depleted M<br>Redox Darl | ox (S5)<br>atrix (S6)<br>oky Minera<br>yed Matrix<br>latrix (F3) | (F2)              |                  | 1 cm Muck<br>2 cm Muck<br>Reduced V<br>Red Paren | (A9) ( <b>LRR C</b><br>(A10) ( <b>LRR</b> | 5)<br><b>B</b> )<br>52) |             |
| Thick I<br>Sandy                        | ed Below Dark Surface<br>Dark Surface (A12)<br>Mucky Mineral (S1)<br>Gleyed Matrix (S4)                   | (A11)       | Depleted D<br>Redox Dep<br>Vernal Poo                                          | ressions (                                                       | . ,               |                  | <sup>4</sup> Indicators of hy<br>wetland hyd     | ydrophytic ve<br>rology must b            | -                       | d           |
| Restrictive                             | e Layer (if present):                                                                                     |             |                                                                                |                                                                  |                   |                  |                                                  |                                           |                         |             |
|                                         | inches):none                                                                                              |             |                                                                                |                                                                  |                   |                  | Hydric Soil Pres                                 |                                           | •                       | No 💿        |
| ]                                       | in pipeline array. Soi<br>Friable soils. Myford<br>on terraces (Dudek u                                   | soils are   | deep, moderately                                                               |                                                                  |                   | -                |                                                  |                                           | permeabil               | ity, formed |

| Wetland Hydrology Indicators:                                                        |                                            | Secondary Indicators (2 or more required)       |
|--------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)                                 |                                            | Water Marks (B1) (Riverine)                     |
| Surface Water (A1)                                                                   | Sediment Deposits (B2) ( <b>Riverine</b> ) |                                                 |
| High Water Table (A2)                                                                | iotic Crust (B12)                          | Drift Deposits (B3) ( <b>Riverine</b> )         |
| Saturation (A3)                                                                      | quatic Invertebrates (B13)                 | Drainage Patterns (B10)                         |
| Water Marks (B1) (Nonriverine)                                                       | ydrogen Sulfide Odor (C1)                  | Dry-Season Water Table (C2)                     |
| Sediment Deposits (B2) (Nonriverine)                                                 | xidized Rhizospheres along Living Roo      | ots (C3) Thin Muck Surface (C7)                 |
| Drift Deposits (B3) (Nonriverine)                                                    | resence of Reduced Iron (C4)               | Crayfish Burrows (C8)                           |
| Surface Soil Cracks (B6)                                                             | ecent Iron Reduction in Plowed Soils (     | C6) Saturation Visible on Aerial Imagery (C9)   |
| Inundation Visible on Aerial Imagery (B7)                                            | ther (Explain in Remarks)                  | Shallow Aquitard (D3)                           |
| Water-Stained Leaves (B9)                                                            |                                            | FAC-Neutral Test (D5)                           |
| Field Observations:                                                                  |                                            |                                                 |
| Surface Water Present? Yes O No 💿 D                                                  | Depth (inches):                            |                                                 |
| Water Table Present? Yes O No 💿 D                                                    | Depth (inches):                            |                                                 |
|                                                                                      | Depth (inches):                            | and Hydrology Present? Yes 💿 No 🔿               |
| (includes capillary fringe)<br>Describe Recorded Data (stream gauge, monitoring well |                                            |                                                 |
| Describe Recorded Data (stream gauge, monitoring wen                                 |                                            |                                                 |
|                                                                                      |                                            |                                                 |
| Remarks:No ponding in 2011-2012 per GLA wet s                                        |                                            |                                                 |
| Hydrology data collected by GLA on 6-9                                               |                                            |                                                 |
|                                                                                      | _                                          | nt in this feature during 2012 dry season fairy |
| shrimp surveys (Dudek updated data form                                              | m with aquatic invertebrates data).        |                                                 |
|                                                                                      |                                            |                                                 |
| US Army Corps of Engineers                                                           |                                            |                                                 |

| Project/Site: Newport Banning Ranch                           |                     |                   | City/County:Or   | ange County    |                    | Sampling Date: 10-4-12 |                    |  |
|---------------------------------------------------------------|---------------------|-------------------|------------------|----------------|--------------------|------------------------|--------------------|--|
| Applicant/Owner: Newport Banning I                            |                     |                   | Ś                | State:CA       | Samplinę           | g Point:CC             |                    |  |
| Investigator(s): J. Davis IV, T. Wotip                        | ka, H. Moine        |                   | Section, Towns   | hip, Range:Seo | ction 20, T6S,     | R10W                   |                    |  |
| Landform (hillslope, terrace, etc.): Terr                     | ace                 |                   | Local relief (co | ncave, convex, | none):Concave      | e                      | Slope (%):<2       |  |
| Subregion (LRR):C - Mediterranean                             | California          | Lat:33.           | -<br>6330437278  | Long:          | -117.9449817       | 59                     | Datum:WGS 84       |  |
| Soil Map Unit Name: Myford sandy lo                           | oam 0-2% slop       | bes               |                  |                | NWI classif        | ication:NA             |                    |  |
| Are climatic / hydrologic conditions on t                     | he site typical for | r this time of ye | ear?Yes 💿        | No 🔿 🛛 (       | (If no, explain in | Remarks.)              |                    |  |
| Are Vegetation Soil or H                                      | lydrology           | significantly     | / disturbed?     | Are "Normal    | Circumstances"     | present?               | Yes  No            |  |
| Are Vegetation Soil or H                                      | lydrology           | naturally pr      | oblematic?       | (If needed, e  | explain any answ   | ers in Rem             | arks.)             |  |
| SUMMARY OF FINDINGS - A                                       | ttach site ma       | ap showing        | sampling p       | oint locatio   | ns, transects      | s, import              | ant features, etc. |  |
| Hydrophytic Vegetation Present?                               | Yes 🕡               | No 🔘              |                  |                |                    |                        |                    |  |
| Hydric Soil Present?                                          | Yes 🔘               | No 💿              | Is the S         | ampled Area    |                    |                        |                    |  |
| Wetland Hydrology Present?                                    | Yes 💿               | No 💿              | within a         | Wetland?       | Yes 🔿              | No                     |                    |  |
| Remarks:Feature is open pit excav<br>CCC wetland since at lea | -                   |                   |                  |                |                    |                        |                    |  |

|                                                  | Absolute      | Dominant    |            | Dominance Test v                      | vorksheef   | t:            |              |       |
|--------------------------------------------------|---------------|-------------|------------|---------------------------------------|-------------|---------------|--------------|-------|
| Tree Stratum (Use scientific names.)             | % Cover       | Species?    | Status     | Number of Domina<br>That Are OBL, FAC |             |               |              | (A)   |
| 2.                                               |               |             |            |                                       | 700, ULLA   | с. I          |              | (~)   |
|                                                  |               |             |            | Total Number of De                    |             |               |              |       |
| 3                                                |               |             |            | Species Across All                    | Strata:     | 1             |              | (B)   |
| 4                                                |               |             |            | Percent of Domina                     | nt Species  | 6             |              |       |
| Total Cove<br>Sapling/Shrub Stratum              | r: %          |             |            | That Are OBL, FAC                     | W, or FA    | C: 100        | 0.0 %        | (A/B) |
| 1.                                               |               |             |            | Prevalence Index                      | worksho     | at:           |              |       |
|                                                  |               |             |            | Total % Cover                         |             | Multiply      | <i>i</i> by: |       |
| 2                                                |               |             |            | _                                     |             |               |              | -     |
| 3                                                |               |             |            | OBL species                           | 10          | x 1 =         | 10           |       |
| 4                                                |               |             |            | FACW species                          |             | x 2 =         | 0            |       |
| 5                                                |               |             |            | FAC species                           |             | x 3 =         | 0            |       |
| Total Cover                                      | r: %          |             |            | FACU species                          |             | x 4 =         | 0            |       |
| Herb Stratum                                     |               |             |            | UPL species                           |             | x 5 =         | 0            |       |
| 1.Lythrum hyssopifolium<br>2.                    | 10            | Yes         | OBL        | Column Totals:                        | 10          | (A)           | 10           | (B)   |
| 3.                                               |               |             |            | Prevalence Ir                         | ndex = B//  | A =           | 1.00         |       |
| 4.                                               |               | ·           |            | Hydrophytic Vege                      | tation Inc  | licators:     |              |       |
| 5.                                               |               |             |            | X Dominance Te                        |             |               |              |       |
|                                                  |               |             |            | × Prevalence Inc                      |             |               |              |       |
| 6                                                |               |             |            | Morphological                         |             |               | sunnorti     | na    |
| 7.                                               |               |             |            | data in Ren                           | narks or o  | n a separate  | sheet)       | iig   |
| 8                                                |               |             |            | Problematic H                         |             |               |              | )     |
| Total Cover<br>Woody Vine Stratum                | r: 10 %       |             |            |                                       |             | 0             |              | ,     |
| 1.                                               |               |             |            | <sup>1</sup> Indicators of hydri      | ic soil and | l wetland hvo | droloav      | must  |
|                                                  |               |             |            | be present.                           |             |               |              |       |
| 2                                                |               |             |            | -                                     |             |               |              |       |
| Total Cover                                      | r: %          |             |            | Hydrophytic<br>Vegetation             |             |               |              |       |
| % Bare Ground in Herb Stratum 90 % % Cover       | r of Biotic C | Crust 0     | %          | Present?                              | Yes 💿       | No 🔿          |              |       |
| Remarks: *Hydrophytic Vegetation Present* Featur | re is exca    | vated pit o | pened up t | o repair pipeline -                   | area ponc   | ds water for  | > 14 d       | ays   |
| and supports one opportunistic non-native        | e weed.       |             |            |                                       |             |               |              |       |
| Vegetation data collected by GLA on 6-9          | -12 (see c    | original ha | ndwritten  | data form).                           |             |               |              |       |
|                                                  |               |             |            |                                       |             |               |              |       |

SOIL

| Profile Des              | cription: (Describe t                               | o the de    | oth needed to docu  | ment the              | indicator of      | or confirm       | n the absence of in           | dicators.)             |                |
|--------------------------|-----------------------------------------------------|-------------|---------------------|-----------------------|-------------------|------------------|-------------------------------|------------------------|----------------|
| Depth                    | <br>Matrix                                          |             |                     | x Feature             |                   |                  |                               | ,                      |                |
| (inches)                 | Color (moist)                                       | %           | Color (moist)       | %                     | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>          | Rema                   | rks            |
| 0-6                      | 10YR 3/2                                            |             | none                |                       |                   |                  | sandy clay loam               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
|                          |                                                     |             |                     |                       |                   |                  |                               |                        |                |
| <sup>1</sup> Type: C=0   | Concentration, D=Depl                               | etion, RM   | Reduced Matrix.     | <sup>2</sup> Location | n: PL=Pore        | Lining, R        | C=Root Channel, M             | =Matrix.               |                |
| <sup>3</sup> Soil Textur | es: Clay, Silty Clay, S                             | andy Cla    | y, Loam, Sandy Clay | Loam, Sa              | andy Loam         | , Clay Loa       | am, Silty Clay Loam,          | Silt Loam, Silt, Loan  | ny Sand, Sand. |
|                          | Indicators: (Applicabl                              | e to all LF |                     |                       |                   |                  |                               | oblematic Hydric So    | ils:           |
| Histoso                  |                                                     |             | Sandy Redo          | ( )                   |                   |                  |                               | (A9) (LRR C)           |                |
|                          | Epipedon (A2)                                       |             | Stripped Ma         | ( )                   |                   |                  |                               | (A10) ( <b>LRR B</b> ) |                |
|                          | Histic (A3)<br>Jen Sulfide (A4)                     |             | Loamy Muc           | •                     | . ,               |                  | Reduced Ve                    | Material (TF2)         |                |
|                          |                                                     | • • •       | Loamy Gle           |                       | . ,               |                  |                               | ( )                    |                |
|                          | ed Layers (A5) (LRR C                               | •)          | Depleted M          | ( )                   |                   |                  |                               | ain in Remarks)        |                |
|                          | luck (A9) ( <b>LRR D</b> )<br>ed Below Dark Surface | (11)        | Depleted D          |                       | · · /             |                  |                               |                        |                |
|                          | ark Surface (A12)                                   | = (ATT)     | Redox Dep           |                       | ( )               |                  |                               |                        |                |
|                          | Mucky Mineral (S1)                                  |             | Vernal Poo          |                       | 10)               |                  | <sup>4</sup> Indicators of by | drophytic vegetation   | and            |
|                          | Gleyed Matrix (S4)                                  |             | Ventai P00          | 15 (1 9)              |                   |                  |                               | ology must be prese    |                |
|                          | Layer (if present):                                 |             |                     |                       |                   |                  |                               |                        |                |
| Type:no                  | ,                                                   |             |                     |                       |                   |                  |                               |                        |                |
| · · _                    | nches):NA                                           |             |                     |                       |                   |                  | Hydric Soil Pres              | sent? Yes 🔿            | No 💿           |
| Remarks: S               | Soil data collected b                               | y GLA o     | on 6-9-12 (see orig | inal hand             | lwritten d        | ata form         | L).                           | ~                      |                |
|                          | Ayford soils are dee                                |             |                     |                       |                   |                  |                               | rmeability, formed     | d on terraces  |
| (                        | Dudek updated soil                                  | type).      | ·                   |                       |                   | -                |                               | -                      |                |

| Wetland Hydrology Indicators:                                 |                                                      | Secondary Indicators (2 or more required)             |
|---------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)          |                                                      | Water Marks (B1) (Riverine)                           |
| Surface Water (A1)                                            | Salt Crust (B11)                                     | Sediment Deposits (B2) (Riverine)                     |
| High Water Table (A2)                                         | Biotic Crust (B12)                                   | Drift Deposits (B3) ( <b>Riverine</b> )               |
| Saturation (A3)                                               | Aquatic Invertebrates (B13)                          | Drainage Patterns (B10)                               |
| Water Marks (B1) (Nonriverine)                                | Hydrogen Sulfide Odor (C1)                           | Dry-Season Water Table (C2)                           |
| Sediment Deposits (B2) (Nonriverine)                          | Oxidized Rhizospheres along Livin                    | g Roots (C3) Thin Muck Surface (C7)                   |
| Drift Deposits (B3) (Nonriverine)                             |                                                      | Crayfish Burrows (C8)                                 |
| Surface Soil Cracks (B6)                                      | Soils (C6) Saturation Visible on Aerial Imagery (C9) |                                                       |
| Inundation Visible on Aerial Imagery (B7)                     | Shallow Aquitard (D3)                                |                                                       |
| Water-Stained Leaves (B9)                                     |                                                      | X FAC-Neutral Test (D5)                               |
| Field Observations:                                           |                                                      |                                                       |
| Surface Water Present? Yes  No                                | Depth (inches): 8-10                                 |                                                       |
| Water Table Present? Yes O No                                 | Depth (inches):                                      |                                                       |
| Saturation Present? Yes O No (<br>(includes capillary fringe) | Depth (inches):                                      | Wetland Hydrology Present? Yes   No                   |
| Describe Recorded Data (stream gauge, monitori                | ng well, aerial photos, previous inspect             | ions), if available:                                  |
|                                                               |                                                      |                                                       |
| Remarks:*Wetland Hydrology Present* Area                      | a is excavated pit to repair pipeline                | (data collected by GLA on original handwritten data   |
| form 6-9-12).                                                 |                                                      |                                                       |
| *Aquatic Invertebrates* Common                                | versatile fairy shrimp observed dur                  | ing 2011-2012 wet season fairy shrimp surveys and     |
| common versatile fairy shrimp and                             | ostracod shells were present in thi                  | s feature during 2012 dry season fairy shrimp surveys |
| (Dudek updated data form with aqu                             | atic invertebrates data).                            |                                                       |
| US Army Corps of Engineers                                    |                                                      |                                                       |
| US Army Corps of Engineers                                    |                                                      |                                                       |

| Project/Site: Newport Banning Ranch                            |                   |                    | City/County:Orange County |                |                    | Sampling Date: 10-4-12 |                   |  |
|----------------------------------------------------------------|-------------------|--------------------|---------------------------|----------------|--------------------|------------------------|-------------------|--|
| Applicant/Owner: Newport Banning R                             | anch LLC          |                    |                           | ;              | State:CA           | Sampling               | Point:DD          |  |
| Investigator(s): J. Davis IV, T. Wotipl                        | ka, H. Moine      |                    | Section, Towns            | ship, Range:Se | ction 20, T6S,     | R10W                   |                   |  |
| Landform (hillslope, terrace, etc.): Terra                     | ce                |                    | Local relief (co          | ncave, convex, | none):Concave      | e                      | Slope (%):<2      |  |
| Subregion (LRR): <u>C</u> - Mediterranean C                    | California        | Lat:33.            | 6323472801                | Long:          | -117.94438748      | 85                     | Datum: WGS 84     |  |
| Soil Map Unit Name: Myford sandy lo                            | am 0-2% slop      | pes                |                           |                | NWI classif        | ication:NA             |                   |  |
| Are climatic / hydrologic conditions on th                     | e site typical fo | or this time of ye | ear?Yes 💽                 | No             | (If no, explain in | Remarks.)              |                   |  |
| Are Vegetation Soil or Hy                                      | /drology          | significantly      | / disturbed?              | Are "Normal    | Circumstances"     | present? Y             | res 💿 🛛 No 🔿      |  |
| Are Vegetation Soil or Hy                                      | /drology          | naturally pr       | oblematic?                | (If needed, €  | explain any answ   | ers in Rema            | rks.)             |  |
| SUMMARY OF FINDINGS - At                                       | tach site m       | ap showing         | ı sampling p              | oint locatio   | ns, transects      | s, importa             | nt features, etc. |  |
| Hydrophytic Vegetation Present?                                | Yes 🔘             | No 💿               |                           |                |                    |                        |                   |  |
| Hydric Soil Present?                                           | Yes 🔘             | No 💿               | Is the S                  | ampled Area    |                    |                        |                   |  |
| Wetland Hydrology Present?                                     | Yes 💽             | No 🔘               | within a                  | a Wetland?     | Yes 🔿              | No 🤆                   | D                 |  |
| Remarks:CCC wetland since at lease<br>Appears to be anthropoge |                   | d criterion wa     | as met.                   |                |                    |                        |                   |  |

|                                           | Absolute      | Dominant    |           | Dominance Test v                                                                                   | vorksheet   | t:          |                                         |      |
|-------------------------------------------|---------------|-------------|-----------|----------------------------------------------------------------------------------------------------|-------------|-------------|-----------------------------------------|------|
| Tree Stratum (Use scientific names.)      | % Cover       | Species?    | Status    | Number of Domina                                                                                   |             |             |                                         |      |
| 1                                         |               |             |           | That Are OBL, FAC                                                                                  | CW, or FA   | C: 0        |                                         | (A)  |
| 2.                                        |               |             |           | Total Number of Do                                                                                 | ominant     |             |                                         |      |
| 3.                                        |               |             |           | Species Across All                                                                                 |             | 1           |                                         | (B)  |
| 4.                                        |               |             |           |                                                                                                    |             |             |                                         |      |
| Total Cove                                | er: %         |             |           | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: 0.0 % (A/B                              |             |             | (A/B)                                   |      |
| Sapling/Shrub Stratum                     |               |             |           | · · · · · · · · · · · · · · · · · · ·                                                              |             |             | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |      |
| 1                                         |               |             |           | Prevalence Index                                                                                   |             | et:         |                                         |      |
| 2.                                        |               |             |           | Total % Cover                                                                                      | of:         | Multiply    | / by:                                   | -    |
| 3.                                        |               |             |           | OBL species                                                                                        |             | x 1 =       | 0                                       |      |
| 4.                                        |               |             |           | FACW species                                                                                       |             | x 2 =       | 0                                       |      |
| 5.                                        |               |             |           | FAC species                                                                                        |             | x 3 =       | 0                                       |      |
| Total Cove                                | r: %          |             |           | FACU species                                                                                       | 25          | x 4 =       | 100                                     |      |
| Herb Stratum                              |               |             |           | UPL species                                                                                        | 5           | x 5 =       | 25                                      |      |
| <sup>1</sup> .Deinandra fasciculata       | 25            | Yes         | FACU      | Column Totals:                                                                                     | 30          | (A)         | 125                                     | (B)  |
| 2. Isocoma menziesii                      | 5             | No          | UPL       |                                                                                                    |             |             |                                         |      |
| 3.                                        |               |             |           | Prevalence Ir                                                                                      | 1 dex = B/I | A =         | 4.17                                    |      |
| 4.                                        |               |             |           | Hydrophytic Vege                                                                                   | etation Inc | licators:   |                                         |      |
| 5.                                        |               |             |           | Dominance Te                                                                                       | est is >50% | 0           |                                         |      |
| 6.                                        |               |             |           | Prevalence Inc                                                                                     | dex is ≤3.0 | 1           |                                         |      |
| 7.                                        |               |             |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |             |             | ng                                      |      |
| 8.                                        |               |             |           |                                                                                                    |             |             | ,                                       | `    |
| Total Cove                                | r: 30 %       |             |           | Problematic H                                                                                      | yaropnytic  | vegetation  | (Explain                                | )    |
| Woody Vine Stratum                        | 00 /0         |             |           | 1                                                                                                  |             |             |                                         |      |
| 1                                         |               |             |           | <sup>1</sup> Indicators of hydri<br>be present.                                                    | ic soil and | wetland hyd | lrology                                 | nust |
| 2                                         |               |             |           |                                                                                                    |             |             |                                         |      |
| Total Cove                                | r: %          |             |           | Hydrophytic                                                                                        |             |             |                                         |      |
| % Bare Ground in Herb Stratum 70 % % Cove | r of Biotic ( | Crust 0     | %         | Vegetation<br>Present?                                                                             | Yes 🔿       | No 🖲        |                                         |      |
| Remarks: Low area in stockpile.           |               |             |           | 1                                                                                                  |             |             |                                         |      |
| Vegetation data collected by GLA on 6-9   | -12 (see o    | original ha | ndwritten | data form).                                                                                        |             |             |                                         |      |
|                                           |               |             |           |                                                                                                    |             |             |                                         |      |
|                                           |               |             |           |                                                                                                    |             |             |                                         |      |

| Profile Des             | scription: (Describe t                              | o the de | oth needed to docu  | nent the     | indicator         | or confirm       | the absence of it            | ndicators.)            |               |
|-------------------------|-----------------------------------------------------|----------|---------------------|--------------|-------------------|------------------|------------------------------|------------------------|---------------|
| Depth                   | Matrix                                              |          |                     | x Feature    |                   |                  |                              |                        |               |
| (inches)                | Color (moist)                                       | %        | Color (moist)       | %            | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>         | Rema                   | irks          |
| 0-6                     | 7.5YR 3/3                                           |          | none                |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     |              |                   |                  |                              |                        |               |
|                         | _ ,                                                 |          |                     |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     |              |                   |                  |                              |                        |               |
|                         |                                                     |          |                     | ·            |                   |                  |                              |                        |               |
| $\frac{1}{1}$ Type: C=( | Concentration, D=Depl                               |          |                     | <sup>2</sup> |                   | Lining D(        | <br>C=Root Channel, N        |                        |               |
| 5.                      | res: Clay, Silty Clay, S                            |          |                     |              |                   | -                |                              |                        | ny Sand Sand  |
|                         | Indicators: (Applicabl                              |          |                     |              |                   | , olay 200       |                              | roblematic Hydric So   | •             |
| Histoso                 |                                                     |          | Sandy Redo          |              |                   |                  |                              | (A9) (LRR C)           |               |
| Histic E                | Epipedon (A2)                                       |          | Stripped Ma         | atrix (S6)   |                   |                  | 2 cm Muck                    | (A10) ( <b>LRR B</b> ) |               |
| Black H                 | Histic (A3)                                         |          | Loamy Muc           | •            | . ,               |                  | Reduced V                    | , ,                    |               |
|                         | jen Sulfide (A4)                                    |          | Loamy Gle           |              |                   |                  |                              | t Material (TF2)       |               |
|                         | ed Layers (A5) (LRR C                               | ;)       | Depleted M          | 、 ,          |                   |                  | Other (Exp                   | lain in Remarks)       |               |
|                         | luck (A9) ( <b>LRR D</b> )<br>ed Below Dark Surface | (11)     | Redox Darl          |              | . ,               |                  |                              |                        |               |
| ·                       | Dark Surface (A12)                                  | (ATT)    | Redox Dep           |              | . ,               |                  |                              |                        |               |
|                         | Mucky Mineral (S1)                                  |          | Vernal Poo          |              | (10)              |                  | <sup>4</sup> Indicators of h | ydrophytic vegetatior  | and           |
|                         | Gleyed Matrix (S4)                                  |          |                     |              |                   |                  |                              | rology must be prese   |               |
| Restrictive             | Layer (if present):                                 |          |                     |              |                   |                  |                              |                        |               |
| Type:no                 | one                                                 |          |                     |              |                   |                  |                              |                        |               |
| Depth (i                | nches):none                                         |          |                     |              |                   |                  | Hydric Soil Pres             | sent? Yes 🔿            | No 💿          |
| Remarks: §              | Soild data collected                                | by GLA   | on 6-9-12 (see ori  | ginal har    | ndwritten         | data form        | n).                          | - 4                    |               |
| Ν                       | Myford soils are dee                                | p, mode  | rately well drained | soils, m     | edium to          | rapid run        | off, very slow pe            | ermeability, forme     | d on terraces |
| (                       | Dudek updated soil                                  | type).   |                     |              |                   |                  |                              |                        |               |

| Wetland Hydrology Indicators:                           |                                                      | Secondary Indicators (2 or more required)          |
|---------------------------------------------------------|------------------------------------------------------|----------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)    |                                                      | Water Marks (B1) (Riverine)                        |
| Surface Water (A1)                                      | Salt Crust (B11)                                     | Sediment Deposits (B2) ( <b>Riverine</b> )         |
| High Water Table (A2)                                   | Biotic Crust (B12)                                   | Drift Deposits (B3) ( <b>Riverine</b> )            |
| Saturation (A3)                                         | Aquatic Invertebrates (B13)                          | Drainage Patterns (B10)                            |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)                           | Dry-Season Water Table (C2)                        |
| Sediment Deposits (B2) (Nonriverine)                    | Oxidized Rhizospheres along Livir                    | ng Roots (C3) Thin Muck Surface (C7)               |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)                        | Crayfish Burrows (C8)                              |
| Surface Soil Cracks (B6)                                | Soils (C6) Saturation Visible on Aerial Imagery (C9) |                                                    |
| Inundation Visible on Aerial Imagery (B7)               | Shallow Aquitard (D3)                                |                                                    |
| Water-Stained Leaves (B9)                               |                                                      | FAC-Neutral Test (D5)                              |
| Field Observations:                                     |                                                      |                                                    |
| Surface Water Present? Yes O No 💿                       | Depth (inches):                                      |                                                    |
| Water Table Present? Yes O No 💿                         | Depth (inches):                                      |                                                    |
| Saturation Present? Yes No ( includes capillary fringe) | Depth (inches):                                      | Wetland Hydrology Present? Yes   No                |
| Describe Recorded Data (stream gauge, monitorin         | ng well, aerial photos, previous inspec              | ions), if available:                               |
|                                                         |                                                      |                                                    |
| Remarks: Ponds briefly in extreme years. No             | ponding in 2011-2012 per GLA w                       | ret season survey.                                 |
| Hydrology data collected by GLA of                      | on 6-9-12 (see original handwritter                  | n data form).                                      |
| Surface soil cracks evident but not p                   | prevalent (Dudek 10-4-12).                           |                                                    |
| *Aquatic Invertebrates* Common v                        | versatile fairy shrimp, ostracod she                 | ells, and cladoceran ephippia were present in this |
| feature during 2012 dry season fairy                    | y shrimp surveys (Dudek updated                      | data form with aquatic invertebrates data).        |
| US Army Corps of Engineers                              |                                                      |                                                    |

| Project/Site: Newport Banning Ranc                   |                    | City/County:Ora    | nge County        | Sampling Date: 10-4-12 |                  |             |                    |
|------------------------------------------------------|--------------------|--------------------|-------------------|------------------------|------------------|-------------|--------------------|
| Applicant/Owner: Newport Banning Ranch LLC           |                    |                    |                   | Sta                    | te:CA            | Sampling    | Point: EE          |
| Investigator(s): J. Davis IV, T. Wotip               | Section, Townsh    | nip, Range:Sectio  | on 20, T6S, I     | R10W                   |                  |             |                    |
| Landform (hillslope, terrace, etc.): Terrace         |                    |                    | Local relief (cor | icave, convex, no      | one):Concave     |             | Slope (%):<2       |
| Subregion (LRR):C - Mediterranean California Lat:33. |                    |                    | 5324538548        | Long:-1                | 17.94393014      | 6           | Datum: WGS 84      |
| Soil Map Unit Name: Myford sandy lo                  | am 9-30% slo       | opes, eroded       |                   |                        | NWI classifi     | cation:NA   |                    |
| Are climatic / hydrologic conditions on th           | ne site typical fo | or this time of ye | ear?Yes 💿         | No 🔿  (If r            | no, explain in F | Remarks.)   |                    |
| Are Vegetation Soil or H                             | ydrology           | significantly      | disturbed?        | Are "Normal Ci         | rcumstances"     | present? Y  | res 💿 🛛 No 🔿       |
| Are Vegetation Soil or H                             | ydrology           | naturally pro      | oblematic?        | (If needed, exp        | lain any answe   | ers in Rema | rks.)              |
| SUMMARY OF FINDINGS - At                             | tach site m        | ap showing         | sampling po       | oint locations         | , transects      | , importa   | ant features, etc. |
| Hydrophytic Vegetation Present?                      | Yes 🔘              | No 💿               |                   |                        |                  |             |                    |
| Hydric Soil Present?                                 | Yes 🔘              | No 💿               | Is the Sa         | mpled Area             |                  |             |                    |
| Wetland Hydrology Present?                           | Yes 🕡              | No 🔘               |                   | Wetland?               | Yes 🔿            | No (        | <u>_</u>           |

|                                            | Absolute      | Dominant    |             | Dominance Test w                       | orksheet   | t:                      |           |       |
|--------------------------------------------|---------------|-------------|-------------|----------------------------------------|------------|-------------------------|-----------|-------|
| Tree Stratum (Use scientific names.) 1     | % Cover       | Species?    | Status      | Number of Dominar<br>That Are OBL, FAC |            |                         |           | (A)   |
| 2                                          |               |             |             | Total Number of Do                     | minant     |                         |           |       |
| 3                                          |               |             |             | Species Across All                     |            | 2                       | J         | (B)   |
| 4.                                         |               |             |             | Percent of Dominar                     | nt Snecies |                         |           |       |
| Total Cove                                 | r: %          |             |             | That Are OBL, FAC                      |            | -                       | .0 %      | (A/B) |
| Sapling/Shrub Stratum                      |               |             |             | Describerto de desc                    |            |                         |           |       |
| 1                                          |               |             |             | Prevalence Index                       |            |                         |           |       |
| 2                                          |               |             |             | Total % Cover                          | of:        | Multipl                 |           |       |
| 3.                                         |               |             |             | OBL species                            |            | x 1 =                   | 0         |       |
| 4.                                         |               |             |             | FACW species                           | 20         | x 2 =                   | 40        |       |
| 5.                                         |               |             |             | FAC species                            | 3          | x 3 =                   | 9         |       |
| Total Cover                                | r: %          |             |             | FACU species                           | 25         | x 4 =                   | 100       |       |
| Herb Stratum                               |               |             |             | UPL species                            | 15         | x 5 =                   | 75        |       |
| <sup>1</sup> Deinandra fasciculata         | 25            | Yes         | FACU        | Column Totals:                         | 63         | (A)                     | 224       | (B)   |
| <sup>2</sup> .Centaurea melitensis         | 10            | No          | UPL         |                                        |            |                         |           |       |
| <sup>3</sup> .Isocoma menziesii            | 5             | No          | UPL         | Prevalence In                          |            |                         | 3.56      |       |
| 4. Polypogon monspeliensis                 | 20            | Yes         | FACW        | Hydrophytic Vege                       |            |                         |           |       |
| 5. Rumex crispus                           | 3             | No          | FAC         | Dominance Te                           | st is >50% | 0                       |           |       |
| 6.                                         |               |             |             | Prevalence Ind                         | ex is ≤3.0 | ) <sup>1</sup>          |           |       |
| 7.                                         |               |             |             | Morphological<br>data in Rem           |            |                         |           | ng    |
| 8                                          |               |             |             | Problematic Hy                         | drophytic  | Vegetation <sup>1</sup> | (Explain  | )     |
| Woody Vine Stratum                         | 63 %          |             |             |                                        |            | -                       |           |       |
| 1.                                         |               |             |             | <sup>1</sup> Indicators of hydric      | c soil and | l wetland hy            | drology I | must  |
| 2.                                         |               |             |             | be present.                            |            |                         |           |       |
| Total Cover                                | r: %          |             |             | Hydrophytic<br>Vegetation              |            |                         |           |       |
| % Bare Ground in Herb Stratum 37 % % Cover | r of Biotic C | Crust (     | ) %         | Present?                               | Yes 🔿      | No 🦲                    | )         |       |
| Remarks: Well pad.                         |               |             |             |                                        |            |                         |           |       |
| Vegetation data collected by GLA on 6-9    | -12 (see o    | original ha | ndwritten o | data form).                            |            |                         |           |       |
|                                            |               |             |             |                                        |            |                         |           |       |

SOIL

| Profile Description: (Describe to the dep                | oth needed to document the indicator or | confirm the absence of in             | ndicators.)                                          |
|----------------------------------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------------------|
| Depth Matrix                                             | Redox Features                          |                                       |                                                      |
| (inches) Color (moist) %                                 | Color (moist) % Type <sup>1</sup>       | Loc <sup>2</sup> Texture <sup>3</sup> | Remarks                                              |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
|                                                          |                                         |                                       |                                                      |
| <sup>1</sup> Type: C=Concentration, D=Depletion, RM      |                                         | ining, RC=Root Channel, N             |                                                      |
| <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay | y, Loam, Sandy Clay Loam, Sandy Loam, C | Clay Loam, Silty Clay Loam            | , Silt Loam, Silt, Loamy Sand, Sand.                 |
| Hydric Soil Indicators: (Applicable to all LR            | Rs, unless otherwise noted.)            | Indicators for P                      | roblematic Hydric Soils <sup>4</sup> :               |
| Histosol (A1)                                            | Sandy Redox (S5)                        |                                       | (A9) ( <b>LRR C</b> )                                |
| Histic Epipedon (A2)                                     | Stripped Matrix (S6)                    |                                       | (A10) ( <b>LRR B</b> )                               |
| Black Histic (A3)                                        | Loamy Mucky Mineral (F1)                | Reduced V                             |                                                      |
| Hydrogen Sulfide (A4)                                    | Loamy Gleyed Matrix (F2)                |                                       | t Material (TF2)                                     |
| Stratified Layers (A5) (LRR C)                           | Depleted Matrix (F3)                    | Other (Exp                            | lain in Remarks)                                     |
| 1 cm Muck (A9) (LRR D)                                   | Redox Dark Surface (F6)                 |                                       |                                                      |
| Depleted Below Dark Surface (A11)                        | Depleted Dark Surface (F7)              |                                       |                                                      |
| Thick Dark Surface (A12)                                 | Redox Depressions (F8)                  | <sup>4</sup> Indiantara of h          | udraphytic vocatation and                            |
| Sandy Mucky Mineral (S1)                                 | Vernal Pools (F9)                       |                                       | ydrophytic vegetation and<br>rology must be present. |
|                                                          |                                         | weitanu nyu                           | lology must be present.                              |
| Restrictive Layer (if present):                          |                                         |                                       |                                                      |
| Type:none                                                |                                         |                                       |                                                      |
| Depth (inches):none                                      |                                         | Hydric Soil Pre                       | sent? Yes 🔿 No 💿                                     |
| Remarks: highly compacted well pad -                     |                                         | ·                                     |                                                      |
|                                                          | rately well drained soils, medium to ra | pid runoff, very slow pe              | ermeability, formed on terraces                      |
| (Dudek updated soil type).                               |                                         |                                       |                                                      |

| Wetland Hydrology Indicators:                             |                                                      | Secondary Indicators (2 or more required) |  |  |  |
|-----------------------------------------------------------|------------------------------------------------------|-------------------------------------------|--|--|--|
| Primary Indicators (any one indicator is sufficient)      |                                                      | Water Marks (B1) (Riverine)               |  |  |  |
| Surface Water (A1)                                        | Salt Crust (B11)                                     | Sediment Deposits (B2) (Riverine)         |  |  |  |
| High Water Table (A2)                                     | Biotic Crust (B12)                                   | Drift Deposits (B3) ( <b>Riverine</b> )   |  |  |  |
| Saturation (A3)                                           | Aquatic Invertebrates (B13)                          | Drainage Patterns (B10)                   |  |  |  |
| Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) |                                                      | Dry-Season Water Table (C2)               |  |  |  |
| Sediment Deposits (B2) (Nonriverine)                      | Oxidized Rhizospheres along Living Roots (C          | Thin Muck Surface (C7)                    |  |  |  |
| Drift Deposits (B3) (Nonriverine)                         | Crayfish Burrows (C8)                                |                                           |  |  |  |
| Surface Soil Cracks (B6)                                  | Saturation Visible on Aerial Imagery (C9)            |                                           |  |  |  |
| Inundation Visible on Aerial Imagery (B7)                 | Shallow Aquitard (D3)                                |                                           |  |  |  |
| Water-Stained Leaves (B9)                                 |                                                      | FAC-Neutral Test (D5)                     |  |  |  |
| Field Observations:                                       |                                                      |                                           |  |  |  |
| Surface Water Present? Yes 🔿 No 💽                         | Depth (inches):                                      |                                           |  |  |  |
| Water Table Present? Yes O No 💽                           | Depth (inches):                                      |                                           |  |  |  |
| Saturation Present? Yes No ( includes capillary fringe)   | Depth (inches): Wetland                              | Hydrology Present? Yes 💿 No 🔿             |  |  |  |
| Describe Recorded Data (stream gauge, monitori            | ng well, aerial photos, previous inspections), if av | ailable:                                  |  |  |  |
|                                                           |                                                      |                                           |  |  |  |
| Remarks:No ponding in 2011/2012 per GLA                   | wet season survey (GLA handwritten data              | form 6-9-12).                             |  |  |  |
| *Aquatic Invertebrates* Common v                          | versatile fairy shrimp were present in this fe       | ature during 2012 dry season fairy shrimp |  |  |  |
| surveys (Dudek updated data form                          | with aquatic invertebrates data).                    |                                           |  |  |  |
|                                                           |                                                      |                                           |  |  |  |
|                                                           |                                                      |                                           |  |  |  |
|                                                           |                                                      |                                           |  |  |  |

| Project/Site: Newport Banning Rance                | Project/Site: Newport Banning Ranch |                    |                  |                     | _ City/County:Orange County |             |                    |  |
|----------------------------------------------------|-------------------------------------|--------------------|------------------|---------------------|-----------------------------|-------------|--------------------|--|
| Applicant/Owner: Newport Banning Ranch LLC         |                                     |                    |                  | Sta                 | te:CA                       | Sampling    | Point:FF           |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine |                                     |                    | Section, Towns   | hip, Range: Section | on 20, T6S, I               | R10W        |                    |  |
| Landform (hillslope, terrace, etc.): Terrace       |                                     |                    | Local relief (co | ncave, convex, no   | one):Concave                |             | Slope (%):<2       |  |
| Subregion (LRR):C - Mediterranean                  | California                          | Lat:33.            | 6314838289       | Long:-1             | 17.94515231                 | 1           | Datum: WGS 84      |  |
| Soil Map Unit Name: Myford sandy lo                | bam 0-2% sloj                       | pes                |                  |                     | NWI classifi                | cation:NA   |                    |  |
| Are climatic / hydrologic conditions on t          | he site typical fo                  | or this time of ye | ear?Yes 💽        | No 🔿 (lf r          | no, explain in F            | Remarks.)   |                    |  |
| Are Vegetation Soil or H                           | lydrology                           | significantly      | y disturbed?     | Are "Normal Ci      | rcumstances"                | present? Y  | ′es 💿 🛛 No 🔿       |  |
| Are Vegetation Soil or H                           | lydrology                           | naturally pr       | oblematic?       | (If needed, exp     | lain any answe              | ers in Rema | rks.)              |  |
| SUMMARY OF FINDINGS - A                            | ttach site m                        | ap showing         | g sampling p     | oint locations      | , transects                 | , importa   | ant features, etc. |  |
| Hydrophytic Vegetation Present?                    | Yes 🔘                               | No 💿               |                  |                     |                             |             |                    |  |
| Hydric Soil Present?                               | Yes 🔘                               | No 💿               | Is the Sa        | ampled Area         |                             |             |                    |  |
| Wetland Hydrology Present?                         | Yes 🜘                               | No 🔘               | within a         | Wetland?            | Yes 🔿                       | No (        |                    |  |

|                                                  | Absolute    | Dominant    | Indicator | Dominance Test w                                 | orksheet   | :                                            |          |       |
|--------------------------------------------------|-------------|-------------|-----------|--------------------------------------------------|------------|----------------------------------------------|----------|-------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominan                                | t Species  | 5                                            |          |       |
| 1                                                |             |             |           | That Are OBL, FAC                                | W, or FA   | C: 0                                         |          | (A)   |
| 2.                                               |             |             |           | Total Number of Do                               | minant     |                                              |          |       |
| 3.                                               |             |             |           | Species Across All S                             |            | 2                                            |          | (B)   |
| 4.                                               |             |             |           | <ul> <li>Percent of Dominan</li> </ul>           | t Spaciae  |                                              |          |       |
| Total Cove                                       | r: %        |             |           | That Are OBL, FAC                                |            |                                              | 0/0      | (A/B) |
| Sapling/Shrub Stratum                            |             |             |           | ,                                                | ,          | 0.0                                          | /0       | (• )  |
| 1                                                |             |             |           | Prevalence Index v                               |            |                                              |          |       |
| 2.                                               |             |             |           | Total % Cover of                                 | of:        | Multiply                                     | by:      |       |
| 3.                                               |             |             |           | OBL species                                      |            | x 1 =                                        | 0        |       |
| 4.                                               |             |             |           | FACW species                                     |            | x 2 =                                        | 0        |       |
| 5.                                               |             |             |           | FAC species                                      | 3          | x 3 =                                        | 9        |       |
| Total Cover                                      | : %         |             |           | FACU species                                     | 38         | x 4 =                                        | 152      |       |
| Herb Stratum                                     |             |             |           | UPL species                                      | 51         | x 5 =                                        | 255      |       |
| <sup>1</sup> .Deinandra fasciculata              | 35          | Yes         | FACU      | Column Totals:                                   | 92         | (A)                                          | 416      | (B)   |
| 2. Centaurea melitensis                          | 40          | Yes         | UPL       |                                                  |            |                                              |          |       |
| 3. Bromus rubens                                 | 4           | No          | UPL       | Prevalence Inc                                   |            |                                              | 4.52     |       |
| <sup>4</sup> .Bassia hyssopifolia                | 3           | No          | FAC       | Hydrophytic Veget                                |            |                                              |          |       |
| 5. Salsola tragus                                | 3           | No          | FACU      | Dominance Tes                                    |            |                                              |          |       |
| 6.Isocoma menziesii                              | 5           | No          | UPL       | Prevalence Inde                                  | ex is ≤3.0 | 1                                            |          |       |
| 7.Hirschfeldia incana                            | 2           | No          | UPL       | Morphological A                                  |            | ns <sup>1</sup> (Provide s<br>n a separate s |          | ng    |
| 8.                                               |             |             |           | - Problematic Hy                                 |            | •                                            |          | `     |
| Total Cover                                      | 92 %        |             |           |                                                  | uropriyuc  | vegetation (                                 | Explain  | )     |
| Woody Vine Stratum                               | 2 - 73      |             |           | 1                                                |            |                                              |          |       |
| 1                                                |             |             |           | <sup>1</sup> Indicators of hydric<br>be present. | soil and   | wetland hydi                                 | rology i | nust  |
| 2                                                |             |             |           | -                                                |            |                                              |          |       |
| Total Cover                                      | : %         |             |           | Hydrophytic<br>Vegetation                        |            |                                              |          |       |
| % Bare Ground in Herb Stratum 8 % % Cover        | of Biotic C | Crust 0     | %         | Present?                                         | Yes 🔿      | No 💿                                         |          |       |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see c  | original ha | ndwritten | data form).                                      |            |                                              |          |       |
|                                                  |             |             |           |                                                  |            |                                              |          |       |
|                                                  |             |             |           |                                                  |            |                                              |          |       |

| Profile Des | cription: (Describe t                                                                                                                                                                                                                                                                  | o the den | th needed to docu  | ment the    | indicator         | or confirm       | the absence of it            | ndicators.)            |                |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|-------------|-------------------|------------------|------------------------------|------------------------|----------------|
| Depth       | Matrix                                                                                                                                                                                                                                                                                 | e ine dep |                    | x Feature   |                   |                  |                              | indicatoroly           |                |
| (inches)    | Color (moist)                                                                                                                                                                                                                                                                          | %         | Color (moist)      | %           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>         | Rem                    | arks           |
| 0-6         | 10YR 3/3                                                                                                                                                                                                                                                                               |           | none               |             |                   |                  |                              |                        |                |
|             |                                                                                                                                                                                                                                                                                        |           |                    |             |                   |                  |                              |                        |                |
|             |                                                                                                                                                                                                                                                                                        |           |                    |             |                   |                  |                              |                        |                |
|             |                                                                                                                                                                                                                                                                                        |           |                    |             |                   |                  |                              |                        |                |
|             |                                                                                                                                                                                                                                                                                        |           |                    |             |                   |                  |                              |                        |                |
|             |                                                                                                                                                                                                                                                                                        |           |                    |             |                   |                  |                              |                        |                |
|             | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand. |           |                    |             |                   |                  |                              |                        |                |
|             | Indicators: (Applicable                                                                                                                                                                                                                                                                |           |                    |             |                   | ,,               |                              | Problematic Hydric S   |                |
| Histoso     |                                                                                                                                                                                                                                                                                        |           | Sandy Redo         | -           |                   |                  |                              | (A9) ( <b>LRR C</b> )  |                |
|             | pipedon (A2)                                                                                                                                                                                                                                                                           |           | Stripped M         | ( )         |                   |                  |                              | (A10) ( <b>LRR B</b> ) |                |
| Black H     | listic (A3)                                                                                                                                                                                                                                                                            |           | Loamy Muc          | ky Minera   | al (F1)           |                  | Reduced V                    | /ertic (F18)           |                |
| Hydrog      | en Sulfide (A4)                                                                                                                                                                                                                                                                        |           | Loamy Gle          | yed Matrix  | (F2)              |                  | Red Paren                    | t Material (TF2)       |                |
| Stratifie   | ed Layers (A5) (LRR C                                                                                                                                                                                                                                                                  | )         | Depleted N         | latrix (F3) |                   |                  | Other (Exp                   | lain in Remarks)       |                |
| 1 cm M      | uck (A9) ( <b>LRR D</b> )                                                                                                                                                                                                                                                              |           | Redox Darl         | Surface     | (F6)              |                  |                              |                        |                |
| Deplete     | ed Below Dark Surface                                                                                                                                                                                                                                                                  | (A11)     | Depleted D         | ark Surfac  | ce (F7)           |                  |                              |                        |                |
| Thick D     | ark Surface (A12)                                                                                                                                                                                                                                                                      |           | Redox Dep          | ressions (  | F8)               |                  |                              |                        |                |
| Sandy I     | Mucky Mineral (S1)                                                                                                                                                                                                                                                                     |           | Vernal Poo         | ls (F9)     |                   |                  | <sup>4</sup> Indicators of h | ydrophytic vegetatio   | n and          |
| Sandy       | Gleyed Matrix (S4)                                                                                                                                                                                                                                                                     |           |                    |             |                   |                  | wetland hyd                  | rology must be pres    | ent.           |
| Restrictive | Layer (if present):                                                                                                                                                                                                                                                                    |           |                    |             |                   |                  |                              |                        |                |
| Type:no:    | ne                                                                                                                                                                                                                                                                                     |           |                    |             |                   |                  |                              |                        |                |
| Depth (ir   | nches):none                                                                                                                                                                                                                                                                            |           |                    |             |                   |                  | Hydric Soil Pre              | sent? Yes 🔿            | No 💿           |
| Remarks: S  | oil data collected by                                                                                                                                                                                                                                                                  | GLA OI    | n 6-9-12 (see orig | inal hand   | lwritten d        | ata form)        | ).                           |                        |                |
|             | lyford soils are dee                                                                                                                                                                                                                                                                   |           | , U                |             |                   | ,                |                              | ermeability, forme     | ed on terraces |
|             | Dudek updated soil                                                                                                                                                                                                                                                                     |           | •                  | -           |                   | 1                |                              | <b>2</b> *             |                |

| Wetland Hydrology Indicators:                        |                                         | Secondary Indicators (2 or more required)            |
|------------------------------------------------------|-----------------------------------------|------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient) | Water Marks (B1) (Riverine)             |                                                      |
| Surface Water (A1)                                   | Salt Crust (B11)                        | Sediment Deposits (B2) ( <b>Riverine</b> )           |
| High Water Table (A2)                                | Drift Deposits (B3) ( <b>Riverine</b> ) |                                                      |
| Saturation (A3)                                      | Aquatic Invertebrates (B13)             | Drainage Patterns (B10)                              |
| Water Marks (B1) (Nonriverine)                       | Hydrogen Sulfide Odor (C1)              | Dry-Season Water Table (C2)                          |
| Sediment Deposits (B2) (Nonriverine)                 | Oxidized Rhizospheres along Livin       | g Roots (C3) Thin Muck Surface (C7)                  |
| Drift Deposits (B3) (Nonriverine)                    | Presence of Reduced Iron (C4)           | Crayfish Burrows (C8)                                |
| Surface Soil Cracks (B6)                             | Recent Iron Reduction in Plowed S       | coils (C6) Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aerial Imagery (B7)            | Shallow Aquitard (D3)                   |                                                      |
| Water-Stained Leaves (B9)                            | FAC-Neutral Test (D5)                   |                                                      |
| Field Observations:                                  |                                         |                                                      |
| Surface Water Present? Yes 🔿 No 💿                    | Depth (inches):                         |                                                      |
| Water Table Present? Yes O No 💿                      | Depth (inches):                         |                                                      |
| Saturation Present? Yes O No (•)                     | Depth (inches):                         |                                                      |
| (includes capillary fringe)                          |                                         | Wetland Hydrology Present? Yes  No                   |
| Describe Recorded Data (stream gauge, monitorin      | g well, aerial photos, previous inspect | ons), if available:                                  |
|                                                      |                                         |                                                      |
| Remarks:No ponding in 2011-2012 per GLA              | •                                       |                                                      |
| Hydrology data collected by GLA or                   |                                         |                                                      |
| *Aquatic Invertebrates* Common ve                    | ersatile fairy shrimp were present      | in this feature during 2012 dry season fairy shrimp  |
| surveys (Dudek updated data form w                   |                                         |                                                      |
|                                                      |                                         |                                                      |
| US Amore Compa of Engineers                          |                                         |                                                      |

| Project/Site: Newport Banning Ranch                                                                                   | City/County:Orar     | nge County                                     | Sampling       | Sampling Date: 10-4-12 |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------|----------------|------------------------|--|--|--|
| Applicant/Owner: Newport Banning Ranch LLC                                                                            |                      | State:CA                                       | Sampling       | Point:GG               |  |  |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine                                                                    | Section, Townshi     | Section, Township, Range:Section 20, T6S, R10W |                |                        |  |  |  |
| Landform (hillslope, terrace, etc.): Terrace                                                                          | Local relief (cond   | cave, convex, none): Conca                     | ive            | Slope (%):<2           |  |  |  |
| Subregion (LRR):C - Mediterranean California                                                                          | at:33.6307200434     | Long:-117.944335                               | 5444           | Datum: WGS 84          |  |  |  |
| Soil Map Unit Name: Myford sandy loam 9-30% slopes, en                                                                | oded                 | NWI clas                                       | sification:NA  |                        |  |  |  |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.) |                      |                                                |                |                        |  |  |  |
| Are Vegetation Soil or Hydrology sign                                                                                 | ificantly disturbed? | Are "Normal Circumstance                       | es" present? Y | res 💿 🛛 No 🔿           |  |  |  |
| Are Vegetation Soil or Hydrology natu                                                                                 | rally problematic?   | (If needed, explain any and                    | swers in Rema  | rks.)                  |  |  |  |
| SUMMARY OF FINDINGS - Attach site map sho                                                                             | owing sampling po    | int locations, transed                         | cts, importa   | nt features, etc.      |  |  |  |
| Hydrophytic Vegetation Present? Yes 🔘 No (                                                                            |                      |                                                |                |                        |  |  |  |
| Hydric Soil Present? Yes No (                                                                                         | Is the Sar           | npled Area                                     |                |                        |  |  |  |
| Wetland Hydrology Present? Yes ( No (                                                                                 | within a V           | Vetland? Yes                                   | O No 🤅         |                        |  |  |  |

Remarks: CCC wetland since at least one wetland criterion was met.

Highly disturbed, compact dirt on oil pad and road, shallow depression present, 0% vegetated (Dudek 10-4-12).

|                                            | Absolute      | Dominant    |           | Dominance Test worksheet:                                                                                 |
|--------------------------------------------|---------------|-------------|-----------|-----------------------------------------------------------------------------------------------------------|
| Tree Stratum (Use scientific names.)       | % Cover       | Species?    | Status    | Number of Dominant Species                                                                                |
| 1                                          |               |             |           | That Are OBL, FACW, or FAC: 0 (A)                                                                         |
| 2.                                         |               |             |           | _ Total Number of Dominant                                                                                |
| 3.                                         |               |             |           | Species Across All Strata: 2 (B)                                                                          |
| 4.                                         |               | ·           |           |                                                                                                           |
| Total Cove                                 | - %           |             |           | <ul> <li>Percent of Dominant Species</li> <li>That Are OBL, FACW, or FAC:</li> <li>0.0 % (A/B)</li> </ul> |
| Sapling/Shrub Stratum                      | 1. 70         |             |           | That Are OBL, FACW, or FAC: $0.0 \%$ (A/B)                                                                |
| 1.                                         |               |             |           | Prevalence Index worksheet:                                                                               |
| 2.                                         |               |             |           | Total % Cover of: Multiply by:                                                                            |
| 3.                                         |               | ·           |           | OBL species x 1 = 0                                                                                       |
| 4.                                         |               |             |           | FACW species $x 2 = 0$                                                                                    |
| 5.                                         |               |             |           | FAC species $x 3 = 0$                                                                                     |
| Total Cove                                 | r: %          |             |           | FACU species $x 4 = 0$                                                                                    |
| Herb Stratum                               |               |             |           | UPL species $10 \times 5 = 50$                                                                            |
| <sup>1</sup> .Hirschfeldia incana          | 5             | Yes         | UPL       | Column Totals: 10 (A) 50 (B)                                                                              |
| 2. Bromus madritensis rubens               | 5             | Yes         | UPL       |                                                                                                           |
| 3.                                         |               |             |           | - Prevalence Index = B/A = 5.00                                                                           |
| 4.                                         |               | ·           |           | Hydrophytic Vegetation Indicators:                                                                        |
| 5.                                         |               | ·           |           | Dominance Test is >50%                                                                                    |
| 6.                                         |               |             |           | Prevalence Index is ≤3.0 <sup>1</sup>                                                                     |
| 7.                                         |               |             |           | Morphological Adaptations <sup>1</sup> (Provide supporting                                                |
| 8.                                         |               |             |           | data in Remarks or on a separate sheet)                                                                   |
| Total Cove                                 | 10            |             |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                                                 |
| Woody Vine Stratum                         | r: 10 %       |             |           |                                                                                                           |
| 1.                                         |               |             |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                         |
| 2.                                         |               |             |           | be present.                                                                                               |
| Total Cove                                 | r: %          |             |           | Hydrophytic                                                                                               |
| % Bare Ground in Herb Stratum 90 % % Cover | r of Biotic ( | Crust 0     | %         | Vegetation<br>Present? Yes No                                                                             |
| Remarks: Active well site.                 |               |             |           |                                                                                                           |
| Vegetation data collected by GLA on 6-9    | -12 (see o    | original ha | ndwritten | data form).                                                                                               |
|                                            |               |             |           |                                                                                                           |
|                                            |               |             |           |                                                                                                           |

SOIL

| Profile Des                                         | cription: (Describe to                                                                                                                                                     | o the de | oth needed to documen                                                                                                                    | t the indic                                                              | cator or         | confirm          | n the absence of                      | indicators.)                                                                                                  |                |  |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------|------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------|--|
| Depth                                               | Matrix                                                                                                                                                                     |          | Redox Features                                                                                                                           |                                                                          |                  |                  |                                       |                                                                                                               |                |  |
| (inches)                                            | Color (moist)                                                                                                                                                              | %        | Color (moist)                                                                                                                            | % Ту                                                                     | ype <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>                  | Rema                                                                                                          | rks            |  |
| 0-6                                                 | 10YR 3/2                                                                                                                                                                   | 100      | none                                                                                                                                     |                                                                          |                  |                  | sandy loam                            | in road/well pad                                                                                              |                |  |
|                                                     |                                                                                                                                                                            |          |                                                                                                                                          |                                                                          |                  |                  |                                       |                                                                                                               |                |  |
| • •                                                 | Concentration, D=Deple<br>es: Clay, Silty Clay, Si                                                                                                                         |          | I=Reduced Matrix. <sup>2</sup> Lc<br>y, Loam, Sandy Clay Loa                                                                             |                                                                          |                  | -                | C=Root Channel,<br>m, Silty Clay Loan |                                                                                                               | ny Sand, Sand. |  |
|                                                     |                                                                                                                                                                            | •        | Rs, unless otherwise not                                                                                                                 |                                                                          |                  | -                |                                       | Indicators for Problematic Hydric Soils <sup>4</sup> :                                                        |                |  |
| Black H<br>Hydrog<br>Stratifie<br>1 cm M<br>Deplete | ol (A1)<br>Epipedon (A2)<br>Histic (A3)<br>Hen Sulfide (A4)<br>ed Layers (A5) ( <b>LRR C</b><br>Huck (A9) ( <b>LRR D</b> )<br>Hed Below Dark Surface<br>Dark Surface (A12) | ,        | Sandy Redox (S<br>Stripped Matrix<br>Loamy Mucky M<br>Loamy Gleyed<br>Depleted Matrix<br>Redox Dark Su<br>Depleted Dark<br>Redox Depress | (S6)<br>Mineral (F1<br>Matrix (F2<br>x (F3)<br>Irface (F6)<br>Surface (F | )                |                  | 2 cm Muc<br>Reduced<br>Red Pare       | k (A9) ( <b>LRR C</b> )<br>k (A10) ( <b>LRR B</b> )<br>Vertic (F18)<br>nt Material (TF2)<br>plain in Remarks) |                |  |
|                                                     | Mucky Mineral (S1)                                                                                                                                                         |          | Vernal Pools (F                                                                                                                          | -9)                                                                      |                  |                  |                                       | nydrophytic vegetation                                                                                        |                |  |
|                                                     | Gleyed Matrix (S4)                                                                                                                                                         |          |                                                                                                                                          |                                                                          |                  |                  | wetland hy                            | drology must be prese                                                                                         | nt.            |  |
| Restrictive                                         | Layer (if present):                                                                                                                                                        |          |                                                                                                                                          |                                                                          |                  |                  |                                       |                                                                                                               |                |  |
| Type:no                                             | -                                                                                                                                                                          |          |                                                                                                                                          |                                                                          |                  |                  |                                       | _                                                                                                             | _              |  |
|                                                     | nches):none                                                                                                                                                                |          |                                                                                                                                          |                                                                          |                  |                  | Hydric Soil Pre                       | esent? Yes 🔿                                                                                                  | No 💿           |  |
| Ν                                                   |                                                                                                                                                                            | p, mode  | on 6-9-12 (see original<br>rately well drained soi                                                                                       |                                                                          |                  | ,                |                                       | permeability, formed                                                                                          | l on terraces  |  |

| Wetland Hydrology Indicators:                             |                                                    | Secondary Indicators (2 or more required)                 |  |  |
|-----------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------|--|--|
| Primary Indicators (any one indicator is sufficient)      |                                                    | Water Marks (B1) (Riverine)                               |  |  |
| X Surface Water (A1)                                      | Salt Crust (B11)                                   | Sediment Deposits (B2) ( <b>Riverine</b> )                |  |  |
| High Water Table (A2)                                     | h Water Table (A2)                                 |                                                           |  |  |
| Saturation (A3)                                           | X Aquatic Invertebrates (B13)                      | Drainage Patterns (B10)                                   |  |  |
| Water Marks (B1) (Nonriverine)                            | Hydrogen Sulfide Odor (C1)                         | Dry-Season Water Table (C2)                               |  |  |
| Sediment Deposits (B2) (Nonriverine)                      | Oxidized Rhizospheres along Livi                   | ng Roots (C3) Thin Muck Surface (C7)                      |  |  |
| Drift Deposits (B3) (Nonriverine)                         | Presence of Reduced Iron (C4)                      | Crayfish Burrows (C8)                                     |  |  |
| Surface Soil Cracks (B6)                                  | Recent Iron Reduction in Plowed                    | Soils (C6) Saturation Visible on Aerial Imagery (C9)      |  |  |
| Inundation Visible on Aerial Imagery (B7)                 | Other (Explain in Remarks)                         | Shallow Aquitard (D3)                                     |  |  |
| Water-Stained Leaves (B9)                                 |                                                    | FAC-Neutral Test (D5)                                     |  |  |
| Field Observations:                                       |                                                    |                                                           |  |  |
| Surface Water Present? Yes  No                            | Depth (inches): <2                                 |                                                           |  |  |
| Water Table Present? Yes O No 💽                           | Depth (inches):                                    |                                                           |  |  |
| Saturation Present? Yes O No ( includes capillary fringe) | Depth (inches):                                    | Wetland Hydrology Present? Yes   No                       |  |  |
| Describe Recorded Data (stream gauge, monitoring          | ng well, aerial photos, previous inspec            | tions), if available:                                     |  |  |
|                                                           |                                                    |                                                           |  |  |
| Remarks:*Surface Water Present* Shallow p                 | onding with road ruts and low are                  | a on well pad and access road. Area is active road and    |  |  |
| well pad and not a wetland (data co                       | llected on 6-9-12 GLA handwritte                   | en data form). Feature was inundated for at least 14 days |  |  |
| during 2010-2011 wet season fairy                         | shrimp surveys and during the 20                   | 12-2013 rain season.                                      |  |  |
| *Aquatic Invertebrates* Common v                          | ring 2011-2012 wet season fairy shrimp surveys and |                                                           |  |  |
| during 2012 dry season fairy shrim                        | p surveys (Dudek updated data for                  | rm with shrimp data).                                     |  |  |
| US Army Corps of Engineers                                |                                                    |                                                           |  |  |

| Project/Site: Newport Banning Rance          |                    | City/County:Ora                                 | ange County       | Sampling Date: 10-4-12                             |                  |             |                    |
|----------------------------------------------|--------------------|-------------------------------------------------|-------------------|----------------------------------------------------|------------------|-------------|--------------------|
| Applicant/Owner: Newport Banning I           | Ranch LLC          |                                                 |                   | Sta                                                | te:CA            | Sampling    | Point:HH           |
| Investigator(s): J. Davis IV, T. Wotip       |                    | Section, Township, Range: Section 20, T6S, R10W |                   |                                                    |                  |             |                    |
| Landform (hillslope, terrace, etc.): Terrace |                    |                                                 | Local relief (cor | .ocal relief (concave, convex, none):Concave Slope |                  |             |                    |
| Subregion (LRR):C - Mediterranean            | California         | Lat:33.0                                        | 6325182733        | Long:-1                                            | 17.94743866      | 52          | Datum:WGS 84       |
| Soil Map Unit Name: Myford sandy le          | oam 9-30% slo      | opes, eroded                                    |                   |                                                    | NWI classifi     | cation:NA   |                    |
| Are climatic / hydrologic conditions on t    | he site typical fo | or this time of ye                              | ear?Yes 💽         | No 🔿 (If r                                         | no, explain in F | Remarks.)   |                    |
| Are Vegetation Soil or H                     | lydrology          | significantly                                   | disturbed?        | Are "Normal Ci                                     | rcumstances"     | present? Y  | res 💿 🛛 No 🔿       |
| Are Vegetation Soil or H                     | lydrology          | naturally pr                                    | oblematic?        | (If needed, exp                                    | lain any answe   | ers in Rema | rks.)              |
| SUMMARY OF FINDINGS - A                      | ttach site m       | ap showing                                      | sampling po       | oint locations                                     | , transects      | s, importa  | int features, etc. |
| Hydrophytic Vegetation Present?              | Yes                | No 💿                                            |                   |                                                    |                  |             |                    |
| Hydric Soil Present?                         | Yes 🔘              | No 💿                                            | Is the Sa         | ampled Area                                        |                  |             |                    |
| Wetland Hydrology Present?                   | Yes 💽              | No 🔘                                            |                   | Wetland?                                           | Yes 🔿            | No 🤅        | Ð                  |
| Remarks:CCC wetland since at lea             | ast one wetlan     | d criterion wa                                  | as met.           |                                                    |                  |             |                    |

|                                                                                                                  | Absolute       | Dominant                         |           | Dominance Test w                  | orksheet   | t:             |                          |                     |
|------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------|-----------|-----------------------------------|------------|----------------|--------------------------|---------------------|
| Tree Stratum (Use scientific names.)                                                                             | % Cover        | Species?                         | Status    | Number of Dominar                 |            |                |                          | <i>(</i> <b>)</b> ) |
| 1                                                                                                                |                |                                  |           | That Are OBL, FAC                 | W, or FA   | C:             | 0                        | (A)                 |
| 2                                                                                                                |                |                                  |           | Total Number of Do                |            |                |                          |                     |
| 3                                                                                                                |                |                                  |           | Species Across All                | Strata:    |                | 1                        | (B)                 |
| 4                                                                                                                |                |                                  |           | Percent of Dominar                | t Species  | 5              |                          |                     |
| Total Cove<br>Sapling/Shrub Stratum                                                                              | r: %           |                                  |           | That Are OBL, FAC                 |            | -              | 0.0 %                    | (A/B)               |
| 1.                                                                                                               |                |                                  |           | Prevalence Index                  | vorkshoe   | st.            |                          |                     |
| 2.                                                                                                               |                |                                  |           | Total % Cover                     |            |                | iply by:                 |                     |
| 3.                                                                                                               |                |                                  |           | OBL species                       | 01.        | x 1 =          | 0                        | -                   |
|                                                                                                                  |                |                                  |           | FACW species                      |            | x 2 =          | 0                        |                     |
| 4                                                                                                                |                |                                  |           | FAC species                       | 5          | x 3 =          | -                        |                     |
| 5                                                                                                                |                |                                  |           | FACU species                      | 5          | x 3 –<br>x 4 = | 15                       |                     |
| Total Cover<br>Herb Stratum                                                                                      | : %            |                                  |           |                                   | 50         | x 4 -          | 200                      |                     |
| 1.Deinandra fasciculata                                                                                          | 40             | Yes                              | FACU      | UPL species                       | 10         |                | 50                       |                     |
| <sup>2</sup> .Baccharis salicifolia                                                                              | $\frac{40}{5}$ | $\frac{1 \text{ cs}}{\text{No}}$ | FAC       | Column Totals:                    | 65         | (A)            | 265                      | (B)                 |
| <sup>3</sup> .Baccharis emoryi                                                                                   |                | No                               |           | Prevalence In                     | dex = B//  | Α =            | 4.08                     |                     |
|                                                                                                                  |                | $\frac{NO}{NO}$                  | UPL       | Hydrophytic Vege                  | ation Ind  | licators:      |                          | _                   |
| <ul> <li><sup>4</sup>·<i>Heliotropium curassavicum</i></li> <li><sup>5</sup>·<i>Melilotus indicus</i></li> </ul> | 5              | $\frac{NO}{NO}$                  | FACU      | Dominance Tes                     |            |                |                          |                     |
| 6.                                                                                                               |                | 10                               | FACU      | Prevalence Ind                    |            |                |                          |                     |
| 7.                                                                                                               |                |                                  |           | Morphological                     |            |                | de supporti              | na                  |
| 7<br>8                                                                                                           |                |                                  |           | data in Rem                       |            |                |                          |                     |
|                                                                                                                  |                |                                  |           | Problematic Hy                    | drophytic  | Vegetatio      | on <sup>1</sup> (Explair | ı)                  |
| Total Cover<br>Woody Vine Stratum                                                                                | 65 %           |                                  |           |                                   |            |                |                          |                     |
| 1.                                                                                                               |                |                                  |           | <sup>1</sup> Indicators of hydrid | c soil and | l wetland      | hydrology                | must                |
| 2.                                                                                                               |                |                                  |           | be present.                       |            |                |                          |                     |
| Total Cover                                                                                                      | . %            | ·                                |           | Hydrophytic                       |            |                |                          |                     |
|                                                                                                                  | of Biotic C    | Crust (                          | ) %       | Vegetation<br>Present?            | Yes 🔿      | No             |                          |                     |
|                                                                                                                  |                |                                  |           |                                   | Tes ()     | NO             |                          |                     |
| Remarks: Vegetation data collected by GLA on 6-9                                                                 | -12 (see o     | original ha                      | ndwritten | data form).                       |            |                |                          |                     |
|                                                                                                                  |                |                                  |           |                                   |            |                |                          |                     |
|                                                                                                                  |                |                                  |           |                                   |            |                |                          |                     |

| Profile Des                                                                                            | scription: (Describe t                                                                                                                                                                               | o the dept | h needed to docu                                                                                  | ment the                                                                                                 | indicator               | or confirm       | n the absence of i                                             | ndicators.)                                                                                               |                 |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------|------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------|
| Depth                                                                                                  | Matrix                                                                                                                                                                                               |            |                                                                                                   | x Features                                                                                               |                         |                  |                                                                | indicatoroly                                                                                              |                 |
| (inches)                                                                                               | Color (moist)                                                                                                                                                                                        | %          | Color (moist)                                                                                     | %                                                                                                        | Type <sup>1</sup>       | Loc <sup>2</sup> | Texture <sup>3</sup>                                           | Ren                                                                                                       | narks           |
| 0-6                                                                                                    | 10YR 3/3                                                                                                                                                                                             | n          | one                                                                                               |                                                                                                          |                         |                  | clay loam                                                      |                                                                                                           |                 |
|                                                                                                        |                                                                                                                                                                                                      |            |                                                                                                   | ·                                                                                                        |                         |                  |                                                                |                                                                                                           |                 |
|                                                                                                        |                                                                                                                                                                                                      | <br>       |                                                                                                   |                                                                                                          |                         |                  |                                                                |                                                                                                           |                 |
|                                                                                                        | Concentration, D=Deple<br>res: Clay, Silty Clay, S                                                                                                                                                   |            |                                                                                                   |                                                                                                          |                         |                  | C=Root Channel, N<br>am. Silty Clay Loam                       |                                                                                                           | amv Sand. Sand. |
|                                                                                                        | Indicators: (Applicable                                                                                                                                                                              |            |                                                                                                   |                                                                                                          |                         | ,,               |                                                                | Problematic Hydric S                                                                                      |                 |
| Histose<br>Histic E<br>Black H<br>Hydrog<br>Stratifie<br>1 cm M<br>Deplet<br>Thick E<br>Sandy<br>Sandy | ol (A1)<br>Epipedon (A2)<br>Histic (A3)<br>gen Sulfide (A4)<br>ed Layers (A5) (LRR C<br>Auck (A9) (LRR D)<br>ed Below Dark Surface<br>Dark Surface (A12)<br>Mucky Mineral (S1)<br>Gleyed Matrix (S4) | )          | Sandy Redo Stripped Ma Loamy Muc Loamy Gley Depleted M Redox Darl Depleted D Redox Dep Vernal Poo | x (S5)<br>atrix (S6)<br>cky Minera<br>yed Matrix<br>latrix (F3)<br>< Surface<br>ark Surfac<br>ressions ( | (F2)<br>(F6)<br>ce (F7) |                  | 1 cm Muck<br>2 cm Muck<br>Reduced N<br>Red Paren<br>Other (Exp | (A9) ( <b>LRR C</b> )<br>(A10) ( <b>LRR B</b> )<br>/ertic (F18)<br>nt Material (TF2)<br>plain in Remarks) | on and          |
|                                                                                                        | e Layer (if present):                                                                                                                                                                                |            |                                                                                                   |                                                                                                          |                         |                  |                                                                |                                                                                                           |                 |
| • •                                                                                                    | nches):none                                                                                                                                                                                          |            |                                                                                                   |                                                                                                          |                         |                  | Hydric Soil Pre                                                | esent? Yes 🔿                                                                                              | No 💿            |
| I                                                                                                      | Soil data collected by<br>Myford soils are dee<br>Dudek updated soil                                                                                                                                 | p, modera  | , U                                                                                               |                                                                                                          |                         |                  | ·                                                              | ermeability, form                                                                                         | ed on terraces  |

| Wetland Hydrology Indicators:                            |                                                       | Secondary Indicators (2 or more required)  |
|----------------------------------------------------------|-------------------------------------------------------|--------------------------------------------|
| Primary Indicators (any one indicator is sufficient)     |                                                       | Water Marks (B1) (Riverine)                |
| Surface Water (A1)                                       | Salt Crust (B11)                                      | Sediment Deposits (B2) ( <b>Riverine</b> ) |
| High Water Table (A2)                                    | Biotic Crust (B12)                                    | Drift Deposits (B3) ( <b>Riverine</b> )    |
| Saturation (A3)                                          | Aquatic Invertebrates (B13)                           | Drainage Patterns (B10)                    |
| Water Marks (B1) (Nonriverine)                           | Hydrogen Sulfide Odor (C1)                            | Dry-Season Water Table (C2)                |
| Sediment Deposits (B2) (Nonriverine)                     | Oxidized Rhizospheres along Living Roots (C           | 3) Thin Muck Surface (C7)                  |
| Drift Deposits (B3) (Nonriverine)                        | Presence of Reduced Iron (C4)                         | Crayfish Burrows (C8)                      |
| Surface Soil Cracks (B6)                                 | Recent Iron Reduction in Plowed Soils (C6)            | Saturation Visible on Aerial Imagery (C9)  |
| Inundation Visible on Aerial Imagery (B7)                | Shallow Aquitard (D3)                                 |                                            |
| Water-Stained Leaves (B9)                                |                                                       | FAC-Neutral Test (D5)                      |
| Field Observations:                                      |                                                       |                                            |
| Surface Water Present? Yes  No                           | Depth (inches):                                       |                                            |
| Water Table Present? Yes O No 💽                          | Depth (inches):                                       |                                            |
| Saturation Present? Yes No ( (includes capillary fringe) | Depth (inches): Wetland H                             | lydrology Present? Yes 💿 No 🔿              |
|                                                          | ng well, aerial photos, previous inspections), if ava |                                            |
|                                                          |                                                       |                                            |
| Remarks: Ponded for < 14 days (data from G               | LA handwritten data form 6-9-12).                     |                                            |
| •                                                        | versatile fairy shrimp observed during 2011-          | 2012 wet season fairy shrimp surveys and   |
| 1                                                        | p surveys (Dudek updated data form with sh            | · · · ·                                    |
|                                                          |                                                       | <b>^</b>                                   |
|                                                          |                                                       |                                            |
|                                                          |                                                       |                                            |

| Project/Site: Newport Banning Ranch                                    | City/County:Orange (   | County                  | Sampling Date: 10-4-12      |  |
|------------------------------------------------------------------------|------------------------|-------------------------|-----------------------------|--|
| Applicant/Owner: Newport Banning Ranch LLC                             |                        | State:CA                | Sampling Point:             |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine                     | Section, Township, Ra  | ange: Section 20, T6S,  | R10W                        |  |
| Landform (hillslope, terrace, etc.): Terrace                           | Local relief (concave, | convex, none):Concave   | e Slope (%):<2              |  |
| Subregion (LRR):C - Mediterranean California                           | 33.6312928423          | Long:-117.94679922      | 2 Datum: WGS 84             |  |
| Soil Map Unit Name: Myford sandy loam 9-30% slopes, erod               | led                    | NWI classif             | ication:NA                  |  |
| Are climatic / hydrologic conditions on the site typical for this time | of year? Yes 💿 No (    | (If no, explain in I    | Remarks.)                   |  |
| Are Vegetation Soil or Hydrology signific                              | antly disturbed? Are   | "Normal Circumstances"  | present? Yes 💿 No 🔿         |  |
| Are Vegetation Soil or Hydrology natural                               | ly problematic? (If no | eeded, explain any answ | ers in Remarks.)            |  |
| SUMMARY OF FINDINGS - Attach site map show                             | ing sampling point l   | ocations, transects     | s, important features, etc. |  |
| Hydrophytic Vegetation Present? Yes 🕥 No 💿                             |                        |                         |                             |  |
| Hydric Soil Present? Yes 🕥 No 💿                                        | Is the Sampleo         | d Area                  |                             |  |
| Wetland Hydrology Present? Yes  No                                     | within a Wetla         | nd? Yes 🔿               | No 💿                        |  |
| Remarks:CCC wetland since at least one wetland criterion               | 1 was met.             |                         |                             |  |

|                                            | Absolute       | Dominant    |            | Dominance Test v                                               | vorkshee      | t:        |              |      |
|--------------------------------------------|----------------|-------------|------------|----------------------------------------------------------------|---------------|-----------|--------------|------|
| Tree Stratum (Use scientific names.)<br>1. | % Cover        | Species?    | Status     | Number of Dominant Species<br>That Are OBL, FACW, or FAC: 0 (A |               |           | (A)          |      |
| 2                                          |                |             |            | Total Number of Do                                             | ominant       |           |              |      |
| 3                                          |                |             |            | Species Across All                                             | Strata:       |           | 1            | (B)  |
| 4                                          |                |             |            | Percent of Domina                                              | nt Species    | 5         |              |      |
| Sapling/Shrub Stratum                      | er: %          |             |            |                                                                |               | (A/B)     |              |      |
| 1.                                         |                |             |            | Prevalence Index                                               | workshe       | et:       |              |      |
| 2.                                         |                |             |            | Total % Cover of: Multiply by:                                 |               |           |              |      |
| 3.                                         |                |             |            | OBL species                                                    | 2             | x 1 =     | 2            | -    |
| 4.                                         |                |             |            | FACW species                                                   | 1             | x 2 =     | 2            |      |
| 5.                                         |                |             |            | FAC species                                                    | -             | x 3 =     | 0            |      |
| Total Cove                                 | er: %          |             |            | FACU species                                                   | 30            | x 4 =     | 120          |      |
| Herb Stratum                               |                |             |            | UPL species                                                    | 50            | x 5 =     | 0            |      |
| <sup>1</sup> .Heliotropium curassavicum    | 25             | Yes         | FACU       | Column Totals:                                                 | 33            | (A)       | 124          | (B)  |
| <sup>2</sup> .Deinandra fasciculata        | 5              | No          | FACU       |                                                                |               |           |              |      |
| <sup>3</sup> .Lythrum hyssopifolia         | 2              | No          | OBL        | Prevalence Ir                                                  |               |           | 3.76         |      |
| 4. Polypogon monspeliensis                 | 1              | No          | FACW       | Hydrophytic Vege                                               |               |           |              |      |
| 5                                          |                |             |            | Dominance Te                                                   |               |           |              |      |
| 6                                          |                |             |            | Prevalence Inc                                                 |               |           |              |      |
| 7                                          |                |             |            | Morphological                                                  |               |           |              | ing  |
| 8                                          | _              |             |            | - Problematic Hy                                               |               | •         | . '          | n)   |
| Total Cove                                 | er: 33 %       |             |            |                                                                | , al opiny ac | vogotati  |              | .,   |
| Woody Vine Stratum 1.                      |                |             |            | <sup>1</sup> Indicators of hydri                               | c soil and    | t wetland | hydrology    | must |
| 2.                                         |                |             |            | be present.                                                    | e een ane     |           | , a. e.e.g.j |      |
| Z<br>Total Cove                            | %              |             |            | Hydrophytic                                                    |               |           |              |      |
|                                            | , -            |             |            | Vegetation                                                     | -             |           | -            |      |
|                                            | er of Biotic ( | Crust 0     | %          | Present?                                                       | Yes 🔿         | No        | $\odot$      |      |
| Remarks: Obvious bulldozer scrape          |                |             |            |                                                                |               |           |              |      |
| Vegetation data collected by GLA on 6-9    | 9-12 (see o    | original ha | ndwritten  | data form).                                                    |               |           |              |      |
|                                            |                |             |            |                                                                |               |           |              |      |
| vegetation data confected by GLA on 6-3    | 9-12 (see (    | niginai na  | indwittten | uata 101111).                                                  |               |           |              |      |

SOIL

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)                                                                                                                                                                            |                           |    |                                                                                                             |                                                                                           |                         |                  |                                             |                                                                                                               |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------|------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------|
| Depth                                                                                                                                                                                                                                                                                          | Matrix                    |    | Redox Features                                                                                              |                                                                                           |                         |                  | ,                                           |                                                                                                               |                |
| (inches)                                                                                                                                                                                                                                                                                       | Color (moist)             | %  | Color (moist)                                                                                               | %                                                                                         | Type <sup>1</sup>       | Loc <sup>2</sup> | Texture <sup>3</sup>                        | Rema                                                                                                          | rks            |
| 0-4                                                                                                                                                                                                                                                                                            | 10YR 4/2                  |    | none                                                                                                        |                                                                                           |                         |                  | sandy loam                                  | well drained                                                                                                  |                |
| refusal                                                                                                                                                                                                                                                                                        |                           |    |                                                                                                             | ·                                                                                         |                         |                  |                                             |                                                                                                               |                |
|                                                                                                                                                                                                                                                                                                | Concentration, D=Depl     |    |                                                                                                             |                                                                                           |                         |                  | C=Root Channel,                             |                                                                                                               | nv Sand, Sand, |
| <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.<br>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soil <sup>4</sup> : |                           |    |                                                                                                             |                                                                                           |                         |                  |                                             |                                                                                                               |                |
| Histoso<br>Histic E<br>Black H<br>Hydrog<br>Stratifie<br>1 cm M<br>Deplete                                                                                                                                                                                                                     |                           | ;) | Sandy Redo<br>Stripped Ma<br>Loamy Muc<br>Loamy Gley<br>Depleted M<br>Redox Dark<br>Depleted D<br>Redox Dep | x (S5)<br>atrix (S6)<br>ky Minera<br>ved Matrix<br>atrix (F3)<br>x Surface<br>ark Surface | (F2)<br>(F6)<br>ce (F7) |                  | 1 cm Muc<br>2 cm Muc<br>Reduced<br>Red Pare | k (A9) ( <b>LRR C</b> )<br>k (A10) ( <b>LRR B</b> )<br>Vertic (F18)<br>nt Material (TF2)<br>plain in Remarks) |                |
|                                                                                                                                                                                                                                                                                                | Mucky Mineral (S1)        |    | Vernal Pool                                                                                                 |                                                                                           | ,                       |                  |                                             | hydrophytic vegetation                                                                                        |                |
|                                                                                                                                                                                                                                                                                                | Gleyed Matrix (S4)        |    |                                                                                                             |                                                                                           |                         |                  | wetland hy                                  | drology must be prese                                                                                         | nt.            |
| Restrictive                                                                                                                                                                                                                                                                                    | Layer (if present):       |    |                                                                                                             |                                                                                           |                         |                  |                                             |                                                                                                               |                |
| Type: <u>no</u><br>Depth (ir                                                                                                                                                                                                                                                                   | ne<br>nches): <u>none</u> |    |                                                                                                             |                                                                                           |                         |                  | Hydric Soil Pre                             | esent? Yes 🔿                                                                                                  | No 💿           |
| Remarks: Soil data collected by GLA on 6-9-12 (see original handwritten data form).<br>Myford soils are deep, moderately well drained soils, medium to rapid runoff, very slow permeability, formed on terraces<br>(Dudek updated soil type).                                                  |                           |    |                                                                                                             |                                                                                           |                         |                  |                                             |                                                                                                               |                |

| Wetland Hydrology Indicators:                                                                                            |                                  |               | Secondary Indicators (2 or more required) |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------|-------------------------------------------|--|--|--|
| Primary Indicators (any one indicator is sufficient)                                                                     |                                  |               | Water Marks (B1) ( <b>Riverine</b> )      |  |  |  |
| Surface Water (A1)                                                                                                       | Salt Crust (B11)                 |               | Sediment Deposits (B2) (Riverine)         |  |  |  |
| High Water Table (A2)                                                                                                    | Biotic Crust (B12)               |               | Drift Deposits (B3) (Riverine)            |  |  |  |
| Saturation (A3)                                                                                                          | Aquatic Invertebrates (B13)      |               | Drainage Patterns (B10)                   |  |  |  |
| Water Marks (B1) (Nonriverine)                                                                                           | Hydrogen Sulfide Odor (C1)       |               | Dry-Season Water Table (C2)               |  |  |  |
| Sediment Deposits (B2) (Nonriverine)                                                                                     | Oxidized Rhizospheres along Livi | ng Roots (C3) | Thin Muck Surface (C7)                    |  |  |  |
| Drift Deposits (B3) (Nonriverine)                                                                                        | Presence of Reduced Iron (C4)    |               | Crayfish Burrows (C8)                     |  |  |  |
| Surface Soil Cracks (B6)                                                                                                 | Recent Iron Reduction in Plowed  | Soils (C6)    | Saturation Visible on Aerial Imagery (C9) |  |  |  |
| Inundation Visible on Aerial Imagery (B7)                                                                                | Other (Explain in Remarks)       |               | Shallow Aquitard (D3)                     |  |  |  |
| Water-Stained Leaves (B9)                                                                                                |                                  |               | FAC-Neutral Test (D5)                     |  |  |  |
| Field Observations:                                                                                                      |                                  |               |                                           |  |  |  |
| Surface Water Present? Yes O No 💿                                                                                        | Depth (inches):                  |               |                                           |  |  |  |
| Water Table Present? Yes O No 💿                                                                                          | Depth (inches):                  |               |                                           |  |  |  |
| Saturation Present? Yes No                                                                                               | Depth (inches):                  | Wetland Hyd   | rology Present? Yes 💿 No 🔿                |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:               |                                  |               |                                           |  |  |  |
|                                                                                                                          |                                  |               |                                           |  |  |  |
| Remarks: Ponded for < 3 days in 2011/2012 per                                                                            | GLA wet season survey.           |               |                                           |  |  |  |
| Hydrology data collected by GLA on                                                                                       | •                                | n data form). |                                           |  |  |  |
| *Aquatic Invertebrates* Fairy shrimp cysts and ostracod shells were present in this feature during 2012 dry season fairy |                                  |               |                                           |  |  |  |
| shrimp surveys (Dudek updated data form with aquatic invertebrates data).                                                |                                  |               |                                           |  |  |  |
|                                                                                                                          |                                  |               |                                           |  |  |  |
|                                                                                                                          |                                  |               |                                           |  |  |  |
| US Army Corps of Engineers                                                                                               |                                  |               |                                           |  |  |  |

| Project/Site: Newport Banning Ranch                                                                                       |                  | _ City/County:Ora                                      | City/County:Orange County                               |               |               | Sampling Date:10-4-12 |  |  |
|---------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------|---------------------------------------------------------|---------------|---------------|-----------------------|--|--|
| Applicant/Owner: Newport Banning Ranch LLC                                                                                |                  |                                                        | Stat                                                    | e:CA          | Sampling      | Point:JJ              |  |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine                                                                        |                  | Section, Towns                                         | hip, Range:Sectio                                       | on 20, T6S, 1 | R10W          |                       |  |  |
| Landform (hillslope, terrace, etc.): Terrace                                                                              | Local relief (co | Local relief (concave, convex, none):Concave Slope (%) |                                                         |               |               |                       |  |  |
| Subregion (LRR):C - Mediterranean California                                                                              | 3.6305241192     | Long:-11                                               | 7.94639597                                              | 15            | Datum: WGS 84 |                       |  |  |
| Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification:NA                                                   |                  |                                                        |                                                         |               |               |                       |  |  |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  No  (If no, explain in Remarks.) |                  |                                                        |                                                         |               |               |                       |  |  |
| Are Vegetation Soil or Hydrology                                                                                          | significant      | tly disturbed?                                         | Are "Normal Cir                                         | cumstances"   | present? Y    | Yes 💿 No 🔿            |  |  |
| Are Vegetation Soil or Hydrology                                                                                          | naturally p      | problematic?                                           | oblematic? (If needed, explain any answers in Remarks.) |               |               |                       |  |  |
| SUMMARY OF FINDINGS - Attach site ma                                                                                      | ap showin        | g sampling p                                           | oint locations                                          | , transects   | s, importa    | ant features, etc.    |  |  |
| Hydrophytic Vegetation Present? Yes                                                                                       | No 💿             |                                                        |                                                         |               |               |                       |  |  |
| Hydric Soil Present? Yes                                                                                                  | Is the Sa        | ampled Area                                            |                                                         |               |               |                       |  |  |
| Wetland Hydrology Present? Yes                                                                                            | No 💿             | within a                                               | Wetland?                                                | Yes 🔿         | No 🤅          | •                     |  |  |
| Remarks:                                                                                                                  |                  |                                                        |                                                         |               |               |                       |  |  |

|                                                 | Absolute      | Dominant    | Indicator | Dominance Test we                 | orksheet   | t:                                           |          |       |
|-------------------------------------------------|---------------|-------------|-----------|-----------------------------------|------------|----------------------------------------------|----------|-------|
| Tree Stratum (Use scientific names.)            | % Cover       | Species?    | Status    | Number of Dominan                 | t Species  | 6                                            |          |       |
| 1                                               |               |             |           | That Are OBL, FAC                 | V, or FA   | C: 0                                         |          | (A)   |
| 2                                               |               |             |           | Total Number of Dor               | ninant     |                                              |          |       |
| 3.                                              |               |             |           | Species Across All S              |            | 1                                            |          | (B)   |
| 4.                                              |               |             |           | Percent of Dominant               | Snecies    |                                              |          |       |
| Total Cove                                      | r: %          |             |           | That Are OBL, FAC                 |            |                                              | %        | (A/B) |
| Sapling/Shrub Stratum                           |               |             |           | December of the december of       |            |                                              |          |       |
| 1                                               |               |             |           | Prevalence Index w                |            |                                              |          |       |
| 2                                               |               |             |           | Total % Cover c                   | of:        | Multiply                                     | ,        | -     |
| 3.                                              |               |             |           | OBL species                       |            | x 1 =                                        | 0        |       |
| 4.                                              |               |             |           | FACW species                      |            | x 2 =                                        | 0        |       |
| 5.                                              |               |             |           | FAC species                       |            | x 3 =                                        | 0        |       |
| Total Cove                                      | r: %          |             |           | FACU species                      | 17         | x 4 =                                        | 68       |       |
| Herb Stratum                                    |               |             |           | UPL species                       | 38         | x 5 =                                        | 190      |       |
| <sup>1</sup> .Centaurea melitensis              | 35            | Yes         | UPL       | Column Totals:                    | 55         | (A)                                          | 258      | (B)   |
| <sup>2</sup> .Deinandra fasciculata             | 5             | No          | FACU      |                                   |            |                                              |          |       |
| <sup>3</sup> . <i>Heliotropium curassavicum</i> | 5             | No          | FACU      | Prevalence Inc                    |            |                                              | 4.69     |       |
| <sup>4</sup> . Ambrosia psilostachya            | 7             | No          | FACU      | Hydrophytic Veget                 |            |                                              |          |       |
| 5. Encelia californica                          | 3             | No          | UPL       | Dominance Tes                     |            |                                              |          |       |
| 6.                                              |               |             |           | Prevalence Inde                   | ex is ≤3.0 | )1                                           |          |       |
| 7                                               |               |             |           | Morphological A                   |            | ns <sup>1</sup> (Provide s<br>n a separate s |          | ng    |
| 8.                                              |               |             |           | - Problematic Hyd                 |            |                                              | ,        |       |
| Total Cove                                      | 55 %          |             |           |                                   | liopitytic | vegetation                                   | слріані  | ')    |
| Woody Vine Stratum                              |               |             |           | <sup>1</sup> Indicators of hydric | soil and   | wetland hvd                                  | rology r | must  |
| 1                                               |               |             |           | be present.                       | Son and    | i wedana nya                                 | lology i | nuot  |
| 2                                               |               |             |           |                                   |            |                                              |          |       |
| Total Cove                                      | r: %          |             |           | Hydrophytic<br>Vegetation         |            |                                              |          |       |
| % Bare Ground in Herb Stratum45 % % Cove        | r of Biotic ( | Crust (     | ) %       |                                   | Yes 🔿      | No 🖲                                         |          |       |
| Remarks: Roadside pool.                         |               |             |           | 1                                 |            |                                              |          |       |
| Vegetation data collected by GLA on 6-9         | -12 (see o    | original ha | ndwritten | data form).                       |            |                                              |          |       |
|                                                 |               |             |           |                                   |            |                                              |          |       |

| Profile Des                                                                                      | cription: (Describe t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | o the dept | th needed to docur | nent the   | indicator o                                                                                                                                                                      | or confirm       | n the absence of     | indicators.)                                       |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------|----------------------------------------------------|
| Depth                                                                                            | Matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | o ino dopi |                    | x Features |                                                                                                                                                                                  |                  |                      |                                                    |
| (inches)                                                                                         | Color (moist)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | %          | Color (moist)      | %          | Type <sup>1</sup>                                                                                                                                                                | Loc <sup>2</sup> | Texture <sup>3</sup> | Remarks                                            |
| 0-4                                                                                              | 10YR 4/2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1          | none               |            |                                                                                                                                                                                  |                  | loamy sand           | well drained                                       |
| refusal                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                    |            |                                                                                                                                                                                  |                  |                      |                                                    |
|                                                                                                  | Concentration, D=Depl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                    |            |                                                                                                                                                                                  |                  | C=Root Channel,      | M=Matrix.<br>n, Silt Loam, Silt, Loamy Sand, Sand. |
|                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                    |            | indy Loani,                                                                                                                                                                      |                  |                      | Problematic Hydric Soils <sup>4</sup> :            |
| Histoso<br>Histic E<br>Black H<br>Hydrog<br>Stratifie<br>1 cm M<br>Deplete<br>Thick D<br>Sandy I | Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) |            |                    |            | <ul> <li>1 cm Muck (A9) (LRR C)</li> <li>2 cm Muck (A10) (LRR B)</li> <li>Reduced Vertic (F18)</li> <li>Red Parent Material (TF2)</li> <li>Other (Explain in Remarks)</li> </ul> |                  |                      |                                                    |
| Restrictive                                                                                      | Layer (if present):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                    |            |                                                                                                                                                                                  |                  |                      |                                                    |
|                                                                                                  | nches):none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                    |            |                                                                                                                                                                                  |                  | Hydric Soil Pre      | esent? Yes 🔿 No 💿                                  |
| Ν                                                                                                | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | p, modera  |                    |            |                                                                                                                                                                                  |                  |                      | permeability, formed on terraces                   |
| ()                                                                                               | Dudek updated soil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | type).     |                    |            |                                                                                                                                                                                  |                  |                      |                                                    |

| Wetland Hydrology Indicators:                        |                                                                      | Secondary Indicators (2 or more required)                |  |  |
|------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|--|--|
| Primary Indicators (any one indicator is sufficient) |                                                                      | Water Marks (B1) (Riverine)                              |  |  |
| Surface Water (A1)                                   | Salt Crust (B11)                                                     | Sediment Deposits (B2) (Riverine)                        |  |  |
| High Water Table (A2)                                | Biotic Crust (B12)                                                   | Drift Deposits (B3) ( <b>Riverine</b> )                  |  |  |
| Saturation (A3)                                      | Aquatic Invertebrates (B13)                                          | Drainage Patterns (B10)                                  |  |  |
| Water Marks (B1) (Nonriverine)                       | Hydrogen Sulfide Odor (C1)                                           | Dry-Season Water Table (C2)                              |  |  |
| Sediment Deposits (B2) (Nonriverine)                 | Oxidized Rhizospheres along Livi                                     | ing Roots (C3) 🔲 Thin Muck Surface (C7)                  |  |  |
| Drift Deposits (B3) (Nonriverine)                    | Presence of Reduced Iron (C4)                                        | Crayfish Burrows (C8)                                    |  |  |
| Surface Soil Cracks (B6)                             | Recent Iron Reduction in Plowed                                      | Soils (C6) Saturation Visible on Aerial Imagery (C9)     |  |  |
| Inundation Visible on Aerial Imagery (B7)            | Inundation Visible on Aerial Imagery (B7) Cther (Explain in Remarks) |                                                          |  |  |
| Water-Stained Leaves (B9)                            | FAC-Neutral Test (D5)                                                |                                                          |  |  |
| Field Observations:                                  |                                                                      |                                                          |  |  |
| Surface Water Present? Yes 🔿 No 💿                    | Depth (inches):                                                      |                                                          |  |  |
| Water Table Present? Yes O No 💿                      | Depth (inches):                                                      |                                                          |  |  |
| Saturation Present? Yes No  No                       | Depth (inches):                                                      | Wetland Hydrology Present? Yes 🔿 No 💿                    |  |  |
| Describe Recorded Data (stream gauge, monitoring     | g well, aerial photos, previous inspec                               | ctions), if available:                                   |  |  |
|                                                      |                                                                      |                                                          |  |  |
| Remarks: Road pool - not ponded in 2011/2012         | 2 per GLA wet season survey.                                         |                                                          |  |  |
| Hydrology data collected by GLA or                   | 1                                                                    | en data form).                                           |  |  |
| Wetland hydrology indicators were n                  | not observed in this feature durin                                   | ng delineations, hydrological monitoring, or fairy shrim |  |  |
| surveys.                                             |                                                                      |                                                          |  |  |
| -                                                    |                                                                      |                                                          |  |  |
|                                                      |                                                                      |                                                          |  |  |
| US Army Corps of Engineers                           |                                                                      |                                                          |  |  |

| Project/Site: Newport Banning Ranch                                                                                  |                                                      | City/County:Orange County                                 |                 |              | Sampling Date: 10-4-12 |                    |  |  |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|-----------------|--------------|------------------------|--------------------|--|--|
| Applicant/Owner: Newport Banning Ranch LLC                                                                           |                                                      |                                                           | Stat            | e:CA         | Sampling               | Point:KK           |  |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine                                                                   |                                                      | Section, Township                                         | , Range:Sectio  | n 20, T6S, H | R10W                   |                    |  |  |
| Landform (hillslope, terrace, etc.): Terrace                                                                         | Local relief (concave, convex, none):Concave Slope ( |                                                           |                 |              |                        |                    |  |  |
| Subregion (LRR):C - Mediterranean California                                                                         | 5295938347                                           | Long:-11                                                  | 7.94522703      | 5            | Datum:WGS 84           |                    |  |  |
| Soil Map Unit Name: Myford sandy loam 0-2% slopes NWI classification:NA                                              |                                                      |                                                           |                 |              |                        |                    |  |  |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No (If no, explain in Remarks.) |                                                      |                                                           |                 |              |                        |                    |  |  |
| Are Vegetation Soil or Hydrology sig                                                                                 | gnificantly                                          | disturbed?                                                | Are "Normal Cir | cumstances"  | present? Y             | íes 💿 🛛 No 🔿       |  |  |
| Are Vegetation Soil or Hydrology na                                                                                  | aturally pro                                         | oroblematic? (If needed, explain any answers in Remarks.) |                 |              |                        |                    |  |  |
| SUMMARY OF FINDINGS - Attach site map s                                                                              | howing                                               | sampling poi                                              | nt locations,   | transects    | , importa              | int features, etc. |  |  |
| Hydrophytic Vegetation Present? Yes 🕥 No                                                                             |                                                      |                                                           |                 |              |                        |                    |  |  |
| Hydric Soil Present? Yes 💿 No                                                                                        | Is the Sam                                           | pled Area                                                 |                 |              |                        |                    |  |  |
|                                                                                                                      |                                                      | within a Wetland? Yes 🔿 No 💿                              |                 |              |                        |                    |  |  |
| Remarks: CCC wetland since at least one wetland crit                                                                 | erion wa                                             | s met.                                                    |                 |              |                        |                    |  |  |

#### VEGETATION

|                                                  | Absolute    | Dominant   |              | Dominance Test w                                 | orksheet   | :            |         |       |
|--------------------------------------------------|-------------|------------|--------------|--------------------------------------------------|------------|--------------|---------|-------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?   | Status       | Number of Dominan                                |            |              |         |       |
| 1                                                |             |            |              | That Are OBL, FAC                                | V, or FAC  | C: 1         |         | (A)   |
| 2                                                |             |            |              | Total Number of Dor                              | ninant     |              |         |       |
| 3.                                               |             |            |              | Species Across All S                             |            | 2            |         | (B)   |
| 4.                                               |             |            |              | - Percent of Dominan                             | Spacia     |              |         |       |
| Total Cove                                       | r: %        |            |              | That Are OBL, FAC                                |            |              | ) %     | (A/B) |
| Sapling/Shrub Stratum                            |             |            |              |                                                  |            | 0010         | , 10    | ( )   |
| 1                                                |             |            |              | Prevalence Index w                               |            |              |         |       |
| 2.                                               |             |            |              | Total % Cover of                                 | of:        | Multiply     | by:     | _     |
| 3.                                               |             |            |              | OBL species                                      | 20         | x 1 =        | 20      |       |
| 4.                                               |             |            |              | FACW species                                     | 10         | x 2 =        | 20      |       |
| 5.                                               |             |            |              | FAC species                                      | 5          | x 3 =        | 15      |       |
| Total Cover                                      | : %         |            |              | FACU species                                     | 16         | x 4 =        | 64      |       |
| Herb Stratum                                     |             |            |              | UPL species                                      | 23         | x 5 =        | 115     |       |
| <sup>1</sup> Eleocharis palustris                | 20          | Yes        | OBL          | Column Totals:                                   | 74         | (A)          | 234     | (B)   |
| 2. Bromus hordeaceus                             | 5           | No         | FACU         |                                                  | , .        |              |         |       |
| <sup>3</sup> . <i>Hirschfeldia incana</i>        | 15          | Yes        | UPL          | Prevalence Inc                                   | -          |              | 3.16    |       |
| 4. Rumex crispus                                 | 5           | No         | FAC          | Hydrophytic Veget                                |            |              |         |       |
| 5. Polypogon monspeliensis                       | 8           | No         | FACW         | Dominance Tes                                    |            |              |         |       |
| 6.Deinandra fasciculata                          | 3           | No         | FACU         | Prevalence Inde                                  | ex is ≤3.0 | 1            |         |       |
| 7 Ambrosia psilostachya                          | 5           | No         | FACU         | Morphological A<br>data in Rema                  |            |              |         | ing   |
| 8. Centaurea melitensis                          | 8           | No         | UPL          | - Problematic Hyd                                |            | •            | ,       | -     |
| Total Cover                                      | 69 %        |            |              |                                                  | ropnyuc    | vegetation ( | Explain | 1)    |
| Woody Vine Stratum                               |             |            |              | 1                                                |            |              |         |       |
| 1.Heliotropium curassavicum                      | 3           | No         | FACU         | <sup>1</sup> Indicators of hydric<br>be present. | soil and   | wetland hyd  | rology  | must  |
| 2. Euthamia occidentalis                         | 2           | No         | FACW         |                                                  |            |              |         |       |
| Total Cover                                      | 5 %         |            |              | Hydrophytic<br>Vegetation                        |            |              |         |       |
|                                                  | of Biotic ( |            | ) %          | Present?                                         | Yes 🔿      | No 💿         |         |       |
| Remarks: Woody Vine Stratum is additional Herb S | Stratum. I  | Not enougl | h space to i | nclude Herb Stratur                              | n within   | provided li  | nes.    |       |

Vegetation data collected by GLA on 6-9-12 (see original handwritten data form).

| Profile Des                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | cription: (Describe t                                               | o the dep   | pth needed to docur  | nent the  | indicator                           | or confirr                                                                                                    | n the absence of i                    | indicators.)            |               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------|----------------------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------|---------------|
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Matrix                                                              |             | Redox                | k Feature | S                                   |                                                                                                               |                                       |                         |               |
| (inches)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Color (moist)                                                       | %           | Color (moist)        | %         | Type <sup>1</sup>                   | Loc <sup>2</sup>                                                                                              | Texture <sup>3</sup>                  | Rema                    | arks          |
| 0-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10YR 3/2                                                            |             |                      |           |                                     |                                                                                                               | clay loam                             |                         |               |
| 0-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                     |             | 7.5YR 3/4            | 20        |                                     |                                                                                                               |                                       |                         |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |             |                      | ·         |                                     |                                                                                                               |                                       |                         |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Concentration, D=Depl<br>es: Clay, Silty Clay, S                    |             |                      |           |                                     |                                                                                                               |                                       | n, Silt Loam, Silt, Loa | -             |
| Hydric Soil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Indicators: (Applicable                                             | e to all LR | Rs, unless otherwise | noted.)   |                                     |                                                                                                               | Indicators for F                      | Problematic Hydric So   | oils:         |
| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       X |                                                                     |             |                      |           | 2 cm Much<br>Reduced V<br>Red Parer | k (A9) ( <b>LRR C</b> )<br>k (A10) ( <b>LRR B</b> )<br>Vertic (F18)<br>nt Material (TF2)<br>olain in Remarks) |                                       |                         |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mucky Mineral (S1)                                                  |             | Vernal Pool          | s (F9)    |                                     |                                                                                                               | <sup>4</sup> Indicators of h          | nydrophytic vegetation  | n and         |
| Sandy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Gleyed Matrix (S4)                                                  |             |                      |           |                                     |                                                                                                               | wetland hyd                           | drology must be prese   | ent.          |
| Restrictive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Layer (if present):                                                 |             |                      |           |                                     |                                                                                                               |                                       |                         |               |
| Type:no:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ne                                                                  |             |                      |           |                                     |                                                                                                               |                                       |                         |               |
| Depth (ir                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | nches):none                                                         |             |                      |           |                                     |                                                                                                               | Hydric Soil Pre                       | esent? Yes 💿            | No 🔿          |
| Ν                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | oil data collected by<br>Ayford soils are dee<br>Dudek updated soil | p, mode     | · · ·                |           |                                     |                                                                                                               | · · · · · · · · · · · · · · · · · · · | ermeability, forme      | d on terraces |

| Wetland Hydrology Indicators:                                                                          | Secondary Indicators (2 or more required)  |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------|--|--|--|--|--|--|
| Primary Indicators (any one indicator is sufficient)                                                   | Water Marks (B1) (Riverine)                |  |  |  |  |  |  |
| Surface Water (A1) Salt Crust (B11)                                                                    | Sediment Deposits (B2) ( <b>Riverine</b> ) |  |  |  |  |  |  |
| High Water Table (A2) Biotic Crust (B12)                                                               | Drift Deposits (B3) (Riverine)             |  |  |  |  |  |  |
| Saturation (A3)                                                                                        | Drainage Patterns (B10)                    |  |  |  |  |  |  |
| Water Marks (B1) (Nonriverine)                                                                         | Dry-Season Water Table (C2)                |  |  |  |  |  |  |
| Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3)                     | Thin Muck Surface (C7)                     |  |  |  |  |  |  |
| Drift Deposits (B3) (Nonriverine)                                                                      | Crayfish Burrows (C8)                      |  |  |  |  |  |  |
| Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6)                                    | Saturation Visible on Aerial Imagery (C9)  |  |  |  |  |  |  |
| Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)                                   | Shallow Aquitard (D3)                      |  |  |  |  |  |  |
| Water-Stained Leaves (B9)                                                                              | FAC-Neutral Test (D5)                      |  |  |  |  |  |  |
| Field Observations:                                                                                    |                                            |  |  |  |  |  |  |
| Surface Water Present? Yes No      No      Depth (inches):                                             |                                            |  |  |  |  |  |  |
| Water Table Present? Yes O No O Depth (inches):                                                        |                                            |  |  |  |  |  |  |
| (included capital f migo)                                                                              | drology Present? Yes 💿 No 🔿                |  |  |  |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availa | able:                                      |  |  |  |  |  |  |
|                                                                                                        |                                            |  |  |  |  |  |  |
| Remarks:Hydrology data collected by GLA on 6-9-12 (see original handwritten data form)                 |                                            |  |  |  |  |  |  |
| *Aquatic Invertebrates* Common versatile fairy shrimp and ostracod shells were                         | present in this feature during 2012 dry    |  |  |  |  |  |  |
| season fairy shrimp surveys (Dudek updated data form with aquatic invertebrates data).                 |                                            |  |  |  |  |  |  |
|                                                                                                        |                                            |  |  |  |  |  |  |
|                                                                                                        |                                            |  |  |  |  |  |  |
| US Army Corps of Engineers                                                                             |                                            |  |  |  |  |  |  |

| Project/Site: Newport Banning Ranch                                                                                   |             |               | City/County:Ora  | ange County      | Sampling Date: 10-4-12 |             |           |           |
|-----------------------------------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|------------------------|-------------|-----------|-----------|
| Applicant/Owner: Newport Banning Rand                                                                                 | ch LLC      |               |                  | Sta              | ate:CA                 | Sampling    | Point:LL  |           |
| Investigator(s):J. Davis IV, T. Wotipka,                                                                              | H. Moine    |               | Section, Towns   | hip, Range:Secti | ion 29, T6S,           | R10W        |           |           |
| Landform (hillslope, terrace, etc.): Terrace                                                                          |             |               | Local relief (co | ncave, convex, n | one): Concave          | e           | Slope (   | %):<2     |
| Subregion (LRR): C - Mediterranean Cali                                                                               | 6274954334  | Long:-1       | 17.94469493      | 38               | Datum: W               | VGS 84      |           |           |
| Soil Map Unit Name: Myford sandy loam 2-9% slopes NWI classification: NA                                              |             |               |                  |                  |                        |             |           |           |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.) |             |               |                  |                  |                        |             |           |           |
| Are Vegetation Soil or Hydro                                                                                          | ology       | significantly | / disturbed?     | Are "Normal C    | ircumstances"          | present?    | Yes 💽     | No 🔿      |
| Are Vegetation Soil or Hydro                                                                                          | ology       | naturally pr  | oblematic?       | (If needed, exp  | olain any answ         | ers in Rema | arks.)    |           |
| SUMMARY OF FINDINGS - Attac                                                                                           | ch site ma  | p showing     | sampling p       | oint location    | s, transects           | s, importa  | ant featu | res, etc. |
| Hydrophytic Vegetation Present?                                                                                       | Yes 🔘       | No 💿          |                  |                  |                        |             |           |           |
| Hydric Soil Present?                                                                                                  | Is the Sa   | ampled Area   |                  |                  |                        |             |           |           |
|                                                                                                                       | Yes 🔘       | No 💿          |                  | Wetland?         | Yes 🔿                  | No (        | •         |           |
| Remarks: CCC wetland since at least of                                                                                | one wetland | criterion wa  | as met.          |                  |                        |             |           |           |

|                                                  | Absolute    | Dominant    | Indicator | Dominance Test w                                 | orkshee    | et:                                          |           |      |
|--------------------------------------------------|-------------|-------------|-----------|--------------------------------------------------|------------|----------------------------------------------|-----------|------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominar                                | nt Specie  | S                                            |           |      |
| 1                                                |             |             |           | That Are OBL, FAC                                | W, or FA   | C: 1                                         | (         | (A)  |
| 2                                                |             |             |           | Total Number of Do                               | minant     |                                              |           |      |
| 3.                                               |             |             |           | Species Across All S                             |            | 2                                            | (         | (B)  |
| 4.                                               |             |             |           | -<br>- Percent of Dominan                        | t Snacia   | e                                            |           |      |
| Total Cove                                       | r: %        |             |           | That Are OBL, FAC                                |            | -                                            | 0 % (     | A/B) |
| Sapling/Shrub Stratum                            |             |             |           |                                                  | <u> </u>   |                                              |           |      |
| 1                                                |             |             |           | Prevalence Index v                               |            |                                              |           |      |
| 2.                                               |             |             |           | Total % Cover of                                 | of:        | Multiply                                     | / by:     |      |
| 3.                                               |             |             |           | OBL species                                      |            | x 1 =                                        | 0         |      |
| 4.                                               |             |             |           | FACW species                                     | 15         | x 2 =                                        | 30        |      |
| 5.                                               |             |             |           | FAC species                                      | 5          | x 3 =                                        | 15        |      |
| Total Cover                                      | : %         |             |           | FACU species                                     | 30         | x 4 =                                        | 120       |      |
| Herb Stratum                                     |             |             |           | UPL species                                      | 7          | x 5 =                                        | 35        |      |
| 1.Bromus hordeaceus                              | 25          | Yes         | FACU      | Column Totals:                                   | 57         | (A)                                          | 200       | (B)  |
| <sup>2</sup> .Deinandra fasciculata              | 5           | No          | FACU      |                                                  |            |                                              |           |      |
| <sup>3</sup> .Bromus rubens                      | 5           | No          | UPL       | Prevalence Inc                                   |            |                                              | 3.51      |      |
| 4. Plantago elongata                             | 15          | Yes         | FACW      | Hydrophytic Veget                                |            |                                              |           |      |
| 5. Rumex crispus                                 | 2           | No          | FAC       | Dominance Tes                                    |            |                                              |           |      |
| 6. Distichlis spicata                            | 3           | No          | FAC       | Prevalence Inde                                  | ex is ≤3.( | 0 <sup>1</sup>                               |           |      |
| 7. Isocoma menziesii                             | 2           | No          | UPL       | Morphological A                                  |            | ons <sup>1</sup> (Provide :<br>on a separate |           | ng   |
| 8.                                               |             |             |           |                                                  |            |                                              | ,         | 、    |
| Total Cover                                      | 57 %        |             |           | - Problematic Hy                                 | arophytic  | vegetation                                   | (Explain  | )    |
| Woody Vine Stratum                               |             |             |           | 1                                                |            |                                              |           |      |
| 1                                                |             |             |           | <sup>1</sup> Indicators of hydric<br>be present. | soil and   | d wetland hyd                                | irology r | nust |
| 2                                                |             |             |           |                                                  |            |                                              |           |      |
| Total Cover                                      | : %         |             |           | Hydrophytic<br>Vegetation                        |            |                                              |           |      |
| % Bare Ground in Herb Stratum 43 % % Cover       | of Biotic C | Crust 0     | ) %       | Present?                                         | Yes ()     | No 🖲                                         |           |      |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see d  | original ha | ndwritten | data form).                                      |            |                                              |           |      |
|                                                  |             | -           |           |                                                  |            |                                              |           |      |
|                                                  |             |             |           |                                                  |            |                                              |           |      |

| Profile Des                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | cription: (Describe t                                                                                                                                                                                                                                                                     | o the dep | oth needed to docu | nent the                                                                                                                                                                                       | indicator of      | or confirm       | n the absence of indic | cators.)                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|------------------------|-------------------------------|
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Matrix                                                                                                                                                                                                                                                                                    |           |                    | x Feature                                                                                                                                                                                      |                   |                  |                        |                               |
| (inches)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Color (moist)                                                                                                                                                                                                                                                                             | %         | Color (moist)      | %                                                                                                                                                                                              | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>   | Remarks                       |
| 0-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10YR 3/2                                                                                                                                                                                                                                                                                  |           | none               |                                                                                                                                                                                                |                   |                  | sandy clay loam        |                               |
| (refusal)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
| • •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.<br><sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand. |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |           |                    |                                                                                                                                                                                                | andy Loam         | , Clay Loa       |                        |                               |
| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) |                                                                                                                                                                                                                                                                                           |           |                    | Indicators for Problematic Hydric Soils <sup>*</sup> :<br>1 cm Muck (A9) (LRR C)<br>2 cm Muck (A10) (LRR B)<br>Reduced Vertic (F18)<br>Red Parent Material (TF2)<br>Other (Explain in Remarks) |                   |                  |                        |                               |
| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Gleyed Matrix (S4)                                                                                                                                                                                                                                                                        |           |                    | - ( - )                                                                                                                                                                                        |                   |                  |                        | bgy must be present.          |
| Restrictive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Layer (if present):                                                                                                                                                                                                                                                                       |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
| Type:nor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ne                                                                                                                                                                                                                                                                                        |           |                    |                                                                                                                                                                                                |                   |                  |                        |                               |
| Depth (ir                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | nches):none                                                                                                                                                                                                                                                                               |           |                    |                                                                                                                                                                                                |                   |                  | Hydric Soil Presen     | it? Yes 🔿 No 💿                |
| Ν                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | oil data collected by<br>Iyford soils are dee<br>Dudek updated soil                                                                                                                                                                                                                       | p, mode   |                    |                                                                                                                                                                                                |                   |                  |                        | aeability, formed on terraces |

| Wetland Hydrology Indicators:                        |                                         | Secondary Indicators (2 or more required)            |
|------------------------------------------------------|-----------------------------------------|------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient) |                                         | Water Marks (B1) (Riverine)                          |
| Surface Water (A1)                                   | Salt Crust (B11)                        | Sediment Deposits (B2) ( <b>Riverine</b> )           |
| High Water Table (A2)                                | Biotic Crust (B12)                      | Drift Deposits (B3) ( <b>Riverine</b> )              |
| Saturation (A3)                                      | Aquatic Invertebrates (B13)             | Drainage Patterns (B10)                              |
| Water Marks (B1) (Nonriverine)                       | Hydrogen Sulfide Odor (C1)              | Dry-Season Water Table (C2)                          |
| Sediment Deposits (B2) (Nonriverine)                 | Oxidized Rhizospheres along Livir       | ig Roots (C3) 🔲 Thin Muck Surface (C7)               |
| Drift Deposits (B3) (Nonriverine)                    | Presence of Reduced Iron (C4)           | Crayfish Burrows (C8)                                |
| Surface Soil Cracks (B6)                             | Recent Iron Reduction in Plowed         | Soils (C6) Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aerial Imagery (B7)            | Other (Explain in Remarks)              | Shallow Aquitard (D3)                                |
| Water-Stained Leaves (B9)                            | FAC-Neutral Test (D5)                   |                                                      |
| Field Observations:                                  |                                         |                                                      |
| Surface Water Present? Yes O No 💿                    | Depth (inches):                         |                                                      |
| Water Table Present? Yes O No 💿                      | Depth (inches):                         |                                                      |
| Saturation Present? Yes No •                         | Depth (inches):                         | Wetland Hydrology Present? Yes O No 💿                |
| Describe Recorded Data (stream gauge, monitorin      | ng well, aerial photos, previous inspec | ions), if available:                                 |
|                                                      |                                         |                                                      |
| Remarks: Ponded for less than 3 days in April        | 2012 otherwise not ponded in 20         | 11/2012 per GLA wet season survey.                   |
| Hydrology data collected by GLA o                    | 1                                       |                                                      |
| *Aquatic Invertebrates* Common v                     | versatile fairy shrimp were present     | in this feature during 2012 dry season fairy shrimp  |
| surveys (Dudek updated data form v                   |                                         |                                                      |
|                                                      |                                         |                                                      |
| US Army Corps of Engineers                           |                                         |                                                      |
| Jo Anny Corps of Engineers                           |                                         |                                                      |

| Project/Site: Newport Banning Ranch                                                                                   |                     | City/County:Oran             | ge County         |               | Sampling Date: 10-4-12 |                   |  |  |
|-----------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------|-------------------|---------------|------------------------|-------------------|--|--|
| Applicant/Owner: Newport Banning Ranch LL                                                                             | С                   |                              | Stat              | e:CA          | Sampling P             | oint:MM           |  |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Me                                                                       | Section, Township   | , Range:Sectio               | n 29, T6S, R      | .10W          |                        |                   |  |  |
| Landform (hillslope, terrace, etc.): Terrace                                                                          | Local relief (conca | ave, convex, nor             | ne):Concave       |               | Slope (%):<2           |                   |  |  |
| Subregion (LRR):C - Mediterranean California                                                                          | -<br>6268329548     | Long:-11                     | 7.944696522       | 2             | Datum: WGS 84          |                   |  |  |
| Soil Map Unit Name: Myford sandy loam 2-9% slopes NWI classification:NA                                               |                     |                              |                   |               |                        |                   |  |  |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.) |                     |                              |                   |               |                        |                   |  |  |
| Are Vegetation Soil or Hydrology                                                                                      | significantly       | / disturbed?                 | Are "Normal Cir   | cumstances" p | resent? Ye             | es 💿 🛛 No 🔿       |  |  |
| Are Vegetation Soil or Hydrology                                                                                      | naturally pr        | oblematic?                   | (If needed, expla | ain any answe | rs in Remarl           | ks.)              |  |  |
| SUMMARY OF FINDINGS - Attach sit                                                                                      | e map showing       | sampling poi                 | nt locations,     | transects,    | importa                | nt features, etc. |  |  |
| Hydrophytic Vegetation Present? Yes                                                                                   | No 🕥                |                              |                   |               |                        |                   |  |  |
| Hydric Soil Present? Yes                                                                                              | No 💿                | Is the Sam                   | pled Area         |               |                        |                   |  |  |
| Wetland Hydrology Present? Yes                                                                                        | No 🕥                | within a Wetland? Yes O No 🖲 |                   |               |                        | )                 |  |  |
| Remarks:CCC wetland since at least one we                                                                             | etland criterion wa | as met.                      |                   |               |                        |                   |  |  |

|                                                  | Absolute    | Dominant   | Indicator  | Dominance Test w                                                   | orkshee    | et:                                            |          |        |
|--------------------------------------------------|-------------|------------|------------|--------------------------------------------------------------------|------------|------------------------------------------------|----------|--------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?   | Status     | Number of Dominan                                                  | t Specie   | S                                              |          |        |
| 1.                                               |             |            |            | That Are OBL, FAC                                                  | N, or FA   | C: 2                                           | (        | (A)    |
| 2.                                               |             |            |            | Total Number of Do                                                 | minant     |                                                |          |        |
| 3.                                               |             |            |            | Species Across All S                                               |            | 2                                              | (        | (B)    |
| 4.                                               |             |            |            |                                                                    |            |                                                |          |        |
| Total Cove                                       | r: %        |            |            | Percent of Dominant Species<br>That Are OBL, FACW, or FAC: 100.0 % |            |                                                | 0%       | A/B)   |
| Sapling/Shrub Stratum                            |             |            |            | ,                                                                  | ,          | 100.                                           | 0 /0 1   | ,      |
| 1.                                               |             |            |            | Prevalence Index v                                                 | vorkshe    | et:                                            |          |        |
| 2.                                               |             |            |            | Total % Cover of                                                   | of:        | Multiply                                       | by:      |        |
| 3.                                               |             | ·          |            | OBL species                                                        | 30         | x 1 =                                          | 30       |        |
| 4.                                               |             |            |            | FACW species                                                       | 40         | x 2 =                                          | 80       |        |
| 5.                                               |             |            |            | FAC species                                                        | 5          | x 3 =                                          | 15       |        |
| Total Cover                                      | %           |            |            | FACU species                                                       | 20         | x 4 =                                          | 80       |        |
| Herb Stratum                                     |             |            |            | UPL species                                                        |            | x 5 =                                          | 0        |        |
| 1.Polypogon monspeliensis                        | 40          | Yes        | FACW       | Column Totals:                                                     | 95         | (A)                                            | 205      | (B)    |
| <sup>2</sup> .Cotula coronopifolia               | 25          | Yes        | OBL        |                                                                    |            |                                                |          |        |
| 3. Vulpia myoros                                 | 5           | No         | FACU       | Prevalence Inc                                                     |            |                                                | 2.16     |        |
| 4. Bromus hordeaceus                             | 5           | No         | FACU       | Hydrophytic Veget                                                  |            |                                                |          |        |
| 5.Rumex crispus                                  | 5           | No         | FAC        | X Dominance Tes                                                    |            |                                                |          |        |
| 6. Eleocharis macrostachya                       | 5           | No         | OBL        | Prevalence Inde                                                    | ex is ≤3.0 | $D^1$                                          |          |        |
| 7. Melilotus indica                              | 5           | No         | FACU       | Morphological A                                                    |            | ons <sup>1</sup> (Provide s<br>on a separate s |          | ng     |
| 8. Deinandra fasciculata                         | 5           | No         | FACU       | - Problematic Hy                                                   |            | •                                              | ,        | 、<br>、 |
| Total Cover                                      | 95 %        |            |            |                                                                    | lopnyu     | vegetation (                                   | стріан   | )      |
| Woody Vine Stratum                               |             |            |            | <sup>1</sup> Indicators of hydric                                  | soil and   | h wetland hyd                                  | rology r | nuet   |
| 1                                                |             |            |            | be present.                                                        | Son and    | a wettanta riya                                | lology   | nust   |
| 2                                                |             |            |            |                                                                    |            |                                                |          |        |
| Total Cover                                      | : %         |            |            | Hydrophytic<br>Vegetation                                          |            |                                                |          |        |
| % Bare Ground in Herb Stratum <u>5 %</u> % Cover | of Biotic C | Crust 0    | %          |                                                                    | Yes 🖲      | No 🔿                                           |          |        |
| Remarks: Vegetation data collected by GLA on 5-1 | 0-12 (see   | original h | andwritten | data form).                                                        |            |                                                |          |        |
|                                                  |             |            |            |                                                                    |            |                                                |          |        |
|                                                  |             |            |            |                                                                    |            |                                                |          |        |

| Profile Des | Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)                                         |             |                     |                      |                   |                  |                                                        |     |  |  |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------|----------------------|-------------------|------------------|--------------------------------------------------------|-----|--|--|
| Depth       | Matrix                                                                                                                                                      |             | Redo                | <pre>K Feature</pre> | s                 |                  |                                                        |     |  |  |
| (inches)    | Color (moist)                                                                                                                                               | %           | Color (moist)       | %                    | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup> Remarks                           |     |  |  |
| 0-5         | 10YR 3/2                                                                                                                                                    | 100         | none                |                      |                   |                  | sandy clay loam                                        |     |  |  |
| *           |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        | _   |  |  |
|             |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        | —   |  |  |
|             |                                                                                                                                                             |             |                     | ·                    |                   |                  |                                                        |     |  |  |
|             |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        |     |  |  |
|             |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        |     |  |  |
|             |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        | _   |  |  |
|             |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        | —   |  |  |
|             |                                                                                                                                                             |             |                     | ·                    |                   |                  |                                                        | —   |  |  |
|             |                                                                                                                                                             |             |                     |                      |                   |                  |                                                        |     |  |  |
|             | Concentration, D=Deple                                                                                                                                      |             |                     |                      |                   | -                | RC=Root Channel, M=Matrix.                             |     |  |  |
|             | <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. |             |                     |                      |                   |                  |                                                        |     |  |  |
| -           | Indicators: (Applicable                                                                                                                                     | e to all Ll |                     | -                    |                   |                  | Indicators for Problematic Hydric Soils <sup>4</sup> : |     |  |  |
| Histoso     | ( )                                                                                                                                                         |             | Sandy Redo          |                      |                   |                  | 1 cm Muck (A9) ( <b>LRR C</b> )                        |     |  |  |
|             | Epipedon (A2)                                                                                                                                               |             | Stripped Ma         | · · ·                |                   |                  | 2 cm Muck (A10) ( <b>LRR B</b> )                       |     |  |  |
|             | listic (A3)                                                                                                                                                 |             | Loamy Muc           | •                    | . ,               |                  | Reduced Vertic (F18)<br>Red Parent Material (TF2)      |     |  |  |
|             | en Sulfide (A4)<br>ed Layers (A5) ( <b>LRR C</b>                                                                                                            | <b>`</b>    | Depleted M          |                      |                   |                  | Other (Explain in Remarks)                             |     |  |  |
|             | luck (A9) (LRR D)                                                                                                                                           | )           | Redox Dark          | ( )                  |                   |                  |                                                        |     |  |  |
|             | ed Below Dark Surface                                                                                                                                       | (A11)       | Depleted D          |                      | · /               |                  |                                                        |     |  |  |
|             | ark Surface (A12)                                                                                                                                           | (,)         | Redox Dep           |                      | . ,               |                  |                                                        |     |  |  |
| Sandy       | Mucky Mineral (S1)                                                                                                                                          |             | Vernal Pool         |                      | <b>、</b> ,        |                  | <sup>4</sup> Indicators of hydrophytic vegetation and  |     |  |  |
| Sandy       | Gleyed Matrix (S4)                                                                                                                                          |             |                     | <b>、</b>             |                   |                  | wetland hydrology must be present.                     |     |  |  |
| Restrictive | Layer (if present):                                                                                                                                         |             |                     |                      |                   |                  |                                                        |     |  |  |
| Type:no     | ne                                                                                                                                                          |             |                     |                      |                   |                  |                                                        |     |  |  |
|             | nches):none                                                                                                                                                 |             |                     |                      |                   |                  | Hydric Soil Present? Yes O No ()                       |     |  |  |
| Remarks: *  | 1/2" thick lens with                                                                                                                                        | nin uppe    | er 5" with 7.5YR 4/ | 3 - not 2            | " thick. S        | oil data         | collected by GLA on 5-10-12 (see original              |     |  |  |
|             | andwritten data forr                                                                                                                                        |             |                     |                      |                   |                  |                                                        |     |  |  |
|             |                                                                                                                                                             | /           | rately well drained | soils, m             | edium to          | rapid ru         | noff, very slow permeability, on terraces (Dudek       | 5). |  |  |
|             |                                                                                                                                                             | ,           |                     | , m                  |                   |                  |                                                        | -/- |  |  |

| Wetland Hydrology Indicators:                        | Secondary Indicators (2 or more required)                                                                                  |                                                      |  |  |  |  |  |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--|--|--|--|--|
| Primary Indicators (any one indicator is sufficient) |                                                                                                                            | Water Marks (B1) (Riverine)                          |  |  |  |  |  |
| Surface Water (A1)                                   | Salt Crust (B11)                                                                                                           | Sediment Deposits (B2) ( <b>Riverine</b> )           |  |  |  |  |  |
| High Water Table (A2)                                | Biotic Crust (B12)                                                                                                         | Drift Deposits (B3) ( <b>Riverine</b> )              |  |  |  |  |  |
| Saturation (A3)                                      | X Aquatic Invertebrates (B13)                                                                                              | Drainage Patterns (B10)                              |  |  |  |  |  |
| Water Marks (B1) (Nonriverine)                       | Hydrogen Sulfide Odor (C1)                                                                                                 | Dry-Season Water Table (C2)                          |  |  |  |  |  |
| Sediment Deposits (B2) (Nonriverine)                 | Oxidized Rhizospheres along Livir                                                                                          | ng Roots (C3) Thin Muck Surface (C7)                 |  |  |  |  |  |
| Drift Deposits (B3) (Nonriverine)                    | Presence of Reduced Iron (C4)                                                                                              | Crayfish Burrows (C8)                                |  |  |  |  |  |
| Surface Soil Cracks (B6)                             | Recent Iron Reduction in Plowed                                                                                            | Soils (C6) Saturation Visible on Aerial Imagery (C9) |  |  |  |  |  |
| Inundation Visible on Aerial Imagery (B7)            | Shallow Aquitard (D3)                                                                                                      |                                                      |  |  |  |  |  |
| Water-Stained Leaves (B9)                            |                                                                                                                            | FAC-Neutral Test (D5)                                |  |  |  |  |  |
| Field Observations:                                  |                                                                                                                            |                                                      |  |  |  |  |  |
| Surface Water Present? Yes O No 💿                    | Depth (inches):                                                                                                            |                                                      |  |  |  |  |  |
| Water Table Present? Yes O No 💿                      | Depth (inches):                                                                                                            |                                                      |  |  |  |  |  |
| Saturation Present? Yes No                           | Depth (inches):                                                                                                            | Wetland Hydrology Present? Yes   No                  |  |  |  |  |  |
| Describe Recorded Data (stream gauge, monitorin      | ng well, aerial photos, previous inspec                                                                                    | ions), if available:                                 |  |  |  |  |  |
|                                                      |                                                                                                                            |                                                      |  |  |  |  |  |
| Remarks: Ponds in excessive years - ponded for       | or maximum of 4 days in April 20                                                                                           | )12 per GLA wet season survey (data from GLA         |  |  |  |  |  |
| 5-10-12 handwritten data form).                      |                                                                                                                            |                                                      |  |  |  |  |  |
| *Aquatic Invertebrates* Common ve                    | ersatile fairy shrimp observed du                                                                                          | ing 1999-2000 wet season fairy shrimp surveys and    |  |  |  |  |  |
| common versatile fairy shrimp and o                  | common versatile fairy shrimp and ostracod shells were present in this feature during 2012 dry season fairy shrimp surveys |                                                      |  |  |  |  |  |
| (Dudek updated data form with aqua                   |                                                                                                                            |                                                      |  |  |  |  |  |
| US Army Corps of Engineers                           |                                                                                                                            |                                                      |  |  |  |  |  |

| Project/Site: Newport Banning Ranch                                     | _ City/County:Or                                      | ange County                                    | Sampling Date:10-4-12        |                                                         |                  |            |                    |  |
|-------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------|------------------------------|---------------------------------------------------------|------------------|------------|--------------------|--|
| Applicant/Owner: Newport Banning Ra                                     | anch LLC                                              |                                                |                              | Sta                                                     | te:CA            | Sampling   | Point:NN           |  |
| Investigator(s): J. Davis IV, T. Wotipk                                 | Section, Towns                                        | Section, Township, Range:Section 29, T6S, R10W |                              |                                                         |                  |            |                    |  |
| Landform (hillslope, terrace, etc.): Terrac                             | Local relief (concave, convex, none):Concave Slope (% |                                                |                              |                                                         |                  |            |                    |  |
| Subregion (LRR):C - Mediterranean C                                     | alifornia                                             | Lat:33                                         | 6.6271070213                 | Long:-11                                                | 7.94386316       | 6          | Datum: WGS 84      |  |
| Soil Map Unit Name: Myford sandy loam 2-9% slopes NWI classification:NA |                                                       |                                                |                              |                                                         |                  |            |                    |  |
| Are climatic / hydrologic conditions on the                             | e site typical fo                                     | or this time of                                | year? Yes 💿                  | No 🔿 🛛 (If r                                            | io, explain in F | Remarks.)  |                    |  |
| Are Vegetation Soil or Hy                                               | drology                                               | significant                                    | ly disturbed?                | Are "Normal Ci                                          | rcumstances"     | present? Y | íes 💿 🛛 No 🔿       |  |
| Are Vegetation Soil or Hy                                               | drology                                               | naturally p                                    | problematic?                 | oblematic? (If needed, explain any answers in Remarks.) |                  |            |                    |  |
| SUMMARY OF FINDINGS - Att                                               | ach site m                                            | ap showin                                      | g sampling p                 | oint locations                                          | , transects      | s, importa | int features, etc. |  |
| Hydrophytic Vegetation Present?                                         | Yes 🕥                                                 | No 💿                                           |                              |                                                         |                  |            |                    |  |
| Hydric Soil Present?                                                    | Yes 🔘                                                 | No 💿                                           | Is the S                     | ampled Area                                             |                  |            |                    |  |
| Wetland Hydrology Present?                                              | Yes 🕥                                                 | No 💿                                           | within a Wetland? Yes 🔿 No 💿 |                                                         |                  |            |                    |  |
| Remarks:                                                                |                                                       |                                                |                              |                                                         |                  |            |                    |  |

|                                                  | Absolute    | Dominant    |           | Dominance Test v                                                         | vorkshee    | t:             |            |       |
|--------------------------------------------------|-------------|-------------|-----------|--------------------------------------------------------------------------|-------------|----------------|------------|-------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Domina                                                         |             |                |            |       |
| 1                                                |             |             |           | That Are OBL, FAC                                                        | CW, or FA   | C:             | 1          | (A)   |
| 2                                                |             |             |           | Total Number of Do                                                       | ominant     |                |            |       |
| 3.                                               |             |             |           | Species Across All                                                       |             |                | 2          | (B)   |
| 4.                                               |             |             |           | - Percent of Domina                                                      | nt Spania   |                |            |       |
| Total Cove                                       | r: %        |             |           | That Are OBL, FAC                                                        |             | -              | 0.0 %      | (A/B) |
| Sapling/Shrub Stratum                            |             |             |           |                                                                          |             |                | .0 /0      | ()    |
| 1                                                |             |             |           | Prevalence Index                                                         |             |                |            |       |
| 2.                                               |             |             |           | Total % Cover                                                            | of:         | Multip         | oly by:    |       |
| 3.                                               |             |             |           | OBL species                                                              |             | x 1 =          | 0          |       |
| 4.                                               |             |             |           | FACW species                                                             |             | x 2 =          | 0          |       |
| 5.                                               |             |             |           | FAC species                                                              | 25          | x 3 =          | 75         |       |
| Total Cover                                      | . %         |             |           | FACU species                                                             | 33          | x 4 =          | 132        |       |
| Herb Stratum                                     |             |             |           | UPL species                                                              | 2           | x 5 =          | 10         |       |
| <sup>1</sup> .Rumex crispus                      | 25          | Yes         | FAC       | Column Totals:                                                           | -<br>60     | (A)            | 217        | (B)   |
| <sup>2</sup> .Hordeum murinum leporinum          | 25          | Yes         | FACU      |                                                                          |             | _              |            |       |
| <sup>3</sup> . <i>Erodium botry</i>              | 5           | No          | FACU      | Prevalence Ir                                                            |             |                | 3.62       |       |
| 4. Bromus diandrus                               | 2           | No          | UPL       | Hydrophytic Vege                                                         |             |                |            |       |
| 5. Bromus hordeaceus                             | 3           | No          | FACU      | Dominance Te                                                             | st is >50%  | 6              |            |       |
| 6.                                               |             |             |           | Prevalence Inc                                                           | dex is ≤3.0 | ) <sup>1</sup> |            |       |
| 7.                                               |             |             |           | Morphological                                                            |             |                |            | ng    |
| 8.                                               |             |             |           |                                                                          |             | •              |            | 、     |
| Total Cover                                      | 60 %        |             |           | Problematic H                                                            | yaropnytic  | vegetation     | (Explain   | )     |
| Woody Vine Stratum                               | 00 /0       |             |           | 1                                                                        |             |                |            |       |
| 1                                                |             |             |           | <ul> <li><sup>1</sup>Indicators of hydri</li> <li>be present.</li> </ul> | ic soil and | l wetland h    | ydrology r | nust  |
| 2                                                |             |             |           | be present.                                                              |             |                |            |       |
| Total Cover                                      | : %         |             |           | Hydrophytic                                                              |             |                |            |       |
| % Bare Ground in Herb Stratum $40 \%$ % Cover    | of Biotic C | Crust 0     | ) %       | Vegetation<br>Present?                                                   | Yes ()      | No (           | •          |       |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see o  | original ha | ndwritten | data form).                                                              |             |                |            |       |
|                                                  |             |             |           |                                                                          |             |                |            |       |
|                                                  |             |             |           |                                                                          |             |                |            |       |
|                                                  |             |             |           |                                                                          |             |                |            |       |

| Profile Des | Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)                                                                                                                                                                                  |         |                     |              |                   |                  |                               |                                 |                |  |  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------|--------------|-------------------|------------------|-------------------------------|---------------------------------|----------------|--|--|
| Depth       | Matrix                                                                                                                                                                                                                                                                                               |         | Redo                | x Feature    | S                 |                  |                               |                                 |                |  |  |
| (inches)    | Color (moist)                                                                                                                                                                                                                                                                                        | %       | Color (moist)       | %            | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>          | Ren                             | narks          |  |  |
| 0-5         | 10YR 3/2                                                                                                                                                                                                                                                                                             |         | none                |              |                   |                  | sandy loam                    |                                 |                |  |  |
|             |                                                                                                                                                                                                                                                                                                      |         |                     | <br><br><br> |                   |                  |                               |                                 |                |  |  |
| 51          | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.<br><sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. |         |                     |              |                   |                  |                               |                                 |                |  |  |
|             | Indicators: (Applicabl                                                                                                                                                                                                                                                                               |         |                     |              |                   |                  |                               | roblematic Hydric S             |                |  |  |
| Histoso     |                                                                                                                                                                                                                                                                                                      |         | Sandy Redo          | -            |                   |                  |                               | 1 cm Muck (A9) ( <b>LRR C</b> ) |                |  |  |
| Histic E    | pipedon (A2)                                                                                                                                                                                                                                                                                         |         | Stripped Ma         | atrix (S6)   |                   |                  | 2 cm Muck (A10) (LRR B)       |                                 |                |  |  |
| Black H     | listic (A3)                                                                                                                                                                                                                                                                                          |         | Loamy Muc           | ky Minera    | al (F1)           |                  | Reduced Vertic (F18)          |                                 |                |  |  |
| Hydrog      | en Sulfide (A4)                                                                                                                                                                                                                                                                                      |         | Loamy Gle           | yed Matrix   | : (F2)            |                  | Red Parent                    | t Material (TF2)                |                |  |  |
| Stratifie   | ed Layers (A5) (LRR C                                                                                                                                                                                                                                                                                | )       | Depleted M          | atrix (F3)   |                   |                  | Other (Exp                    | lain in Remarks)                |                |  |  |
| 1 cm M      | uck (A9) ( <b>LRR D</b> )                                                                                                                                                                                                                                                                            |         | Redox Darl          | Surface      | (F6)              |                  | _                             |                                 |                |  |  |
| Deplete     | ed Below Dark Surface                                                                                                                                                                                                                                                                                | e (A11) | Depleted D          | ark Surfac   | ce (F7)           |                  |                               |                                 |                |  |  |
| Thick D     | ark Surface (A12)                                                                                                                                                                                                                                                                                    |         | Redox Dep           | ressions (   | F8)               |                  |                               |                                 |                |  |  |
| Sandy I     | Mucky Mineral (S1)                                                                                                                                                                                                                                                                                   |         | Vernal Poo          | ls (F9)      |                   |                  | <sup>4</sup> Indicators of hy | ydrophytic vegetatio            | on and         |  |  |
| Sandy (     | Gleyed Matrix (S4)                                                                                                                                                                                                                                                                                   |         |                     |              |                   |                  | wetland hyd                   | rology must be pres             | sent.          |  |  |
| Restrictive | Layer (if present):                                                                                                                                                                                                                                                                                  |         |                     |              |                   |                  |                               |                                 |                |  |  |
| Type:nor    | ne                                                                                                                                                                                                                                                                                                   |         |                     |              |                   |                  |                               |                                 |                |  |  |
| Depth (in   | nches):none                                                                                                                                                                                                                                                                                          |         |                     |              |                   |                  | Hydric Soil Pres              | sent? Yes 🔿                     | No 💿           |  |  |
|             | oil data collected b                                                                                                                                                                                                                                                                                 |         |                     |              |                   |                  |                               |                                 |                |  |  |
| Ν           | Ayford soils are dee                                                                                                                                                                                                                                                                                 | p, mode | rately well drained | soils, m     | edium to          | rapid rui        | noff, very slow pe            | ermeability, form               | ed on terraces |  |  |
| (I          | Dudek updated soil                                                                                                                                                                                                                                                                                   | type).  |                     |              |                   |                  |                               |                                 |                |  |  |

| Wetland Hydrology Indicators:                           |                                                  | Secondary Indicators (2 or more required)             |
|---------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)    |                                                  | Water Marks (B1) (Riverine)                           |
| Surface Water (A1)                                      | Salt Crust (B11)                                 | Sediment Deposits (B2) ( <b>Riverine</b> )            |
| High Water Table (A2)                                   | Biotic Crust (B12)                               | Drift Deposits (B3) ( <b>Riverine</b> )               |
| Saturation (A3)                                         | Aquatic Invertebrates (B13)                      | Drainage Patterns (B10)                               |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)                       | Dry-Season Water Table (C2)                           |
| Sediment Deposits (B2) (Nonriverine)                    | Oxidized Rhizospheres along Living F             | Roots (C3) Thin Muck Surface (C7)                     |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)                    | Crayfish Burrows (C8)                                 |
| Surface Soil Cracks (B6)                                | s (C6) Saturation Visible on Aerial Imagery (C9) |                                                       |
| Inundation Visible on Aerial Imagery (B7)               | Shallow Aquitard (D3)                            |                                                       |
| Water-Stained Leaves (B9)                               |                                                  | FAC-Neutral Test (D5)                                 |
| Field Observations:                                     |                                                  |                                                       |
| Surface Water Present? Yes O No 💿                       | Depth (inches):                                  |                                                       |
| Water Table Present? Yes O No 💽                         | Depth (inches):                                  |                                                       |
| Saturation Present? Yes No ( includes capillary fringe) | Depth (inches): W                                | etland Hydrology Present? Yes 🔿 No 💿                  |
| Describe Recorded Data (stream gauge, monitorin         | ng well, aerial photos, previous inspection      | s), if available:                                     |
|                                                         |                                                  |                                                       |
| Remarks:Wetland hydrology indicators were               | not observed in this feature during d            | elineations, hydrological monitoring, or fairy shrimp |
| surveys.                                                | 6                                                |                                                       |
|                                                         |                                                  |                                                       |
|                                                         |                                                  |                                                       |
|                                                         |                                                  |                                                       |
|                                                         |                                                  |                                                       |

| Project/Site: Newport Banning Ranch                                                                                   |                   | City/County:Ora   | nge County                   | Sampling Date: 10-4-12 |               |             |                    |  |
|-----------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------------------------------|------------------------|---------------|-------------|--------------------|--|
| Applicant/Owner: Newport Banning R                                                                                    | anch LLC          |                   |                              | Sta                    | te:CA         | Sampling    | Point:OO           |  |
| Investigator(s): J. Davis IV, T. Wotipl                                                                               | Section, Townsh   | nip, Range:Sectio | on 29, T6S, I                | R10W                   |               |             |                    |  |
| Landform (hillslope, terrace, etc.): Terra                                                                            | Local relief (cor | icave, convex, no | ne):Concave                  | •                      | Slope (%):<2  |             |                    |  |
| Subregion (LRR): C - Mediterranean C                                                                                  | 6264871663        | Long:-1           | 7.94381279                   | 94                     | Datum: WGS 84 |             |                    |  |
| Soil Map Unit Name: Myford sandy loam 9-30% slopes, eroded NWI classification: NA                                     |                   |                   |                              |                        |               |             |                    |  |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.) |                   |                   |                              |                        |               |             |                    |  |
| Are Vegetation Soil or Hy                                                                                             | /drology          | significantly     | / disturbed?                 | Are "Normal Ci         | rcumstances"  | present? Y  | íes 💿 🛛 No 🔿       |  |
| Are Vegetation Soil or Hy                                                                                             | /drology          | naturally pr      | oblematic?                   | (If needed, exp        | ain any answ  | ers in Rema | rks.)              |  |
| SUMMARY OF FINDINGS - At                                                                                              | tach site m       | ap showing        | sampling po                  | oint locations         | , transects   | s, importa  | int features, etc. |  |
| Hydrophytic Vegetation Present?                                                                                       | Yes 💿             | No 🔘              |                              |                        |               |             |                    |  |
| Hydric Soil Present?                                                                                                  | Yes 🔘             | No 💿              | Is the Sa                    | mpled Area             |               |             |                    |  |
| Wetland Hydrology Present?                                                                                            | Yes 💽             | No 🔘              | within a Wetland? Yes 🔿 No 🖲 |                        |               |             | D                  |  |
| Remarks: CCC wetland since at least                                                                                   | st one wetlan     | d criterion wa    | as met.                      |                        |               |             |                    |  |

#### VEGETATION

|                                                   | Absolute    | Dominant    | Indicator  | Dominance Test wor                  | rksheet  | t:           |          |          |
|---------------------------------------------------|-------------|-------------|------------|-------------------------------------|----------|--------------|----------|----------|
| Tree Stratum (Use scientific names.)              | % Cover     | Species?    | Status     | Number of Dominant                  |          |              |          |          |
| 1                                                 |             |             |            | That Are OBL, FACW                  | , or FA  | C: 1         | (        | (A)      |
| 2.                                                |             |             |            | Total Number of Domi                | inant    |              |          |          |
| 3.                                                |             |             |            | Species Across All St               |          | 1            | (        | (B)      |
| 4.                                                |             |             |            | Percent of Dominant \$              | Spacios  | <b>`</b>     |          |          |
| Total Cove                                        | r: %        |             |            | That Are OBL, FACW                  |          |              | 0% (     | A/B)     |
| Sapling/Shrub Stratum                             |             |             |            |                                     |          | 100.         | 070 (    | ,        |
| 1                                                 |             |             |            | Prevalence Index wo                 |          | et:          |          |          |
| 2.                                                |             |             |            | Total % Cover of:                   | <u> </u> | Multiply     | by:      |          |
| 3.                                                |             |             |            | OBL species                         | 23       | x 1 =        | 23       |          |
| 4.                                                |             |             |            | FACW species                        | 3        | x 2 =        | 6        |          |
| 5.                                                |             |             |            | FAC species                         |          | x 3 =        | 0        |          |
| Total Cover                                       | : %         |             |            | FACU species                        | 15       | x 4 =        | 60       |          |
| Herb Stratum                                      |             |             |            | UPL species                         | 13       | x 5 =        | 65       |          |
| 1.Spergularia marina                              | 20          | Yes         | OBL        | Column Totals:                      | 54       | (A)          | 154      | (B)      |
| <sup>2</sup> .Erodium cicutarium                  | 10          | No          | UPL        |                                     |          |              |          |          |
| <sup>3</sup> . <i>Erodium botrys</i>              | 5           | No          | FACU       | Prevalence Inde                     |          |              | 2.85     |          |
| 4. Bromus hordeaceus                              | 5           | No          | FACU       | Hydrophytic Vegetat                 |          |              |          |          |
| 5. Vulpia myuros                                  | 5           | No          | FACU       | X Dominance Test i                  |          |              |          |          |
| 6. Cotula coronopifolia                           | 3           | No          | OBL        | Prevalence Index                    |          |              |          |          |
| 7. Deinandra fasciculata                          | 3           | No          | FACW       | Morphological Ad                    |          |              |          | ng       |
| 8. Hirschfeldia incana                            | 1           | No          | UPL        | - Problematic Hydr                  |          |              | ,        | <b>`</b> |
| Total Cover                                       | 52 %        |             |            |                                     | opriyiic | vegetation ( | слріант, | )        |
| Woody Vine Stratum                                | 2           | No          |            | <sup>1</sup> Indicators of hydric s | oil and  | wotland hyd  | rology r | ouet     |
| 1.Bromus madritensis rubens                       | 2           | <u>INO</u>  | UPL        | be present.                         |          |              | ology II | lust     |
| 2                                                 |             |             |            | -                                   |          |              |          |          |
| Total Cover                                       | 2 %         |             |            | Hydrophytic<br>Vegetation           |          |              |          |          |
| % Bare Ground in Herb Stratum 46 % % Cover        | of Biotic C | Crust 0     | %          |                                     | 'es 💿    | No 🔿         |          |          |
| Remarks: Woody Vine Stratum is additional species | s from He   | erb Stratun | n. Not eno | ugh lines to add all H              | erb Str  | ratum within | catego   | ory.     |
| -                                                 |             |             |            |                                     |          |              |          |          |
| Vegetation data collected by GLA on 9-6           | -12 (see o  | original ha | ndwritten  | data form).                         |          |              |          |          |

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| Profile Des                                                               | Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)                                                                                                                                                                       |        |                     |               |                   |                    |                              |                        |      |  |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------|---------------|-------------------|--------------------|------------------------------|------------------------|------|--|
| Depth                                                                     | Matrix                                                                                                                                                                                                                                                                                    |        | Redo                | x Feature     | s                 |                    |                              |                        |      |  |
| (inches)                                                                  | Color (moist)                                                                                                                                                                                                                                                                             | %      | Color (moist)       | %             | Type <sup>1</sup> | Loc <sup>2</sup>   | Texture <sup>3</sup>         | Rema                   | rks  |  |
| 0-6                                                                       | 10YR 3/2                                                                                                                                                                                                                                                                                  | 100    | none                |               |                   |                    | sandy loam                   |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           |                                                                                                                                                                                                                                                                                           |        |                     | 21 e e e tiev |                   |                    |                              |                        |      |  |
| • •                                                                       | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.<br><sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand. |        |                     |               |                   |                    |                              |                        |      |  |
|                                                                           | Indicators: (Applicable                                                                                                                                                                                                                                                                   |        |                     |               | indy Louin        | , oldy Loc         |                              | Problematic Hydric So  |      |  |
| Histos                                                                    |                                                                                                                                                                                                                                                                                           |        | Sandy Redo          |               |                   |                    |                              | (A9) (LRR C)           |      |  |
|                                                                           | Epipedon (A2)                                                                                                                                                                                                                                                                             |        | Stripped M          | ( )           |                   |                    |                              | (A10) ( <b>LRR B</b> ) |      |  |
|                                                                           | Histic (A3)                                                                                                                                                                                                                                                                               |        | Loamy Muc           | . ,           | al (F1)           |                    | Reduced Vertic (F18)         |                        |      |  |
| Hydrog                                                                    | gen Sulfide (A4)                                                                                                                                                                                                                                                                          |        | Loamy Gle           | ed Matrix     | (F2)              |                    | Red Paren                    | t Material (TF2)       |      |  |
| Stratifie                                                                 | ed Layers (A5) (LRR C                                                                                                                                                                                                                                                                     | )      | Depleted N          | atrix (F3)    |                   |                    | Other (Exp                   | lain in Remarks)       |      |  |
| 1 cm N                                                                    | /luck (A9) ( <b>LRR D</b> )                                                                                                                                                                                                                                                               |        | Redox Darl          | Surface       | (F6)              |                    |                              |                        |      |  |
| Deplet                                                                    | ed Below Dark Surface                                                                                                                                                                                                                                                                     | (A11)  | Depleted D          | ark Surfa     | ce (F7)           |                    |                              |                        |      |  |
| Thick [                                                                   | Dark Surface (A12)                                                                                                                                                                                                                                                                        |        | Redox Dep           | ressions (    | (F8)              |                    |                              |                        |      |  |
| Sandy                                                                     | Mucky Mineral (S1)                                                                                                                                                                                                                                                                        |        | Vernal Poo          | ls (F9)       |                   |                    | <sup>4</sup> Indicators of h | ydrophytic vegetation  | and  |  |
| Sandy                                                                     | Gleyed Matrix (S4)                                                                                                                                                                                                                                                                        |        |                     |               |                   |                    | wetland hyd                  | rology must be prese   | nt.  |  |
| Restrictive                                                               | e Layer (if present):                                                                                                                                                                                                                                                                     |        |                     |               |                   |                    |                              |                        |      |  |
| Type:no                                                                   | one                                                                                                                                                                                                                                                                                       |        |                     |               |                   |                    |                              |                        |      |  |
| Depth (i                                                                  | nches):none                                                                                                                                                                                                                                                                               |        |                     |               |                   |                    | Hydric Soil Pre              | sent? Yes 🔿            | No 💿 |  |
| Remarks: S                                                                | Soil data collected by                                                                                                                                                                                                                                                                    | GLA o  | on 9-6-12 (see orig | inal hanc     | lwritten d        | ata form           | .).                          |                        |      |  |
| Myford soils are deep, moderately well drained soils, medium to rapid run |                                                                                                                                                                                                                                                                                           |        |                     |               |                   | noff, very slow pe | ermeability, forme           | d on terraces          |      |  |
| (                                                                         | Dudek updated soil                                                                                                                                                                                                                                                                        | type). |                     |               |                   |                    |                              |                        |      |  |

| Wetland Hydrology Indicators:                                                         | Secondary Indicators (2 or more required)            |
|---------------------------------------------------------------------------------------|------------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)                                  | Water Marks (B1) (Riverine)                          |
| Surface Water (A1) Salt Crust (B11)                                                   | Sediment Deposits (B2) ( <b>Riverine</b> )           |
| High Water Table (A2) Biotic Crust (B12)                                              | Drift Deposits (B3) ( <b>Riverine</b> )              |
| Saturation (A3) Aquatic Invertebrates (B13)                                           | Drainage Patterns (B10)                              |
| Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)                             | Dry-Season Water Table (C2)                          |
| Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Livi                 | ng Roots (C3) Thin Muck Surface (C7)                 |
| Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)                       | Crayfish Burrows (C8)                                |
| Surface Soil Cracks (B6)                                                              | Soils (C6) Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)                  | Shallow Aquitard (D3)                                |
| Water-Stained Leaves (B9)                                                             | X FAC-Neutral Test (D5)                              |
| Field Observations:                                                                   |                                                      |
| Surface Water Present? Yes O No  Depth (inches):                                      |                                                      |
| Water Table Present? Yes No      No      Depth (inches):                              |                                                      |
| Saturation Present? Yes No  Depth (inches):                                           | Wetland Hydrology Present? Yes 💿 No 🔿                |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec | tions), if available:                                |
|                                                                                       |                                                      |
| Remarks: Very shallow low area in road - no ponding in 2011/2012 per GLA w            | vet season survey.                                   |
| Hydrology data collected by GLA on 9-6-12 (see original handwritte                    | •                                                    |
| *Aquatic Invertebrates* Common versatile fairy shrimp were presen                     |                                                      |
| surveys (Dudek updated data form with aquatic invertebrates data).                    |                                                      |
|                                                                                       |                                                      |
| US Army Corps of Engineers                                                            |                                                      |
| US Army Corps of Engineers                                                            |                                                      |

| Sampling Date: 10-4-12 |  |  |
|------------------------|--|--|
| nt:PP                  |  |  |
|                        |  |  |
| Slope (%):<2           |  |  |
| atum:WGS 84            |  |  |
|                        |  |  |
|                        |  |  |
| • No ()                |  |  |
| )                      |  |  |
| features, etc          |  |  |
|                        |  |  |
|                        |  |  |
|                        |  |  |
| fe                     |  |  |

|                                                  | Absolute    | Dominant    |           | Dominance Test w                  | orkshee    | t:             |           |       |
|--------------------------------------------------|-------------|-------------|-----------|-----------------------------------|------------|----------------|-----------|-------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominant Species        |            |                |           |       |
| 1                                                |             |             |           | That Are OBL, FAC                 | W, or FA   | C: 1           | 1         | (A)   |
| 2                                                |             |             |           | Total Number of Do                | minant     |                |           |       |
| 3.                                               |             |             |           | Species Across All S              |            | 1              | (         | (B)   |
| 4.                                               |             |             |           | Percent of Dominan                | t Chaolou  |                |           |       |
| Total Cover                                      | r: %        |             |           | That Are OBL, FAC                 |            | -              | .0%       | (A/B) |
| Sapling/Shrub Stratum                            |             |             |           | ,                                 |            | 100            | .0 /0     |       |
| 1.                                               |             |             |           | Prevalence Index v                |            |                |           |       |
| 2.                                               |             |             |           | Total % Cover of                  | of:        | Multiply       | ' by:     |       |
| 3.                                               |             |             |           | OBL species                       | 5          | x 1 =          | 5         |       |
| 4.                                               |             | ·           |           | FACW species                      | 70         | x 2 =          | 140       |       |
| 5.                                               |             |             |           | FAC species                       | 5          | x 3 =          | 15        |       |
| Total Cover                                      | . %         |             |           | FACU species                      | 10         | x 4 =          | 40        |       |
| Herb Stratum                                     |             |             |           | UPL species                       | 10         | x 5 =          | 0         |       |
| 1. Polypogon monspeliensis                       | 70          | Yes         | FACW      | Column Totals:                    | 90         | (A)            | 200       | (B)   |
| <sup>2</sup> .Cotula coronopifolia               | 5           | No          | OBL       |                                   |            |                |           |       |
| <sup>3</sup> .Rumex crispus                      | 5           | No          | FAC       | Prevalence Inc                    |            |                | 2.22      |       |
| 4. Deinandra fasciculata                         | 10          | No          | FACU      | Hydrophytic Veget                 |            |                |           |       |
| 5.                                               |             |             |           | X Dominance Tes                   |            |                |           |       |
| 6.                                               |             |             |           | × Prevalence Inde                 | ex is ≤3.0 | ) <sup>1</sup> |           |       |
| 7.                                               |             |             |           | Morphological A                   |            |                |           | ng    |
| 8.                                               |             |             |           |                                   |            | n a separate   | ,         |       |
| Total Cover                                      | 90 %        |             |           | - Problematic Hy                  | drophytic  | vegetation'    | (Explain  | )     |
| Woody Vine Stratum                               | 70 %        |             |           |                                   |            |                |           |       |
| 1                                                |             |             |           | <sup>1</sup> Indicators of hydric | soil and   | d wetland hyd  | Irology n | nust  |
| 2.                                               |             |             |           | be present.                       |            |                |           |       |
| Total Cover                                      | . %         |             |           | Hydrophytic                       |            |                |           |       |
| % Bare Ground in Herb Stratum 10 % % Cover       | of Biotic C | Crust 0     | ) %       | Vegetation<br>Present?            | Yes 💿      | No 🔿           |           |       |
| Remarks: Vegetation data collected by GLA on 6-9 | -12 (see d  | original ha | ndwritten | data form).                       |            |                |           |       |
|                                                  |             | 2           |           | ,                                 |            |                |           |       |
|                                                  |             |             |           |                                   |            |                |           |       |
|                                                  |             |             |           |                                   |            |                |           |       |

| SOIL |  |
|------|--|
|------|--|

| Profile Des              | cription: (Describe t                                                                                                                 | to the de   | pth needed to docun | nent the   | indicator of      | or confirm       | the absence of i                                                                   | ndicators.)              |                |  |  |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------|------------|-------------------|------------------|------------------------------------------------------------------------------------|--------------------------|----------------|--|--|
| Depth                    | Matrix                                                                                                                                |             | Redox               | Feature    | s                 |                  |                                                                                    |                          |                |  |  |
| (inches)                 | Color (moist)                                                                                                                         | %           | Color (moist)       | %          | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>                                                               | Rema                     | rks            |  |  |
| 0-3                      | 10YR 3/2                                                                                                                              |             | none                |            |                   |                  |                                                                                    |                          |                |  |  |
| 3-4                      |                                                                                                                                       |             | 10YR 3/3            | 5          |                   |                  |                                                                                    |                          |                |  |  |
| refusal                  |                                                                                                                                       |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
|                          |                                                                                                                                       |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
|                          |                                                                                                                                       |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
|                          |                                                                                                                                       |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
|                          |                                                                                                                                       |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
|                          |                                                                                                                                       |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
| <sup>1</sup> Type: C=C   | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
| <sup>3</sup> Soil Textur | es: Clay, Silty Clay, S                                                                                                               | andy Cla    | y, Loam, Sandy Clay | Loam, S    | andy Loam         | , Clay Loa       | m, Silty Clay Loam                                                                 | n, Silt Loam, Silt, Loar | ny Sand, Sand. |  |  |
|                          | Indicators: (Applicabl                                                                                                                | e to all LF |                     |            |                   |                  | Indicators for Problematic Hydric Soils <sup>4</sup> :<br>☐ 1 cm Muck (A9) (LRR C) |                          |                |  |  |
| Histoso                  | Epipedon (A2)                                                                                                                         |             | Sandy Redox         | . ,        |                   |                  | 2 cm Muck (A10) (LRR B)                                                            |                          |                |  |  |
|                          | listic (A3)                                                                                                                           |             | Loamy Mucl          | · · ·      |                   |                  | Reduced Vertic (F18)                                                               |                          |                |  |  |
|                          | en Sulfide (A4)                                                                                                                       |             | Loamy Gley          | •          | • •               |                  | Red Parent Material (TF2)                                                          |                          |                |  |  |
|                          | ed Layers (A5) (LRR C                                                                                                                 | :)          | Depleted Ma         |            |                   |                  | Other (Explain in Remarks)                                                         |                          |                |  |  |
|                          | luck (A9) (LRR D)                                                                                                                     | •)          | Redox Dark          | ` '        |                   |                  |                                                                                    | Jain In Remarkoy         |                |  |  |
|                          | ed Below Dark Surface                                                                                                                 | e (A11)     | Depleted Da         |            | ( )               |                  |                                                                                    |                          |                |  |  |
| · · ·                    | ark Surface (A12)                                                                                                                     |             | Redox Depr          |            | . ,               |                  |                                                                                    |                          |                |  |  |
|                          | Mucky Mineral (S1)                                                                                                                    |             | Vernal Pool         |            | <b>、</b> ,        |                  | <sup>4</sup> Indicators of h                                                       | ydrophytic vegetation    | and            |  |  |
| ·                        | Gleyed Matrix (S4)                                                                                                                    |             |                     | <b>、</b> , |                   |                  | wetland hyd                                                                        | Irology must be prese    | nt.            |  |  |
| Restrictive              | Layer (if present):                                                                                                                   |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
| Type:no                  | ne                                                                                                                                    |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
| Depth (ir                | nches):none                                                                                                                           |             |                     |            |                   |                  | Hydric Soil Pre                                                                    | sent? Yes 🔿              | No 💿           |  |  |
|                          | oil data collected b                                                                                                                  |             |                     |            |                   |                  |                                                                                    |                          |                |  |  |
|                          | Ayford soils are dee                                                                                                                  | <b>T</b> .  | rately well drained | soils, n   | nedium to         | rapid run        | off, very slow p                                                                   | ermeability, formed      | 1 on terraces  |  |  |
| ()                       | Dudek updated soil                                                                                                                    | type).      |                     |            |                   |                  |                                                                                    |                          |                |  |  |

| Wetland Hydrology Indicators:                          |                                                     | Secondary Indicators (2 or more required)  |
|--------------------------------------------------------|-----------------------------------------------------|--------------------------------------------|
| Primary Indicators (any one indicator is sufficient)   |                                                     | Water Marks (B1) (Riverine)                |
| Surface Water (A1)                                     | Salt Crust (B11)                                    | Sediment Deposits (B2) ( <b>Riverine</b> ) |
| High Water Table (A2)                                  | Biotic Crust (B12)                                  | Drift Deposits (B3) ( <b>Riverine</b> )    |
| Saturation (A3)                                        | Aquatic Invertebrates (B13)                         | Drainage Patterns (B10)                    |
| Water Marks (B1) (Nonriverine)                         | Hydrogen Sulfide Odor (C1)                          | Dry-Season Water Table (C2)                |
| Sediment Deposits (B2) (Nonriverine)                   | Oxidized Rhizospheres along Living Roots (          | (C3) Thin Muck Surface (C7)                |
| Drift Deposits (B3) (Nonriverine)                      | Presence of Reduced Iron (C4)                       | Crayfish Burrows (C8)                      |
| Surface Soil Cracks (B6)                               | Recent Iron Reduction in Plowed Soils (C6)          | Saturation Visible on Aerial Imagery (C9)  |
| Inundation Visible on Aerial Imagery (B7)              | Other (Explain in Remarks)                          | Shallow Aquitard (D3)                      |
| Water-Stained Leaves (B9)                              |                                                     | FAC-Neutral Test (D5)                      |
| Field Observations:                                    |                                                     |                                            |
| Surface Water Present? Yes 🔿 No 💽                      | Depth (inches):                                     |                                            |
| Water Table Present? Yes O No 💽                        | Depth (inches):                                     |                                            |
| Saturation Present? Yes No (includes capillary fringe) | Depth (inches): Wetland                             | l Hydrology Present? Yes 💿 No 🔿            |
| Describe Recorded Data (stream gauge, monitorin        | ng well, aerial photos, previous inspections), if a | vailable:                                  |
|                                                        |                                                     |                                            |
| Remarks:*Aquatic Invertebrates* Common v               | versatile fairy shrimp observed during 1999         | 9-2000 wet season fairy shrimp surveys and |
| -                                                      | p surveys (Dudek updated data form with a           | • • •                                      |
|                                                        |                                                     | 1 /                                        |
|                                                        |                                                     |                                            |
|                                                        |                                                     |                                            |
|                                                        |                                                     |                                            |

| Project/Site: Newport Banning Ranch                                                   |                  | _ City/County:Ora | ange County                               |                  | Sampling Date: 10-4-12 |                     |  |
|---------------------------------------------------------------------------------------|------------------|-------------------|-------------------------------------------|------------------|------------------------|---------------------|--|
| Applicant/Owner: Newport Banning Ranch LLC                                            |                  |                   | Sta                                       | te:CA            | Sampling P             | oint:QQ             |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moin                                     | e                | Section, Towns    | n, Township, Range: Section 20, T6S, R10W |                  |                        |                     |  |
| Landform (hillslope, terrace, etc.): Terrace                                          |                  | Local relief (cor | ncave, convex, no                         | ne):Concave      |                        | Slope (%):<2        |  |
| Subregion (LRR):C - Mediterranean California                                          | Lat:33           | .6287332594       | Long:-1                                   | 7.94090746       | 1                      | Datum:WGS 84        |  |
| Soil Map Unit Name: Myford sandy loam 9-30% s                                         | slopes, eroded   |                   |                                           | NWI classifi     | cation:NA              |                     |  |
| Are climatic / hydrologic conditions on the site typical                              | for this time of | year?Yes 💽        | No 🔿  (If r                               | no, explain in F | Remarks.)              |                     |  |
| Are Vegetation Soil or Hydrology                                                      | significant      | ly disturbed?     | Are "Normal Ci                            | rcumstances"     | present? Ye            | es 💿 🛛 No 🔿         |  |
| Are Vegetation Soil or Hydrology                                                      | naturally p      | problematic?      | (If needed, exp                           | ain any answe    | ers in Remark          | <s.)< td=""></s.)<> |  |
| SUMMARY OF FINDINGS - Attach site r                                                   | nap showin       | g sampling p      | oint locations                            | , transects      | , importar             | nt features, etc.   |  |
| Hydrophytic Vegetation Present? Yes                                                   | No 💿             |                   |                                           |                  |                        |                     |  |
| Hydric Soil Present? Yes                                                              | Is the Sa        | ampled Area       |                                           |                  |                        |                     |  |
| Wetland Hydrology Present? Yes No  No  Within a Wetland? Yes No  No  Wetland Present? |                  |                   |                                           |                  |                        |                     |  |
| Remarks: Feature is slightly depressed area; no                                       | t a natural dep  | pression.         |                                           |                  |                        |                     |  |

#### VEGETATION

|                                                   | Absolute    |           | nt Indicator | Dominance Test worksheet:         |            |                                              |         |       |  |
|---------------------------------------------------|-------------|-----------|--------------|-----------------------------------|------------|----------------------------------------------|---------|-------|--|
| Tree Stratum (Use scientific names.)              | % Cover     | Species?  | Status       | Number of Dominant Species        |            |                                              |         |       |  |
| 1                                                 |             |           |              | That Are OBL, FAC                 | W, or FA   | C: 0                                         |         | (A)   |  |
| 2.                                                |             |           |              | Total Number of Dominant          |            |                                              |         |       |  |
| 3.                                                |             |           |              | Species Across All S              |            | 4                                            |         | (B)   |  |
| 4.                                                |             |           |              | - Percent of Dominan              | t Spania   |                                              |         |       |  |
| Total Cove                                        | r: %        |           |              | That Are OBL, FAC                 |            | -                                            | %       | (A/B) |  |
| Sapling/Shrub Stratum                             |             |           |              | ,                                 |            | 0.0                                          | /0      | ()    |  |
| 1.Isocoma menziesii                               | 5           | Yes       | UPL          | Prevalence Index v                |            |                                              |         |       |  |
| 2.                                                |             |           |              | Total % Cover of                  | of:        | Multiply                                     | by:     | -     |  |
| 3.                                                |             |           |              | OBL species                       |            | x 1 =                                        | 0       |       |  |
| 4.                                                |             |           |              | FACW species                      |            | x 2 =                                        | 0       |       |  |
| 5.                                                |             |           |              | FAC species                       | 2          | x 3 =                                        | 6       |       |  |
| Total Cover                                       | 5 %         |           |              | FACU species                      | 27         | x 4 =                                        | 108     |       |  |
| Herb Stratum                                      |             |           |              | UPL species                       | 25         | x 5 =                                        | 125     |       |  |
| 1.Bromus hordeaceus                               | 15          | Yes       | FACU         | Column Totals:                    | 54         | (A)                                          | 239     | (B)   |  |
| <sup>2</sup> .Erodium botrys                      | 10          | Yes       | FACU         |                                   |            |                                              |         |       |  |
| <sup>3</sup> . <i>Hirschfeldia incana</i>         | 10          | Yes       | UPL          | Prevalence Inc                    |            | -                                            | 4.43    |       |  |
| 4. Erodium cicutarium                             | 5           | No        | UPL          | Hydrophytic Veget                 |            |                                              |         |       |  |
| 5.Rumex crispus                                   | 2           | No        | FAC          | Dominance Tes                     | st is >50% | 0                                            |         |       |  |
| 6.Vulpia myuros                                   | 2           | No        | FACU         | Prevalence Inde                   | ex is ≤3.0 | ) <sup>1</sup>                               |         |       |  |
| 7. Carduus pycnocephalus                          | 5           | No        | UPL          | Morphological A                   |            | ns <sup>1</sup> (Provide s<br>n a separate s |         | ng    |  |
| 8.                                                |             |           |              | Problematic Hy                    |            |                                              | ,       |       |  |
| Total Cover                                       | 49 %        |           |              |                                   | uropriyuc  | vegetation                                   | cxpiali | )     |  |
| Woody Vine Stratum                                |             |           |              | <sup>1</sup> Indicators of hydric | s coil and | l wotland byd                                | rology  | muet  |  |
| 1                                                 |             |           |              | be present.                       | , 5011 anu | i wellanu nyu                                | lology  | nusi  |  |
| 2                                                 |             |           |              | -                                 |            |                                              |         |       |  |
| Total Cover                                       | : %         |           |              | Hydrophytic<br>Vegetation         |            |                                              |         |       |  |
| % Bare Ground in Herb Stratum 46 % % Cover        | of Biotic C | Crust 0   | %            |                                   | Yes 🔿      | No 💿                                         |         |       |  |
| Remarks: Sampling in August 2011 found the follow | 0           |           |              |                                   | ulata 209  | %, Rumex c                                   | rispus  | 5%,   |  |
| Isocoma menziesii 2%, Croton setigerus 2          | 2% (GLA     | handwritt | ten data for | rm 5-1-12).                       |            |                                              |         |       |  |
|                                                   |             |           |              |                                   |            |                                              |         |       |  |

Vegetation data collected by GLA on 5-1-12 (see original handwritten data form).

| Profile Des                                                                                             | scription: (Describe to                                                                                                                                                                                      | o the de | pth needed to docu                                                                                                                                                                                                             | ment the                                                                                                 | indicator of            | or confiri       | n the absence of indica     | ators.)                                                            |            |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------|------------------|-----------------------------|--------------------------------------------------------------------|------------|
| Depth                                                                                                   | Matrix                                                                                                                                                                                                       |          |                                                                                                                                                                                                                                | x Features                                                                                               |                         |                  |                             |                                                                    |            |
| (inches)                                                                                                | Color (moist)                                                                                                                                                                                                | %        | Color (moist)                                                                                                                                                                                                                  | %                                                                                                        | Type <sup>1</sup>       | Loc <sup>2</sup> | Texture <sup>3</sup>        | Remarks                                                            |            |
| 0-12                                                                                                    | 2.5Y 3/3                                                                                                                                                                                                     | _100     | none                                                                                                                                                                                                                           |                                                                                                          |                         |                  | sandy loam                  |                                                                    |            |
|                                                                                                         |                                                                                                                                                                                                              |          | I=Reduced Matrix.                                                                                                                                                                                                              |                                                                                                          |                         |                  | C=Root Channel, M=Ma        | atrix.                                                             |            |
|                                                                                                         |                                                                                                                                                                                                              |          |                                                                                                                                                                                                                                |                                                                                                          |                         | -                | am, Silty Clay Loam, Silt   |                                                                    | and, Sand. |
| Histosc<br>Histic E<br>Black H<br>Hydrog<br>Stratifie<br>1 cm M<br>Deplete<br>Thick E<br>Sandy<br>Sandy | Epipedon (A2)<br>Histic (A3)<br>gen Sulfide (A4)<br>ed Layers (A5) ( <b>LRR C</b> )<br>Muck (A9) ( <b>LRR D</b> )<br>ed Below Dark Surface<br>Dark Surface (A12)<br>Mucky Mineral (S1)<br>Gleyed Matrix (S4) | )        | RRs, unless otherwise         Sandy Redo         Stripped M         Loamy Muc         Loamy Gle         Depleted M         Redox Darl         Depleted D         Redox Depleted D         Redox Depleted D         Vernal Pool | x (S5)<br>atrix (S6)<br>cky Minera<br>yed Matrix<br>latrix (F3)<br>< Surface<br>ark Surfac<br>ressions ( | (F2)<br>(F6)<br>ce (F7) |                  |                             | ) ( <b>LRR C</b> )<br>D) ( <b>LRR B</b> )<br>(F18)<br>terial (TF2) |            |
| Type:no                                                                                                 | e Layer (if present):                                                                                                                                                                                        |          |                                                                                                                                                                                                                                |                                                                                                          |                         |                  |                             |                                                                    |            |
|                                                                                                         | nches):NA                                                                                                                                                                                                    |          |                                                                                                                                                                                                                                |                                                                                                          |                         |                  | Hydric Soil Present         | ? Yes 🔿 No                                                         |            |
| Ν                                                                                                       | Soil data collected by<br>Myford soils are deep<br>Dudek updated soil                                                                                                                                        | p, mode  | , U                                                                                                                                                                                                                            |                                                                                                          |                         |                  | ).<br>noff, very slow perme | eability, formed on                                                | terraces   |

| Wetland Hydrology Indicators:                                                 |                                                          | Secondary Indicators (2 or more required)            |  |  |
|-------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------|--|--|
| Primary Indicators (any one indicator is sufficient)                          |                                                          | Water Marks (B1) (Riverine)                          |  |  |
| Surface Water (A1)                                                            | Salt Crust (B11)                                         | Sediment Deposits (B2) ( <b>Riverine</b> )           |  |  |
| High Water Table (A2)                                                         | Biotic Crust (B12)                                       | Drift Deposits (B3) ( <b>Riverine</b> )              |  |  |
| Saturation (A3)                                                               | Saturation (A3)     Aquatic Invertebrates (B13)          |                                                      |  |  |
| Water Marks (B1) (Nonriverine)                                                | Water Marks (B1) (Nonriverine)                           |                                                      |  |  |
| Sediment Deposits (B2) (Nonriverine)                                          | Oxidized Rhizospheres along Livi                         | ng Roots (C3) Thin Muck Surface (C7)                 |  |  |
| Drift Deposits (B3) (Nonriverine)                                             | Presence of Reduced Iron (C4)                            | Crayfish Burrows (C8)                                |  |  |
| Surface Soil Cracks (B6)                                                      | Recent Iron Reduction in Plowed                          | Soils (C6) Saturation Visible on Aerial Imagery (C9) |  |  |
| Inundation Visible on Aerial Imagery (B7)                                     | Other (Explain in Remarks)                               | Shallow Aquitard (D3)                                |  |  |
| Water-Stained Leaves (B9)                                                     |                                                          | FAC-Neutral Test (D5)                                |  |  |
| Field Observations:                                                           |                                                          |                                                      |  |  |
| Surface Water Present? Yes 🔿 No 💽                                             | Depth (inches):                                          |                                                      |  |  |
| Water Table Present? Yes O No 💽                                               | Depth (inches):                                          |                                                      |  |  |
| Saturation Present? Yes O No 💽                                                | Depth (inches):                                          | Wetland Hydrology Present? Yes O No 💿                |  |  |
| (includes capillary fringe)<br>Describe Recorded Data (stream gauge, monitori | ng well gerial photos, previous inspec                   |                                                      |  |  |
| Describe Recorded Data (stream gauge, monitori                                | ng wen, aenai protos, previous inspec                    |                                                      |  |  |
|                                                                               |                                                          |                                                      |  |  |
|                                                                               | 6                                                        | ch was 189% of normal and not indicative of "most"   |  |  |
| years. No ponding during 2011-201                                             | •                                                        |                                                      |  |  |
| Hydrology data collected by GLA of                                            |                                                          |                                                      |  |  |
| Wetland hydrology indicators were                                             | g delineations, hydrological monitoring, or fairy shrimp |                                                      |  |  |
| surveys.                                                                      |                                                          |                                                      |  |  |
| US Army Corps of Engineers                                                    |                                                          |                                                      |  |  |

| Project/Site: Newport Banning Ranc          | h                  |                  | _ City/County:Ora | ange County                                  |                 | Sampling Date: 10-4-12 |          |          |
|---------------------------------------------|--------------------|------------------|-------------------|----------------------------------------------|-----------------|------------------------|----------|----------|
| Applicant/Owner: Newport Banning F          | anch LLC           |                  |                   | Stat                                         | e:CA            | Sampling Point:RR      |          |          |
| Investigator(s): J. Davis IV, T. Wotip      | ka, H. Moine       |                  | Section, Towns    | ction, Township, Range:Section 20, T6S, R10W |                 |                        |          |          |
| Landform (hillslope, terrace, etc.): Terra  | ace                |                  | Local relief (cor | ncave, convex, noi                           | ne):Concave     |                        | Slope (% | b):<2    |
| Subregion (LRR):C - Mediterranean           | California         | Lat:33.          | .6283750068       | Long:-11                                     | 7.94054030      |                        | Datum:W  | GS 84    |
| Soil Map Unit Name: Myford sandy lo         | am 9-30% slo       | opes, eroded     |                   |                                              | NWI classific   | ation:NA               |          |          |
| Are climatic / hydrologic conditions on the | ne site typical fo | r this time of y | rear?Yes 💿        | No 🔿 (lf n                                   | o, explain in F | emarks.)               |          |          |
| Are Vegetation Soil or H                    | ydrology           | significantly    | y disturbed?      | Are "Normal Cir                              | cumstances"     | present? Ye            | s 💽      | No 🔿     |
| Are Vegetation Soil or H                    | ydrology           | naturally p      | roblematic?       | (If needed, expl                             | ain any answe   | ers in Remark          | s.)      |          |
| SUMMARY OF FINDINGS - A                     | tach site m        | ap showing       | g sampling po     | pint locations                               | , transects     | , importan             | t featur | es, etc. |
| Hydrophytic Vegetation Present?             | Yes 🔘              | No 💿             |                   |                                              |                 |                        |          |          |
| Hydric Soil Present?                        | Yes 🔵              | No 💿             | Is the Sa         | ampled Area                                  |                 |                        |          |          |
| Wetland Hydrology Present?                  | Yes 🔘              | No 💿             | within a          | Wetland?                                     | Yes 🔿           | No 🖲                   |          |          |
| Remarks: Feature consists of two ti         | re ruts            |                  |                   |                                              |                 |                        |          |          |

|                                                  | Absolute    | Dominant    |           | Dominance Test w                                 | orksheet   | t:                                           |          |       |
|--------------------------------------------------|-------------|-------------|-----------|--------------------------------------------------|------------|----------------------------------------------|----------|-------|
| Tree Stratum (Use scientific names.)             | % Cover     | Species?    | Status    | Number of Dominan                                | t Species  | 6                                            |          |       |
| 1                                                |             |             |           | That Are OBL, FAC                                | W, or FA   | C: 0                                         |          | (A)   |
| 2                                                |             |             |           | Total Number of Dominant                         |            |                                              |          |       |
| 3.                                               |             |             |           | Species Across All S                             |            | 3                                            |          | (B)   |
| 4.                                               |             |             |           | - Percent of Dominan                             | t Spania   |                                              |          |       |
| Total Cove                                       | r: %        |             |           | That Are OBL, FAC                                |            |                                              | %        | (A/B) |
| Sapling/Shrub Stratum                            |             |             |           |                                                  |            | 0.0                                          | /0       | ()    |
| 1                                                |             |             |           | Prevalence Index v                               |            | et:                                          |          |       |
| 2.                                               |             |             |           | Total % Cover of                                 | of:        | Multiply                                     | by:      | -     |
| 3.                                               |             |             |           | OBL species                                      |            | x 1 =                                        | 0        |       |
| 4.                                               |             |             |           | FACW species                                     |            | x 2 =                                        | 0        |       |
| 5.                                               |             |             |           | FAC species                                      | 5          | x 3 =                                        | 15       |       |
| Total Cover                                      | : %         |             |           | FACU species                                     | 65         | x 4 =                                        | 260      |       |
| Herb Stratum                                     |             |             |           | UPL species                                      | 3          | x 5 =                                        | 15       |       |
| <sup>1</sup> .Deinandra fasciculata              | 20          | Yes         | FACU      | Column Totals:                                   | 73         | (A)                                          | 290      | (B)   |
| <sup>2</sup> .Bromus hordeaceus                  | 15          | Yes         | FACU      |                                                  |            |                                              |          |       |
| <sup>3</sup> .Vulpia myuros                      | 25          | Yes         | FACU      | Prevalence Inc                                   |            |                                              | 3.97     |       |
| 4. Erodium botrys                                | 5           | No          | FACU      | Hydrophytic Veget                                |            |                                              |          |       |
| 5. Rumex crispus                                 | 5           | No          | FAC       | Dominance Tes                                    | st is >50% | 0                                            |          |       |
| 6.Centaurea melitensis                           | 2           | No          | UPL       | Prevalence Inde                                  | ex is ≤3.0 | ) <sup>1</sup>                               |          |       |
| 7. Erodium cicutarium                            | 1           | No          | UPL       | Morphological A                                  |            | ns <sup>1</sup> (Provide s<br>n a separate s |          | ng    |
| 8. Bromus rubens                                 |             |             |           | - Problematic Hy                                 |            |                                              | ,        |       |
| Total Cover                                      | 73 %        |             |           |                                                  | uropriyuc  | vegetation                                   | Explain  | )     |
| Woody Vine Stratum                               |             |             |           | 1                                                |            |                                              |          |       |
| 1                                                |             |             |           | <sup>1</sup> Indicators of hydric<br>be present. | soil and   | wetland hyd                                  | rology i | must  |
| 2                                                |             |             |           | -                                                |            |                                              |          |       |
| Total Cover                                      | : %         |             |           | Hydrophytic<br>Vegetation                        |            |                                              |          |       |
| % Bare Ground in Herb Stratum 27 % % Cover       | of Biotic C | Crust 0     | %         |                                                  | Yes ()     | No 🖲                                         |          |       |
| Remarks: Vegetation data collected by GLA on 5-1 | -12 (see d  | original ha | ndwritten | data form).                                      |            |                                              |          |       |
|                                                  |             | -           |           |                                                  |            |                                              |          |       |
|                                                  |             |             |           |                                                  |            |                                              |          |       |

| Profile Des | scription: (Describe t                                                                                                                                                                                                                                                                 | o the de    | pth needed to docur   | nent the   | indicator         | or confirm       | n the absence of indicato           | ors.)                      |  |  |  |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|------------|-------------------|------------------|-------------------------------------|----------------------------|--|--|--|
| Depth       | Matrix                                                                                                                                                                                                                                                                                 |             | -                     | K Feature  |                   |                  |                                     |                            |  |  |  |
| (inches)    | Color (moist)                                                                                                                                                                                                                                                                          | %           | Color (moist)         | %          | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>                | Remarks                    |  |  |  |
| 0-6         | 2.5Y 3/3                                                                                                                                                                                                                                                                               | 100         | none                  |            |                   |                  | sandy loam                          |                            |  |  |  |
|             |                                                                                                                                                                                                                                                                                        |             |                       |            |                   |                  |                                     |                            |  |  |  |
|             | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix. <sup>3</sup> Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand. |             |                       |            |                   |                  |                                     |                            |  |  |  |
| Hydric Soil | Indicators: (Applicable                                                                                                                                                                                                                                                                | e to all Ll | RRs, unless otherwise | noted.)    |                   |                  | Indicators for Problem              | atic Hydric Soils:         |  |  |  |
| Histos      | ol (A1)                                                                                                                                                                                                                                                                                |             | Sandy Redo            | x (S5)     |                   |                  | 1 cm Muck (A9) (LRR C)              |                            |  |  |  |
| Histic E    | Epipedon (A2)                                                                                                                                                                                                                                                                          |             | Stripped Ma           | atrix (S6) |                   |                  | 2 cm Muck (A10) ( <b>LRR B</b> )    |                            |  |  |  |
|             | Histic (A3)                                                                                                                                                                                                                                                                            |             | Loamy Muc             |            | . ,               |                  | Reduced Vertic (F18)                |                            |  |  |  |
|             | gen Sulfide (A4)                                                                                                                                                                                                                                                                       |             | Loamy Gley            |            | (F2)              |                  | Red Parent Material (TF2)           |                            |  |  |  |
|             | ed Layers (A5) (LRR C                                                                                                                                                                                                                                                                  | :)          | Depleted M            | · · ·      | (50)              |                  | Other (Explain in I                 | Remarks)                   |  |  |  |
|             | /luck (A9) (LRR D)                                                                                                                                                                                                                                                                     |             | Redox Dark            |            | . ,               |                  |                                     |                            |  |  |  |
| · · ·       | ed Below Dark Surface                                                                                                                                                                                                                                                                  | e (A11)     | Depleted Da           |            | . ,               |                  |                                     |                            |  |  |  |
|             | Dark Surface (A12)<br>Mucky Mineral (S1)                                                                                                                                                                                                                                               |             | Redox Dep             |            | FO)               |                  | <sup>4</sup> Indicators of hydrophy | utic vogetation and        |  |  |  |
|             | Gleyed Matrix (S4)                                                                                                                                                                                                                                                                     |             |                       | 5 (1 5)    |                   |                  | wetland hydrology                   |                            |  |  |  |
|             | E Layer (if present):                                                                                                                                                                                                                                                                  |             |                       |            |                   |                  |                                     |                            |  |  |  |
| Type:nc     | ,                                                                                                                                                                                                                                                                                      |             |                       |            |                   |                  |                                     |                            |  |  |  |
| · · · _     | nches):NA                                                                                                                                                                                                                                                                              |             |                       |            |                   |                  | Hydric Soil Present?                | Yes 🔿 No 💿                 |  |  |  |
| 1 (         | Soil data collected by                                                                                                                                                                                                                                                                 | GLA         | on 5 1 12 (000 origi  | nolhone    | writton d         | ata form         |                                     |                            |  |  |  |
|             |                                                                                                                                                                                                                                                                                        | ·           | · · ·                 |            |                   |                  | ·                                   | oility, formed on terraces |  |  |  |
|             | Dudek updated soil                                                                                                                                                                                                                                                                     | <b>.</b> .  | atery wen urallied    | 5011S, 111 | culuin lo         | rapiù fui        | non, very slow permeat              | Sinty, formed on terraces  |  |  |  |
| (           | Dudek updated soll                                                                                                                                                                                                                                                                     | type).      |                       |            |                   |                  |                                     |                            |  |  |  |

| Wetland Hydrology Indicators:                           |                                                           | Secondary Indicators (2 or more required)        |  |  |  |
|---------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|--|--|--|
| Primary Indicators (any one indicator is sufficient)    | Primary Indicators (any one indicator is sufficient)      |                                                  |  |  |  |
| Surface Water (A1)                                      | Salt Crust (B11)                                          | Sediment Deposits (B2) ( <b>Riverine</b> )       |  |  |  |
| High Water Table (A2)                                   | Biotic Crust (B12)                                        | Drift Deposits (B3) ( <b>Riverine</b> )          |  |  |  |
| Saturation (A3)                                         | Aquatic Invertebrates (B13)                               | Drainage Patterns (B10)                          |  |  |  |
| Water Marks (B1) (Nonriverine)                          | Hydrogen Sulfide Odor (C1)                                | Dry-Season Water Table (C2)                      |  |  |  |
| Sediment Deposits (B2) (Nonriverine)                    | Oxidized Rhizospheres along Living F                      | Roots (C3) Thin Muck Surface (C7)                |  |  |  |
| Drift Deposits (B3) (Nonriverine)                       | Presence of Reduced Iron (C4)                             | Crayfish Burrows (C8)                            |  |  |  |
| Surface Soil Cracks (B6)                                | Recent Iron Reduction in Plowed Soil                      | s (C6) Saturation Visible on Aerial Imagery (C9) |  |  |  |
| Inundation Visible on Aerial Imagery (B7)               | Visible on Aerial Imagery (B7) Other (Explain in Remarks) |                                                  |  |  |  |
| Water-Stained Leaves (B9)                               |                                                           | FAC-Neutral Test (D5)                            |  |  |  |
| Field Observations:                                     |                                                           |                                                  |  |  |  |
| Surface Water Present? Yes O No 💿                       | Depth (inches):                                           |                                                  |  |  |  |
| Water Table Present? Yes O No 💿                         | Depth (inches):                                           |                                                  |  |  |  |
| Saturation Present? Yes No ( includes capillary fringe) | Depth (inches):                                           | Wetland Hydrology Present? Yes O No •            |  |  |  |
| Describe Recorded Data (stream gauge, monitorin         | g well, aerial photos, previous inspection                | s), if available:                                |  |  |  |
|                                                         |                                                           |                                                  |  |  |  |
| Remarks: Brief ponding during 2011-2012 rain            | fall year which = 189% of normal.                         | No ponding or saturation during 2011-2012 per    |  |  |  |
| GLA wet season survey.                                  | 2                                                         |                                                  |  |  |  |
| Hydrology data collected by GLA of                      | n 5-1-12 (see original handwritten d                      | ata form).                                       |  |  |  |
|                                                         | -                                                         | elineations or hydrological monitoring.          |  |  |  |
|                                                         | Ç                                                         |                                                  |  |  |  |
|                                                         |                                                           |                                                  |  |  |  |

| Project/Site: Newport Banning Ranch                                   | City/County:Oran      | ge County                                           | Sampling Date: 10-4-12       |  |  |
|-----------------------------------------------------------------------|-----------------------|-----------------------------------------------------|------------------------------|--|--|
| Applicant/Owner: Newport Banning Ranch LLC                            |                       | State:CA                                            | Sampling Point:SS            |  |  |
| Investigator(s): J. Davis IV, T. Wotipka, H. Moine                    | Section, Townshi      | p, Range:Section 29, T6S                            | , R10W                       |  |  |
| Landform (hillslope, terrace, etc.): Terrace                          | Local relief (conc    | Local relief (concave, convex, none): Concave Slope |                              |  |  |
| Subregion (LRR):C - Mediterranean California                          | Lat:33.6276786323     | Long:-117.940731                                    | Datum: WGS 84                |  |  |
| Soil Map Unit Name: Myford sandy loam 2-9% slopes                     |                       | NWI class                                           | ification:NA                 |  |  |
| Are climatic / hydrologic conditions on the site typical for this t   | time of year? Yes 💿   | No 🔿 (If no, explain ii                             | n Remarks.)                  |  |  |
| Are Vegetation Soil or Hydrology Sig                                  | nificantly disturbed? | Are "Normal Circumstances                           | s" present? Yes 💿 No 🔿       |  |  |
| Are Vegetation Soil or Hydrology na                                   | turally problematic?  | (If needed, explain any ans                         | wers in Remarks.)            |  |  |
| SUMMARY OF FINDINGS - Attach site map sh                              | nowing sampling poi   | nt locations, transec                               | ts, important features, etc. |  |  |
| Hydrophytic Vegetation Present? Yes No<br>Hydric Soil Present? Yes No |                       | apled Area                                          |                              |  |  |
| Wetland Hydrology Present? Yes No                                     |                       | npled Area<br>/etland? Yes(                         | No (                         |  |  |

Remarks:

|                                                   | Absolute    | Dominant    | Indicator | Dominance Test w                                             | orksheet   | t:                                           | -          |       |
|---------------------------------------------------|-------------|-------------|-----------|--------------------------------------------------------------|------------|----------------------------------------------|------------|-------|
| Tree Stratum (Use scientific names.)              | % Cover     | Species?    | Status    | Number of Dominar                                            | nt Species | S                                            |            |       |
| 1.                                                |             |             |           | That Are OBL, FAC                                            | W, or FA   | C: 0                                         |            | (A)   |
| 2.                                                |             |             |           | Total Number of Do                                           | minant     |                                              |            |       |
| 3.                                                |             |             |           | Species Across All                                           |            | 2                                            |            | (B)   |
| 4.                                                |             |             |           |                                                              |            | -                                            |            |       |
| <br>Total Cover                                   | %           |             |           | <ul> <li>Percent of Dominar<br/>That Are OBL, FAC</li> </ul> |            | -                                            | %          | (A/B) |
| Sapling/Shrub Stratum                             | . ,,,       |             |           |                                                              | w, or 170  | 0.0                                          | %0         | (~D)  |
| 1.                                                |             |             |           | Prevalence Index                                             | workshee   | et:                                          |            |       |
| 2.                                                |             |             |           | Total % Cover                                                | of:        | Multiply                                     | by:        | _     |
| 3.                                                |             |             |           | OBL species                                                  |            | x 1 =                                        | 0          |       |
| 4.                                                |             |             |           | FACW species                                                 |            | x 2 =                                        | 0          |       |
| 5.                                                |             |             |           | FAC species                                                  | 1          | x 3 =                                        | 3          |       |
| Total Cover                                       | %           |             |           | FACU species                                                 | 20         | x 4 =                                        | 80         |       |
| Herb Stratum                                      |             |             |           | UPL species                                                  | <u> </u>   | x 5 =                                        | 335        |       |
| <sup>1</sup> .Vulpia myuros                       | 20          | Yes         | FACU      | Column Totals:                                               | 88         | (A)                                          | 418        | (B)   |
| <sup>2</sup> .Acmispon glaber                     | 45          | Yes         | UPL       |                                                              |            |                                              |            |       |
| 3. Isocoma menziesii                              | 15          | No          | UPL       | Prevalence In                                                |            |                                              | 4.75       |       |
| 4. Centaurea melitensis                           | 5           | No          | UPL       | Hydrophytic Veget                                            |            |                                              |            |       |
| 5.Rumex crispus                                   | 1           | No          | FAC       | Dominance Tes                                                |            |                                              |            |       |
| 6. <i>Heterotheca grandiflora</i>                 | 2           | No          | UPL       | Prevalence Ind                                               |            |                                              |            |       |
| 7.                                                |             |             |           | Morphological /                                              | Adaptatio  | ns <sup>1</sup> (Provide s<br>n a separate s | supporting | ng    |
| 8.                                                |             |             |           |                                                              |            | •                                            | ,          | `     |
| Total Cover                                       | 88 %        |             |           | Problematic Hy                                               | arophytic  | vegetation (                                 | Explain    | )     |
| Woody Vine Stratum                                | 00 /0       |             |           | 1                                                            |            |                                              |            |       |
| 1                                                 |             |             |           | <sup>1</sup> Indicators of hydric<br>be present.             | c soil and | i wetland hyd                                | rology r   | nust  |
| 2                                                 |             |             |           | -                                                            |            |                                              |            |       |
| Total Cover                                       | : %         |             |           | Hydrophytic<br>Vegetation                                    |            |                                              |            |       |
| % Bare Ground in Herb Stratum 12 % % Cover        | of Biotic C | Crust       | %         | Present?                                                     | Yes 🔿      | No 🖲                                         |            |       |
| Remarks: Vegetation data collected by GLA on 5-1- | -12 (see c  | original ha | ndwritten | data form).                                                  |            |                                              |            |       |
|                                                   |             |             |           |                                                              |            |                                              |            |       |
|                                                   |             |             |           |                                                              |            |                                              |            |       |

| Profile Des                                                                           | scription: (Describe to                                                                                                                                         | o the de | oth needed to docur                                                                                            | nent the                                                                                         | indicator o             | or confirm       | m the absence of indicators.)                                                                                                                                                                                            |          |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Depth                                                                                 | Matrix                                                                                                                                                          |          | Redox                                                                                                          | Features                                                                                         | S                       |                  |                                                                                                                                                                                                                          |          |
| (inches)                                                                              | Color (moist)                                                                                                                                                   | %        | Color (moist)                                                                                                  | %                                                                                                | Type <sup>1</sup>       | Loc <sup>2</sup> | Texture <sup>3</sup> Remarks                                                                                                                                                                                             |          |
| 0-6                                                                                   | 2.5Y 3/3                                                                                                                                                        | 100      | none                                                                                                           |                                                                                                  |                         |                  | sandy loam                                                                                                                                                                                                               |          |
|                                                                                       |                                                                                                                                                                 |          | =Reduced Matrix                                                                                                |                                                                                                  |                         |                  |                                                                                                                                                                                                                          |          |
|                                                                                       | •                                                                                                                                                               |          |                                                                                                                |                                                                                                  |                         |                  | am, Silty Clay Loam, Silt Loam, Silt, Loamy Sand                                                                                                                                                                         | l, Sand. |
| Histoso<br>Histic E<br>Black H<br>Hydrog<br>Stratifie<br>1 cm M<br>Deplete<br>Thick E | Epipedon (A2)<br>Histic (A3)<br>gen Sulfide (A4)<br>ed Layers (A5) ( <b>LRR C</b><br>/luck (A9) ( <b>LRR D</b> )<br>ed Below Dark Surface<br>Dark Surface (A12) | )        | Sandy Redo:<br>Stripped Ma<br>Loamy Muc<br>Loamy Gley<br>Depleted M<br>Redox Dark<br>Depleted Da<br>Redox Depl | (S5)<br>ttrix (S6)<br>ky Minera<br>ed Matrix<br>atrix (F3)<br>Surface<br>ark Surfac<br>essions ( | (F2)<br>(F6)<br>ce (F7) |                  | Indicators for Problematic Hydric Soils <sup>4</sup> :          1 cm Muck (A9) (LRR C)         2 cm Muck (A10) (LRR B)         Reduced Vertic (F18)         Red Parent Material (TF2)         Other (Explain in Remarks) |          |
| · · ·                                                                                 | Mucky Mineral (S1)<br>Gleyed Matrix (S4)                                                                                                                        |          | Vernal Pool                                                                                                    | 5(19)                                                                                            |                         |                  | wetland hydrology must be present.                                                                                                                                                                                       |          |
| Restrictive                                                                           | Layer (if present):                                                                                                                                             |          |                                                                                                                |                                                                                                  |                         |                  |                                                                                                                                                                                                                          |          |
| Type: <u>no</u><br>Depth (i                                                           | nches):NA                                                                                                                                                       |          |                                                                                                                |                                                                                                  |                         |                  | Hydric Soil Present? Yes O No (                                                                                                                                                                                          | Đ        |
| Ν                                                                                     | Soil data collected by<br>Myford soils are dee<br>Dudek updated soil                                                                                            | p, mode  |                                                                                                                |                                                                                                  |                         |                  | n).<br>noff, very slow permeability, formed on te                                                                                                                                                                        | rraces   |

| Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine)                               |   |
|----------------------------------------------------------------------------------------------------------------|---|
| Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine)                                          |   |
| High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine)                                        |   |
| Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10)                                            |   |
| Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)                          |   |
| Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7)      |   |
| Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)                          |   |
| Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9   | ) |
| Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)                     |   |
| Water-Stained Leaves (B9)                                                                                      |   |
| Field Observations:                                                                                            |   |
| Surface Water Present? Yes No      No      Depth (inches):                                                     |   |
| Water Table Present? Yes No      No      Depth (inches):                                                       |   |
| Saturation Present? Yes No  Pepth (inches): Wetland Hydrology Present? Yes No  No  No                          |   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:     |   |
|                                                                                                                |   |
| Remarks:Brief ponding during excessive rainfall year of 2010/2011 (189% of normal).                            |   |
| No ponding in 2011/2012 or soil saturation per GLA wet season survey.                                          |   |
| Hydrology data collected by GLA on 5-1-12 (see original handwritten data form).                                |   |
| Wetland hydrology indicators were not observed in this feature during delineations or hydrological monitoring. |   |
|                                                                                                                |   |
| US Army Corps of Engineers                                                                                     |   |

| Project/Site: Newport Banning Rand        | City/County:Ora     | inge County        | Sampling                                       | Date:10-4-12      |               |             |                    |  |
|-------------------------------------------|---------------------|--------------------|------------------------------------------------|-------------------|---------------|-------------|--------------------|--|
| Applicant/Owner: Newport Banning          |                     | Sta                | e:CA                                           | Sampling          | Point:TT      |             |                    |  |
| Investigator(s): J. Davis IV, T. Wotij    | pka, H. Moine       |                    | Section, Township, Range:Section 29, T6S, R10W |                   |               |             |                    |  |
| Landform (hillslope, terrace, etc.): Terr | race                |                    | Local relief (cor                              | ncave, convex, no | ne):Concave   | e           | Slope (%):<2       |  |
| Subregion (LRR):C - Mediterranean         | 6274285121          | Long:-11           | 7.9408140                                      | 53                | Datum:WGS 84  |             |                    |  |
| Soil Map Unit Name: Myford sandy 1        | oam 2-9% slop       | pes                |                                                |                   | NWI classif   | ication:NA  |                    |  |
| Are climatic / hydrologic conditions on   | the site typical fo | or this time of ye | ear? Yes 💽                                     | No 🔿 (If r        | o, explain in | Remarks.)   |                    |  |
| Are Vegetation Soil or I                  | Hydrology           | significantly      | v disturbed?                                   | Are "Normal Cir   | cumstances'   | present? Y  | Yes 💿 No 🔿         |  |
| Are Vegetation Soil or I                  | Hydrology           | naturally pr       | oblematic?                                     | (If needed, expl  | ain any answ  | ers in Rema | rks.)              |  |
| SUMMARY OF FINDINGS - A                   | ttach site ma       | ap showing         | sampling po                                    | pint locations    | , transects   | s, importa  | int features, etc. |  |
| Hydrophytic Vegetation Present?           | Yes 🔘               | No 💿               |                                                |                   |               |             |                    |  |
| Hydric Soil Present?                      | Yes 🕥               | No 💿               | Is the Sa                                      | mpled Area        |               |             |                    |  |
| Wetland Hydrology Present?                | within a            | Wetland?           | Yes 🔿                                          | No 🤅              | Ð             |             |                    |  |
| Remarks: Feature is low area in fo        | rmer asphalt re     | badway where       | e asphalt has de                               | eteriorated       |               |             |                    |  |
|                                           |                     |                    |                                                |                   |               |             |                    |  |

|                                                  | Absolute    | Dominant    |           | Dominance Test w                       | vorkshee                | t:                       |                          |       |
|--------------------------------------------------|-------------|-------------|-----------|----------------------------------------|-------------------------|--------------------------|--------------------------|-------|
| Tree Stratum (Use scientific names.) 1           | % Cover     | Species?    | Status    | Number of Dominar<br>That Are OBL, FAC |                         |                          | 0                        | (A)   |
| 2                                                |             |             |           | Total Number of Do                     | ominant                 |                          |                          |       |
| 3                                                |             |             |           | Species Across All                     | Strata:                 |                          | 3                        | (B)   |
| 4                                                |             |             |           | Percent of Dominar                     | nt Species              | 5                        |                          |       |
| Total Cover<br>Sapling/Shrub Stratum             | r: %        |             |           | That Are OBL, FAC                      | W, or FA                | C:                       | 0.0 %                    | (A/B) |
| 1.                                               |             |             |           | Prevalence Index                       | workshee                | et:                      |                          |       |
| 2.                                               |             |             |           | Total % Cover                          | of:                     | Mult                     | iply by:                 |       |
| 3.                                               |             |             |           | OBL species                            |                         | x 1 =                    | 0                        |       |
| 4                                                |             |             |           | FACW species                           |                         | x 2 =                    | 0                        |       |
| 5.                                               | ·           | ·           |           | FAC species                            | 10                      | x 3 =                    | 30                       |       |
| Total Cover                                      | %           |             |           | FACU species                           | 60                      | x 4 =                    | 240                      |       |
| Herb Stratum                                     |             |             |           | UPL species                            | 15                      | x 5 =                    | 75                       |       |
| 1.Bromus hordeaceus                              | 40          | Yes         | FACU      | Column Totals:                         | 85                      | (A)                      | 345                      | (B)   |
| 2. Isocoma menziesii                             | 15          | Yes         | UPL       |                                        |                         |                          |                          |       |
| <sup>3</sup> . <i>Melilotus indicus</i>          | 15          | Yes         | FACU      | Prevalence In                          |                         |                          | 4.06                     |       |
| 4. Erodium botrys                                | 5           | No          | FACU      | Hydrophytic Vege                       |                         |                          |                          |       |
| 5. Rumex crispus                                 | 10          | No          | FAC       | Dominance Te                           |                         |                          |                          |       |
| 6                                                |             |             |           | Prevalence Ind                         |                         |                          |                          |       |
| 7                                                |             |             |           | Morphological<br>data in Rem           | Adaptatio<br>harks or o | ns' (Provi<br>n a separa | de support<br>ate sheet) | ng    |
| 8                                                |             |             |           | Problematic Hy                         |                         |                          |                          | 1)    |
| Total Cover<br>Woody Vine Stratum                | 85 %        |             |           |                                        |                         |                          | (                        | ,     |
| 1.                                               |             |             |           | <sup>1</sup> Indicators of hydrid      | c soil and              | l wetland                | hvdroloav                | must  |
| 2.                                               |             |             |           | be present.                            |                         |                          | j · · ·                  |       |
| Z<br>Total Cover                                 | . %         |             |           | Hydrophytic                            |                         |                          |                          |       |
|                                                  | of Biotic C | Crust       | %         | Vegetation<br>Present?                 | Yes 🔿                   | No                       | $\odot$                  |       |
| Remarks: Vegetation data collected by GLA on 5-1 | -12 (see d  | original ha | ndwritten | data form).                            |                         |                          |                          |       |
|                                                  |             | -           |           |                                        |                         |                          |                          |       |
|                                                  |             |             |           |                                        |                         |                          |                          |       |
|                                                  |             |             |           |                                        |                         |                          |                          |       |

|                                                                                                                     |                         |           |                      |                       |                   |                  |                           | - 1° 5 - °             |                |
|---------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|----------------------|-----------------------|-------------------|------------------|---------------------------|------------------------|----------------|
| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                         |           |                      |                       |                   |                  |                           |                        |                |
| Depth                                                                                                               | Matrix                  |           | Redo                 | x Features            | S                 |                  |                           |                        |                |
| (inches)                                                                                                            | Color (moist)           | %         | Color (moist)        | %                     | Type <sup>1</sup> | Loc <sup>2</sup> | Texture <sup>3</sup>      | Rema                   | ırks           |
| 0-6                                                                                                                 | 2.5Y 3/3                | 100       | none                 |                       |                   |                  | sandy loam                |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
|                                                                                                                     |                         |           |                      |                       |                   |                  |                           |                        |                |
| <sup>1</sup> Type: C=0                                                                                              | Concentration, D=Deple  | etion, RM | Reduced Matrix.      | <sup>2</sup> Locatior | n: PL=Pore        | Linina. R        | C=Root Channel, N         | M=Matrix.              |                |
| 51                                                                                                                  | es: Clay, Silty Clay, S |           |                      |                       |                   |                  |                           |                        | ny Sand, Sand. |
|                                                                                                                     | Indicators: (Applicable | -         |                      |                       | -                 | -                |                           | Problematic Hydric So  | -              |
| Histoso                                                                                                             |                         |           | Sandy Redo           |                       |                   |                  |                           | (A9) ( <b>LRR C</b> )  |                |
| Histic E                                                                                                            | Epipedon (A2)           |           | Stripped Ma          | atrix (S6)            |                   |                  | 2 cm Muck                 | (A10) ( <b>LRR B</b> ) |                |
| Black H                                                                                                             | Histic (A3)             |           | Loamy Muc            | ky Minera             | al (F1)           |                  | Reduced V                 | /ertic (F18)           |                |
| Hydrog                                                                                                              | jen Sulfide (A4)        |           | Loamy Gley           | ed Matrix             | (F2)              |                  | Red Parent Material (TF2) |                        |                |
| Stratifie                                                                                                           | ed Layers (A5) (LRR C   | )         | Depleted M           | atrix (F3)            |                   |                  | Other (Exp                | olain in Remarks)      |                |
| 1 cm N                                                                                                              | luck (A9) (LRR D)       |           | Redox Dark           | Surface               | (F6)              |                  |                           |                        |                |
| Deplete                                                                                                             | ed Below Dark Surface   | (A11)     | Depleted D           | ark Surfac            | ce (F7)           |                  |                           |                        |                |
|                                                                                                                     | Dark Surface (A12)      |           | Redox Dep            |                       | F8)               |                  |                           |                        |                |
| -                                                                                                                   | Mucky Mineral (S1)      |           | Vernal Poo           | s (F9)                |                   |                  |                           | ydrophytic vegetatior  |                |
|                                                                                                                     | Gleyed Matrix (S4)      |           |                      |                       |                   |                  | wetland hyd               | frology must be prese  | nt.            |
| Restrictive                                                                                                         | Layer (if present):     |           |                      |                       |                   |                  |                           |                        |                |
| Type:no                                                                                                             | ne                      |           |                      |                       |                   |                  |                           |                        |                |
| Depth (in                                                                                                           | nches):NA               |           |                      |                       |                   |                  | Hydric Soil Pre           | esent? Yes 🔿           | No 💿           |
| Remarks: S                                                                                                          | Soil data collected by  | y GLA o   | on 5-1-12 (see origi | inal hand             | lwritten d        | ata form         | l).                       |                        |                |
| Ν                                                                                                                   | Ayford soils are deep   | p, mode   | rately well drained  | soils, m              | edium to          | rapid rur        | noff, very slow p         | ermeability, forme     | d on terraces  |
| (                                                                                                                   | Dudek updated soil      | type).    | -                    |                       |                   | -                |                           | -                      |                |
| `                                                                                                                   | *                       | • • •     |                      |                       |                   |                  |                           |                        |                |

| Wetland Hydrology Indicators:                                                            | Secondary Indicators (2 or more required)           |
|------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Primary Indicators (any one indicator is sufficient)                                     | Water Marks (B1) ( <b>Riverine</b> )                |
| Surface Water (A1) Salt Crust (B11)                                                      | Sediment Deposits (B2) ( <b>Riverine</b> )          |
| High Water Table (A2) Biotic Crust (B12)                                                 | Drift Deposits (B3) ( <b>Riverine</b> )             |
| Saturation (A3)                                                                          | Drainage Patterns (B10)                             |
| Water Marks (B1) (Nonriverine)                                                           | Dry-Season Water Table (C2)                         |
| Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living                  | Roots (C3) Thin Muck Surface (C7)                   |
| Drift Deposits (B3) (Nonriverine)                                                        | Crayfish Burrows (C8)                               |
| Surface Soil Cracks (B6)                                                                 | bils (C6) Saturation Visible on Aerial Imagery (C9) |
| Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)                     | Shallow Aquitard (D3)                               |
| Water-Stained Leaves (B9)                                                                | FAC-Neutral Test (D5)                               |
| Field Observations:                                                                      |                                                     |
| Surface Water Present? Yes No      Depth (inches):                                       |                                                     |
| Water Table Present? Yes O No O Depth (inches):                                          |                                                     |
| Saturation Present? Yes No  Depth (inches):                                              | Netland Hydrology Present? Yes 🔿 No 💿               |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspectio | ns), if available:                                  |
|                                                                                          |                                                     |
| Remarks:Brief ponding during 2010/2011 which accounted for 189% of normal                | rainfall - No ponding or saturation in 2011/2012    |
| monitoring period per GLA wet season survey.                                             |                                                     |
| Hydrology data collected by GLA on 5-1-12 (see original handwritten                      | data form).                                         |
| Wetland hydrology indicators were not observed in this feature during                    | delineations or hydrological monitoring.            |
|                                                                                          |                                                     |
| US Army Corps of Engineers                                                               |                                                     |
| JS Army Corps of Engineers                                                               |                                                     |





Photo 1. Feature VP1 during wet conditions in 2000 (GLA).



Photo 2. Feature VP1 during wet conditions with native mulefat (*Baccharis salicifolia*) in 2010 (GLA).



Photo 3. Feature VP1 during dry conditions with non-native annual rabbitsfoot grass (*Polypogon monspeliensis*) and native mulefat (GLA).



Photo 4. Feature VP1 during dry conditions with non-native annual rabbitsfoot grass and native mulefat (GLA).



Photo 5. Feature VP2 during wet conditions (GLA).



Photo 6. Feature VP2 during dry conditions with non-native vegetation (GLA).



Photo 7. Feature VP3 during wet conditions in 2010 (GLA).



Photo 8. Feature VP3 during dry conditions (GLA).

DUDEK



Photo 9. Feature A during wet conditions in 2008 (GLA).



Photo 10. Feature B during wet conditions (GLA).



Photo 11. Feature B during wet conditions (GLA).



Photo 12. Feature C during a dry conditions (GLA).

DUDEK



Photo 13. Feature C during wet conditions (GLA).



Photo 14. Feature D during dry conditions (GLA).



Photo 15. Feature F during dry conditions (GLA).



Photo 16. Feature G during dry conditions (GLA).

DUDEK



Photo 17. Feature H during dry conditions in November 2012 (Dudek).



Photo 18. Feature I during dry conditions (GLA).



Photo 19. Feature J supporting a predominance of non-native vegetation (GLA).



Photo 20. Feature J supporting a predominance of non-native vegetation (GLA).



Photo 21. Feature K supporting a predominance of non-native vegetation (GLA).



Photo 22. Feature K supporting a predominance of non-native vegetation during November 2012 (Dudek).



Photo 23. Feature L supporting upland vegetation (GLA).



Photo 24. Feature L supporting upland vegetation during November 2012 (Dudek).



Photo 25. Feature M during dry conditions (GLA).



Photo 26. Feature M during dry conditions (GLA).



Photo 27. Feature M during dry conditions in November 2012 (Dudek).



Photo 28. Feature N during dry conditions (GLA).



Photo 29. Feature N during dry conditions (GLA).



Photo 30. Feature N during dry conditions in November 2012 (Dudek).



Photo 31. Feature O during dry conditions in November 2012 (Dudek).



Photo 32. Feature P soil remediation area (GLA).



Photo 33. Feature P soil remediation area (GLA).



Photo 34. Feature P during dry conditions in November 2012 (Dudek).



Photo 35. Feature Q in earthen road shoulder during dry conditions (GLA).



Photo 36. Feature Q in earthen road shoulder during dry conditions (GLA).



Photo 37. Feature R roadside feature during dry conditions (GLA).



Photo 38. Feature R roadside feature during dry conditions in November 2012 (Dudek).



Photo 39. Feature S during wet conditions (GLA).



Photo 40. Feature S during dry conditions (GLA).



Photo 41. Feature S during dry conditions in November 2012 (Dudek).



Photo 42. Feature T low area along major access road during wet conditions (GLA).



Photo 43. Feature T low area along major access road during wet conditions (GLA).



Photo 44. Feature U unvegetated asphalt parking area during wet conditions (GLA).



Photo 45. Feature U unvegetated asphalt parking area during dry conditions (GLA).



Photo 46. Feature V during wet conditions (GLA).



Photo 47. Feature V during wet conditions (GLA).



Photo 48. Feature V during dry conditions in October 2012 (Dudek).



Photo 49. Feature W supporting a predominance of non-native vegetation (GLA).



Photo 50. Feature X during wet conditions (GLA).



Photo 51. Feature X during dry conditions (GLA).



Photo 52. Feature Y during dry conditions (GLA).



Photo 53. Feature Z during dry conditions (GLA).



Photo 54. Feature Z during dry conditions (GLA).



Photo 55. Feature AA during dry conditions in November 2012 (Dudek).



Photo 56. Feature BB during dry conditions in November 2012 (Dudek).



Photo 57. Feature CC during wet conditions (GLA).



Photo 58. Feature CC during dry conditions in November 2012 (Dudek).



Photo 59. Feature CC depicted as a pit excavated to repair a pipeline (GLA).



Photo 60. Feature DD during dry conditions in November 2012 (Dudek).



Photo 61. Feature EE within an oil well pad supporting a predominance of upland vegetation (GLA).



Photo 62. Feature FF during dry conditions in November 2012 (Dudek).



Photo 63. Feature GG during wet conditions (GLA).



Photo 64. Feature GG during wet conditions (GLA).



Photo 65. Feature GG during dry conditions in November 2012 (Dudek).



Photo 66. Feature HH during dry conditions in November 2012 (Dudek).



Photo 67. Feature II during dry conditions in November 2012 (Dudek).



Photo 68. Feature JJ during dry conditions in November 2012 (Dudek).



Photo 69. Feature KK during dry conditions in October 2012 (Dudek).



Photo 70. Feature LL during dry conditions in November 2012 (Dudek).



Photo 71. Feature MM during dry conditions in October 2012 (Dudek).



Photo 72. Feature NN during dry conditions in October 2012 (Dudek).



Photo 73. Feature OO during dry conditions in November 2012 (Dudek).



Photo 74. Feature PP during dry conditions in November 2012 (Dudek).



Photo 75. Feature QQ during dry conditions (GLA).



Photo 76. Feature QQ during dry conditions (GLA).



Photo 77. Feature RR during dry conditions (GLA).



Photo 78. Feature SS during dry conditions (GLA).



Photo 79. Feature SS during dry conditions (GLA).



Photo 80. Feature TT during dry conditions (GLA).



Photo 81. Feature TT during dry conditions (GLA).

## APPENDIX B Photo Plates

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