

APPENDIX B – SUPPLEMENTAL REPORTS

1. OPERATING AGREEMENT AMENDMENT
2. BIOLOGICAL MEMORANDUM, RACHEL TIERNEY CONSULTING
3. BIOLOGICAL RESOURCES REPORT, VJS CONSULTING
4. WETLAND DELINEATION REPORT, RINCON CONSULTANTS
5. WATER SAMPLE ANALYSIS, FGL ENVIRONMENTAL
6. BIOSWALE REPORT, PENFIELD & SMITH
7. EXTENDED PHASE 1 ARCHAEOLOGICAL REPORT, DUDEK
8. ARCHAEOLOGICAL “LETTER REPORT”, WESTERN POINTS ARCHAEOLOGY
9. UNION PACIFIC RAILROAD PHASE I SITE ASSESSMENT, GEOMATRIX
10. UNION PACIFIC RAILROAD PHASE II SITE ASSESSMENT, GEOMATRIX

100 Linden Field



State of California • The Resources Agency

Arnold Schwarzenegger, Governor

DEPARTMENT OF PARKS AND RECREATION • P.O. Box 942896 • Sacramento, CA 94296-0001
Concessions, Reservations and Fees Division
(916) 653-7733

Ruth Coleman, Director

October 18, 2007

Matthew Roberts
Director, Parks and Recreation
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, California 93013

Dear Mr. Roberts,

Enclosed is the executed copy of Amendment No. 1 to the Operating Agreement between California State Parks and the City of Carpinteria regarding the development and operation of a Chumash Indian village children's interpretive play area and a non-motorized public trail. This amendment also includes additional lands to the premises at Carpinteria State Beach – Linden Field, for which the City is responsible.

If you have any questions, please call me at (916) 654-8924 or e-mail lblank@parks.ca.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Laurie Blankenship".

Laurie Blankenship
Concessions Specialist

Enclosure

RECEIVED

OCT 22 2007

CITY OF CARPINTERIA

AMENDMENT NO. 1
TO OPERATING AGREEMENT
WITH THE
CITY OF CARPENTERIA
FOR THE OPERATION OF
CARPINTERIA STATE BEACH - LINDEN FIELD
LOCATED IN
SANTA BARBARA COUNTY, CALIFORNIA

THIS AGREEMENT TO AMEND is made and entered into by and between the STATE OF CALIFORNIA, acting through its Department of Parks and Recreation, hereinafter referred to as "State", and the CITY OF CARPINTERIA, a Municipal Corporation, hereinafter, referred to as "City";

WHEREAS, pursuant to the California Public Resources Code Section 5080.30, an operating agreement ("Agreement") was entered into on the 1st day of September 2004, by and between the State and City for the care, maintenance, administration, and control of Lands under the jurisdiction of State for the purpose of the state park system; and

WHEREAS, State has acquired for park and recreational purposes certain real properties known as Carpinteria State Beach – Linden Field located within Santa Barbara County; and

WHEREAS, State and City entered into an Agreement to provide for the daily operation and financial management of Carpinteria State Beach – Linden Field and the day use parking lot located within Carpinteria State Beach during the summer months, and winter and holiday weekends, by City; and

WHEREAS, it is the intent of the parties hereto to include additional lands to said Agreement, herein described through this Amendment No. 1;

NOW THEREFORE, IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

Add to Paragraph 1, Premises, as follows:

“Pursuant to Amendment #1 of this Agreement, State and City agree to include additional property to the Premises for which City is responsible, as identified in the attached Exhibits A1 and A2.”

Add to Paragraph 3, Use of Premises, A., as follows:

“City shall develop and operate a Chumash Indian Village children’s interpretive play area and a nonmotorized public trail on property identified in Exhibits A1 and A2. Features within the play area shall include, but are not limited to, canoes, and simulated Indian huts. City shall obtain State’s written approval prior to construction and conform to all requirements as provided in Paragraph 5, “Alterations, Completion, And Ownership of Improvements” of this Agreement.

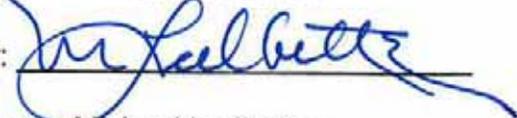
All other terms and conditions of said operating agreement shall remain the same and in full force and effect.

The effective date of this amendment shall be the first day of the month following all required signatures and approvals by State as shown below.

This amendment is executed in counterparts, each of which shall be deemed an original.

IN WITNESS WHEREOF, the parties hereto warrant that they respectively have the requisite authority to execute this instrument binding the named parties for which they sign.

CITY OF CARPINTERIA

By: 

Name: Michael Ledbetter

Title: Mayor

Date: 9-7-07

SECRETARY

By: 

Date: 9-7-07

**STATE OF CALIFORNIA
DEPT. OF PARKS AND RECREATION
DIRECTOR**

By: 

Name: Ruth Coleman

Date: _____

APPROVED:

DEPARTMENT OF GENERAL SERVICES:


APPROVED
OCT 15 2007
DEPT. OF GENERAL SERVICES


Exhibit A1

A portion of land in the City of Carpinteria, County of Santa Barbara, State of California, being a portion of that parcel of land granted to the State of California Department of Parks and Recreation per Grant Deed recorded June 13, 2000 as Document Number 2000-0036125 of Official Records in the Office of the County Recorder of said County.

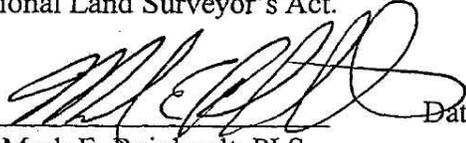
Said portion of land is described as follows:

Beginning at the most westerly corner of said State Parcel of land, thence;

- 1st along the southwesterly boundary of said State Parcel S 33° 28' 29" E, 279.52 feet, thence;
- 2nd perpendicular to said southwesterly boundary N 56° 31' 31" E, 75.00 feet to a point on the northeasterly boundary of said State Parcel, thence;
- 3rd along said northeasterly boundary N 33° 28' 29" W, 292.71 feet to the most northerly corner of said State Parcel, thence;
- 4th along the northwesterly boundary of said State Parcel, S 46° 32' 52" W, 76.15 feet to the point of beginning.

Containing approximately 21,458 square feet of which 3,046 lies within the right of way of Linden Avenue as referenced in said Grant Deed.

This real property description was prepared by me, or under my direction, in conformance with the Professional Land Surveyor's Act.

Signature: 

Date: 3-5-04

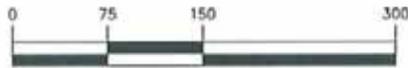
Mark E. Reinhardt, PLS



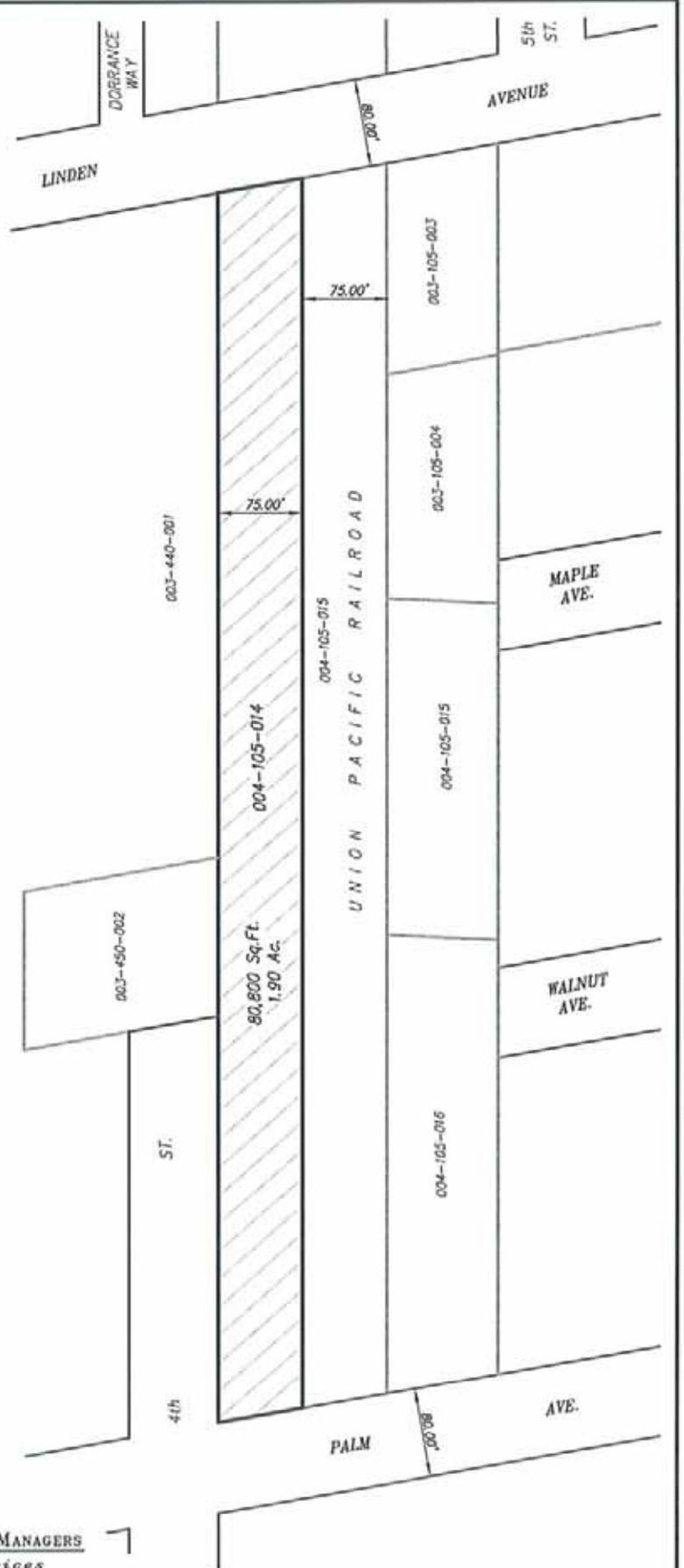
EXHIBIT A2
DIAGRAM SHOWING THE
PORTION OF LAND DESCRIBED
IN ATTACHED LEGAL DESCRIPTION
(EXHIBIT "A")



GRAPHIC SCALE



(IN FEET)
 1 inch = 150 ft.



Sep 05, 2007 - 12:56pm P. Chp CC611 CAD CC611.dwg CC611_EXB-1.dwg

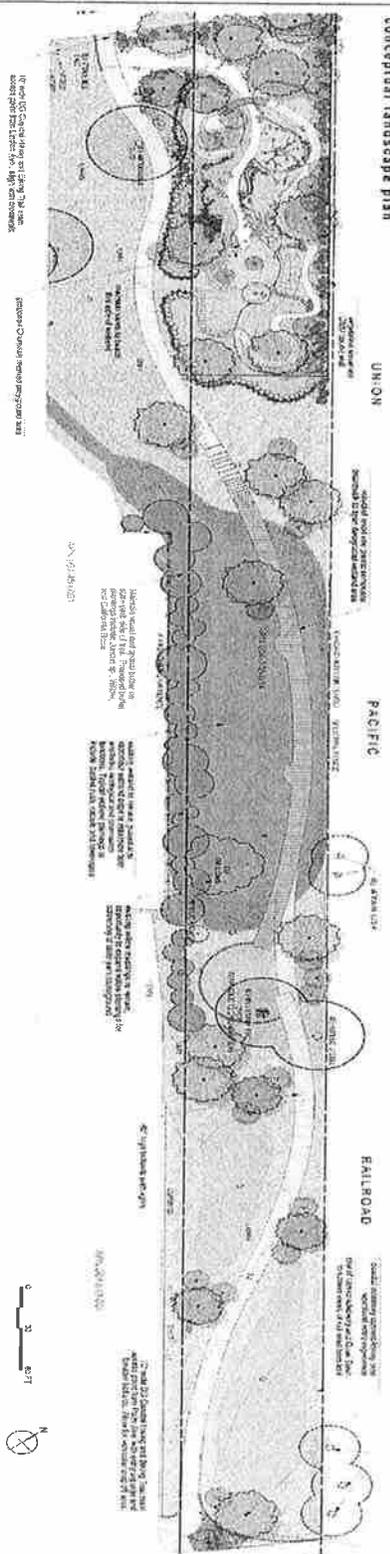
MNS ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
 ENGINEERS INC *Quality Infrastructure Services*

4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
 TELEPHONE (805) 692-6921 FAX. (805) 692-6931

CC611-525 • CC611_EXB-3.DWG • 09/07 • TR • E-FILE



conceptual landscape plan



landscape legend



Linden and Palm Ave.
 Carpinteria, California
 Sept. 5, 2005
 Drawn By: [Name]
 CM [Name]
 Revisions: [Table]
 NAME DATE

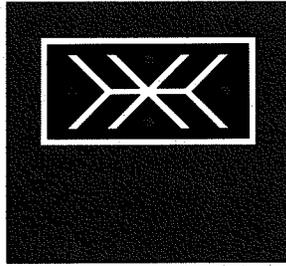


Exhibit A 4
Boundary Map of Operating Agreement
Carpinteria State Beach
City of Carpinteria

 Boundary of expansion of Operating Agreement
 Boundary of original Operating Agreement

Note: State of California Owns in Fee property shown as APN 003-450-001 and APN 004-105-014

RACHEL
TIERNEY



CONSULTING

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NOV 27 2006

COMMUNITY DEVELOPMENT
DEPARTMENT

MEMORANDUM

July 26, 2006

Cornelius Murphy
Van Atta Associates
235 Palm Ave
Santa Barbara, CA 93101

A field survey of a 75-foot wide by 1,110 foot long band of land situated between Pacific Rail Road ROW and the Carpinteria State Park campground and recreational field in Carpinteria was conducted on July 19, 2006. The purpose of the survey was to determine the existing dominant plants species within the area of the proposed Carpinteria Town Trail and associated habitat restoration program for this location. Plant species were identified in the field or keyed using the Jepson Manual. A formal wetland delineation was not part of the scope of this survey. Wetland status of particular areas was determined by plant species alone and is not meant to imply agency jurisdiction.

Project Summary

The project would create a pedestrian trail between the Park campground entrance and Linden Avenue, the southernmost end of the commercial center of old town Carpinteria. The trail would meander through changing vegetation, incorporating and enhancing the existing wetland features. A primary objective of the project is to enhance this wetland's capacity and capability to clean urban runoff. The project will explore the best design to restore the wetland using natural treatment strategies such as phytoremediation, and would include an educational signage explaining the benefits of the remediation project.

Existing Conditions

Both the extreme northern and southern ends of the trail site contain upland species (non-native grasses, trees (*Eucalyptus*) and shrubs (coyotebush and others). Much of the mid-section contains the invasive perennial kikuyu grass (*Pennisetum clandestinum*) with scattered spring vetch (*Vicia sativa*). This area is also crossed by a small-scale (1-2 foot wide and 6-8 inches deep) intermittently flowing drainage, apparently fed by off-site surface stormwater draining from surrounding streets. A shallow, grassy swale through the playing field, conveying flows into a storm drain that runs under Linden Avenue and ultimately into to the

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Carpinteria Salt Marsh. Yellow water weed (*Ludwigia peploides*), which lines much of the swale, is a new threat to California streams and should be actively managed in the future.

In other portions of the site, discreet patches of apparent seasonal wetlands (areas dominated by obligate wetland plants such as *Anemopsis californica* and *Scipus americanus*) are present, although both features were dried at the time of the survey¹. The wettest areas (corresponding to the lowest mapped elevations, were surrounded by plants found in less hydric situations, or found in both wet and more mesic locations, such as curly dock (*Rumex crispus*), (*Leymus triticoides*).

Mapping

The dominant groups are mapped on the attached rough drawing. The groupings of plants do not correspond to known “plant communities,” but are similar in soil moisture affinities. The following list of important native species should be flagged and retained if feasible:

Important **native** species to retain:

Scientific Name	Common Name	Aspect	Wetland Indicator*
<i>Salix exigua</i>	Sandbar willow	Tree	FACW
<i>Salix lasiolepis</i>	Arroyo willow	Tree	FACW
<i>Scipus americanus</i>	Olney’s bulrush	Perennial Herb	OBL
<i>Anemopsis californica</i>	Yerba mansa	Perennial Herb	OBL
<i>Heliotropium curassavicum</i>	Heliotrope	Perennial Herb	OBL
<i>Leymus triticoides</i>	Alkali Rye	Perennial Grass	FAC

Common **non-native** species found at the site:

Scientific Name	Common Name	Aspect	Wetland Indicator*
<i>Chenopodium album</i>	Lamb’s Quarters	Annual	FAC
<i>Convolvulus arvensis</i>	Bindweed	Perennial Vine	N/A (UP)
<i>Cyperus involucratus</i>	Umbrella Plant	Perennial Herb	FACW+ **
<i>Lolium multiflorum</i>	Annual Ryegrass	Annual Grass	FAC
<i>Ludwigia peploides</i>	Yellow water weed	Perennial Herb	OBL **
<i>Paspalum dilitatum</i>	Dallas Grass	Perennial Grass	FAC
<i>Pennisetum clandestinum</i>	Kikuyu Grass	Perennial Grass	FACU **
<i>Plantago lanceolata</i>	English Plantain	Perennial Herb	FAC-
<i>Raphanus sativus</i>	Wild radish	Perennial Herb	N/A
<i>Rumex crispus</i>	Curly Dock	Perennial Herb	FACW-
<i>Vicia sativa</i>	Spring Vetch	Annual	N/A (UP)

¹ It is important to realize that although a plant may be an obligate wetland species this doesn’t mean that it is always found in the wettest areas.

* **From:** Reed Jr., P.B., 1988. National List of Plant Species That Occur in Wetlands: California Region. Prepared for the National Wetlands Inventory, U.S. Fish and Wildlife Service. Biological Report: 88 (26.10). National Summary, Revised 1996.

** **Invasive non-native:** These species should be eradicated as part of any on-going management plan for the proposed project.

Proposed Project Benefits

Development of the trail and restoration of the site, as proposed in the conceptual plan, has several important benefits. Biologically, this area now represents a highly disturbed (weedy) habitat. The benefits of increasing native plant cover and diversity is expected to reflect in **increased wildlife use** of the site.

A primary objective of the project is to enhance this wetland's capacity and capability to **clean urban runoff**. The project will explore the best design to restore the wetland using natural treatment strategies such as phytoremediation. This proven technology uses plants to clean up contaminated soil and surface runoff. The area now drains polluted stormwater from several commercial streets, including businesses that deal with common pollutants such as automotive fluids. Urban runoff may contain hydrocarbons, a variety of metals, nutrients and pesticides. The enhanced wetland can prevent first-flush urban runoff from pouring directly into the environmentally sensitive Carpinteria Salt Marsh Nature Park and then into the ocean. Studies have shown that phytoremediation can be highly effective in the removal of petroleum hydrocarbons, trichloroethene and various metals from urban runoff. Design of the ponds, wetlands and swales are expected to decrease the amount of pollutants that enter the downstream environment.

Additionally, location of the site, adjacent to a busy campground entrance, will provide a wonderful educational opportunity to all campers and local users of the recreational field. **Educational signs** would explain the benefits of on-site storm water treatment (bio-filtration, bio-swales, etc.) especially in light of the Carpinteria Salt Marsh, an exceptional downstream resource.

Lastly, since this will become the most direct pedestrian connection between the camp ground and the lower downtown area, the trail is expected to be heavily used when complete, inviting **many visitors to enjoy, on foot, the unique downtown area of Carpinteria**. Its connection between the Carpinteria State Beach entrance and the Carpinteria downtown will provide a hiking and biking link that does not currently exist. As such, it is expected that over 500,000 people per year will have the opportunity to experience the project and learn about why urban runoff is contaminated and how it can be mitigated. Because many of these trail users will be visitors from other areas of the state and the country, this information will be spread widely and help to encourage similar projects elsewhere.



May 22, 2006

Biological Resources Report

The Old Town Trail
Carpinteria, CA

Prepared For: Matt Roberts, Director of Parks and Recreation City of Carpinteria

Prepared By: Vince Semonsen, Consulting Biologist *VJS*

Introduction

On May 18, 2006 I conducted a brief biological resource survey of a seasonal wetland located along the railroad tracks east of Linden Ave. in Carpinteria, CA. Prior to the survey I met with Matt Roberts the Director of Parks and Recreation for the City of Carpinteria to discuss a proposed walkway (The Old Town Trail) to be built through the wetland. The focus of the survey was on any native plants and animals potentially impacted by the proposed project.

Existing Conditions

The area surveyed is a seasonal wetland created by rainwater runoff draining into it from the surrounding urban area. The wetland is roughly 100 feet long by 50 feet wide and does not appear to "pond up" for very long. The area was dry at the time of the site visit but is known to become quite saturated during the rainy season. Native vegetation consisted of several clumps of willow, one or two mulefat and a smattering of a native emergent plant *Scirpus* spp? Non-native vegetation dominated the site with an understory of Kikuyu grass and several clumps of large eucalyptus trees on either side of the wetland.

Methods and Survey Results

The survey was conducted mid-day under overcast skies, with warm temperatures and a slight breeze. The site was walked using ten power binoculars to observe and identify any animals in and around the property. The following wildlife species were either heard, noted via tracks, scat or other sign, or were directly observed on the property. No reptiles or mammals were heard or observed during the survey however, western fence lizards and Pacific treefrogs are expected to utilize the area and a variety of common mammals inhabit and/or move through the area (i.e. gophers, mice, raccoons, skunks, opossum). Birds seen onsite included crows, starlings, house sparrow, mourning dove, common yellowthroat, Wilson's warblers and cliff swallows. No nests or nesting activity was observed in the willows and I saw no evidence of any raptor nesting or roosting in the eucalyptus trees.

Conclusion

This is a degraded wetland that does support some patches of healthy native vegetation. The proposed Old Town Trail would not impact any of the native plants or animals and the proposed restoration of the area (i.e. removal of non-natives and replanting with natives) would greatly increase the habitat value of the wetland and be of benefit to both the resident and migrant wildlife.



Rincon Consultants, Inc.

790 East Santa Clara Street
Ventura, California 93001

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FAX 641 1072

info@rinconconsultants.com
www.rinconconsultants.com

February 4, 2008
Project No. 07-92540

Matthew Roberts
Director, Parks and Recreation
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, California 93013

**Subject: Wetland Delineation Results for the Carpinteria State Beach Trail,
Carpinteria, California**

Dear Mr. Roberts:

Rincon Consultants, Inc. completed a delineation of waters of the United States within the Carpinteria State Beach Trail project site located in the City of Carpinteria (Santa Barbara County), California. This wetland delineation has been conducted per the authorization of the City of Carpinteria in a signed proposal dated January 2, 2008.

The project site is located in an approximate 1.9-acre parcel (75 feet by 1,110 feet) situated south of the Union Pacific Railroad tracks, north of the Carpinteria State Park Campground, west of Palm Avenue, and east of Linden Avenue (Figures 1 and 2). The project site is significantly influenced by human disturbances, including railroad maintenance, transients and pedestrians, invasive exotic plant species, and disturbed soils. The site contains only a few areas of native vegetation, and the potential wetlands within the site are limited to a small seasonally ponded area located in the middle.

The proposed project will create a pedestrian trail between the campground entrance and Linden Avenue. The trail is planned to meander through existing and restored vegetation and will incorporate and enhance the existing wetland features (refer to the attached Site Plan Exhibit). A primary objective of the wetland enhancement is to increase the existing wetland's capacity and capability to naturally clean urban runoff.

The purpose of this delineation is to determine the location and extent of areas that meet the United States Army Corps of Engineers' (Corps) criteria as waters of the United States, including wetlands, pursuant to Section 404 of the Clean Water Act (1972) within the property. The delineation was also conducted to confirm the extent of areas that meet (1) the State Water Quality Control Board's (SWQCB) criteria as waters of the State, pursuant to the Porter-Cologne Act; the California Department of Fish and Game's (CDFG) jurisdiction, pursuant to Section 1600 et seq. of the California Fish and Game Code; and (3) California Coastal Commission's (CCC) wetland definition.



Rincon Consultants conducted this wetland delineation in accordance with the methods described in the Corps' *Wetland Delineation Manual* (Corps Manual [Environmental Laboratory 1987]), and the recent additional local guidance released in the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Supplement [Corps 2006]). According to the Corps Manual, identification of wetlands is based on a three-criterion approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. The Arid West Supplement presents regional wetland indicators, delineation guidance, and other information that is specific to the Arid West Region.

REGULATORY OVERVIEW AND DEFINITIONS

U.S. Army Corps of Engineers

U.S. Army Corps of Engineers, under provisions of Section 404 of the Clean Water Act (1972), has jurisdiction over the "waters of the United States" and regulates the discharge of dredge and fill material into "waters," including wetlands.

The Corps Manual (Environmental Laboratory 1987) defines wetlands as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

"Waters of the United States" is defined as (33 CFR Part 328.3):

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 interstate or 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 shellfish 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 U.S. 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. Waste treatment systems,



including treatment ponds or lagoons designed to meet the requirements of Clean Water Act (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the U.S.

8. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

The above definitions are used by the Corps to determine their jurisdiction. Specific data is needed to determine the presence or absence of wetlands. Such data are generally collected using the routine methods described in the Corps Manual and Arid West Supplement. The Corps requires that positive indicators for three criteria must be present (hydrophytic vegetation, hydric soil, and hydrology [described below]) to be considered a jurisdictional wetland for the purpose of federal regulations. However, generally only positive indicators for hydrology are required to be considered jurisdictional waters of the U.S.

Areas not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds excavated on dry land used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water filled depressions (51 Federal Register 41, 217 [1986]). In addition, a Supreme Court ruling, *Solid Waste Agency v. United States Army Corp of Engineers*, 474 U.S. 121 (2001) ("SWANCC"), determined that the Corps exceeded its statutory authority by asserting Clean Water Act jurisdiction over "an abandoned sand and gravel pit in northern Illinois, which provides habitat for migratory birds." Based solely on the use of such waters by migratory birds, the court's holding was strictly limited to waters that are "non-navigable, isolated, and intrastate." Although this ruling affected the Corps jurisdiction, the SWANCC decision did not alter the extent of State (or tribal) jurisdiction over aquatic features of state (or tribal) law.

The Supreme Court further addressed the extent of the Corps jurisdiction in *Rapanos v. United States*, 126 S. Ct. 2208 (2006). There, a sharply divided Court issued multiple opinions, none of which garnered the support of a majority of Justices. This created substantial uncertainty as to which jurisdictional test should be used. The Ninth Circuit Court of Appeal, which encompasses California, answered this in *Northern California River Watch v. City of Healdsburg*, 496 F. 3d. 993 (2007). There, the Court held that Justice Kennedy's opinion in *Rapanos* provides the controlling rule of law. Under that rule, wetlands or other waters which are not navigable in fact are subject to the Corps jurisdiction if they have a "significant nexus" to a navigable-in-fact waterway. As Justice Kennedy explained, whether a "significant nexus" exists in any given situation will have to be decided on a case-by-case basis, depending on site-specific circumstances.

Corps Headquarters in Washington, D.C. issued substantive guidance on June 5, 2007 to its District Offices as to how to apply these rulings. Based on the new *Rapanos* guidelines, additional quantitative, qualitative, and other physical data are required for the Corps to support their decision of "Significant Nexus" and to make a determination of jurisdictional authority.



California Department of Fish and Game

CDFG has regulatory authority over work within rivers, streams, and lakes of the State of California (CDFG Code Sections 1600 et. seq.) on public, private, and agricultural lands. Fish and Game Code Section 2785(g) specifically defines wetlands as “lands which may be covered periodically or permanently with shallow water and which include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, fens, and vernal pools.”

Streams that are regulated by CDFG include all rivers, streams, or lakes, including human-made watercourses with or without wetlands, providing they contain a definable bed and bank, support fish or wildlife resources, or contribute to such support. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream or lake as defined by CDFG. Determining the limits of wetlands is not typically done under Section 1600 since the riparian vegetation associated with the rivers, streams or lakes is also typically included within CDFG jurisdiction.

Riparian habitat includes willows, mulefat, and other vegetation typically associated with the banks of a stream or lake shoreline and, in most situations, wetlands associated with a stream or lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFG jurisdiction based on riparian habitat will automatically include any wetland areas and may include additional areas that do not meet the Corps criteria for soils and/or hydrology (e.g., where riparian woodland canopy extends beyond the channel area of a stream away from frequently saturated soils). Specifically, CDFG requires that one or more positive indicators must be found for only one of the three wetland criteria (hydrophytic vegetation, hydric soil, and/or hydrology) to be considered a jurisdictional wetland for the purpose of CDFG regulations.

State Water Resources Control Board

State Water Resources Control Board (SRWCB) has jurisdiction over waters of the State, which is defined as any surface water or groundwater, including saline waters, within the boundaries of the State under the Porter-Cologne Water Quality Control Act (SWRCB 2006). Waters of the State, for the purpose of this wetland delineation, include those areas that support wetland and/or woody riparian tree and/or shrub habitat associated with the established unnamed stream bed, bank, or channel, and associated tributaries exhibiting the same characteristics. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-DWQ, *Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction*). The local Regional Water Quality Control Board (RWQCB) enforces actions under this general order, and is also responsible for federal Clean Water Act Section 401 certification determinations over Corps defined jurisdictional waters.



California Coastal Commission

The California Coastal Commission (CCC), with the assistance of CDFG is responsible for determining the presence of wetlands subject to regulation under the California Coastal Act. As the primary wetland consultant to the CCC, the CDFG essentially relies on the U.S. Fish and Wildlife Service (USFWS) wetland definition and classification system, with some minor changes in classification terminology, as the methodology for wetland determinations. A major difference is that the CDFG and the CCC require the presence of only one wetland parameter (e.g., hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a wetland. Section 30121 of the California Coastal Act (1976), the statute governing the CCC, broadly defines wetlands as:

“Lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens.”

However, the CCC Administrative Regulations (Section 13577 (b)) provides a more explicit definition:

“Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats.”

Hydrophytic Vegetation

Hydrophytic vegetation is one of the three criteria necessary for wetland consideration and is defined as macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (or plants typically adapted to growing in areas possessing hydrologic conditions and saturated soils). Emphasis is placed on the assemblage of plant species that exert a controlling influence on the character of the plant community, rather than on indicator species. Vegetation is considered to be hydrophytic when more than 50 percent of the dominant plant species of all vegetative strata (or those species making up at least 20 percent of absolute cover) have a Wetland Indicator Status of Facultative (FAC), Facultative Wetland (FACW), or Obligate Wetland (OBL) according to the USFWS' *National List of Wetland Plants that Occur in Wetlands* (Reed 1988). Plant species are assigned a wetland indicator status according to their probability of occurring in wetlands.



The *National List* separates vascular plants into the following six basic categories based on plant species frequency of occurrence in wetlands:

- Obligate Wetland (OBL). Occur almost always (estimated probability >99%) under natural conditions in wetlands.
- Facultative Wetland (FACW). Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
- Facultative (FAC). Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
- Facultative Upland (FACU). Usually occur in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
- Obligate Upland (UPL). May occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in non-wetlands in the region specified.
- Non-Indicator Plants (NI). Status not assigned. Species is assumed to be upland.

The Corps considers dominance by OBL, FACW and FAC species to be a positive indicator of hydrophytic vegetation. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the USFWS list is assumed to be an upland species, almost never occurring in wetlands.

Hydric Soil

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. In California, sufficient duration is considered a minimum of two weeks during the growing season. The hydric soil field indicators applicable for all regions, and indicators specifically designed for the Arid West, include (but are not limited to) inundation or saturation, stratified layers, thick dark surfaces, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), and gleying, which indicates reducing conditions by a blue-grey color. Soils of each data point must possess at least one positive indicator of hydric soils in order to determine that a data point possesses hydric soils. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in local soils surveys, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is indicated when inundation or soil saturation occurs with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. Hydrology conditions are met if (1) an area is inundated permanently or periodically, (2) has soil saturated to the surface at some time during the growing season of the prevalent vegetation, and/or (3) the area at least shows evidence of drainage patterns (well-defined bed and banks). Areas with evident characteristics of wetland hydrology are those where the presence of water has an



overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Hydrology of the selected locations within the study area was evaluated through direct observation of primary and/or secondary indicators (including Arid West Supplement indicators) of hydrology. At least one of the primary indicators of hydrology or at least two of the secondary indicators of hydrology have to exist at each data point in order to determine that a point possessed indicators of hydrology in the field.

Ordinary High Water Mark

Ordinary High Water Mark (OHWM) is that line on the shore or banks of a water course established by the fluctuations of water and indicated by physical characteristics such as a 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 area.

METHODS

Rincon Consultants conducted a focused wetland delineation of the project site on January 3, 2008. The project site was revisited by Rincon on January 12, 2008 after a winter rain event to document changes in hydrology. The project site was revisited again by Rincon on January 22, 2008 to document any changes in hydrology and vegetation, and to verify delineation results and analysis with current conditions after several weeks of inundation. The wetland delineation was conducted in accordance with the methods described in the Corps Manual (Environmental Laboratory, 1987) and the recently released Arid West Supplement (Corps 2006), which provides regional wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. Potential areas of CDFG jurisdiction and Coastal Commission defined wetlands were mapped concurrently with the delineation of waters of the U.S. and are included on the map and table of jurisdictional wetland acres.

Rincon's wetland delineation survey area was limited to a small seasonally ponded area located in the middle of the project boundary (Figure 2), since this is the only area that shows evidence of hydrophytic vegetation. A vegetation report prepared by Rachel Tierney Consulting (dated July 26, 2006) was used as an aid in the field mapping and identification of site species as many of the annual plants were unrecognizable during this winter field visit. Data were collected at eight (8) observation points (including soil pits) to determine if jurisdictional waters, including wetlands, exist onsite. Data collected at each sample point include plant species composition (to determine the presence/absence of hydrophytic vegetation), presence/absence of positive indicators of wetland hydrology, and presence/absence of positive indicators of hydric soils. A data point is considered to be within a Corps jurisdictional wetland if the area meets all three wetland parameters hydrophytic plant species, wetland hydrology, and hydric soil conditions. Note that the CDFG and the CCC require the presence of only one wetland parameter for an area to qualify as a wetland. All field data collected onsite were entered on the Wetland Determination Data Forms (Arid West Region), which are attached at the end of this report.



Determining Presence of Hydrophytic Vegetation

All plant species observed at each data point were recorded on the field data forms, and the percent absolute cover and the Wetland Indicator Status of each species was indicated. The vegetation present was divided, when appropriate, into four strata (tree, sapling/shrub, herb, and woody vine), and plant species in each stratum were ranked according to their dominance. A stratum, for sampling purposes, is defined as having 5 percent or more total plant cover; if not, that stratum was not included in the data for that observation point. The study area lacked woody vines and shrubs; consequentially, most of the data observations included only the herb and tree strata. Absolute cover percentage for individual species was estimated for the entire area of concern. Absolute cover was converted to relative cover to determine which species comprised at least 20 percent of the community. Species that contributed to a cumulative total of 50 percent of the total dominant coverage within a stratum, plus any species that comprised at least 20 percent of the total dominant coverage within a stratum, were noted on wetland delineation field data sheets. More than 50 percent of dominant species at each data point had to possess a Wetland Indicator Status of FAC, FACW, or OBL in order for the data point to be dominated by hydrophytic vegetation.

Determining Presence of Hydric Soil

Soil testing was conducted at each of the eight data observation points (or soil pits) to determine whether or not the local soil profile contained hydric soil morphologies. Soil pits were dug to the level necessary to establish whether or not hydric characteristics were present within typical rooting depths (up to 18 inches deep). Indicators of hydric soils, such as buried organic matter, organic streaking, reduced soil conditions, gleyed or low-chroma soils, or sulfidic odor, were recorded if present. Soils of each data point had to possess at least one positive indicator of hydric soils in order to be considered a hydric soil. Soil color was compared with a Munsell soil color chart. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish) resulting from soil development under anoxic (without oxygen) conditions. Bright redox concentrations within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. The soil matrix is the portion of the soil layer that has the predominant color. Hydric soils are typically identified by the presence of redox concentrations associated with reduced iron or manganese.

Determining Presence of Wetland Hydrology

Hydrology of the selected locations within the study area was evaluated through direct observation indicators of hydrology (including all Arid West Supplement indicators). Positive evidence of wetland hydrology indicators were evaluated in the field, including (but not limited to) oxidized root channels, soil saturation, surface water, sediment deposits, and drainage patterns. Per the Arid West Supplement, hydrology indicators are separated into primary and secondary groups, with only one primary indicator and two or more secondary indicators necessary to indicate wetland hydrology.



Mapping Extent of Jurisdictional Areas

Aerial photographs, topographic maps, soil survey, general site observations, wetland delineation results, and other available background information were used to better characterize the nature of the project site and to map the extent of potential Corps jurisdictional waters of the U.S., including wetlands, on the subject property. The general area surveyed is in the center of the project boundary (Figure 2). Rincon biologists recorded observations of vegetation, hydrology, and soils, and delineated Corps jurisdictional wetlands on the ground using field measurements, general wetland observations, and pin flags. The area delineated by the pin flags was walked using a Trimble® GeoXTM GPS unit capable of sub-meter accuracy (accuracy within less than ± 3 feet) for mapping purposes. Once the parameters of determining waters of the U.S., wetlands, and riparian habitats were established, the extent of jurisdictional waters and wetlands was mapped on an aerial photograph (Figure 3).

RESULTS

A total of eight data observation points, including soils test pits, were surveyed during the onsite delineation to identify the boundaries of Corps jurisdictional waters of the U.S., including wetlands, as well as other jurisdictional area as defined by SRWCB, CDFG, and CCC.

Table 1 lists the results for the eight data observation point (per the field data sheets), which aided in the delineation between Corps wetlands (requiring positive indicators of all three wetland parameters) and other jurisdictional areas onsite (requiring positive indicators for only one of the three wetland parameters). Figure 3 shows the location of each data observation point presented in Table 1 and delineates the jurisdictional extent identified onsite based on the findings of those data observation points. Site photographs and completed field data sheets are attached at the end of this report. The results of each wetland parameter and the jurisdictional delineation are discussed in more detail in the following subsections.

Table 1. Wetland Delineation Data Observation Point Results

Transect #- Plot #	Hydrophytic Vegetation?	Hydric Soil?	Wetland Hydrology?	Potential CDFG & CCC Wetlands	Potential Corps Jurisdictional Wetland
T0-P1	No	No	Yes	Yes	No
T1-P1	No	No	No	No	No
T1-P2	No	Yes	Yes	Yes	No
T1-P3	Yes	Yes	Yes	Yes	Yes
T2-P1	No	No	No	No	No
T2-P2	Yes	Yes	Yes	Yes	Yes
T3-P1	No	No	No	No	No
T3-P2	Yes	Yes	Yes	Yes	Yes



Vegetation

The project site is significantly disturbed and includes several introduced and invasive plant species (Table 2, on following page). Specifically, kikuyu grass (*Pennisetum clandestinum*) is highly invasive onsite and creates significant competition for other more desirable native plant species. Regardless, the general survey area (Figures 2 and 3) consists of several hydrophytic (water-loving) plant species that indicate prolonged inundation, saturated soils, and/or frequent flooding.

Each data observation point was surveyed to determine if the data point was dominated by hydrophytic vegetation. Data Points T1-P3, T2-P2, and T3-P2 were determined to be dominated by hydrophytic vegetation (Table 1, Figure 3, and field data sheets). The hydrophytic plant species observed in these areas include native and nonnative plant species such as arroyo willow (*Salix lasiolepis* [native shrub/tree]), curly dock (*Rumex crispus* [introduced perennial herb]), Bermuda grass (*Cynodon dactylon* [introduced perennial grass]), umbrella sedge (*Cyperus eragrostis* [native perennial herb]), creeping wildrye (*Leymus triticoides* [native perennial grass]), western goldenrod (*Euthamia occidentalis* [native perennial herb]), dallis grass (*Paspalum dilatatum* [introduced perennial grass]), and western ragweed (*Ambrosia psilostachya* [native perennial herb]).

Hydrology

Hydrology at the site is in part determined by the regional climate of the area. Average annual precipitation in this region is approximately 17 inches, most of which falls between December and March. Because of the cooling coastal influence, summertime highs in the City of Carpinteria are in the 70s (degrees Fahrenheit) with wintertime temperatures in the low 40s, which enables pooled waters to inundate land for a longer period than in more inland locales.

Each data observation point was examined for positive field indicators of wetland hydrology. Positive primary indicators of wetland hydrology typically include the presence of a distinct drainage pattern represented by an incised channel, sediment deposits, standing water, saturated soil within 12 inches of the ground surface, and drift lines. The site is almost completely level with a low depressional area along the southwest edge of the property, and ponding occurs during rain events. Inundation lasts several weeks to several months during the winter and spring seasons. However, during the dry season without obvious inundation or saturation, no other evidence of hydrology exists. During the initial field survey conducted on January 3, 2008, very little evidence of wetland hydrology was present due to a long dry season.

With data collected on January 3, and subsequent site visits on January 12 and 22, positive indicators of hydrology were identified at Data Points T0-P1, T1-P2, T1-P3, T2-P2, and T3-P2 (Table 1, Figure 3, and field data sheets). The positive data points have indicators of hydrology that include surface water, saturation, water-stained leaves, and hydrogen sulfide odor. All positive data points were at least saturated within the upper 12 inches.



Table 2. List of Plants Observed During the Wetland Delineation

Scientific Name ¹	Common Name	Habit ²	WIS ³	Family
<i>Ambrosia psilostachya</i>	Western ragweed	BH	FAC	Asteraceae
<i>Anemopsis californica</i> var. <i>californica</i>	Yerba mansa	PH	OBL	Saururaceae
<i>Chenopodium album</i> *	Lamb's quarters	AH	FAC	Chenopodiaceae
<i>Convolvulus arvensis</i> *	Bind weed	PV		Convolvulaceae
<i>Conyza canadensis</i>	Horseweed	AH	FAC	Asteraceae
<i>Cynodon dactylon</i> *	Bermuda grass	PG	FAC	Poaceae
<i>Cyperus eragrostis</i>	Umbrella-sedge	PH	FACW	Cyperaceae
<i>Cyperus involvuratus</i> *	Alternate-leaf flatsedge	PH	OBL	Cyperaceae
<i>Eucalyptus globulus</i> *	Tasmanian blue gum	T		Myrtaceae
<i>Euthamia occidentalis</i>	Western goldenrod	PH	OBL	Asteraceae
<i>Heliotropium curassavicum</i>	Alkali heliotrope	PH	OBL	Boraginaceae
<i>Leymus triticoides</i>	Creeping wildrye	PG	FAC+	Poaceae
<i>Lolium multiflorum</i> *	Italian ryegrass	AG	FAC*	Poaceae
<i>Ludwigia peploides</i> ssp. <i>montevidensis</i> *	Floating seedbox	PH	OBL	Onagraceae
<i>Myoporum laetum</i> *	Myoporum	S		Myoporaceae
<i>Paspalum dilatatum</i> *	Dallis grass	PG	FAC	Poaceae
<i>Pennisetum clandestinum</i> *	Kikuyu grass	PG	FACU+	Poaceae
<i>Plantago lanceolata</i> *	English plantain	PH	FAC-	Plantaginaceae
<i>Raphanus sativus</i> *	Radish	AH		Brassicaceae
<i>Rumex crispus</i> *	Curly dock	PH	FACW-	Polygonaceae
<i>Salix exigua</i>	Narrow-leaved willow	S	OBL	Salicaceae
<i>Salix lasiolepis</i>	Arroyo willow	T	FACW	Salicaceae
<i>Schoenoplectus</i> [<i>Scirpus</i>] <i>americanus</i>	Three square	PH	OBL	Cyperaceae
<i>Vicia sativa</i> ssp. <i>sativa</i> *	Spring vetch	AH	FACU	Fabaceae

Soils

Hydric soil criteria are typically met when indicators demonstrate that the soil is saturated or flooded for a sufficient duration during the growing season to generate anaerobic conditions. Soils were evaluated primarily for the presence of low chroma and/or gleyed coloration, with other indicators such as the presence of organic matter. Upland areas generally lack these distinctive hydric soils field indicators, making it possible to delineate a wetland/upland boundary.

¹ *= Introduced/naturalized plant species. Scientific and common names follow Hickman (1993) and Flora of North America Editorial Committee (1993-2007).

² Habit definitions: AG = annual grass or graminoid; PG = perennial grass or graminoid; AH = annual herb; PH = perennial herb; PV = perennial vine; S = shrub; T = tree.

³ WIS = Wetland Indicator Status. The following code definitions are according to Reed (1988):

OBL = obligate wetland species, occurs almost always in wetlands (>99% probability).

FACW = facultative wetland species, usually found in wetlands (67-99% probability).

FAC = facultative species, equally likely to occur in wetlands or nonwetlands (34-66% probability).

FACU = facultative upland species, usually found in nonwetlands (67-99% probability).

+ or - symbols are modifiers that indicate greater or lesser affinity for wetland habitats.

NI = no indicator has been assigned due to a lack of information to determine indicator status.

* = a tentative assignment to that indicator status by Reed (1988).



Positive indicators for hydric soil were observed at Data Points T1-P2, T1-P3, T2-P2, and T3-P2 (Table 1, Figure 3, and field data sheets). Hydric soil was identified from approximately 6 to 18 inches below grade at these data points, and this appeared to be caused by annual inundation and saturation during the wet season and into spring. Soils are problematic onsite as they appear to be young soils and various debris (asphalt, concrete, large rocks, bark chippings, etc.) were found in some pits. The soil onsite was disturbed many years ago, and the hydrologic circumstances onsite may not allow for a long enough inundation/saturation to create significantly evident indicators of hydric soil. The indicators onsite appeared marginal in terms of making a hydric soil determination.

The USDA identified one soil type within the project boundary, Camarillo Variant fine loamy sand (NRCS 1981), which is included on the NRCS Hydric Soils List for Santa Barbara County, California (NRCS 2007). The soil unit is described below.

Camarillo Variant consists of poorly drained soils on low flood plains formed in deposits of loamy stratified alluvium derived from calcareous rock, 24 to 40 inches thick over clay. Slopes are 0 to 2 percent, and elevation is 10 to 50 feet. The vegetation includes water-tolerant grasses forbs, willows, and tules. In a representative profile the surface layer is brown fine sandy loam about 7 inches thick. The underlying material is stratified brown, grayish-brown, and light reddish-brown, mottled, sandy loam and sandy clay loam to a depth of 35 inches. Below this is brown clay that extends to a depth of 60 inches or more. Reaction is slightly alkaline and calcareous throughout. (NRCS 1981.)

Camarillo Variant, fine loamy sand (Cb) is a nearly level soil on alluvial plains. Internal drainage is slow, and during winter, rainwater may stand on the surface. The water table is 3 to 6 feet from the surface in the summer and fall, and 1 to 2 feet from the surface in winter and spring. Most areas are subject to overflow and damaging deposition if unprotected. Salinity is slight to moderate. Included in this mapping are soils that have a loamy sand surface layer and areas of soil that are more than 40 inches thick over clay. Runoff is very slow, and some areas have severe problems with ponding. (NRCS 1981.)

JURISDICTIONAL DETERMINATION

The results of the jurisdictional delineation are presented below in Table 3. Each jurisdiction is discussed separately below in the following subsections.

Table 3. Jurisdictional Determination

Jurisdiction	Approximate Amount Onsite ⁴
Corps Waters of the U.S.	60 linear feet
Corps Wetlands	0.20 acre
CDFG and CCC	0.24 acre
Waters of the State (SWRCB)	0.14 acre

⁴ Corps waters of the U.S., Corps wetlands, and CDFG & CCC wetlands are delineated in the attached Figure 3. Waters of the State are delineated in yellow in the attached Project Survey Map.



Corps Jurisdictional Waters of the U.S., Including Wetlands

Based on the wetland delineation conducted onsite, it was determined that approximately 60 linear feet of Corps jurisdictional non-wetland waters of the U.S. exists within the project boundary. The extent of Corps jurisdictional waters of the U.S. was generally established by the limits of an apparent drainage conduit representing the OHWM in the northwest corner of the general survey area within the project boundary (Figure 3). Approximately 0.20 acre of the project site was determined to be potential Corps jurisdictional wetlands as this area met all three wetland criteria (Figure 3).

The new guidance recently published regarding Corps jurisdiction, based on the Supreme Court's *Rapanos* decision, requires additional documentation of potential Corps jurisdiction. The following is an analysis of the additional documentation required.

Quantitative Data:

Stream gauge data for Carpinteria, California are not available; however, USGS rain gauge data are available for Santa Barbara, California (Station Number 047902) (Western Regional Climate Center), which is approximately eleven miles northwest of the project site. The monthly climate summary for the Santa Barbara gauge is attached at the end of this report. Average annual precipitation in the Santa Barbara/Carpinteria area of Santa Barbara County is approximately 17 inches, most of which falls between November and April.

Qualitative Data:

The water forming the ponded wetland area onsite originates from runoff just north/northeast of the project site from the City of Carpinteria. Runoff from an approximate 10-acre area of the City of Carpinteria drains southwest to the project site via two 12-inch culvert pipes, one just east of the middle of the general survey area, and one southeast of the general survey area (both of which are just off the property). The runoff sheet-flows over the nearly level property in a northwest direction, ponding along the southwest edge of the mid-property, and ultimately and slowly draining offsite at the northwest corner of the general survey area. This small drainage at the northwest corner of the general survey area is the location of the potential Corps non-wetland waters of the U.S. The small drainage formed here drains northwest across the Carpinteria State Beach grassy park area, and empties into an approximate 12-inch culvert pipe at Linden Avenue (see attached photos). The water is carried by storm drains to the northwest under Linden Avenue and developed urban land until it empties into the Carpinteria Salt Marsh, which is an estuary with tidal influence connected with the Pacific Ocean.

1. *Physical Evidence of Flow* – The ponded water forming the wetland in the center of the property slowly drains offsite at the northwest corner of the general survey area. This small drainage is potential Corps non-wetland waters of the U.S. The small drainage formed here traverses northwest across the Carpinteria State Beach grassy park area, and empties into a culvert pipe at Linden Avenue.



2. *Biological Evidence of Flow* – The drainage onsite includes predominantly upland herbaceous vegetation (introduced grasses and ruderal forbs) with the exception of a willow shrub/tree. The ponded water empties in a small drainage pattern (OHWM of approximately 1 foot) that connects to the drainage across the grassy field (OHWM of approximately 3 feet), which ultimately empties into the culvert traversing under Linden Avenue.
3. *Land Use* – The site is located in an urban area, with the predominant land use in the watershed north/northeast of the site being commercial and residential (Figure 2).

Other Information:

1. *Watershed Size* – The watershed above the unnamed drainage at the Carpinteria State Beach Trail project site is approximately 10 acres in size.
2. *Drainage Area* – The unnamed drainage at the Carpinteria State Beach Trail project site drains an approximate area of 0.3 acre.
3. *Transport to Pacific Ocean* – The small drainage formed onsite drains northwest across the Carpinteria State Beach grassy park area, and empties into an approximate 12-inch culvert at Linden Avenue. The water is assumed to drain under Linden Avenue approximately 2,500 feet to the northwest where it empties into the Carpinteria Salt Marsh.
4. *Biological Communities* – The wetland onsite consists of a variety of native and nonnative riparian plant species, including several arroyo willows (Table 2); however, the small drainage that empties the wetland is dominated by the highly invasive kikuyu grass.
5. *Federal Threatened or Endangered Species* – No federally listed plant or wildlife species are expected to be associated with the subject drainage studied onsite and within the adjacent wetland. Multiple barriers to steelhead trout exist in this drainage and downstream of the drainage, and no suitable habitat for species such as least Bell's vireo or southwestern willow flycatcher is present. No suitable ponding areas are present for fairy shrimp, as water quality is significantly degraded onsite and generally contain too much cover. No federally listed endangered or threatened species were observed onsite, within the drainage, or in the adjacent wetland.
6. *Distance to Pacific Ocean* – The project site drainage is approximately 0.25 mile directly northeast of the Pacific Ocean. However, the path the drainage traverses is approximately 1.5 miles to where its flows actually empty into the Pacific Ocean.
7. *Drainage Connectivity* – The flows traverse approximately 0.5 mile across the property, Carpinteria State Beach, under Linden Avenue, and under several blocks of the City to the west. The flows then meander through the Carpinteria Salt Marsh for another approximate mile before the flows empty into the ocean.

Based on field investigations and the above analysis of additional quantitative, qualitative, and other physical data, the approximate 60-linear-foot drainage is potentially under the



jurisdiction of the Corps as non-wetland waters of the U.S., and approximately 0.20 acre of Corps jurisdictional wetlands exist within the project boundaries. This is further supported due to its apparent historical connection to Carpinteria Salt Marsh, approximately 0.5 mile miles to the west. The temporary impacts to these resources associated with the construction of the proposed Carpinteria State Beach Trail and wetland restoration efforts may benefit the wetland and increase wetland functions onsite. Please note that only the Corps can determine whether or not it has jurisdiction over the waters at the site and confirmation of this finding will require consultation with the Corps.

Based on this review, approximately 0.20 acre of waters and wetlands of the U.S. under Corps jurisdiction will be impacted as a result of the proposed trail development. However, the final jurisdictional determination over the drainage will need to be determined by the Corps upon review or verification of this wetland delineation. Based on the acreage of the impacts to non-wetland waters of the U.S., and if verified to be under Corps jurisdiction, this project would be subject to permit requirements of the Corps, under Section 404 of the Clean Water Act. The specific type(s) of NWP(s) applicable for this project will be determined by the Corps upon review of an application.

CDFG Jurisdiction

CDFG jurisdiction has been delineated within the survey area based on the extent of riparian habitat within the ponded area onsite. These widths were typically identified by the edge of the ruderal habitat as distinguished from the willow cover. A total of 0.24 acre of CDFG jurisdiction was delineated within the project site. The impacts to these resources associated with the construction of the proposed Carpinteria State Beach Trail and wetland restoration efforts are temporary. The wetland area onsite may benefit from said activities and could increase wetland functions onsite. If the CDFG asserts jurisdiction over the resources at the site, impacts to 0.24 acre may require a Streambed Alteration Agreement from the CDFG pursuant to Section 1600 et. seq. of the California Fish and Game Code. However, the final jurisdictional determination over the drainage will need to be determined by CDFG upon review or verification of this wetland delineation.

Waters of the State (SWRCB)

The SWRCB has jurisdiction over waters of the State, including all surface water or groundwater. For the purpose of this project, waters of the State were estimated based on the extent of a definable OHWM within the ponding area. As per the attached Project Survey Map approximately 0.14 acre of waters of the State exist onsite (delineated in yellow and based on a survey conducted February 2, 2005; this general inundation area was confirmed during the Rincon site visit of January 22, 2008). All 0.14 acre of jurisdictional waters of the State would be impacted by the proposed trail construction, but wetland conditions may be improved onsite as a result of the planned restoration effort that will incorporate and enhance the existing wetland features. This delineated waters of the State lies within the boundaries of the CDFG and CCC wetland area.



Impacts to 0.20 acre of areas generally identified as jurisdictional waters of the US will require Certification, pursuant to Section 401 of the Clean Water Act. In addition, California Water Code (CWC) Section 13376 states that, "any person discharging dredge or fill material or proposing to discharge dredged or fill material into the navigable waters of the United States within the jurisdiction of this State shall file a report of the discharge in compliance with Section 13260." Section 13260(a) of the CWC requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, that could affect the quality of the waters of the State, file a report of waste discharge (ROWD). Under federal Clean Water Act (CWA) Section 401, every applicant for a federal permit or license for any activity that may result in a discharge to waters of the United States must obtain State Water Quality Certification (Certification) that the proposed activity will comply with state water quality standards. Most certifications are issued in connection with Corps CWA Section 404 permits for dredge and fill discharges.

California Coastal Commission

The jurisdictional determination for the CCC is similar to the CDFG determination. CCC and CDFG jurisdiction has been delineated within the survey area based on the extent of riparian habitat and the ponded area onsite. A total of 0.24 acre of CCC jurisdiction was delineated within the project site. The impacts to these resources associated with the construction of the proposed Carpinteria State Beach Trail and wetland restoration efforts are temporary. The wetland area onsite may benefit from said activities, which could increase wetland functions onsite.





If you have any questions regarding this report or its findings, please contact us.

Sincerely,
RINCON CONSULTANTS, INC.

Cher Batchelor
Senior Biologist

John Dreher
Senior Biologist

Duane Vander Pluym, D.ESE
Principal Biologist

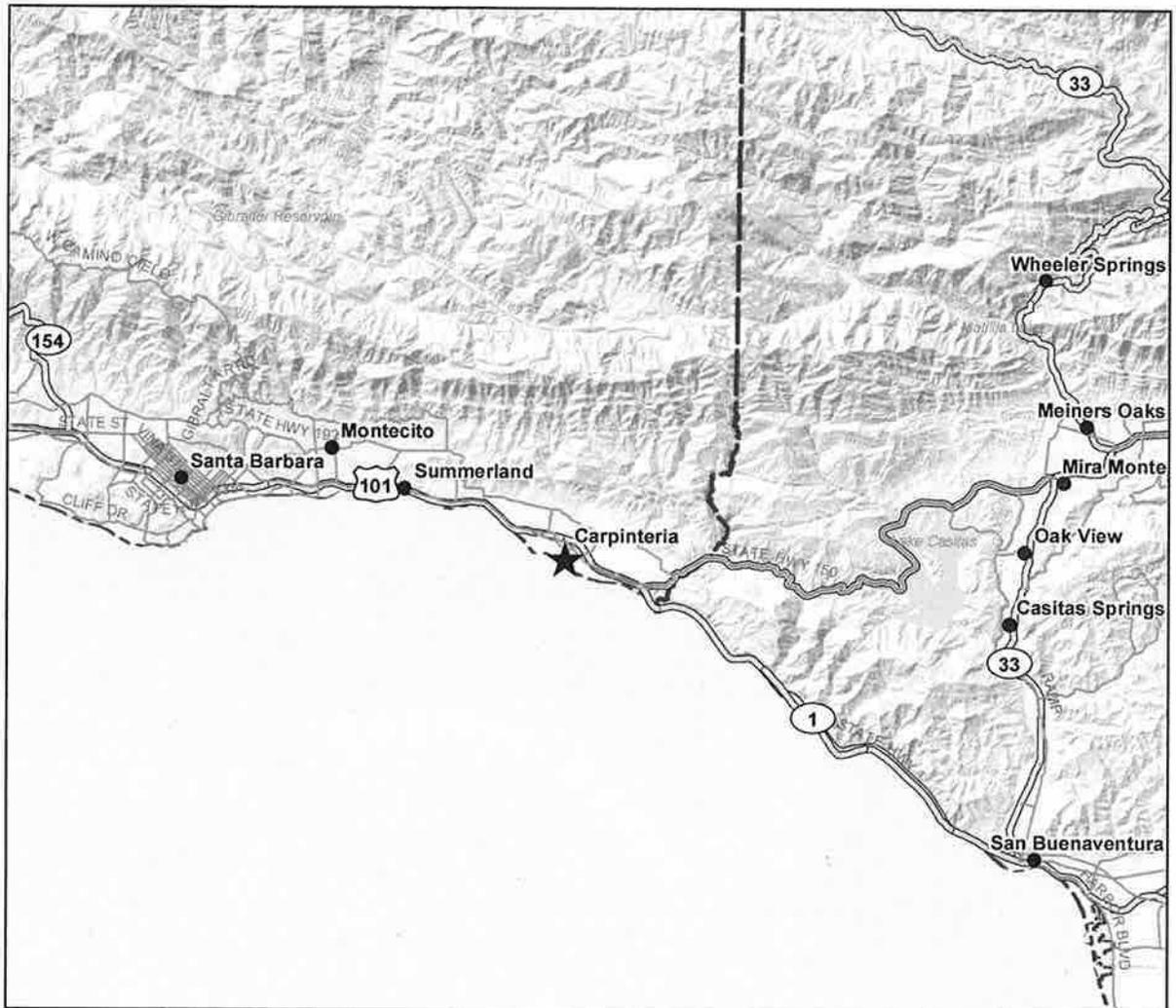
Attachments: References
Figure 1, Regional Location
Figure 2, Aerial Photograph of Project Site
Figure 3, Jurisdictional Delineation
Site Plan (the City's Exhibit B)
Monthly Climate Summary Data
Project Survey Map
Wetland Determination Data Forms (Arid West Region)
Site Photographs



REFERENCES

- Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, Mississippi.
- U.S. Army Corps of Engineers (Corps). 2006. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. December 2006. Environmental Laboratory, U.S. Army Engineer Research and Development Center, Wetlands Regulatory Assistance Program, Vicksburg, Mississippi.
- Hickman, James C., Ed. 1993. *The Jepson Manual, Higher Plants of California*. University of California Press.
- Reed, P.B., Jr. 1988. *National List of Plant Species That Occur in Wetlands, California (Region 0)*. U.S. Fish and Wildlife Service Biological Report 88(26.10).
- State Water Resources Control Board (SWRCB). 2006. Porter-Cologne Water Quality Control Act. With additions and amendments effective January 1, 2007
- Natural Resources Conservation Service (NRCS), United States Department of Agriculture. 1981. Soil Survey of Santa Barbara County, California – South Coastal Part.
- NRCS, United States Department of Agriculture. February 2007. Hydric Soils State Lists. Official List of Hydric Soils Map Units for Santa Barbara County, California. (Available at: <http://soils.usda.gov/use/hydric/lists/state.html>.)

Carpinteria State Beach Trail
Wetland Delineation



Source: US Bureau of the Census TIGER 2000 data.

★ Project Location



0 2.5 5 7.5 10 Miles

Regional Location

Figure 1
City of Carpinteria





Source: CIRGIS (aerial), 2004.

Legend

-  Survey Area
-  Approximate Project Boundary



Aerial Photograph of Project Site

Figure 2



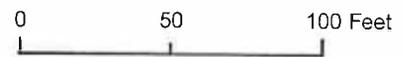
Carpinteria State Beach Trail
Wetland Delineation



Source: Rincon Consultants, 2008, and CIRGIS (aerial), 2004.

Legend

- | | |
|---|---|
|  General Survey Area |  Potential Corps Wetland |
|  Project Boundary |  CDFG and CCC Wetland |
|  Data Observation Point (Soil Pit) | |
|  Storm Drain | |
|  Potential Corps Waters | |



Jurisdictional Delineation

Figure 3

City of Carpinteria

Exhibit B



Carpinteria State Beach Linden to Palm Avenue Trail and Tomol Park
Carpinteria, Santa Barbara County California

SANTA BARBARA, CALIFORNIA (047902)

Period of Record Monthly Climate Summary

Period of Record : 12/1/1927 to 6/30/2007

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	65.1	65.8	67.0	69.2	70.4	72.5	76.2	77.4	76.9	74.6	70.9	66.5	71.0
Average Min. Temperature (F)	42.7	44.6	46.3	48.9	51.8	54.7	57.6	58.3	56.9	52.9	47.0	43.5	50.4
Average Total Precipitation (in.)	3.73	4.04	2.79	1.25	0.32	0.09	0.02	0.03	0.15	0.52	1.69	3.05	17.69
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

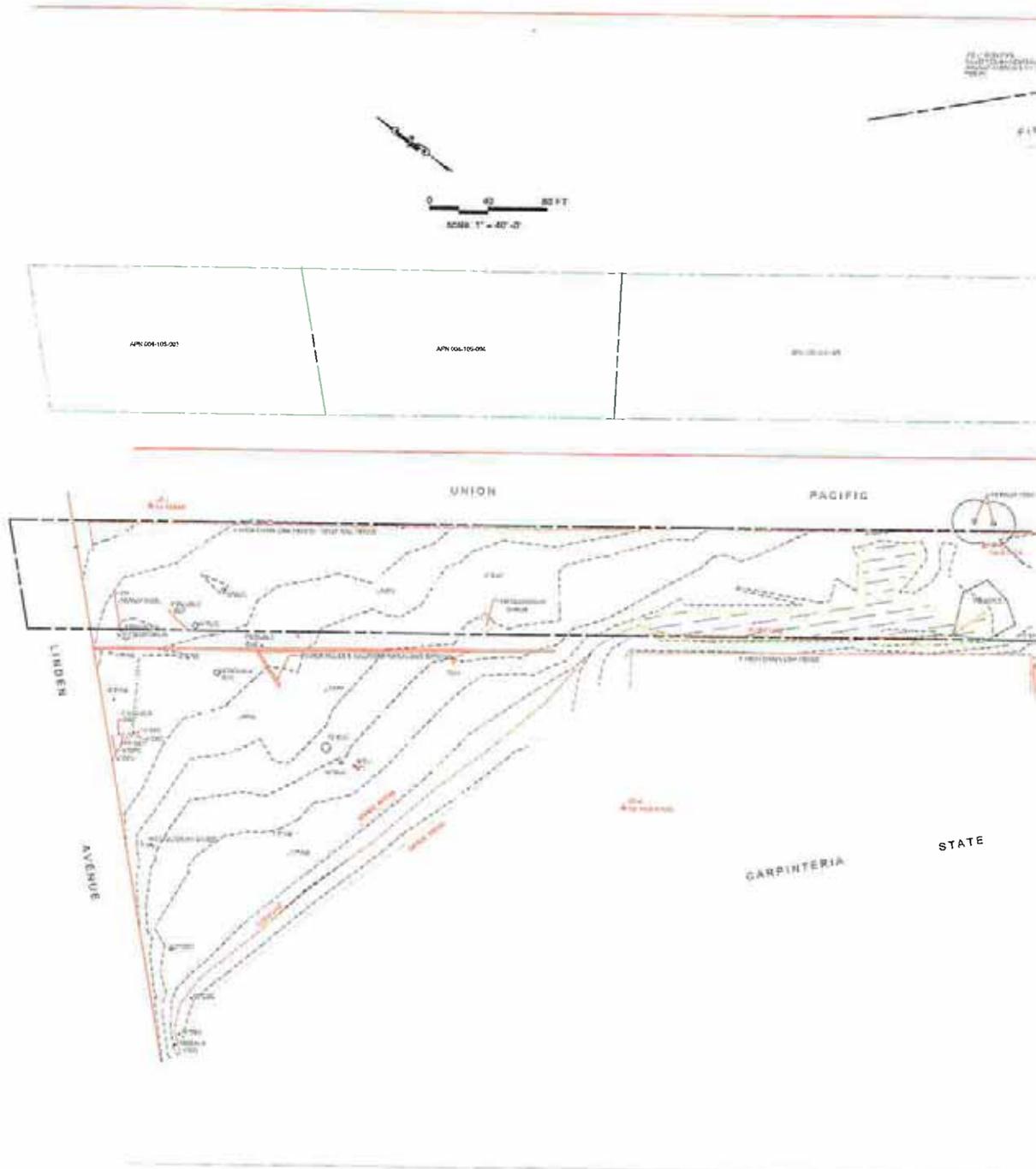
Max. Temp.: 96.2% Min. Temp.: 96.3% Precipitation: 95.9% Snowfall: 96.6% Snow Depth: 96.4%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Western Regional Climate Center, wrc@dr.edu

Carpinteria State beach Trail Project Survey Map

(ponded water on 2/2/2005 delineated in yellow-
Waters of the State ~ 0.14 acre)



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T0-P1
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: El Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Upland/Palustrine Scrub
 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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (if needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>		
Remarks: Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Salix lasiolepis</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	50.0 % (A/B)
4.				Prevalence Index worksheet:	
Total Cover: 40 %				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = 0
1.				FACW species	40 x 2 = 80
2.				FAC species	x 3 = 0
3.				FACU species	80 x 4 = 320
4.				UPL species	x 5 = 0
5.				Column Totals:	120 (A) 400 (B)
Total Cover: %				Prevalence Index = B/A = 3.33	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	80	Yes	FACU	* Dominance Test is >50%	
2.				** Prevalence Index is ≤3.0 ¹	
3.				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4.				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5.				¹ Indicators of hydric soil and wetland hydrology must be present.	
6.				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
7.					
8.					
Total Cover: 80 %					
Woody Vine Stratum					
1.					
2.					
Total Cover: %					
% Bare Ground in Herb Stratum 60 % % Cover of Biotic Crust %					

Remarks: Plot not dominated by hydrophytic vegetation. Note that the *Pennisetum* is highly invasive onsite and likely inhibits the growth of native plants, including native hydrophytes.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T1-P1
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: El Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: -

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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Wetland Hydrology Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Remarks: Although normal circumstances now exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2. _____				Total Number of Dominant Species Across All Strata:	1 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	0:0 % (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____ %				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = 0
1. _____				FACW species	x 2 = 0
2. _____				FAC species	x 3 = 0
3. _____				FACU species	100 x 4 = 400
4. _____				UPL species	x 5 = 0
5. _____				Column Totals:	100 (A) 400 (B)
Total Cover: _____ %				Prevalence Index = B/A =	4.00
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	100	Yes	FACU	<input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
3. _____				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
Total Cover: 100%					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum 0 % % Cover of Biotic Crust _____ %					
Remarks: Plot not dominated by hydrophytic vegetation. Note that the <i>Pennisetum</i> is highly invasive onsite and likely inhibits the growth of native plants, including native hydrophytes.					

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T1-P2
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: El Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Palustrine Scrub/Shrub
 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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Remarks: <u>Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.</u>					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Salix lasiolepis</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	50.0 % (A/B)
4.				Prevalence Index worksheet:	
Total Cover: 40 %				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = 0
1.				FACW species	40 x 2 = 80
2.				FAC species	x 3 = 0
3.				FACU species	60 x 4 = 240
4.				UPL species	x 5 = 0
5.				Column Totals:	100 (A) 320 (B)
Total Cover: %				Prevalence Index = B/A = 3.20	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	60	Yes	FACU	* Dominance Test is >50%	
2.				* Prevalence Index is ≤3.0 ¹	
3.				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet).	
4.				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5.				¹ Indicators of hydric soil and wetland hydrology must be present.	
6.				Hydrophytic Vegetation Present?	
7.				Yes <input type="radio"/>	No <input checked="" type="radio"/>
8.					
Total Cover: 60 %					
Woody Vine Stratum					
1.					
2.					
Total Cover: %					
% Bare Ground in Herb Stratum 0 % % Cover of Biotic Crust %					
Remarks: <u>Plot not dominated by hydrophytic vegetation. Note that the Pennisetum is highly invasive onsite and likely inhibits the growth of native plants, including native hydrophytes.</u>					

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: TJ-P3
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: El Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Palustrine Scrub/Shrub
 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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																																
1. <u>Salix lasiolepis</u>	60	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																																
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)																																
3. _____																																				
4. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0 %</u> (A/B)																																
Total Cover: <u>60 %</u>																																				
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Total % Cover of:</td> <td colspan="2" style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td></td> <td>x 1 =</td> <td>0</td> </tr> <tr> <td>FACW species</td> <td align="center">60</td> <td>x 2 =</td> <td>120</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> <td>0</td> </tr> <tr> <td>FACU species</td> <td align="center">20</td> <td>x 4 =</td> <td>80</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> <td>0</td> </tr> <tr> <td>Column Totals:</td> <td align="center">80</td> <td>(A)</td> <td>200 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A =</td> <td align="center" colspan="2">2.50</td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species		x 1 =	0	FACW species	60	x 2 =	120	FAC species		x 3 =	0	FACU species	20	x 4 =	80	UPL species		x 5 =	0	Column Totals:	80	(A)	200 (B)	Prevalence Index = B/A =		2.50	
Total % Cover of:		Multiply by:																																		
OBL species		x 1 =	0																																	
FACW species	60	x 2 =	120																																	
FAC species		x 3 =	0																																	
FACU species	20	x 4 =	80																																	
UPL species		x 5 =	0																																	
Column Totals:	80	(A)	200 (B)																																	
Prevalence Index = B/A =		2.50																																		
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators: * Dominance Test is >50% X Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																
1. <u>Pennisetum clandestinum</u>	20	Yes	FACU																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>20 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>20 %</u>		% Cover of Biotic Crust _____ %																																		
Remarks: <u>Note that the Pennisetum is highly invasive onsite and likely inhibits the growth of native plants, including native hydrophytes. Since the prevalence Index is < or = 3.0 and plot shows indicators of hydric soil and wetland hydrology, the plot is also dominated by hydrophytic vegetation.</u>																																				

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T2-P1
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: El Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Upland/Palustrine Scrub
 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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>		Yes <input type="radio"/>	No <input checked="" type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>		Yes <input type="radio"/>	No <input checked="" type="radio"/>
Remarks: <u>Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil.</u>					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____				Total Number of Dominant Species Across All Strata:	2 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	50.0 % (A/B)
4. _____				Total Cover: _____ %	
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of: _____ Multiply by:	
2. _____				OBL species	x 1 = 0
3. _____				FACW species	40 x 2 = 80
4. _____				FAC species	x 3 = 0
5. _____				FACU species	50 x 4 = 200
				UPL species	x 5 = 0
				Column Totals:	90 (A) 280 (B)
				Prevalence Index = B/A = 3.11	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	50	Yes	FACU	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Rumex crispus</i>	40	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
7. _____					
8. _____				Total Cover: 90 %	
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum 20 %		% Cover of Biotic Crust _____ %			
Remarks: <u>Plot not dominated by hydrophytic vegetation. Note that the Pennisetum is highly invasive onsite and likely inhibits the growth of native plants, including native hydrophytes.</u>					

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T2-P2
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: El Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Palustrine Scrub/Shrub
 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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="radio"/>	No <input type="radio"/>
Hydric Soil Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Remarks: Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____				Total Number of Dominant Species Across All Strata:	4 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	75.0 % (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: %				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = 0
1. _____				FACW species	35 x 2 = 70
2. _____				FAC species	40 x 3 = 120
3. _____				FACU species	5 x 4 = 20
4. _____				UPL species	10 x 5 = 50
5. _____				Column Totals:	90 (A) 260 (B)
Total Cover: %				Prevalence Index = B/A = 2.89	
Herb Stratum:				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	5	No	FACU	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Rumex crispus</i>	30	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Cynodon dactylon</i>	15	Yes	FAC	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Raphanus sativus</i>	10	Yes	Not Listed	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <i>Cyperus eragrostis</i>	5	No	FACW	¹ Indicators of hydric soil and wetland hydrology must be present.	
6. <i>Leymus triticoides</i>	25	Yes	FAC		
7. _____					
8. _____					
Total Cover: 90 %				Hydrophytic Vegetation Present?	
Woody Vine Stratum				Yes <input checked="" type="radio"/>	No <input type="radio"/>
1. _____					
2. _____					
Total Cover: %					
% Bare Ground in Herb Stratum 10 %					
% Cover of Biotic Crust %					
Remarks: Plot dominated by hydrophytic vegetation.					

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T3-P1
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: EI Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Palustrine Scrub/Shrub
 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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Wetland Hydrology Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Remarks: Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____				Total Number of Dominant Species Across All Strata:	4 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	50.0 % (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____ %				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = 0
1. _____				FACW species	x 2 = 0
2. _____				FAC species	50 x 3 = 150
3. _____				FACU species	45 x 4 = 180
4. _____				UPL species	x 5 = 0
5. _____				Column Totals:	95 (A) 330 (B)
Total Cover: _____ %				Prevalence Index = B/A =	3.47
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	15	Yes	FACU	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Paspalum dilitatum</i>	20	Yes	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Ambrosia psilostachya</i>	10	No	FAC	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Vicia sativa</i>	30	Yes	FACU	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <i>Cymodon dactylon</i>	20	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present?	
7. _____				Yes <input type="radio"/>	No <input checked="" type="radio"/>
8. _____					
Total Cover: 95 %					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum 5 %		% Cover of Biofic Crust _____ %			
Remarks: Plot not dominated by hydrophytic vegetation.					

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carpinteria State Beach Trail City/County: Carpinteria, Santa Barbara Co. Sampling Date: Jan. 3, 2008
 Applicant/Owner: City of Carpinteria State: CA Sampling Point: T3-P2
 Investigator(s): Cher Batchelor & Jen Turner Section, Township, Range: EJ Rincon, T4N, R25W, Carpinteria USGS Quad
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1%
 Subregion (LRR): C - Mediterranean California Lat: -119.51922 Long: 34.39463 Datum: NAD-84
 Soil Map Unit Name: Aquepts, flooded (Camarillo Variant, fine sandy loam) NWI classification: Palustrine Scrub/Shrub

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 Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="radio"/>	No <input type="radio"/>
Hydric Soil Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	No <input type="radio"/>			
Remarks: Although normal circumstances exist onsite, the site likely contains very old fill material, or was significantly disturbed many years ago; therefore, soils appear young and may not clearly exhibit indicators of hydric soil. Hydrology is likely problematic since the site is seasonally flooded/ponded for some time, but when ponding dissipates, no other indicators of hydrology exist.					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Salix lasiolepis</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0% (A/B)
4.				Prevalence Index worksheet:	
Total Cover: 40%				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species	x 1 = 0
1.				FACW species	40 x 2 = 80
2.				FAC species	20 x 3 = 60
3.				FACU species	5 x 4 = 20
4.				UPL species	x 5 = 0
5.				Column Totals:	65 (A) 160 (B)
Total Cover: %				Prevalence Index = B/A = 2.46	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Pennisetum clandestinum</i>	5	No	FACU	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Leymus triticoides</i>	20	Yes	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3.				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4.				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5.				¹ Indicators of hydric soil and wetland hydrology must be present.	
6.				Hydrophytic Vegetation Present?	
7.				Yes <input checked="" type="radio"/>	No <input type="radio"/>
8.					
Total Cover: 25%					
Woody Vine Stratum					
1.					
2.					
Total Cover: %					
% Bare Ground in Herb Stratum 75%					
% Cover of Biotic Crust %					
Remarks: Plot dominated by hydrophytic vegetation.					

SITE PHOTOGRAPHS



Photo 1. Southwesterly view of Transect 1 area with arroyo willow in the background and kikuyu grass in the foreground. This photograph was taken on January 3, 2008.



Photo 2. Southwesterly view of the middle of the project site near Transect 2 with kikuyu grass and curly dock in the foreground and western goldenrod and creeping wildrye in the background. The fence line is the property boundary to the west. This photograph was taken on January 3, 2008.





Photo 3. Southerly view of the vicinity of Data Point T2-P2. This barer area is inhabited by Bermuda grass and is where the deepest and longest duration of ponding occurs onsite. This photograph was taken on January 3, 2008.



Photo 4. Southeasterly view of Transect 3 area with dallis grass in the foreground and arroyo willow in the background. This photograph was taken on January 3, 2008.





Photo 5. Northwesterly view of the project site. This photograph was taken on January 3, 2008.



Photo 6. Southeasterly view of the project site – view of the southern extent of the property (just south of Transect 3), which is dominated by Bermuda grass and other introduced species, but lacks other wetland characteristics. This photograph was taken on January 3, 2008.





Photo 7. Easterly view of the grassy State Beach area just southeast of the subject property after winter storm inundation (project site in background). This photograph was taken on January 5, 2008.



Photo 8. Westerly view of the grassy State Beach area just southeast of the subject property after winter storm inundation which shows general slow flow direction to the culvert under Linden Avenue (background). This photograph was taken on January 5, 2008.



Photo 9. Northeasterly view of the northwestern corner of the general survey area of the project site showing potential Corps jurisdictional waters of the U.S. (non-wetland). This photograph was taken on January 5, 2008.



Photo 10. Northwesterly view of Transect 2 area after winter storm inundation. This photograph was taken on January 5, 2008.





Photo 11. Northerly view of irrigated drainage planted with ornamental trees and introduced grass species. This photograph was taken on January 22, 2008.



Photo 12. Westerly view showing where flows from the east empty along Linden Avenue (offsite). The storm drain inlet that drains under Linden Avenue is located near where the pedestrians are visible in this photograph. This photograph was taken on January 22, 2008.

