

COMPOSITE WETLAND DELINEATION

FOR THE

NEWHALL RANCH RESOURCE MANAGEMENT AND DEVELOPMENT PLAN SITE AND ENTRADA PLANNING AREA

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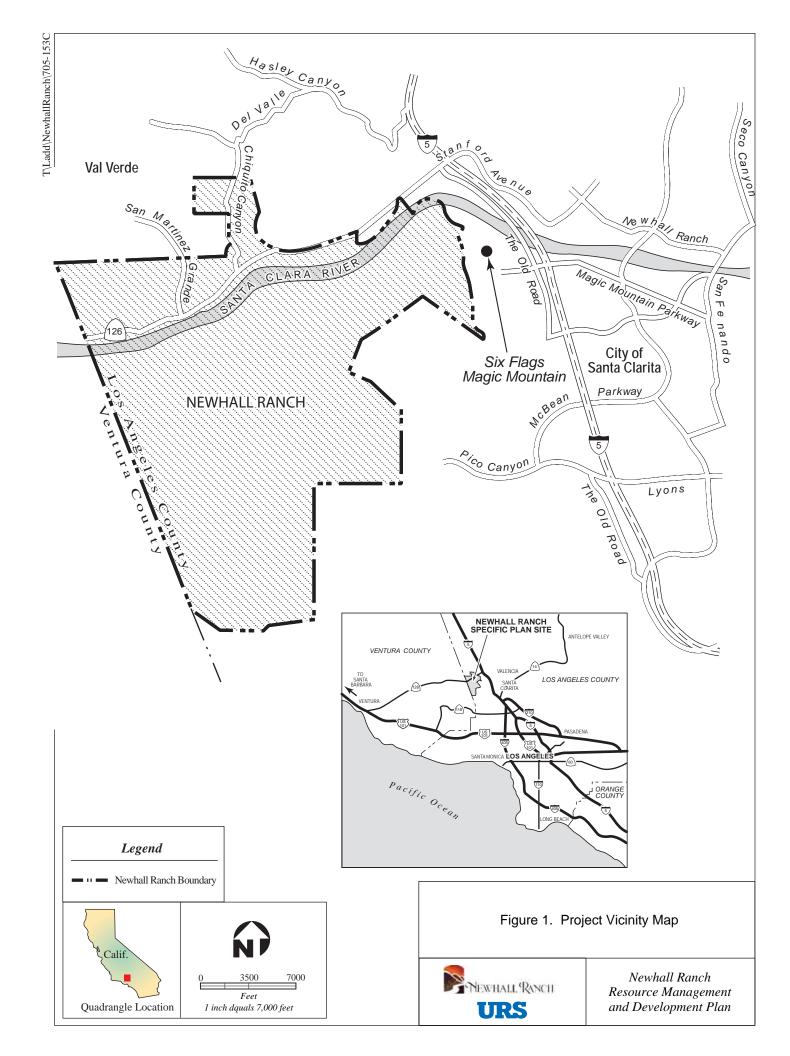
SECTION 1.0 INTRODUCTION

This composite wetland delineation has been prepared by URS Corporation (URS) on behalf of the Newhall Land and Farming Company (Newhall Land). The purpose of this document is to determine the location and extent of all lands within Newhall Land's Resource Management and Development Plan (RMDP) project site and the adjacent Entrada planning area (Figure 1) that would meet the federal definition of wetlands (see 33 CFR 328.3(b)) promulgated by the U.S. Army Corps of Engineers (Corps). The extent of wetlands presented in this document includes wetland boundaries delineated in previous studies, as well as boundaries delineated specifically for this report. The body of this report is organized in two parts: Part One describes the field study conducted specifically for this report, and Part Two integrates the results of that study with the results of previous investigations to create a comprehensive, composite wetland delineation for the entire project site.

1.1 BACKGROUND AND PURPOSE

In 2003, the Los Angeles County Board of Supervisors approved the Newhall Ranch Specific Plan (Specific Plan), which designated a portion of the currently undeveloped Newhall Ranch site near Valencia, California for residential and other urban uses. However, although approval from the County has been granted, build out of the Specific Plan development cannot proceed without compliance with federal and state statutes including the Clean Water Act and applicable sections of the California Fish and Game Code. Both of these statutes require project proponents to acquire authorizations prior to undertaking development activities that would affect waters and streambeds. To meet this need in a streamlined manner, Newhall Land has proposed the RMDP, a comprehensive, long-term permitting plan intended to obtain the required state and federal approvals to build out the site's infrastructure and urban land uses over the next 20 years as previously approved by Los Angeles County. Specifically, the RMDP would involve issuance of a long-term, Individual Section 404 Permit from the Corps and a Master Streambed Alteration Agreement from the California Department of Fish and Game (CDFG). For a more detailed description of the RMDP, please refer to Section 1.2 below, or to the RMDP technical document (Dudek 2006b).

As stated above, Newhall Land is currently in the process of obtaining the federal and state authorizations laid out in the RMDP. Because issuance of the requested permits could potentially result in significant effects on the environment, this process includes working with the Corps and CDFG to prepare a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) as required by the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). To assist preparation of the EIS/EIR, numerous jurisdictional delineations and studies have been conducted within the RMDP site



over the last six years. However, not all of these studies addressed wetlands specifically, and some of the studies were limited to specific portions of the project area.

The most comprehensive jurisdictional delineation for the project was completed in 2004, when URS field mapped all jurisdictional rivers and streams within the RMDP project site. Concurrence with the mapped jurisdictional boundaries was received from the Corps and CDFG in 2004. However, while the 2004 delineation provided comprehensive coverage of the jurisdictional streams on-site, it did not address the presence of special aquatic sites, such as wetlands, within the project site. Because special aquatic sites are afforded additional legal protection beyond that extended to non-wetland waters of the U.S. under the Clean Water Act, it was determined that supplemental delineation work should be performed to identify the location and extent of federally protected wetlands on-site. The 2004 delineation was exhaustive in its treatment of CDFG jurisdictional streambeds on-site, and no additional delineation work is required with regard to those areas. Streambeds under the jurisdiction of CDFG are therefore not discussed further in this document. The wetland boundaries presented in this composite wetland delineation report are compiled from the following sources:

- The URS (2004) comprehensive delineation report, discussed above (Appendix D).
- A field delineation of wetlands within the Entrada portion of the project area conducted by Lukos and Associates in 2008 (Appendix E).
- Interpretation of high-resolution aerial photographs of the Santa Clara River within the RMDP site to obtain a planning-level delineation of wetlands, conducted jointly by URS and Dudek and Associates in 2006.
- A field delineation of on-site wetlands in certain portions of the project site where largescale project facilities (i.e., bridges across the Santa Clara River mainstem) are proposed, conducted specifically for this composite wetland delineation report. For more information, please refer to Part Two of this document.

A report of the field delineations conducted specifically for this composite report in 2007 is presented in Part One, below. The results of that effort and the other surveys identified above are integrated into a single, project-wide planning-level delineation in Part Two.

1.2 DESCRIPTION OF THE PROPOSED RMDP

The intent of the RMDP is to obtain comprehensive state and federal approvals to construct facilities needed to supply a portion of the infrastructure required to build out the Newhall Ranch Specific Plan site's urban land uses over the next 20 years as previously approved by Los Angeles County. The proposed RMDP project activities that may affect jurisdictional areas include construction and maintenance of bridges, bank stabilization, grade control structures, utility crossings, storm drains, building pads, debris and detention basins, and a

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water reclamation plant outfall. Among the most prominent features proposed are three new roadway bridges across the Santa Clara River, and buried bank stabilization that would line a portion of the river and tributaries. A fully detailed description of the facilities proposed in the Newhall Ranch RMDP project can be found in the RMDP technical document (Dudek 2006b).

By seeking a long-term, comprehensive Section 404 permit and Master 1605 Agreement, Newhall Land can facilitate a well planned and streamlined environmental evaluation and decision process by the Corps and CDFG, and can provide an opportunity to design a long-term, regionally-based planning and mitigation program for impacts to the affected riparian habitats. The Section 404 permit and Master 1605 Agreement would allow project components to be implemented under a comprehensive set of specific conditions, thereby avoiding the traditional case-by-case permitting process, expediting the permitting process for qualified project components, and ensuring consistent mitigation.

The various components of the proposed RMDP would be constructed by Newhall Land or other private or public agencies. Third parties would be allowed to perform some of the activities (such as ongoing maintenance operations) authorized under the proposed Section 404 permit and Master 1605 Agreement issued to Newhall Land, but would be bound by the conditions in those permits.

SECTION 2.0

PART ONE: URS CORPORATION 2007 FIELD DELINEATION OF WETLANDS IN PROPOSED BRIDGE ALIGNMENT AREAS

This Part presents the methods and results of field investigations for wetlands conducted by URS staff in portions of the RMDP site where large-scale facilities, such as bridges across the Santa Clara River mainstem, are proposed that would potentially impact any wetlands present. Field investigations were conducted in August, 2007.

2.1 STUDY AREA

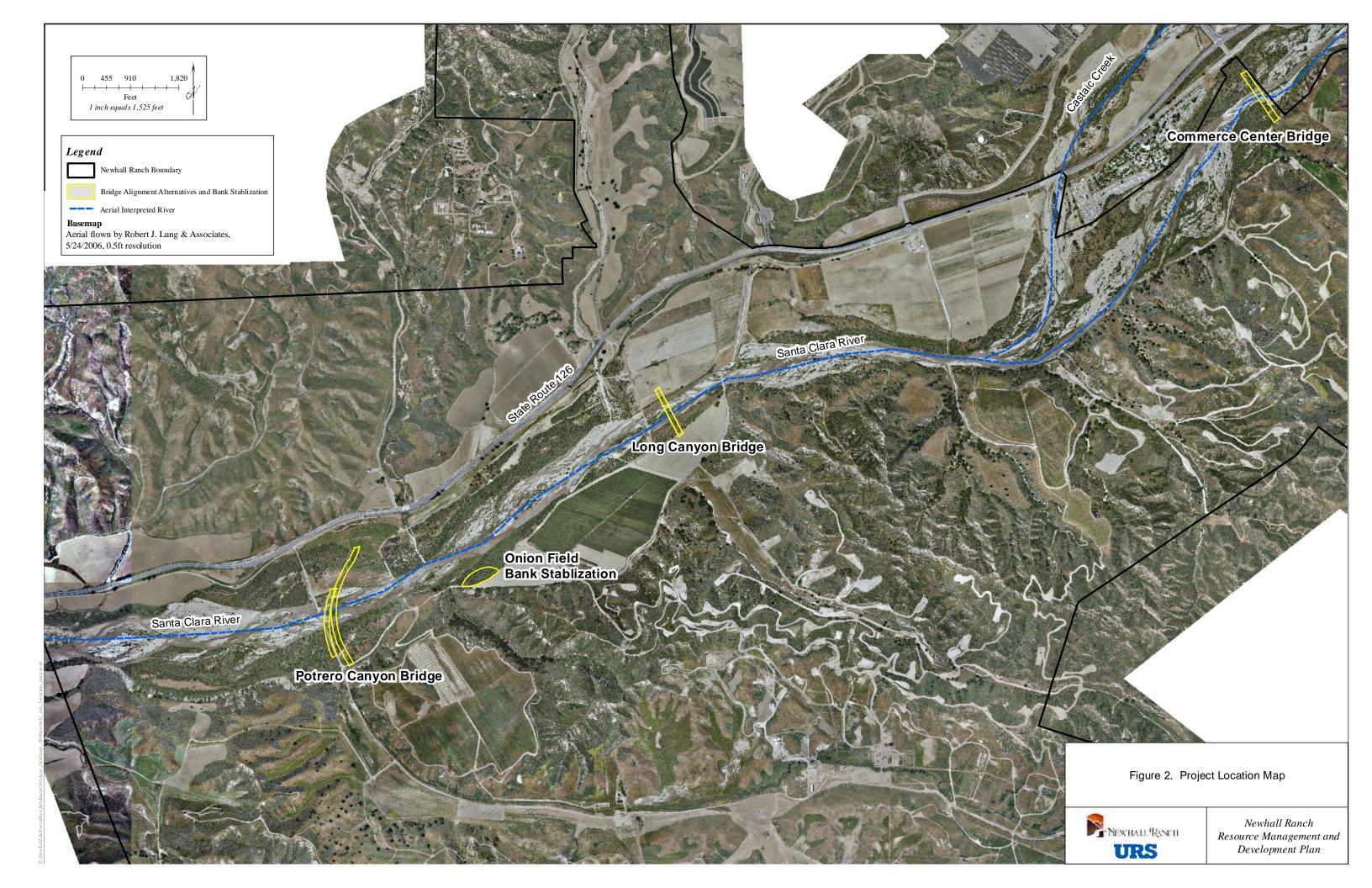
The study area assessed in the 2007 field delineation (Part One study area) consists of four discrete locations within the RMDP project site, including three proposed bridge locations and one area where proposed bank stabilization would impact existing riparian vegetation (Figure 2). From west to east, these locations include: the Potrero Canyon Road bridge alignment (actually two alternative alignments, but located in the same general area); the Onion Fields bank stabilization area; the Long Canyon Road bridge alignment; and the southern abutment of the Commerce Center Drive bridge. All four of these locations that comprise the Part One study area are located immediately adjacent to the Santa Clara River mainstern within the RMDP site.

As shown on Figure 2, the Santa Clara River traverses the RMDP site from east to west and is the dominant hydrologic feature on the site. The current and historic river floodplain are evident from the the existing hydrology, sediment deposition, topographic gradients, and the residual disjunct riparian vegetation. Row-crop agricultural fields are situated on the historic floodplain and adjacent historic river terraces, especially on the north side of the river where the dominant topography is flat to slightly sloping. On the south side of the river, the presence of steeper canyons reduces the available agricultural land near the Santa Clara River. Oil production is the dominant land use in the southern hills, although some of the larger mesas are actively farmed.

Descriptions of the four locations that comprise the Part One study area are provided below. The study area boundary for each of the locations includes the disturbance footprint for the project component proposed at that location (bridge or bank stabilization) and a 100-foot buffer surrounding the footprint.

2.1.1 Potrero Canyon Road Bridge Alignment

The Potrero Canyon Road bridge alignment study location is located in the western portion of the RMDP site at the mouth of Potrero Canyon (Figure 2). This 7.97-acre study location contains the disturbance footprints (including buffers, as described above) of two alternative bridge alignments which will be evaluated in the joint EIS/EIR for the RMDP project. This



location includes a portion of the Santa Clara River, its floodplain, and riparian, agricultural, and upland sage scrub vegetation. Current land uses within the Potrero Canyon Road bridge study location include agriculture, grazing, and open space.

The majority of the Potrero Canyon Road bridge study location is composed of a flat to slightly sloping floodplain comprised of a main channel and several secondary channels separated by long, narrow sandbars. The study location spans the active channel, and extends into the adjacent uplands on the northern and southern banks. The dynamic nature of the river prevents vegetation within the channel from reaching maturity and limits the type of vegetation to riparian scrub communities, which occur on stable sandbars and terraces within the active channel. Along the banks of the river, mature vegetation communities including cottonwood/willow riparian forest are present. The area beyond the northern bank includes riparian scrub and riparian forest vegetation that are currently separated from the main channel by agricultural fields. The southern bank at this location contains a slightly sloping terrace that begins near a dry secondary channel along the edge of the River and continues south toward a ranch road. This area is within the Santa Clara River floodplain and is dominated by mature riparian forest. Additionally, riparian scrub vegetation occurs in a drainage ditch adjacent to a ranch road in the southernmost portion of the Potrero Canyon Road bridge study location.

2.1.2 Onion Fields Bank Stablization Site

The Onion Fields bank stabilization study location is located in the western portion of the RMDP site approximately 0.5 miles east of the proposed bridge across the river at Potrero Canyon Road and 30 feet south of the Santa Clara River (Figure 2). This 3.13 acre study location covers an oval shaped area between the river and an east-west trending ranch road. The study location is partly elevated above the Santa Clara River floodplain due to an upward-sloping bank. The majority of the study location is composed of a flat to moderately sloping river terrace containing mature riparian forest. The current land use within the Onion Fields study location is open space, although a dirt road and an irrigated agricultural field occur immediately adjacent to this location.

2.1.3 Long Canyon Road Bridge Alignment

The Long Canyon Road bridge alignment study location is situated in the middle portion of the project site, approximately 1.25 miles east of the proposed bridge across the river at Potrero Canyon Road (Figure 2). This 2.1 acre study area contains the proposed alignment for the Long Canyon Road bridge across the Santa Clara River, including a 100-foot buffer surrounding the proposed disturbance footprint. Within this area, ground covers include the active channel, riparian corridor, and floodplain of the Santa Clara River, and adjacent fallow agricultural fields. Current land uses within the Long Canyon Road bridge alignment study location include agriculture, cattle grazing, and open space.

The majority of this study location is composed of a flat to slightly sloping floodplain containing a primary channel and several secondary channels separated by sandbars. The floodplain is dominated by riparian scrub habitat. There is a river terrace approximately 12 feet high along the southern part of the study area that is situated above the current floodplain. This terrace is also dominated by riparian scrub vegetation. The northernmost and southernmost portions of the study location (ends of the proposed bridge) currently contain row-crop agricultural fields.

2.1.4 Southern Abutment of Commerce Center Drive Bridge

The Commerce Center Drive bridge alignment study location is located very close to the eastern boundary of the RMDP site (Figure 2.) The approximately 2.94 acre study area includes the disturbance footprint for the southern abutment of the Commerce Center Drive bridge across the river, including a 100-foot buffer (The study location was limited to the southern abutment because Newhall Land already holds a valid Section 404 Permit and Streambed Alteration Agreement for the remainder of the bridge, and only the southern abutment would require authorization under the proposed RMDP.). Land covers within the study location include the Santa Clara River, its floodplain, and riparian and sage scrub vegetation. Current land uses within the Commerce Center Drive bridge study location include agriculture and open space.

The majority of the Commerce Center Drive bridge study location is composed of a flat to slightly sloping floodplain dominated by riparian scrub vegetation. The southernmost portion of the study location includes part of a hill dominated by upland sage scrub vegetation.

Pursuant to Section 404 of the Clean Water Act (CWA), the Corps regulates the discharge of dredged and/or fill material into waters of the U.S., including navigable waterways and wetlands adjacent to navigable waterways; relatively permanent, non-navigable tributaries to navigable waterways; and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. The CWA states that the Corps may only issue a Section 404 Permit for the Least Environmentally Damaging Practicable Alternative (LEDPA), and the U.S. Environmental Protection Agency (EPA) has established guidelines [404(b)(1) Guidelines] enabling the Corps to compare alternatives to a proposed discharge and determine the LEDPA. Certain high-value aquatic resource areas, termed Special Aquatic Sites, are given additional protection by the 404(b)(1) Guidelines and avoidance is required if practicable. Special Aquatic Sites are defined to include wetlands, mudflats, vegetated shallows, riffle/pool complexes, coral reefs, and sanctuaries and refuges. Of these features, only wetlands occur within the RMDP project area.

2.1.5 Wetland Defined

Wetlands are defined by 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under

normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987). In 1987, the Corps published the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987; Wetland Delineation Manual) to guide its field personnel in determining jurisdictional wetland boundaries. In 2006, the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2006; Arid West Regional Supplement) was published by the Corps for use in California (Region 0) as a complement to the Wetland Delineation Manual. Where differences occur within the two documents, the Arid West Regional Supplement takes precedence. The methodology set forth in the Wetland Delineation Manual and the Arid West Regional Supplement requires that to be considered a wetland, the vegetation, soils, and hydrology of an area must exhibit at least minimal hydric characteristics. While the Wetland Delineation Manual and Arid West Regional Supplement provide great detail concerning methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria: Hydrophytic Vegetation, Hydric Soils, and Wetland Hydrology. These wetland parameters are discussed in greater detail below.

2.1.5.1 **Hydrophytic Vegetation**

In order for a site to meet the CWA definition of a wetland, the site must exhibit a prevalence of hydrophytic vegetation. A site is usually considered to have a prevalence of hydrophytic vegetation when 50 percent or more of the dominant plant species of a specific community are classified as obligate, facultative-wetland, or facultative (excluding FAC-) according to the *National List of Plant Species That Occur in Wetlands* (Reed 1988). This list divides plants into five categories that reflect the range of estimated probabilities (expressed as a frequency of occurrence) of a species occurring in a wetland versus a non-wetland.

These categories are as follows:

- **Obligate Wetland (OBL)** Occur almost always (estimated probability >99 percent) under natural conditions in wetlands.
- **Facultative Wetland (FACW)** Usually occur in wetlands (estimated probability 67 percent to 99 percent), but occasionally found in non-wetlands.
- **Facultative** (**FAC**) Equally likely to occur in wetlands or non-wetlands (estimated probability 34 percent to 66 percent).
- **Facultative Upland (FACU)** Usually occur in non-wetlands (estimated probability 67 percent to 99 percent), but occasionally found in wetlands.
- **Obligate Upland (UPL)** May occur in wetlands in another region, but occur almost always (estimated probability >99 percent) under natural conditions in non-wetlands in southern California.

A positive sign (+) or negative sign (-) can be used with the Facultative Wetland, Facultative, and Facultative Upland categories to more specifically define the likelihood of occurrence toward the higher or lower end of the category (positive sign indicates a higher probability that the species occurs in wetlands).

2.1.5.2 Hydric Soils

A hydric soil is defined by the National Technical Committee for Hydric Soils as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 1994). A hydric soil may be drained or undrained, and a drained hydric soil may not continue to support hydrophytic vegetation yet still retain the appearance of a hydric soil.

The following indicators are used as a guide to determine whether a given soil meets the criteria for hydric soils. These indicators are listed in decreasing order of importance and reliability. In most situations, only one of these indicators is required to make a positive determination.

- Presence of organic soils (Histosols) or soils that have more than 50 percent (by volume) of the upper 32 inches of soil is composed of organic soil materials
- Presence of histic epipedons (i.e., layers of organic matter in the upper soil) that are saturated for 30 days or more during the growing season
- Presence of sulfidic material or odors indicating anaerobic conditions
- Presence of an aquic or peraquic regime in which oxygen in the upper soil has been displaced by surface water or groundwater saturation that causes anaerobic conditions
- Evidence of chemically reducing conditions in the soil based on chemical tests
- Presence of gleyed soil conditions or soils with bright mottles and/or low matrix chroma
- Soils that occur on the National Technical Committee for Hydric Soils list of hydric soils
- Presence of manganese and iron concretions
- Presence of high amounts of organic matter in the upper soil and/or organic matter streaking (sandy soils only)

2.1.5.3 Wetland Hydrology

The term "wetland hydrology" indicates that the hydrology of an area is periodically inundated or that it has soils saturated to the surface at some time during the growing season. Wetlands are characterized by various hydrologic regimes that range from permanently inundated to irregularly inundated or saturated. In other words, some wetlands are always wet while other wetlands may contain water during only part of the year. The minimum threshold for wetland

hydrology under most circumstances is inundation or saturation within 12 inches of the surface for more than five percent of the growing season (Environmental Laboratory 1987). The growing season is defined as the duration between the last freeze of the spring and the first freeze of the fall.

A list of field indicators of wetland hydrology is presented below in decreasing order of importance and reliability:

- Recorded data on inundation or soil saturation from wells or gauges
- Visual observation of inundation or soil saturation within 12 inches of the surface
- Water marks on stems and fixed objects
- Drift lines consisting of debris and waterborne material
- Sediment deposition
- Visual evidence of surface flows and ponding

Secondary indicators, of which two or more are required in order to meet the hydrology criterion, include the following:

- Oxidized root channels in the upper 12 inches of the soil
- Water-stained leaves
- Local soil survey data
- Other site-dependant features based on the professional judgment of the delineator

According to the Wetland Delineation Manual, wetland hydrology can be inferred indirectly if *all* of the dominant plants in an area are obligate (OBL) species.

2.1.6 SWANCC Decision

Although not related to the three parameters discussed above, the Corps' jurisdiction over wetlands is also limited by legal interpretations of the CWA statute and associated regulations. In 2001, the United States Supreme Court stated in *Solid Waste Agency of Northern Cook Cty. v. Army Corps of Engineers* (531 U.S. 159, 168 (2001)), that the Corps' CWA jurisdiction does not extend to ponds that "are not adjacent to open water," and determined that the Corps exceeded its statutory authority by asserting CWA jurisdiction over "an abandoned sand and gravel pit in northern Illinois, which provides habitat for migratory birds." In reaching its decision, the Court concluded that the "Migratory Bird Rule," which served as the basis for the Corps' asserted jurisdiction, was not supported by the CWA. The Migratory Bird Rule extended CWA jurisdiction to intrastate waters "which are or would be used as habitat by birds protected by Migratory Bird Treaties or which are or

would be used as habitat by other migratory birds which cross state lines..." (Id. at p. 164). This decision stands for the proposition that non-navigable isolated, intrastate waters lacking interstate commerce connections other than potential to be used by migratory waterfowl are not waters of the United States and thus are not jurisdictional under the CWA.

2.1.7 Rapanos/Carabell Decision

In another example, in 2006 the United States Supreme Court decided Rapanos v. United States, 126 S.Ct. 2208 (2006) ("Rapanos"), consolidated cases regarding the extent of the Corps' jurisdiction over waters of the United States under the CWA. The court issued no majority opinion in Rapanos. Instead, the justices authored five separate opinions including the "plurality" opinion, authored by Justice Scalia (joined by three other justices), and a concurring opinion by Justice Kennedy. To guide implementation of the decision, the Corps issued a memorandum stating that "regulatory jurisdiction under the CWA exists over a water body if either the plurality's or Justice Kennedy's standard is satisfied" (Corps, CWA Jurisdiction Following the United States Supreme Court's Decision in Rapanos v. United States & Carabell v. United States, December 2, 2008, ["Rapanos Guidance Memorandum"]).

According to the plurality opinion in Rapanos, "'the waters of the United States' include only relatively permanent, standing or flowing bodies of water" and do not include "ordinarily dry channels through which water occasionally or intermittently flows" (Rapanos, 126 S. Ct. 2208, 2221). In addition, while all wetlands that meet the Corps' definition are considered adjacent wetlands, only those adjacent wetlands that have a continuous surface connection because they directly abut the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature) are considered jurisdictional under the plurality standard (Rapanos Guidance Memorandum, p. 7).

Under the Kennedy approach, "the Corps' jurisdiction over wetlands depends upon the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense" (Rapanos 126 S.Ct. 2208, 2248). "Wetlands possess the requisite nexus, and thus come within the statutory phrase 'navigable waters,' if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.' When, in contrast, wetlands' effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term "navigable waters" (Ibid.). Justice Kennedy identified "pollutant trapping, flood control, and runoff storage" as some of the critical functions wetlands can perform relative to other waters (Id. at p. 2248). He concluded that, given wetlands' ecological role, "mere adjacency" to a non-navigable tributary was insufficient to establish CWA jurisdiction, and that "a more specific inquiry, based on the significant nexus standard, is therefore necessary" (Id. at pp. 2249-2252).

Interpreting these decisions, and according to the Rapanos Guidance Memorandum, the Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The Corps and EPA will decide jurisdiction over the following waters based on a factspecific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that does not directly abut a relatively permanent non-navigable tributary

Where a significant nexus analysis is required, the Corps and EPA will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

The Corps and EPA generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

A wetland delineation of potentially jurisdictional features was conducted in the study area in accordance with the procedures of the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), Department of the Army (DOA) *Clarification and Interpretation of the 1987 USACE Wetland Delineation Manual* (DOA 1992), and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid*

West Region (USACE 2006; Arid West Region Supplement). In addition, the United States Geologic Society (USGS) Val Verde, CA (1995) and Newhall, CA (1995) 7.5 minute topographical quadrangle maps, Soil Survey Geographic Database for the San Francis Area, CA (NRCS 2007), and a high quality aerial photograph of the RMDP project site and the surrounding area (Psomas 2003) were utilized in the delineation. Field surveys were conducted by URS staff on September 25, 26, and 28 and included senior biologists John Davis IV, Johanna Kisner, and Erik Larsen and staff biologists Julie Love, Laura Rizzo, and Wayne Vogler. As described above the study area included four discrete locations, each of which contained the disturbance footprint for a proposed project facility (bridge or bank stabilization) and a 100-foot buffer.

The delineation of wetlands within the study area was complicated because the majority of the study locations were located within the active and/or historic floodplain of the Santa Clara River. Sandy soils and current agricultural uses within the floodplain added to the complexity. To address the challenges presented by sandy soils, the wetland delineation included an evaluation of "problem areas" where appropriate. Areas containing high concentrations of sandy soil were analyzed conservatively for evidence of hydric conditions as specified in the Arid West Region Manual. Agricultural operations have greatly changed the vegetation, soil, and hydrology within the RMDP site. In many areas, agricultural fields are located within the historic river floodplain and often physically isolate on-site hydrophytic vegetation from the river's potential hydrologic influence. Although row-crop agricultural fields within the Santa Clara River floodplain have affected the extent to which flood flows can access floodplain areas beyond the active channel, the RMDP site has been an agricultural operation for many decades, and the existing condition represents "normal circumstances" on the site.

Data collected during the assessment of wetlands were recorded on Wetland Determination Data Forms – Arid West Region Supplement (Corps 2006). Sample point locations were selected for both potential wetland and upland areas to determine the wetland/upland boundary and characterize the vegetation, soils, and hydrology of the area. Soil pits were excavated in areas supporting hydrophytic vegetation to determine the extent of saturation and to examine the soil for positive indicators of hydric soils and wetland hydrology. Soil pits were also excavated in upland areas adjacent to wetlands to aid in delineating the extent of jurisdictional wetlands. At each sample point, plant species composition and indicators of hydric soil and wetland hydrology were recorded. Data forms completed for wetland analysis are included in Appendix A.

Thirty-six sampling points were analyzed to determine boundary between wetland and upland portions of the four study locations. Sample points PC-1 through PC-20 (20 sample points) characterize the Potrero Canyon Road bridge alignment study location; BS-1 (one sample point) characterizes the Onion Fields bank stabilization study location; LC-1 through LC-8 (eight sample points) characterize the Long Canyon Road bridge alignment study

location; and, CC-1 through CC-7 (seven sample points) characterize the study location at the southern abutment of the Commerce Center Drive bridge. To the maximum extent possible, paired upland and wetland sample points were taken. Sample point locations were captured in the field using a Trimble GeoExplorer Series 2003 GPS unit capable of sub-meter accuracy and were plotted on aerial photographs overlaid with the approximate bridge and bank stabilization footprints and study location boundaries. A sample point was considered to be within a wetland (an "in" point) if the area met all three wetland parameters: dominance by wetland plant species; positive wetland hydrology indicators; and hydric soil conditions. If one or more of these parameters was not met, the point was considered not to be within a wetland (an "out" point) and a line was drawn between the two sample points on the site specific aerial photograph.

2.2 METHODS

2.2.1 Vegetation

Prior to field investigations, URS staff obtained a vegetation map of the entire RMDP project area in GIS format prepared for Newhall Land by Dudek and Associates (2006). The classification system used for the vegetation map is a combination of the established Holland (1986) and Sawyer and Keeler-Wolf (1995) classification systems. This map was used in conjunction with high-resolution aerial photos of the site to predict areas likely to contain wetlands, and to ensure that areas containing riparian vegetation communities were thoroughly sampled during field investigations. At each sampling point, the dominant plant species within each stratum (tree, shrub, herb, woody vine) were determined using the 50/20 rule and were identified to the species level. The wetland status of dominant plant species present at each sampling point was determined using the National List of Species That Occur in Wetlands: California (Region 0) (Reed 1988). As defined in Section 2: Regulatory Setting, this list assigns each plant species an indicator status of OBL, FACW, FAC, FACU, or UPL. When more than 50 percent of the dominant plants consisted of species rated OBL, FACW, or FAC (excluding FAC-), the vegetation at the sampling location was classified as "hydrophytic vegetation" in accordance with the Wetland Delineation Manual and Arid West Regional Supplement.

2.2.2 Soils

At each sample point, a delineation shovel was used to dig a pit at least 12 inches in depth, and an intact soil sample allowing inspection of the soil profile was extracted where possible. The characteristics of on-site soils were compared to the literature results obtained from the *NRCS Soil Survey Geographic Database, San Francis Area, CA* (NRCS 2007) for the study area. The soil profiles were examined for indicators of hydric soils and to determine if the on-site soils were consistent with the USDA soils map of the area. Soil characteristics assessed were soil color, texture, and the presence of mottles, organic matter, and other

indicators of hydric soils as listed on the Corps' Wetland Determination Data Forms for the Arid West region. A Munsell[®] Soil Color Chart (Munsell Color 2000) was used in the field to identify the color of soil and to assist in soil type verification and the color of mottles, where present.

2.2.3 Hydrology

Each sample point was examined for positive field indicators of wetland hydrology. The soil pit was examined for standing water or saturation, and the surrounding area was investigated for hydrologic indicators as specified on the Wetland Delineation Data Forms, including water marks, sediment deposits, drift lines, and other primary and secondary indicators of wetland hydrology.

2.2.4 Classification of Wetlands

After Corps-jurisdictional wetlands were delineated in the field, URS staff classified the delineated areas into wetland classes using *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al.* 1979). This classification system, used by the U.S. Fish and Wildlife Service (USFWS), classifies wetlands into systems and subsystems based on the type of aquatic feature with which the wetland is associated (the five systems are marine, estuarine, lacustrine, riverine, and palustrine) and then further assigns classes subclasses, and dominance types to wetlands within each system and subsystem. As the study area does not include any marine, estuarine, or lacustrine (lake) environments, Corps-jurisdictional wetlands on-site are limited to the riverine and palustrine (vegetated fringe) systems. The palustrine system includes wetlands that are dominated by trees, shrubs, or persistent emergent vegetation, and includes classes such as aquatic bed, scrub-shrub wetland and forested wetland. Because the classification system is open-ended beyond the class level, site-specific subclasses were defined based on vegetation communities present within the study area. Wetlands delineated were classified into two classes and three subclasses, which are described below.

Class: Scrub-shrub Wetland. Scrub-shrub Wetlands include areas dominated by woody vegetation less than 6 meters (20 feet) tall, including both shrubs and young trees. Dominant species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. Scrub-shrub Wetlands may represent a successional stage leading to the Forested Wetland class, or they may be relatively stable communities. Scrub-Scrub Wetlands are one of the most widespread classes in the United States (Cowardin *et al.* 1979).

¹ It should be noted that, because the USFWS uses a different definition of wetlands than does the Corps, not all wetlands classified by the Cowardin *et al.* method meet the three-parameter regulatory definition of wetlands promulgated by the Corps and used by URS in this delineation of wetlands within the study area.

Subclass: Riparian Scrub. Within the study area, narrow-leaved deciduous scrub-shrub wetland plant communities dominated by mule fat (*Baccharis salicifolia*), narrowleaf willow (*Salix exigua*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), tamarisk (*Tamarix* spp.), giant reed (*Arundo donax*), white sweetclover (*Melilotus alba*), Fremont cottonwood (*Populus fremontii*), salt grass (*Distichlis spicata*), and cattail (*Typha* spp.) were classified as Riparian Scrub Wetland. Although the majority of these species are native to the area, white sweet clover, giant reed, and tamarisk are non-native. Giant reed and tamarisk are also considered to be invasive species by the California Invasive Plant Council (Cal-IPC 2007). The riparian scrub canopy within this community was partially open and dominated by shrubs and tree saplings with an herbaceous understory.

Subclass: Ruderal. Ruderal vegetation generally occurs in areas of past or chronic disturbance, and is characterized by the presence of species adapted to such conditions. Many of the plant species occurring in ruderal communities are non-native, and the habitat quality associated with this vegetation type is generally low. Although most ruderal plant communities occur in upland areas, portions of the study area contain ruderal vegetation dominated by hydrophytic species. The dominant vegetation included mule fat and Bermuda grass (*Cynodon dactylon*). Bermuda grass is an invasive species (Cal-IPC 2007). Many other non-native grasses were present, but in minor amounts. This vegetation may occur when contiguous areas of riparian vegetation are disrupted and fragmented by human alterations, facilitating invasion by non-native plants.

Class: Forested Wetland. The class Forested Wetland is characterized by woody vegetation that is six meters tall or taller. Forested Wetlands are most common in the eastern United States and in those sections of the West where moisture is relatively abundant, particularly along rivers and in the mountains. Forested Wetlands occur only in the palustrine and estuarine systems and normally possess an overstory of trees, an understory of young trees or shrubs, and a herbaceous layer (Cowardin *et al.* 1979).

Subclass: Riparian Forest. This subclass includes broad-leaved deciduous riparian forest vegetation, such as that observed on banks along the Santa Clara River within the study area. The dominant hydrophytic species within this wetland subclass on-site included Fremont cottonwood, mule fat, and an unidentified grass. The riparian forest vegetation contained a closed canopy that was dominated by mature trees and a thick ground cover consisting mostly of leaf litter and woody debris. Sporadic mulefat and California rose (*Rosa californica*) shrubs and grasses were also present in the open areas that received sufficient sunlight.

2.3 WETLAND DELINEATION RESULTS

A total of 9.06 acres of Corps jurisdictional wetlands were delineated in the four discrete study locations that comprise the Part One study area. Table 1 provides a summary of wetlands observed within each study location by wetland subclass.

TABLE 1
SUMMARY OF JURISDICTIONAL WETLANDS ACREAGE
PER STUDY LOCATION AND VEGETATION TYPE

	USACE Jurisdictional Wetlands by Vegetation Type			
Study Areas	Riparian Scrub	Riparian Forest	Ruderal	Total
Potrero Canyon Road Bridge Alignment	3.82 acres	0.56 acre	0.51 acre	4.89 acres
Onion Field Bank Stabilization				0.00 acre
Long Canyon Road Bridge Alignment	1.33 acres			1.33 acres
Southern Abutment of Commerce Center Bridge	2.84 acres			2.84 acres
Total Wetland Acres				9.06 acres

An overview of conditions related to hydrology, vegetation, and soils within the study area is presented below, followed by a determination of the extent of jurisdictional wetlands at each study location. The study area overview is based on a combination of literature reviews and field verifications of vegetation, soils, and hydrology that occur within the boundaries of the study area. The determination of wetlands provides an assessment and reasoning for the delineation of jurisdictional areas. The determination is further supported by vegetation, soils, and wetland delineation maps.

2.3.1 Study Area Overview: Vegetation

The vegetation map of the RMDP site (Dudek 2006) shows eight vegetation/land cover occurring within the four locations that comprise the study area, including arrow weed scrub, mulefat scrub, cottonwood/willow riparian forest, herbaceous wetlands, riverwash, California sagebrush scrub, and agricultural and disturbed lands. These vegetation types can be generally divided into two main categories: riparian communities, which generally occur within and adjacent to areas of ponded or flowing water, and upland communities, which do not. Descriptions of these vegetation types, including mapped locations within the study area and dominant species present, are provided below. A list of all plant species observed in the four locations that comprise the Part One study area and their wetland indicator status is presented in Appendix B.

2.3.1.1 Riparian Communities

Based on the vegetation map of the RMDP site (Dudek 2006) five different riparian plant communities occur within the study area. Several of the sample points were located within these vegetation communities, and some of the areas sampled exhibited a predominance of hydrophytic vegetation. However, because not all of the areas within riparian communities were dominated by hydrophytic species, and because hydrophytic vegetation is only one of the three required wetland parameters, not all areas mapped as riparian vegetation are Corpsjurisdictional wetlands. The five riparian plant communities occurring within the study area are described below.

Arrow Weed Scrub. This vegetation type occurs in moderate to dense thickets along stream banks, and is dominated by arrow weed (*Pluchea sericea*). Arrow weed scrub is fairly common is southern California, occurring along sandy streambeds, ditches, and washes. In addition to arrow weed, species commonly found within this community include salt grass, narrow-leaved willow (*Salix exigua*), tamarisk (*Tamarix* spp.), rushes (*Juncus* spp.), and slender cattail (*Typha domingensis*) (Holland 1986). Within the study area, arrow weed scrub occurs in a depression between an agricultural road and a cottonwood/willow riparian forest community at the Potrero Canyon Road bridge alignment study location.

Mulefat Scrub. This relatively dense, shrubby riparian plant community occurs on river terraces, atop the banks of stream channels and in floodplain areas that are open or disturbed. It is dominated by mulefat (*Baccharis salicifolia*) although arroyo willow (*Salix lasiolepis*) individuals, upland shrubs, and facultative herbs are often present in limited numbers (Holland 1986). In areas of human disturbance, non-native annual grasses are frequently present as well. Frequent flooding and/or scouring often maintain this community in an early successional state, limiting the height of the shrubs. Within the study area, mulefat scrub occurs at the Potrero Canyon Road bridge alignment in a relict floodplain area; and at the Long Canyon Road bridge alignment adjacent to the active river channel.

Cottonwood/Willow Riparian Forest. This mature riparian community is a tall, open, broad-leafed winter-deciduous riparian forest dominated by Fremont cottonwood trees (*Populus fremontii*) and various species of willow (Holland 1986). It occurs commonly on stream banks and in floodplain areas where flooding occurs periodically but not so frequently as to preclude the development of mature trees. The understory within this community can be varied, containing riparian and upland shrub and herb species including Great Basin sagebrush (*Artemisia tridentata*), quail bush (*Atriplex lentiformis*), coyote brush (*Baccharis pilularis*), scale-broom (*Lepidospartum squamatum*), California mugwort (*Artemisia douglasiana*), wild cucumber (*Marah marcocarpus*), and many others. Within the study area, cottonwood/willow riparian forest occurs at all four study locations in portions of the Santa Clara River floodplain, and is the most abundant plant community at the Commerce Center Drive and Onion Fields study locations.

Herbaceous Wetland. This vegetation does not conform to a CDFG-defined vegetation community classification, and appears to be an early seral form of riparian vegetation that occurs in perennial stream channels where recent flooding has resulted in substantial scour or sediment deposition. Herbaceous wetlands commonly include thick stands of native seedlings and saplings, including Fremont cottonwood, willows, and mulefat; native herbaceous species, such as broad-leaved cattail (*Typha latifolia*), Hooker's evening primrose (*Oenothera elata*), and bulrushes (*Scirpus* ssp.); and non-native species, including water cress (*Rorippa nasturtium-aquaticum*), curly dock (*Rumex crispus*), and tamarisk (*Tamarix* spp.). Within the study area, herbaceous wetlands occur within the active channel of the Santa Clara River at the Potrero Canyon Road, Long Canyon Road, and Commerce Center Drive bridge locations, but are not present at the Onion Fields study location.

River Wash. This land cover does not conform to a CDFG-defined vegetation community classification, and is characterized by unvegetated or sparsely vegetated substrate within stream channels. Such areas may contain seedlings, sparse grasses, and forbs, which often begin colonize the channel after storm events, but mature vegetation is absent due to scouring by seasonal storm flows. River wash is a naturally dynamic habitat which may vary in location and extent depending on local hydrology and long-term and seasonal precipitation patterns. Within the study area, river wash is present within the active channel of the Santa Clara River at the Potrero Canyon Road, Long Canyon Road, and Commerce Center Drive bridge locations, but is absent at the Onion Fields study location.

2.3.1.2 Upland Communities

According to the vegetation map of the RMDP site (Dudek 2006), upland land covers within the study area consisted of California sagebrush scrub and agricultural/disturbed lands. These vegetation types are not typically associated with wetlands, and hydrophytic species are usually not present within these habitats.

California Sagebrush Scrub. This scrub community described by Sawyer and Keeler-Wolf (1995) is dominated California sagebrush (*Artemisia californica*). Other native shrub species present commonly include sages (*Salvia* spp.), California buckwheat (*Eriogonum fasciculatum*), and Mexican elderberry (*Sambucus mexicana*), and components occurring between and beneath these shrubs can include California wishbone-bush (*Mirabilis laevis* var. *crassifolia*), yellow pincushion (*Chaenactis glabriuscula*), lacy phacelia (*Phacelia tanacetifolia*), long-stem golden yarrow (*Eriophyllum confertiflorum*), common forget-menot (*Cryptantha intermedia*), common owl's clover, deerweed (*Lotus scoparius*), and wild cucumber (*Marah macrocarpus*). Non-native species that commonly occur within California sagebrush scrub communities include red-stemmed filaree (*Erodium cicutarium*), short-podded mustard (*Hirschfeldia incana*), horehound (*Marrubium vulgare*), and tree tobacco (*Nicotiana glauca*). Within the study area, California sagebrush scrub occurs in the extreme southern portions of the Potrero Canyon and Commerce Center Drive study locations,

farthest from the river channel. None of the dominant species observed in this community were hydrophytic, and sampling points within sagebrush scrub were not found to exhibit a prevalence of hydrophytic vegetation.

Agricultural and Disturbed Lands. These land covers do not occur naturally, but are instead the result of farming, ranching, oil and gas production, and other human activities. Agricultural and disturbed lands within the study area are typically either unvegetated, as is the case with fallow farm fields and operations areas, which are intentionally kept clear of vegetation; or are vegetated with row crops. However it is possible for non-agricultural species (both native and non-native) to colonize agricultural lands, especially when fields are fallow or not in service. Lands disturbed by non-agricultural activities, such as oil production, are often graded, compacted, and kept free of vegetation while operations are active. When oil activities cease, these areas often become invaded by ruderal vegetation such as bromes (Bromus spp.), wild oats (Avena barbata), and Russian thistle (Salsola tragus). Within the study area, areas mapped as agricultural and disturbed lands occur in association with farm fields and associated roads within the Potrero Canyon Road and Long Canyon Road bridge alignments, and at the Onion Fields bank stabilization location. This land cover was dominated by goose grass (*Eleusine indica*), bluegrass species (*Poa* spp.), and crowfoot grass (Dactyloctenium aegyptium) at the Potrero Canyon location, and by many unidentified annual grass species and tilled earth at the Long Canyon location.

2.3.2 Study Area Overview: Soils

According to the Soil Survey of San Francis Area, California (USDA 2007), a total of four soil mapping units were identified as occurring in the study area. Of the four, only Sorrento loam is considered to be a true soil type, or a land composition capable of supporting plant life. The other three (Riverwash, Sandy Alluvial Lands, and Terrace Escarpments) are considered land types rather than soils. Land types are defined as areas of frequent disturbance and/or areas harsh to plant life (ice fields, beach sands, riverbeds, etc.). All soils and land types mapped within the study area are described below.

2.3.2.1 Sandy Alluvial Lands

Sandy Alluvial Lands contain alluvial sand, gravel, and cobbles deposited in irregular layers, but do not flood during normal flow periods. Vegetation supported by this land type is sparse, and often consists of scattered sagebrush, small trees, and annual grasses and forbs. This land type is included on the National Hydric Soils List due to frequent flooding and ponding, and occurrence in areas with a high water table. The Sandy Alluvial Lands land type was the dominant "soil type" in the study area according to the County Soil Survey, and occurs throughout the Santa Clara River floodplain in the project region. Because this land type contains a high concentration of fine to coarse sand, hydric soil indicators are often challenging to observe while conducting field investigations in Sandy Alluvial Lands. Soils

in these areas were therefore treated as "Problem Areas," as specified in the Wetland Delineation Manual.

2.3.2.2 Riverwash

The Riverwash land type consists of sand, gravel, and cobblestones in active stream channels. Rocks and sand are constantly being removed and redeposited in the channel during periods of active flow. Riverwash typically supports very little vegetation due to the instability of the substrate; however, willows, sagebrush, and other plants may be found growing on this land type (SCS 1972). This land type is included on the National Hydric Soils List due to occurrence in areas of frequent flooding and high water table. According to the County Soil Survey, the Riverwash land type was the dominant "soil type" in the vicinity of the Long Canyon Road bridge alignment, occurring throughout the full extent of the Santa Clara River floodplain within that study location (approximately 75 percent of study location). The high concentration of sand present in Riverwash poses as problematic when assessing evidence of hydric characteristics. Hydric soil indicators are often challenging to observe while conducting field investigations in this land type.

2.3.2.3 <u>Terrace Escarpments</u>

Terrace Escarpments consist of steep slopes that result from continual erosion or faulting, and separates terraces from lower lying land. The resulting steep faces are influenced heavily by weather conditions and typically do not support diverse vegetation communities. The County Soil Survey showed this land type to be present in a small percentage in the southern portion of the Long Canyon Road bridge alignment area. Sparse vegetation was observed on the north-facing slopes. Terrace Escarpments are included on the National Hydric Soils List due to occurrence in areas of frequent flooding.

2.3.2.4 Sorrento Loam

Sorrento Loam consists of very deep, well-drained soils that formed in alluvium mostly from sedimentary rocks formations. This soil is similar to the Riverwash and Sandy Alluvial land types in that the original alluvium was deposited in layers; however, Sorrento Loam is less subject to flooding and subsequent reworking. Thus, Sorrento Loam had more time to develop the characteristics of a true soil. This soil is classified as a fluvent, which is a very young soil subject to periodic flooding and occurs on alluvial fans and in stabilized floodplains. Vegetation typically consists of irrigated agriculture or annual grasses and forbs within uncultivated areas. This soil is included on the National Hydric Soils List due to occurrence in areas of frequent flooding.

2.3.3 Study Area Overview: Hydrology

The Santa Clara River is the dominant hydrologic feature in the study area, and the active river channel flows through three of the four study locations (The Onion Fields bank stabilization site is located directly adjacent to the river, but outside of the channel). Within the study area, the river supports a complex mosaic of riparian plant communities along the channel margins, on alluvial terraces, and within the greater floodplain. Surface flows are perennial within this reach, supported in part by effluent discharges from two publicly owned treatment works upstream. For agricultural purposes, Newhall Land maintains a number of dry-season culvert road crossings over the Santa Clara River that are removed prior to high winter flows each year. A portion of one of these crossings is located within the Potrero Canyon Road bridge alignment study location, and another occurs approximately 300 feet downstream of the Long Canyon Road bridge alignment location.

The headwaters of the Santa Clara River are located in the San Gabriel Mountains in Los Angeles County, and the seasonal hydrology of the river is primarily dictated by patterns of precipitation in these mountains. Upstream of the study area, the watershed consists of approximately 680 square miles of mostly natural land with some areas developed for urban and agricultural uses. The total watershed area is approximately 1,600 square miles. The Santa Clara River is one of two rivers in the region that is not channelized and remains in a relatively natural state. Within the project vicinity, the river is a braided system with a primary active channel and several secondary channels, and its banks are constantly in flux due to erosion and sedimentation. According to a recent study by Balance Hydrologics (2005), the morphology of the channel is in a state of dynamic equilibrium, where the influence of large storm events dominates the form of the channel. Smaller-scale events can shape the channel in the short term, but the morphologic effect of these events is eliminated when larger storms "reset" the channel through large-scale erosional and depositional processes.

2.3.4 Determination of Wetlands within the Study Area

Through investigations for on-site indicators of wetland hydrology, hydrophytic vegetation and hydric soils, wetlands were identified and mapped within three of the four discrete locations that comprise the study area. The results and determining factors of the wetland delineation are discussed in this section and presented on location-specific figures.

2.3.4.1 Potrero Canyon Road Bridge Alignment

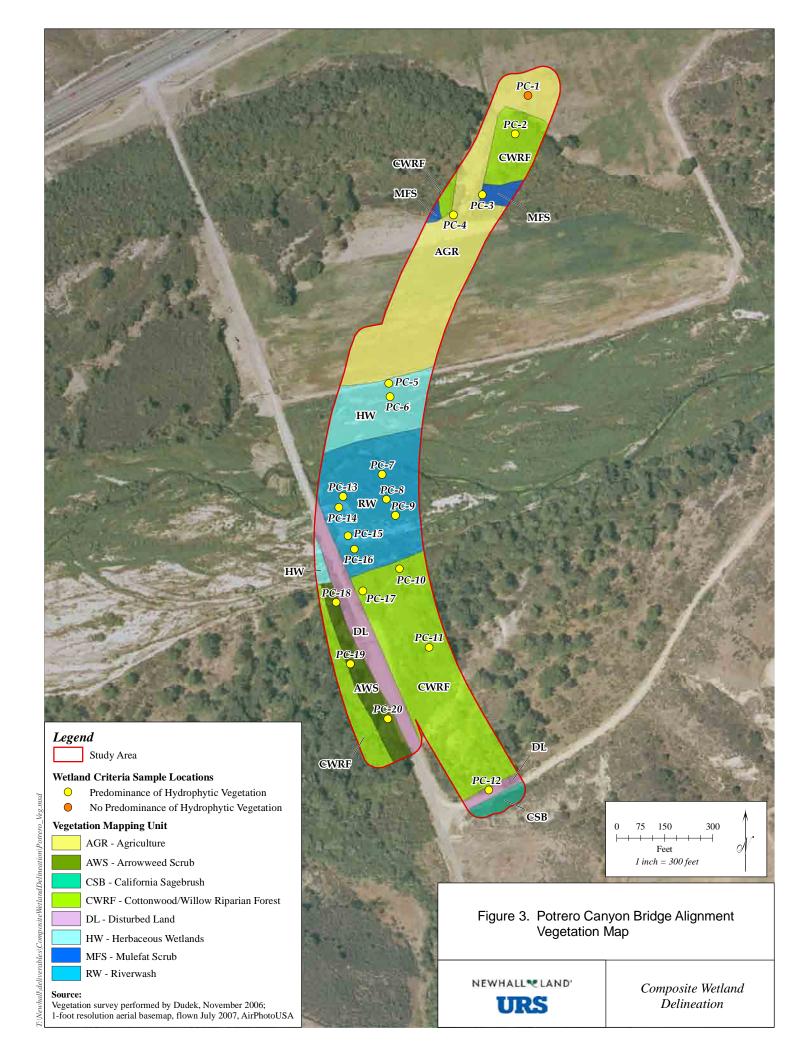
The Potrero Canyon Road bridge alignment study location is a long, narrow swath that spans the active channel of the Santa Clara River, and includes the wetted channel, riparian corridor, and upland agricultural areas on either bank. Within this study location, a total of 20 data points were investigated for evidence of wetland indicators (Appendix A: Wetland Delineation Forms PC-1 through PC-20). Data points were located in various floodplain

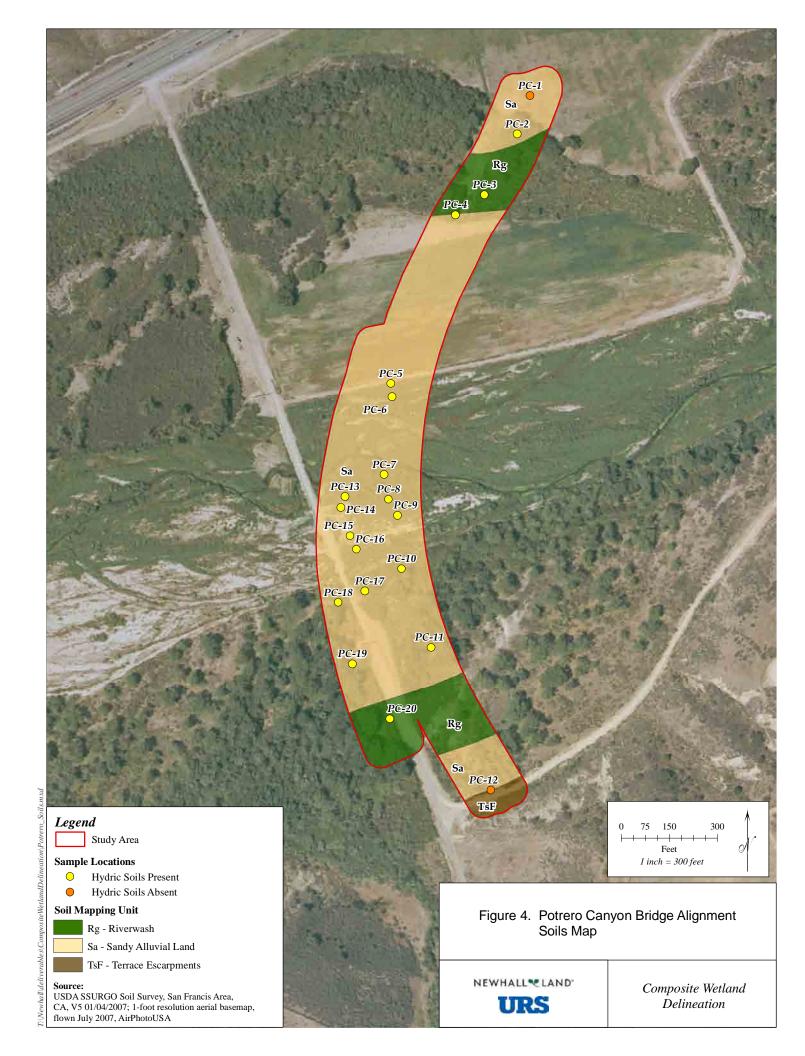
positions, including areas adjacent to the active channel, on alluvial terraces, and within the floodplain beyond the channel banks.

According to the vegetation map for the RMDP site (Dudek 2006), vegetation types within the Potrero Canyon Road study location include arrow weed scrub, cottonwood riparian forest, herbaceous wetlands, mulefat scrub, riverwash, big sagebrush scrub, and agriculture. For a description of these communities, please refer to Section 4.2, above. Of the 20 sampling points within the Potrero Canyon Road study location, three were located within areas mapped as arrow weed scrub, four were within cottonwood/willow riparian forest, two were within herbaceous wetlands, one was in mule fat scrub, seven were in riverwash, and the remaining three were within areas mapped as agricultural and disturbed lands (Figure 3).

All but one of these data points (data point PC-1, located in an agricultural field) showed a dominance of hydrophytic vegetation. Dominant hydrophytic plant species observed within this study location included red willow, narrow-leafed willow, Fremont cottonwood, mulefat, cattail, and white sweetclover. Although most of the hydrophytic vegetation within the study location was associated with the current channel of the Santa Clara River, hydrophytic vegetation was also observed in a strip of agricultural land in the northern portion of the study location. In this area, the historic floodplain of Santa Clara River was evident as riparian scrub and forest bordered the narrow swath of agriculture. The area to the south of this hydrophytic vegetation is occupied by a fallow agriculture field. Vegetation in the field consists of Bermuda grass (*Cynodon dactylon*), Mexican sprangletop (*Leptochloa uninervia*), white sweetclover, and mulefat. The locations of sampling points and presence/absence of hydrophytic vegetation are depicted graphically on Figure 3.

According to the Soil Survey of San Francis Area, California (USDA 2007), the Potrero Canyon Road bridge alignment study location contains three distinct mapped soil types: Riverwash, Sandy Alluvial Lands, and Terrace Escarpments. For a description of these soils, please refer to Section 4.3, above. Soils observed during field investigations within this study location consisted of coarse sand typical of the Sandy Alluvial Land and Riverwash soil mapping units (Figure 4). In areas that experienced recent river deposition, various sized gravels and small cobbles comprised a loose matrix with the coarse sand. The dynamic nature of the on-site river channel and the sandy soil composition posed difficulties in determining the presence of hydric indicators. However, hydric features observed included small reddish mottles often throughout the soil profile (Appendix A: Data Sample Points PC-2 through PC-4, PC-10, PC-11, and PC-17 through PC-20; and Appendix C: Photo 5) and organic material in the top portion of the profile (Sample Point PC-6 and Photo 4). In addition, Sandy Alluvial Land and Riverwash land types are listed by the USDA as hydric soils under flooded conditions, which was the condition of soils observed at several locations during the field survey. Of the 20 data points assessed in this study location, 18 exhibited hydric soil characteristics, while such characteristics were lacking in the remaining two (data points PC-1 and PC-12, located in areas mapped as Sandy Alluvial Lands and Terrace





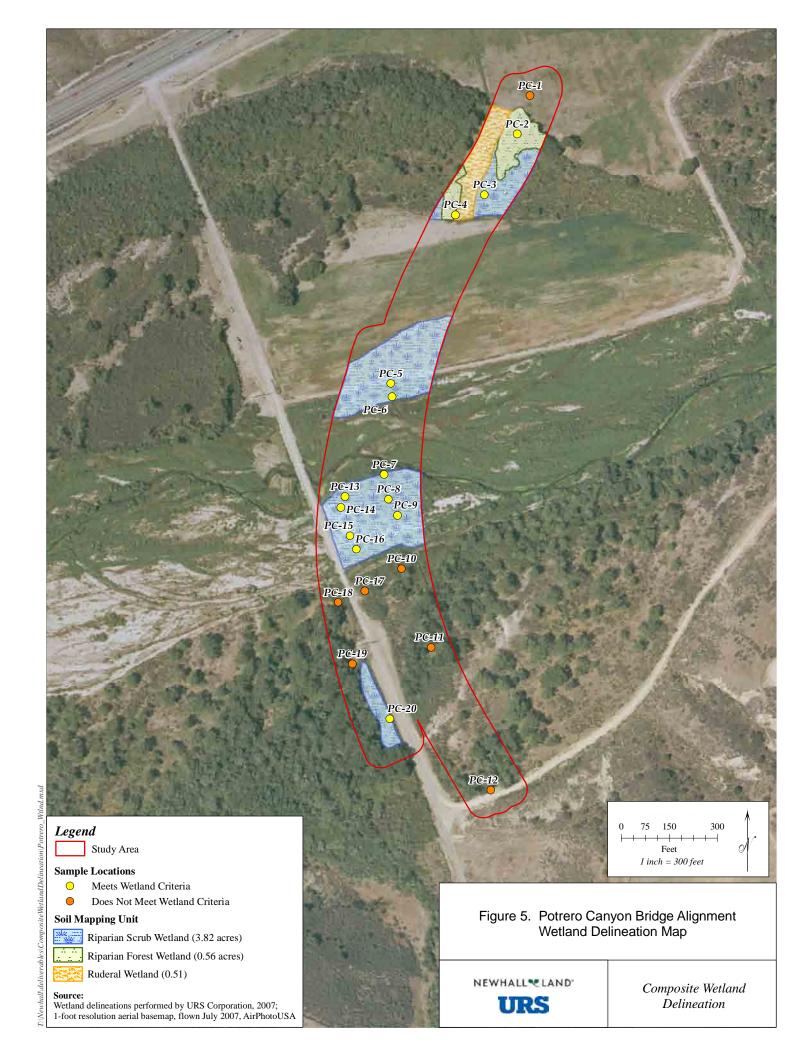
Escarpments, respectively). The mapped soil types, along with locations of sampling points and presence/absence of hydric soil indicators, are depicted graphically on Figure 4.

Hydrology within the Potrero Canyon Road bridge alignment is dominated by the Santa Clara River mainstem, which flows through this study location. The river supports yearround surface flows at this location, and flows are supplemented by treated wastewater discharges from two treatment works upstream. The study location contains three basic hydrologic zones: the low-flow river channel, which is inundated year-round by surface flows; terraces and secondary channels, which are inundated periodically during periods of high flow but may be saturated at other times depending on the season, flow conditions, and location; and adjacent uplands, which are not regularly or periodically inundated by river flows. Although the boundaries between these zones are not always easily defined and change over time, the 20 sampling points assessed at the Potrero Canyon Road study location were situated to include all hydrologic zones. Wetland hydrology was evident at all data points located within the active river channel and terraces, but was generally absent at points farther removed from the river. However, three data points (PC-2, PC-3, and PC-4) located in a portion of the historic floodplain exhibited wetland hydrology, as did a point (PC-20) located between an artificial berm and a ranch road. Hydrology at these points is dictated by local relief, rather than Santa Clara River flows.

A total of 4.89 acres of wetlands were delineated within the Potrero Canyon Road study location (Figure 5 and Table 1). All of the jurisdictional wetlands identified as this location were within the Palustrine system as described by Cowardin (1979). Based on the vegetation communities present, the wetlands within this study location were classified as Riparian Scrub Wetlands (3.82 acres), Riparian Forest Wetlands (0.56 acres), and Ruderal Wetlands (0.51 acres). The determination of wetlands was difficult given the sandy soil types. In light of problematic sandy soils, the presence of redox mottles and organic matter at several sampling locations provided evidence of hydric soils. Due to the wide distribution of riparian vegetation and problematic sandy soils, the presence of saturated soils, high water table, oxidized roots, and other hydrologic indicators were also used in mapping the wetlands within this study location. Wetlands were mostly located within the active channel of the Santa Clara River, but also occurred in the northern portion of the study area associated with the disjunct historic floodplain and in a small area in the southwest of the study area associated with a small drainage (Figure 5).

2.3.4.2 Onion Fields Bank Stabilization Site

The Onion Fields study location is on the southern bank of the Santa Clara River, on a slope between the river channel and an adjacent agricultural field. Only one data point was assessed in this study location, situated at the bottom of the bank slope (Appendix A: Wetland Delineation Forms BS-1).



According to the vegetation map for the RMDP site (Dudek 2006), the Onion Fields study location is comprised almost exclusively of cottonwood/willow riparian forest, with small patches of disturbed land present along the agricultural road at the southern boundary. For a description of these communities, please refer to Section 4.2, above. The data point assessed at this location was within the cottonwood/willow riparian forest, and exhibited a dominance of hydrophytic vegetation (Figure 6). Dominant hydrophytic plant species within this study location included Freemont cottonwood and red willow trees, confirming the mapped vegetation type. Understory plants included California rose (*Rosa californica*), stinging nettle (*Urtica dioica*) and mugwort (*Artemisia douglasiana*). The riparian canopy was dense with an open to closed shrub layer. In open areas, thick leaf litter covered the majority of the ground.

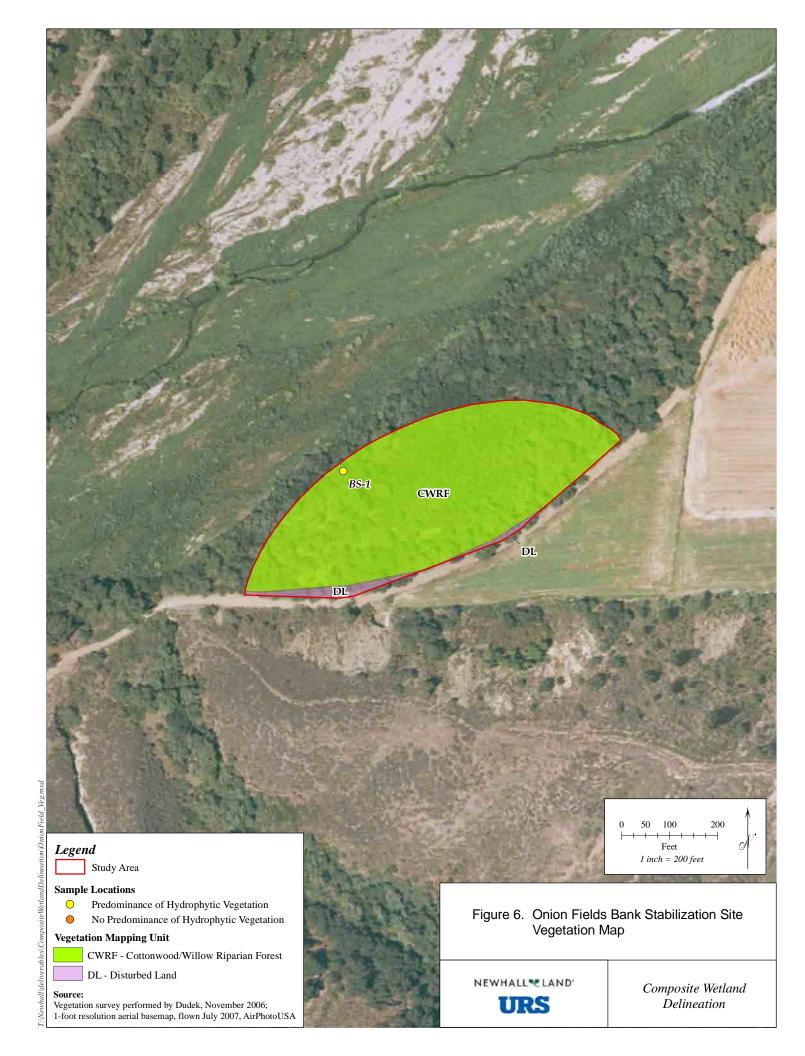
According to the Soil Survey of San Francis Area, California (USDA 2007), the entire Onion Fields study location is mapped as Sandy Alluvial Lands (Figure 7). For a description of this land cover, please refer to Section 4.3, above. Soils assessed at the sampling point consisted of sandy loam typical of the Sandy Alluvial Lands soil mapping unit. Typical conditions were present during the delineation, and the soils were not determined to be problematic due to the presence of well-established vegetation. No redox features or other hydric soil indicators were observed at the sampling point.

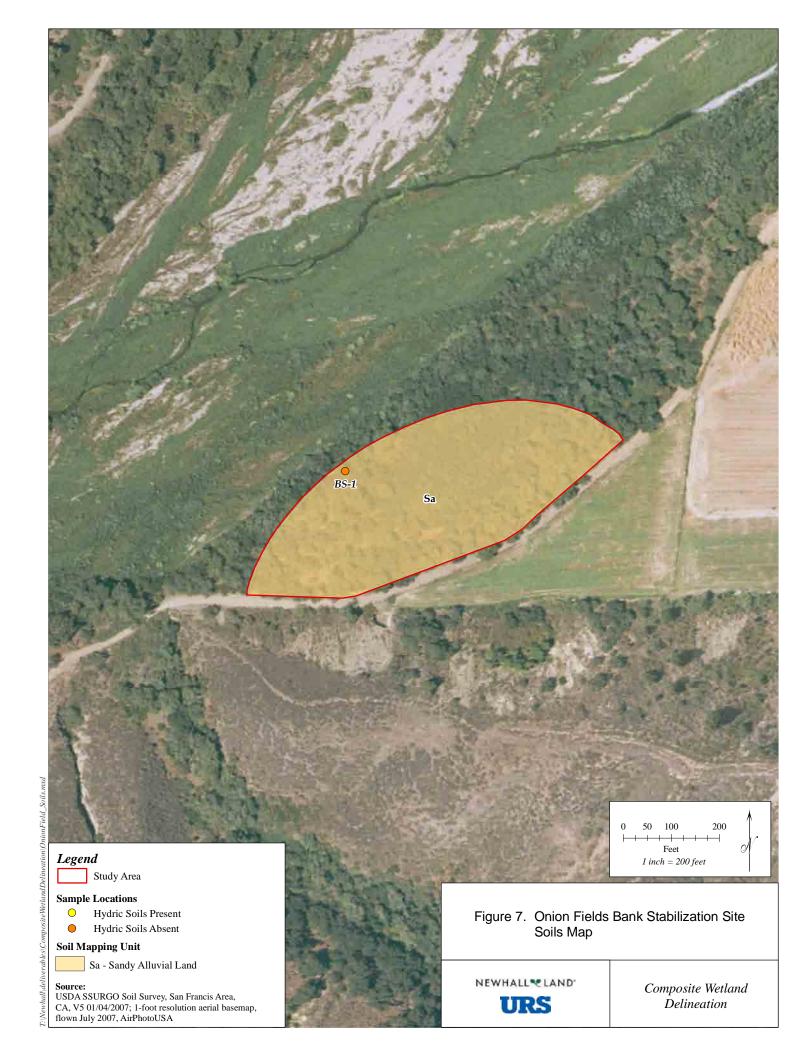
Although the Onion Fields study location is within the Santa Clara River floodplain, it is located on a slope between the river channel and an adjacent agricultural field. The data point assessed at this study location was located at the bottom end of this slope, closest to the river channel (Figure 8). Due to the age and structure of the riparian forest, it is apparent that this location is seldom affected by high flows in the river, and that regular inundation or saturation does not occur. The sampling point was thoroughly examined for evidence of wetland hydrology, but no primary or secondary indicators were present.

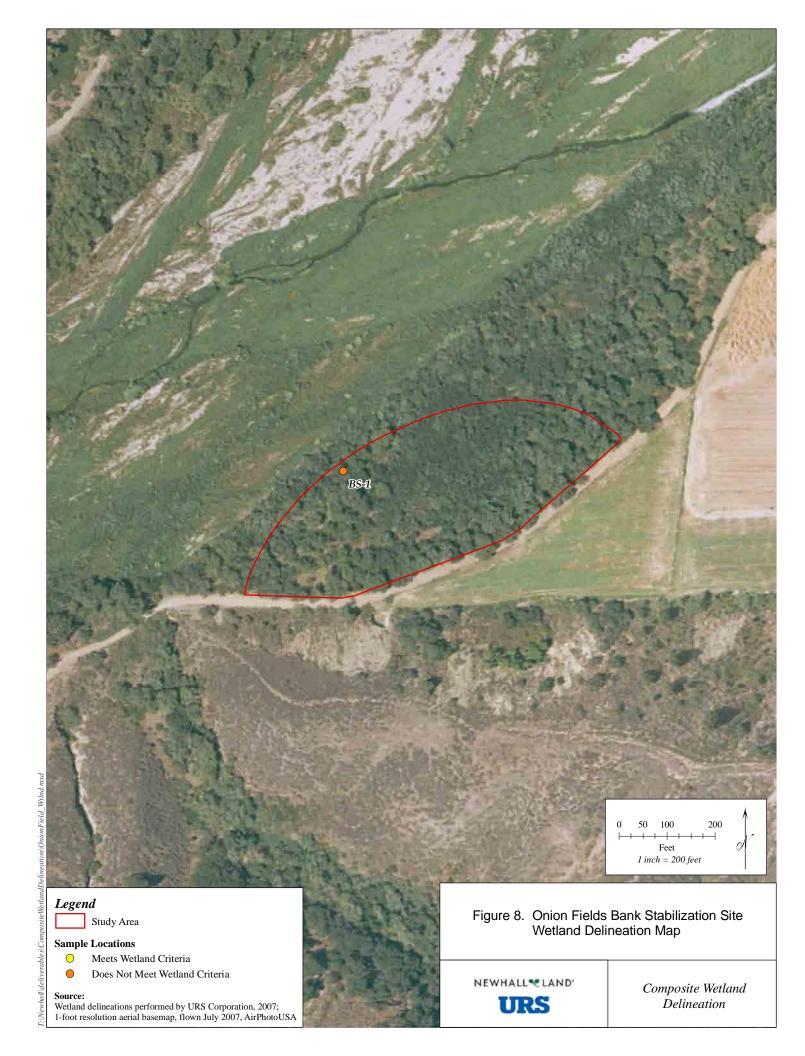
No jurisdictional wetlands were found to occur within the Onion Fields Bank Stabilization study location (Table 1). Although hydrophytic vegetation was present, the area lacked hydric soils and wetland hydrology.

2.3.4.3 Long Canyon Road Bridge Alignment

The Long Canyon Road bridge alignment study location is a long, narrow swath that spans the active channel of the Santa Clara River, and includes the wetted channel, riparian corridor, transitional vegetation, and upland agricultural areas on either bank. Within this study location, a total of eight data points were investigated for evidence of wetland indicators (Appendix A: Wetland Delineation Forms LC-1 through LC-8). Data points were located in various floodplain positions, including areas adjacent to the active channel, on alluvial terraces, and within the floodplain beyond the channel banks. Within this study location, the active river channel is in the northern portion of the floodplain.



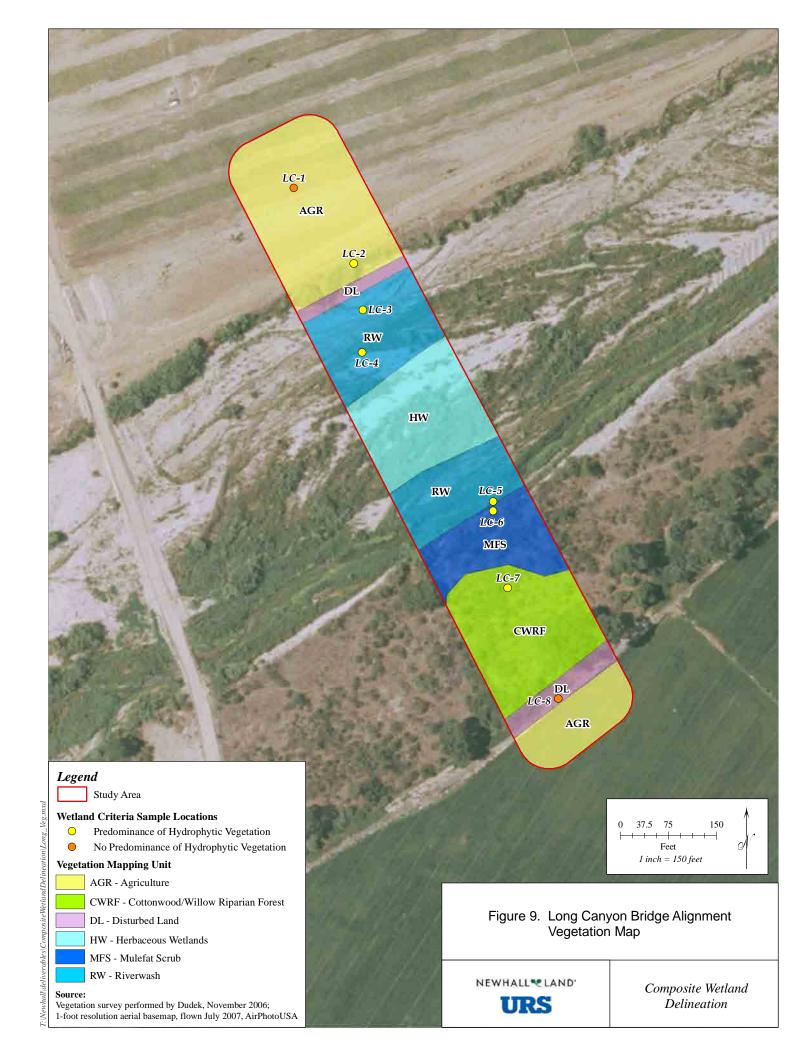


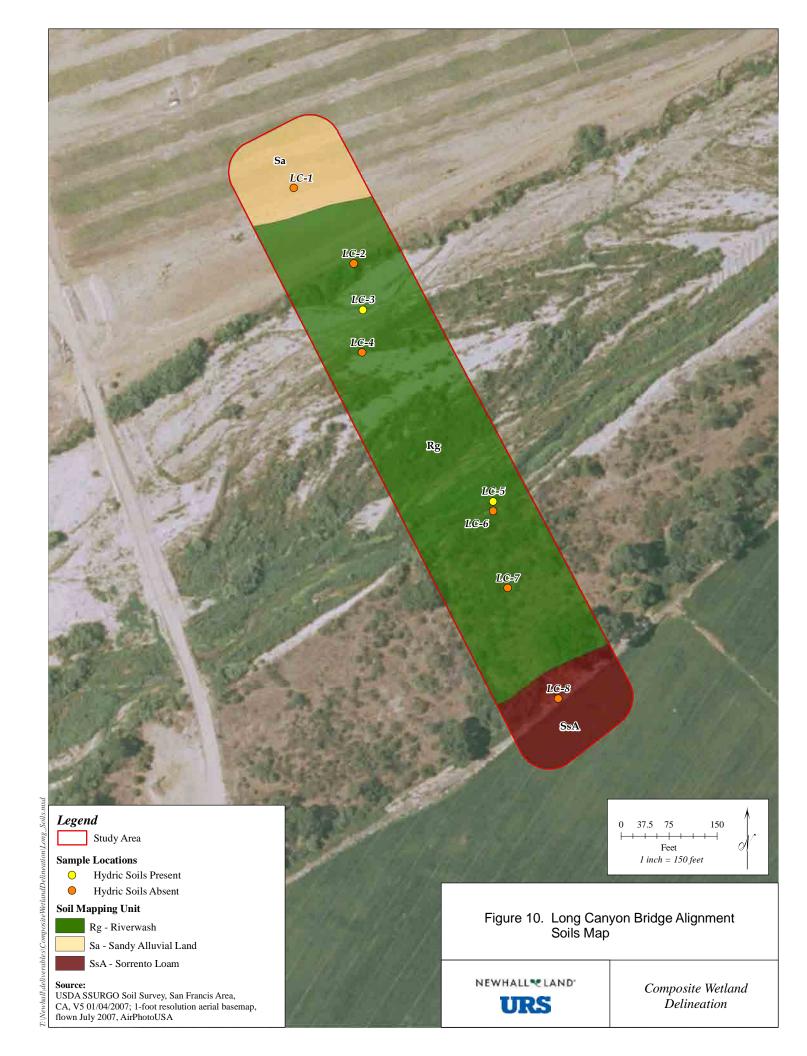


The vegetation map for the RMDP site (Dudek 2006) shows several vegetation types within the Long Canyon Road study location, including cottonwood/willow riparian forest, herbaceous wetlands, mulefat scrub, riverwash, disturbed land, and agriculture. For a description of these communities, please refer to Section 4.2, above. Of the eight sampling points assessed within the Long Canyon Road bridge alignment study location, one was located within an area mapped as cottonwood/willow riparian forest, one was within mule fat scrub, three were in riverwash, and the remaining three were in areas mapped as agricultural or disturbed land (Figure 9). All but two of these data points (Points LC-1 and LC-8, located in agricultural fields) showed a dominance of hydrophytic vegetation. Dominant hydrophytic plant species within this study location included mulefat, tamarisk, arundo, South American horseweed (Conyza bonariensis), red willow, narrow-leaf willow, and willow weed (Polygonum lapathifolium). All of the hydrophytic vegetation within this study location was associated with the active channel and riparian corridor of the Santa Clara River. In the southern portion of the Long Canyon Road study location, a terrace at the edge of the riparian corridor contained several hydrophytic vegetation species including mulefat and narrow-leaf willow. Lands within the study location beyond the riparian corridor, at the extreme northern and southern ends of the study location, contained agricultural fields and did not exhibit a dominance of hydrophytic vegetation; these areas were dominated by annual grasses. The locations of sampling points and presence/absence of hydrophytic vegetation are depicted graphically on Figure 9.

According to the Soil Survey of San Francis Area, California (USDA 2007), the Long Canyon Road bridge alignment study location is underlain primarily by Riverwash, but also includes Sandy Alluvial Lands and Sorrento Loam at the northern and southern ends, respectively. For a description of these soils, please refer to Section 4.3, above. Soils observed during field investigations within this study location consisted of coarse sand typical of the Sandy Alluvial Land and Riverwash land types; and loamy sand, sandy loam, and clay loam typical of the Sorrento Loam soil type (Figure 10). Riverwash was found throughout the majority of the study area (Appendix A: LC-2 through LC-5). In areas that experienced recent river deposition, various sized gravels and small cobbles comprised a loose matrix with the coarse sand. The only hydric soil indicator observed within this study location was depleted matrix (data point LC-3); no sandy redox or other hydric soil indicators were evident during examination of soil profiles. However, the dynamic nature of the on-site river channel and the sandy soil composition posed difficulties in determining the presence of hydric soil indicators. Because the Sandy Alluvial Land and Riverwash land types are listed by the USDA as hydric soils under flooded and/or saturated conditions, these soil types were counted as hydric even in the absence of other indicators when flooding and/or saturation were observed (data point LC-5). The mapped soil types, along with locations of sampling points and presence/absence of hydric soil indicators, are depicted graphically on Figure 10.

Hydrology within the Long Canyon Road bridge alignment is dominated by the Santa Clara River mainstem, which flows through this study location. The river supports year-round



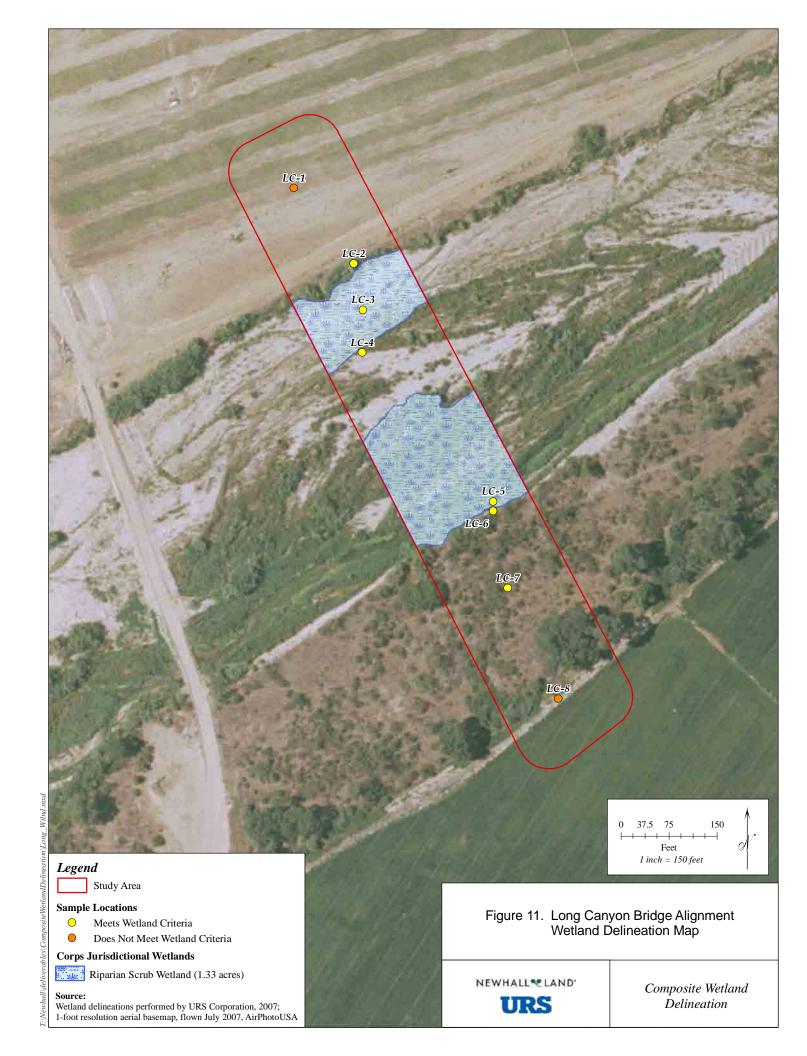


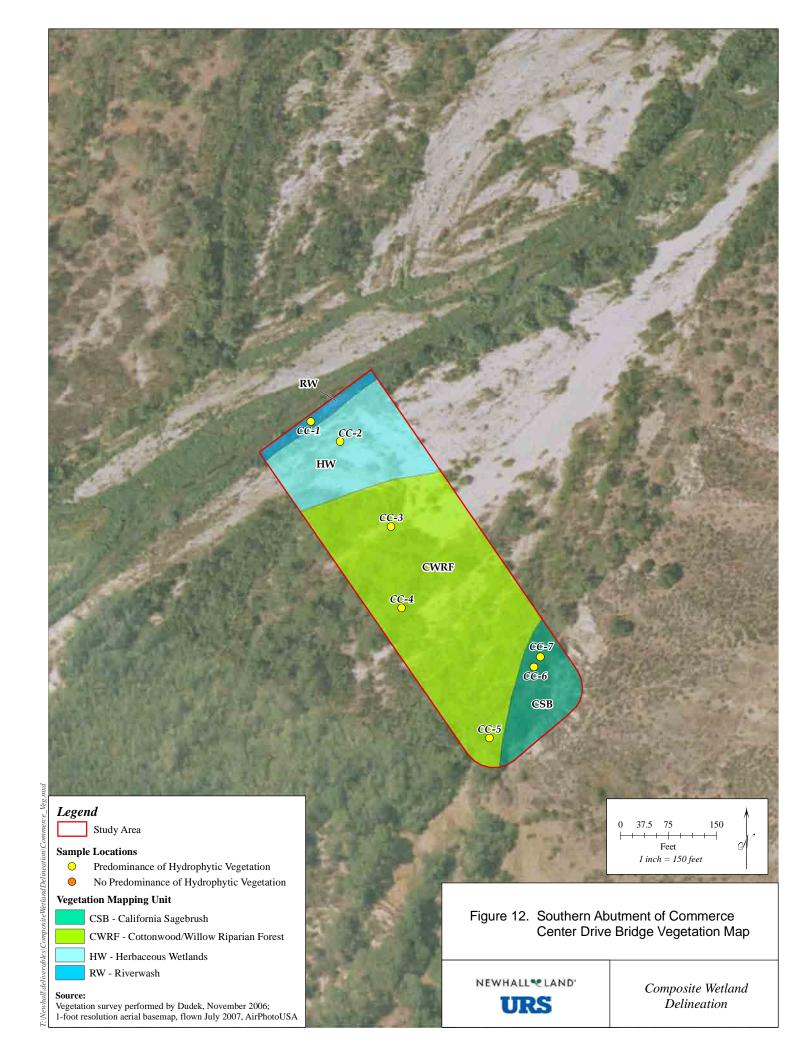
surface flows at this location, which are supplemented by treated wastewater discharges from two treatment works upstream. The study location contains three basic hydrologic zones: the low-flow river channel, which is inundated year-round by surface flows; terraces and secondary channels, which are inundated periodically during periods of high flow but may be saturated at other times depending on the season, flow conditions, and location; and adjacent uplands, which are not regularly or periodically inundated by river flows. Although the boundaries between these zones are not always easily defined and change over time, the eight sampling points assessed at the Long Canyon Road study location were situated to include all hydrologic zones. Wetland hydrology was evident at all data points located within the active river channel and terraces, but was absent at points farther removed from the river. A total of 1.34 acres of wetlands were delineated within the Long Canyon Road study location (Figure 11 and Table 1). The determination of wetlands was difficult given the problematic, sandy soil types within the study location. Due to the presence of problematic soils, the mapped soil types and position in the riverbed was used as evidence of hydric soils in some areas. Wetlands were present on both banks of the Santa Clara River, within and adjacent to the active channel. All of the jurisdictional wetlands identified as this location were within the Palustrine system as described by Cowardin (1979). Based on the vegetation communities present, the wetlands within this study location were classified as Riparian Scrub Wetlands. The most appropriate National Wetland Inventory (NWI) classification for this community is PSS₆.

2.3.4.4 Southern Abutment of Commerce Center Drive Bridge

The study location at the southern abutment of the Commerce Center Drive bridge is a narrow swath that extends southward from the active channel of the Santa Clara River into the uplands on the southern bank. Within this study location, a total of seven data points were investigated for evidence of wetland indicators (Appendix A: Wetland Delineation Forms CC-1 through CC-7). Data points were located in various floodplain positions, including areas adjacent to the active channel, on alluvial terraces, and beyond the southern bank. At the time of the investigation, the active river channel was within the northernmost portion of the study location.

The vegetation map for the RMDP site (Dudek 2006) shows four vegetation types within the Commerce Center Drive study location, including riverwash, herbaceous wetlands, cottonwood/willow riparian forest, and California sagebrush scrub. For a description of these communities, please refer to Section 4.2, above. Of the eight sampling points assessed within this study location, one was located within an area mapped as riverwash, one was in herbaceous wetlands, three were within cottonwood/willow riparian forest, and the remaining two were mapped as California sagebrush scrub (Figure 12). All of the sampling points assessed exhibited a dominance of hydrophytic vegetation. Dominant hydrophytic plant species within the Commerce Center Drive study location included red willow, sandbar willow, Fremont cottonwood, mulefat, cattails (*Typha* spp.), and giant reed. All of the



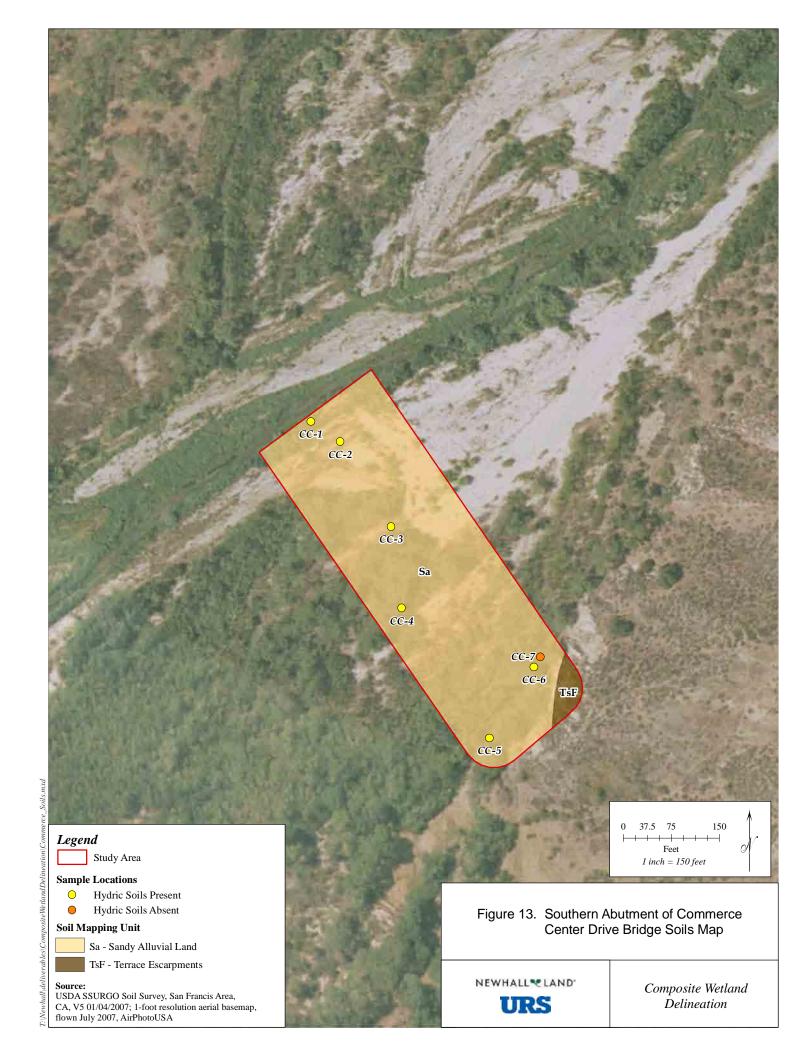


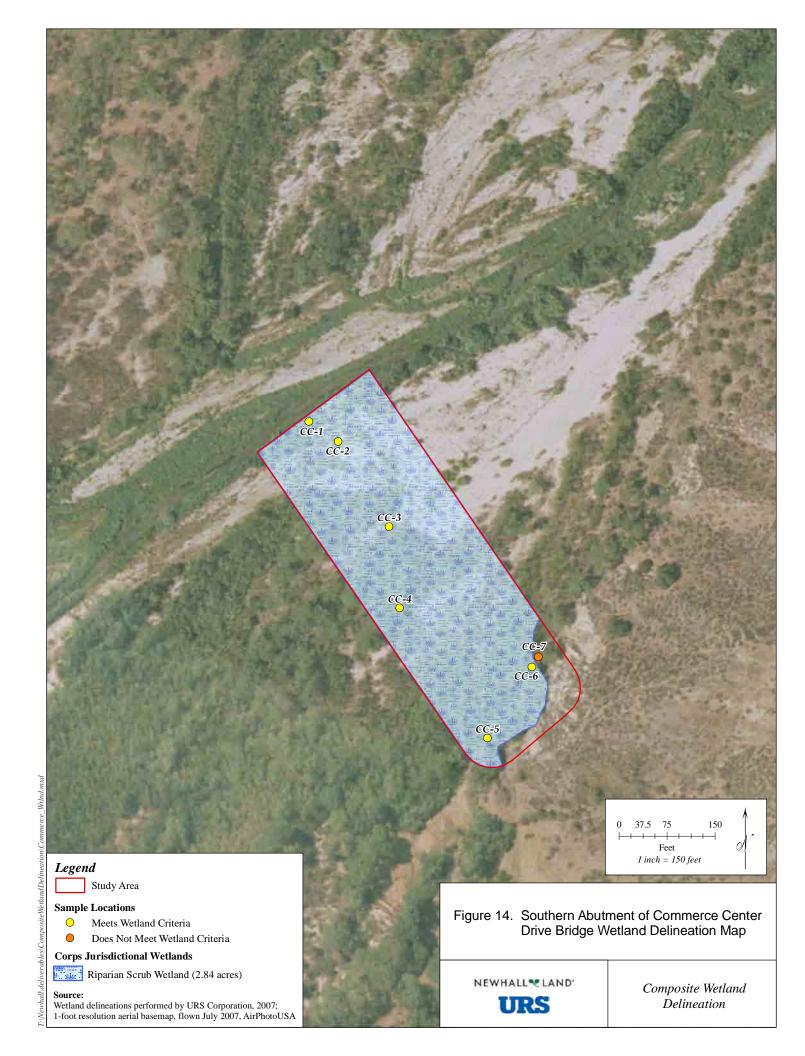
hydrophytic vegetation within this study location was associated with the active channel and riparian corridor of the Santa Clara River. The locations of sampling points and presence/absence of hydrophytic vegetation are depicted graphically on Figure 12.

According to the Soil Survey of San Francis Area, California (USDA 2007), the Commerce Center Drive study location is underlain primarily by Sandy Alluvial Lands, but also includes Terrace Escarpments in the southeastern corner. For a description of these soils, please refer to Section 4.3, above. Soils observed during field investigations within this study location consisted of coarse sand, consistent with the Sandy Alluvial Land and Terrace Escarpments mapping units (Figure 13). In areas that experienced recent river deposition, various sized gravels and small cobbles comprised a loose matrix with the coarse sand. Hydric soil indicators observed within this study location included small reddish mottles, often throughout the soil profile (Appendix A: Data Sample Points CC 1-6 and Appendix B: Photo 4), and organic material in the top portion of the profile. However, the dynamic nature of the on-site river channel and the sandy soil composition posed difficulties in determining the presence of hydric soil indicators. In addition, the Terrace Escarpment land type is especially problematic due to its steep faces and continuing erosional processes. Because Sandy Alluvial Land is listed by the USDA as a hydric soil under flooded and/or saturated conditions, this soil type was counted as hydric even in the absence of other indicators when flooding and/or saturation were observed (data points CC-1, CC-2, and CC-5). The mapped soil types, along with locations of sampling points and presence/absence of hydric soil indicators, are depicted graphically on Figure 13.

Hydrology within the Commerce Center Drive study location is dominated by the Santa Clara River, which flows through the southern end of this study location. The river supports year-round surface flows at this location, which are supplemented by treated wastewater discharges from two treatment works upstream. The study location is sloped, with higher elevation area occurring on the southern river bank and lower elevations at the river channel, in the northern portion of the study location. The sloping topography results in a gradation of hydrologic zones, ranging from the low-flow river channel, which is inundated year-round by surface flows, to upland areas on the southern bank, which are not regularly affected by the river hydrology. The seven sampling points assessed at the Commerce Center Drive study location were situated at various locations throughout the study location, and included all hydrologic zones present. Wetland hydrology was evident at all data points located within the active river channel and terraces, but was absent at points farther removed from the river. Indicators of wetland hydrology included water marks, sediment deposits, and drainage patterns.

A total of 2.84 acres of wetlands were delineated within the Commerce Center Drive study location (Figure 14 and Table 1). The determination of wetlands was difficult given the presence of sandy and eroding soil types, and the mapped soil types and observed inundation/saturation were used as evidence of hydric soils in some areas. Wetlands were





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present throughout the study location, with the exception of the southeastern corner which lacked hydric soils and wetland hydrology. All of the jurisdictional wetlands identified as this location were within the Palustrine system as described by Cowardin (1979). Based on the vegetation communities present, the wetlands within this study location were classified as Riparian Scrub Wetlands.

As shown in Table 1, URS Corporation has delineated approximately 9.06 acres of jurisdictional wetlands within four discrete locations on the RMDP site that comprise the Part One study area. The study locations within the bridge alignments at Potrero Canyon Road, Long Canyon Road, and Commerce Center Drive contained 4.89 acres, 2.10 acres, and 2.94 acres of jurisdictional wetlands, respectively. No wetlands were identified at the Onion Fields bank stabilization study location. Because the study area included a 100-foot buffer surrounding the proposed bridge alignments and bank stabilization, construction of these facilities would likely not impact the entire wetland acreage delineated within each study location. The locations of jurisdictional wetlands within the Part One study area are displayed on Figures 5, 11, and 14, and acreages are summarized in Table 1. The use of three field indicators for the three defined parameters: hydrophytic vegetation, hydric soils, and wetland hydrology, as well as the application of the routine and problematic methodologies were used to determine the location and extent of wetlands subject to Corps jurisdiction.

SECTION 3.0 PART TWO: COMPOSITE DELINEATION OF WETLANDS WITHIN THE RMDP SITE AND THE ADJACENT ENTRADA PLANNING AREA

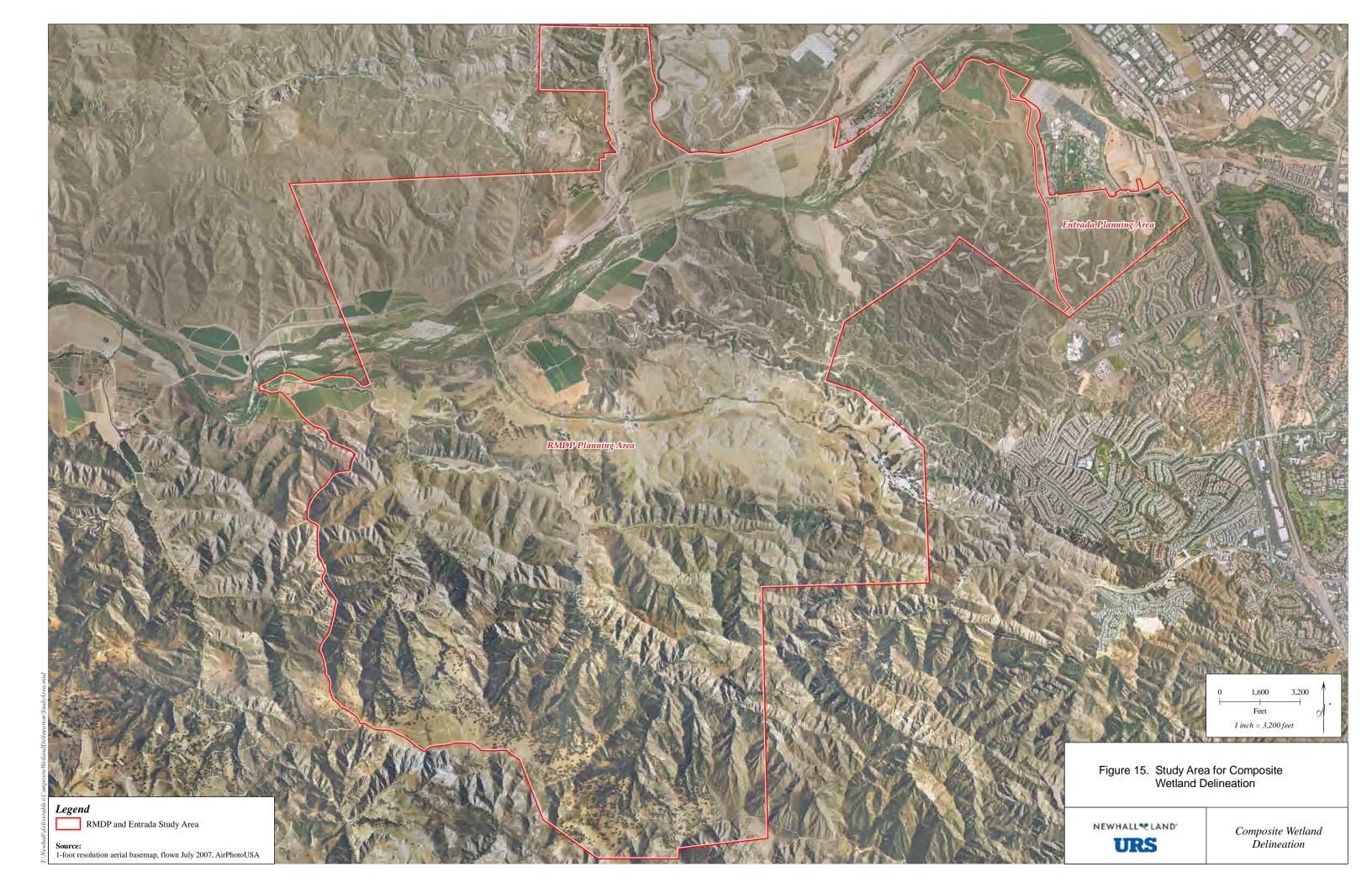
As stated previously, the field delineation of wetlands undertaken by URS in 2007 and presented in Part One of this document only addressed areas of the RMDP site that are within and adjacent to the disturbance footprints of major project components, such as roadway bridges across the Santa Clara River. Part Two of this study presents a composite wetland delineation, which combines the findings of Part One with the results of previous studies to yield a comprehensive, planning-level delineation of Corps-jurisdictional wetlands within the entire RMDP site.

3.1 STUDY AREA

The study area for this composite wetland delineation includes the entire RMDP site, as well as the adjacent Entrada planning area (Figure 15). The total acreage within the study area is approximately 14,042 acres: 13,651 within the RMDP site and 391 within Entrada. The study area is largely undeveloped, although Newhall Land has historically leased portions of the site for agricultural, grazing, oil and gas production, and filmmaking purposes. Geographically, the study area is bounded by the crest of the Santa Susana Mountains to the south, urban development in the City of Santa Clarita to the east, by the Chiquita Canyon Landfill and the community of Val Verde to the north, and by agricultural lands and open space in Ventura County to the west.

Hydrology within the study area is dominated by the Santa Clara River, which flows through the study area in an east-west direction, and a by a large number of tributary drainages which flow from the mountains on either side of the Santa Clarita Valley to join the river. The river mainstem exhibits perennial flow within the boundaries of the study area, supported in part by treated effluent discharges from two wastewater treatment works located a short distance upstream. This river reach supports substantial habitat for aquatic and riparian plants and wildlife. The majority of the on-site tributaries to the river are ephemeral, first- and second-order streams that exhibit surface flows only immediately following storm events and do not support aquatic life or riparian vegetation. However, the RMDP site does contain seven larger tributaries, some of which exhibit intermittent and perennial flow regimes in some reaches. These larger tributaries convey flows from natural lands outside the study area through the RMDP site and into the Santa Clara River.

The study area contains varied topography due to the presence of low-lying riverbed areas and higher-elevation mountains within the site. At higher elevations within the study area, steep slopes and rugged mountains and foothills dominate the landscape. Vegetation in these



areas consists primarily of shrub-dominated upland habitats, such as California sagebrush scrub and chaparral, although oak woodlands and occasional riparian areas are also present.

Although the site's higher elevations are subject to cattle grazing, human activities within these areas are otherwise minimal. The lower-elevation portions of the study area within the larger tributary valleys and river floodplain, by contrast, have been more heavily impacted by human activities including commercial farming and oil production. These areas have much gentler slopes than the site's mountainous regions, and support habitats including cottonwood/willow riparian forest and riparian scrub habitats along drainages, annual grassland and various scrub communities in the uplands, and ruderal vegetation and bare ground in disturbed areas.

3.2 METHODS AND SOURCE MATERIALS

This composite wetland delineation presents a single map of jurisidictional wetlands within the study area that has been compiled from several technical documents produced between 2004 and 2009. Because all of the source materials utilized in this study included map data in Geographic Information Systems (GIS) format, GIS software was used to compile and combine the source data.

Each data source contained one or more shape files that spatially defined the location and extent of areas mapped as wetlands by that particular investigation. The wetland areas were mapped in the source material as enclosed shapes, or polygons, and were distinguished from other, non-wetland polygons by attribute information in the data set. The areas evaluated in the four data sources were mutually exhaustive, meaning that there was no portion of the study area that was not covered in one or more of the source materials. However, the areas evaluated were not mutually exclusive, so certain portions of the study area were covered by more than one data source.

In portions of the study area where only one data source provided wetland delineation information, such as the Entrada planning area and portions of the RMDP site that were not within the Santa Clara River corridor, the wetland polygons from that data source were copied into the composite wetland delineation. In portions of the study area where more than one data source provided wetland information, the union of all wetland polygons from those sources was copied into the composite wetland delineation. This is a more conservative approach than choosing to adopt one set of wetland boundaries over another, as it assigns wetland status to a polygon if any one of the data sources evaluated identified the polygon as a wetland.

It should be noted that the composite wetland delineation is a "planning-level" delineation, as it relies on multiple data sources, dating from different years and using different investigation methods. While data sources based on field investigations are available for some portions of the study area, other areas were delineated through analysis of aerial photographs. The four

sources from which spatial wetland data was compiled for the composite wetland delineation are described below.

3.2.1 URS Corporation (2004) Delineation Report for the RMDP Site

In the winter of 2003, URS staff conducted a delineation of all waters exhibiting an ordinary high water mark and all CDFG-jurisdictional streambeds present within the RMDP site; a technical report was completed in early 2004. The Santa Clara River, Salt Creek, and portions of the Potrero Canyon drainage were found to be the only perennial streams on-site; many jurisdictional intermittent and ephemeral streams also were present. The 2004 delineation was conducted by walking the jurisdictional boundaries using sub-meter accurate GPS units capable of mapping polygons in the field; these data were then transferred into a GIS database. Although the 2004 delineation did not evaluate wetland areas specifically, four of the CDFG-jurisdictional streambed areas identified in this report were determined to meet wetland criteria due to the obvious and continuous presence of hydrophytic vegetation, saturated soils, and wetland hydrology. Two of these areas are cismontane alkali marshes within the Potrero Canyon drainage: one is located adjacent to the low-flow stream channel near the canyon mouth and the other is within the low-flow channel approximately one mile upstream. A third wetland area was identified at a confluence of two branches in the Salt Creek drainage, where perennial flows spread out across a flat floodplain area. The fourth jurisdictional wetland within the RMDP site is a spring complex within the river corridor near the mouth of Middle Canyon, where perennial flows down a slope from a spring support extensive, dense riparian vegetation and continuous soil saturation. Because this delineation report did not specifically investigate wetlands, the report does not provide acreage estimates for these sites. However, acreages have been calculated based on the GIS data, and are presented in Section 3.4 Results, below. The URS Corporation 2004 jurisdictional delineation of the RMDP site is included as Appendix D of this composite wetland delineation.

3.2.2 Lukos and Associates (2008) Delineation Report for the Entrada Planning Area

A study conducted by Lukos and Associates in 2008 delineated the limits of waters of the United States, Corps jurisdictional wetlands, and CDFG jurisdictional streams within the Entrada planning area. Methods utilized included field surveys in accordance with the Corps' Wetland Delineation Manual (Environmental Laboratory 1987), mapping of jurisdictional areas on maps and aerial photographs in the field, and digitizing this information to create a GIS layer. This study identified four jurisdictional drainage systems within the Entrada planning area, one of which was the Magic Mountain Canyon drainage previously delineated by URS during the 2004 delineation of the RMDP site (The drainage generally follows the boundary between the RMDP study area and the Entrada planning area, and portions of the drainage are within each area. However, for simplicity of analysis, the Magic Mountain Canyon drainage is considered to be within the RMDP study area). The study identified

jurisdictional wetlands within two of the drainages within the Entrada planning area, and reported the total acreage of these areas to be 0.15 acres. The 2008 Lukos and Associates delineation report for the Entrada planning area is included as Appendix E to this composite wetland delineation.

3.2.3 URS Corporation/Dudek and Associates (2006) Planning-level Delineation of Wetlands in the Santa Clara River through Interpretation of Aerial Photography

In 2006, biologists from URS Corporation and Dudek and Associates jointly undertook a planning-level delineation of Corps-jurisdictional wetlands within the reach of the Santa Clara River corridor in the RMDP site. The extent of wetlands within this reach was determined through an analysis of high-resolution (6 inch pixels) aerial photographs flown by Robert J. Lung and Associates on May 24, 2006. Although hydrologic and soils maps were reviewed during this effort, it was determined that the available maps lacked the resolution necessary to be useful in delineating wetland boundaries at the desired scale (For example, the Soil Survey of San Francis Area, California [USDA 2007] maps nearly the entire riverbed within this reach as Sandy Alluvial Land, a problematic soil type). Because the extent of hydric soils within the study reach was not discernible from either the aerial photographs or the soils map, soils were not used as a criterion in the delineation. Instead, to be conservative, all areas where wetland hydrology and hydrophytic vegetation were evident were mapped as wetlands, regardless of soil conditions.

Evidence of wetland hydrology was determined though evaluation of the aerial photographs for evidence of scour, and through inspection of the field-delineated ordinary high water mark boundaries presented in the URS 2004 jurisdiction delineation of the RMDP site. All areas within or adjacent to the mapped river channel that showed signs of recent scour on the aerial photos were considered to exhibit wetland hydrology.

Dominance of hydrophytic vegetation was determined through evaluation of the RMDP site vegetation map prepared by Dudek and Associates in 2006 in conjunction with the aerial photographs. Where riparian vegetation communities were identified on the vegetation map, the air photo was examined, and all areas within or adjacent to mapped riparian vegetation that appeared vegetated were considered to exhibit a predominance of hydrophytic vegetation, except when the vegetation map indicated that a different, non-hydrophytic vegetation type was present.

No technical report or other written document was produced from this study; the tangible result of the planning-level delineation of wetlands within the river corridor was a GIS shape file documenting the location and extent of wetlands delineated. Acreages have been calculated based on this GIS data, and are presented in Section 3.4 Results, below.

3.2.4 URS Corporation (2007) Field Delineation of Wetlands in Proposed Bridge Alignment Areas

In 2007, URS Corporation conducted a wetland delineation of potentially jurisdictional features in portions of the RMDP site where major infrastructure improvements, such as roadway bridges across the Santa Clara River, are proposed. This field investigation was performed in accordance with the procedures set forth in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987), Department of the Army (DOA) Clarification and Interpretation of the 1987 USACE Wetland Delineation Manual (DOA 1992), and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2006; Arid West Region Supplement). Data collected during the assessment of wetlands were recorded on Wetland Determination Data Forms – Arid West Region Supplement (Corps 2006). A total of 36 sample point locations were selected in both potential wetland and upland areas to determine the wetland/upland boundary and characterize the vegetation, soils, and hydrology of the area. Soil pits were excavated in areas supporting hydrophytic vegetation to determine the extent of saturation and to examine the soil for positive indicators of hydric soils and wetland hydrology. Soil pits were also excavated in upland areas adjacent to wetlands to aid in delineating the extent of jurisdictional wetlands. At each sample point, plant species composition and indicators of hydric soil and wetland hydrology were recorded. Sample point locations were recorded in the field using a Trimble GeoExplorer Series 2003 GPS unit capable of sub-meter accuracy and were plotted on aerial photographs overlaid with the approximate bridge and bank stabilization footprints and study location boundaries. A sample point was considered to be within a wetland (an "in" point) if the area met all three wetland parameters: dominance by hydrophytic plant species; positive wetland hydrology indicators; and hydric soil conditions. If one or more of these parameters was not met, the point was considered not to be within a wetland (an "out" point) and a line was drawn between the two sample points on the site specific aerial photograph.

The URS 2007 field investigation identified a total of 9.06 acres of Corps-jurisdictional wetlands within the four discrete parts of the RMDP site evaluated. The technical report from this investigation comprises Part One of this composite wetland delineation, and is presented above.

3.3 RESULTS

Based on the four data sources identified above, the study area contains wetlands within the Santa Clara River mainstem and the Potrero Canyon and Salt Creek tributaries within the RMDP site and within two unnamed drainages in the Entrada planning area. Of the acreage delineated within the river corridor, 2.51 acres are attributable to a spring complex near the mouth of Middle Canyon, rather than to the hydrologic influence of the river itself. Table 2 presents the acreages of wetlands delineated, as presented in the source technical reports and

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TABLE 2
CORPS JURISDICTIONAL WETLANDS WITHIN THE RMDP SITE AND ENTRADA PLANNING AREA (ACRES)

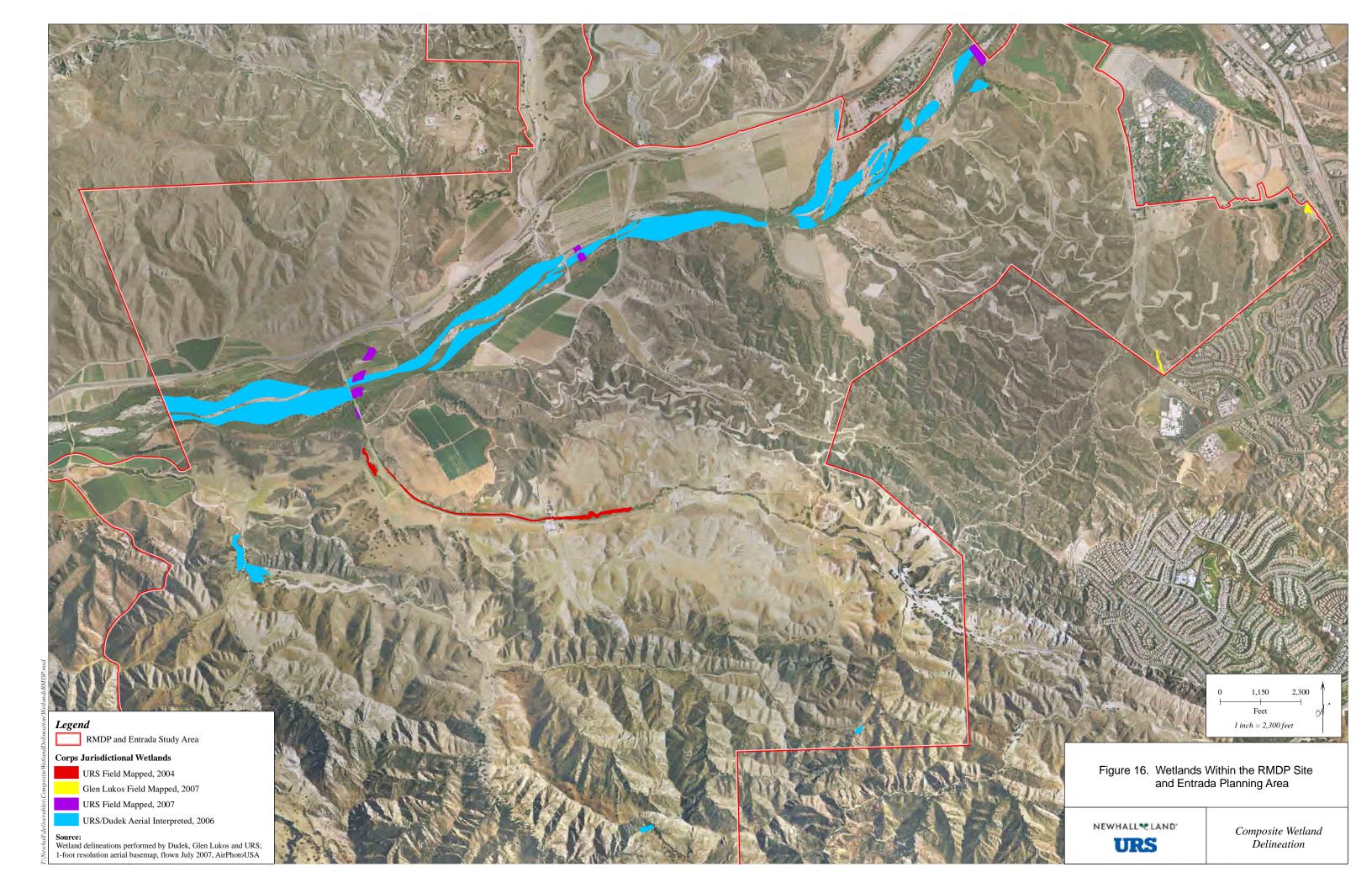
Drainage	Wetland Acreage from URS 2004 Streambed Delineation (from GIS)	Wetland Acreage from Lukos 2008 Entrada Delineation (Reported)	Wetland Acreage from URS/Dudek 2006 Planning-Level Delineation of River Corridor (from GIS)	Wetland Acreage from URS 2007 Delineation of Bridge Alignment Areas (Reported)	Total Wetland Acreage within the RMDP Site and Entrada Planning Area
Santa Clara River	Not Analyzed	Not Analyzed	228	9.06	237.06
Salt Creek	5.67	Not Analyzed	Not Analyzed	Not Analyzed	5.67
Potrero Canyon	6.52	Not Analyzed	Not Analyzed	Not Analyzed	6.52
Spring Complex	2.14	Not Analyzed	Not Analyzed	Not Analyzed	2.14
Subtotal RMDP Site	14.33	Not Analyzed	228	9.06	251.39
Entrada Unnamed Drainages	Not Analyzed	0.15	Not Analyzed	Not Analyzed	0.15
Subtotal Entrada Planning Area	Not Analyzed	0.15	Not Analyzed	Not Analyzed	0.15
Grand Total	14.33	0.15	228	9.06	251.54

calculated from the source GIS layers. These wetlands are depicted graphically on Figure 16. The four assessments delineated a total of 251.39 acres of jurisdictional wetlands within the RMDP site and an additional 0.15 acres of wetlands within the Entrada planning area, for a grand total of 251.54 acres of jurisdictional wetlands within the study area.

3.4 CONCLUSION AND RECOMMENDATIONS

The composite wetland delineation identified a total of 251.54 acres of jurisdictional wetlands within the study area, most of which occur within the Santa Clara River mainstem. It is important to note that the vast majority of the wetland area delineated in the source studies (228 acres) was identified through the planning-level delineation of the river corridor. While it is almost certainly true that the planning-level delineation methods employed by the biologists at URS Corporation and Dudek and Associates in 2006 determine wetland boundaries with lesser accuracy than the intensive field methods set forth in the Wetland Delineation Manual (Environmental Laboratory 1987), it is important to remember that the Santa Clara River mainstem is a highly dynamic system, and that the proposed RMDP is a long-term project. Even if the extent of wetlands within the river corridor were delineated with the utmost precision today, natural forces such as lateral channel migration, growth and scouring of vegetation, and sediment dynamics would render the delineation progressively less accurate with each passing storm season. The planning-level delineation provides a reasonable estimate (really a conservative estimate, due to the methods employed) of the wetland acreage that occurred within the river corridor in 2006, and the field based source documents provide somewhat more accurate estimates of the location and extent of wetlands in the years when those assessments were conducted. Over the 30-year life of the proposed RMDP project it is not likely that any single delineation of wetlands within the river corridor, regardless of the method employed, would remain accurate.

Despite this reduction in accuracy over time, considerable knowledge can be gained from the results of this composite wetland delineation. Outside the river mainstem, in wetland areas such as Potrero Canyon, Salt Creek, and the unnamed drainages in the Entrada planning area, changes occur much more slowly due to the relative infrequency of extreme flow events in these small watersheds. Wetlands in these areas were delineated using highly accurate field methods, and the delineations should provide useful, accurate information for substantially longer than delineations conducted within the river corridor. In addition, the compilation of many source delineations into a single layer allows an assessment of the proposed RMDP's impacts on wetlands that would not otherwise be possible. Combining the various spatial data sets serves to eliminate the data gaps that would exist if only one of the assessments were used (since no single assessment delineated wetlands within the entire study area) while also eliminating the overlap in the individual GIS layers that prevents an analyst from mathematically combining data from each layer to get a combined wetland impact total.



COMPOSITE WETLAND DELINEATION NEWHALL RANCH RESOURCE MANAGEMENT

Based on the information above, URS recommends that this composite wetland delineation be supplemented by smaller-scale, field-based delineations prior to construction of individual RMDP project components. The RMDP technical document (Dudek 2006b) identifies the types and locations of facilities proposed, but is intended to provide sufficient flexibility for future RMDP components to meet changing demands while avoiding impacts to the aquatic environment to the maximum extent practicable. To this end, the delineations should ideally be conducted close enough to the time of construction to minimize the effects of natural river dynamics, but far enough in advance to allow consideration of design changes that could avoid or minimize impacts to special aquatic sites.

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COMPOSITE WETLAND DELINEATION NEWHALL RANCH RESOURCE MANAGEMENT

APPENDIX A WETLAND DETERMINATION DATA FORMS

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angel	es County	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-1
Investigator(s): J. Kisner, J. Love, W. Vogler, E. Larsen		Section, To	wnship, Rar	nge: San Francis Land (Grant
Landform (hillslope, terrace, etc.): Floodplain					
Subregion (LRR): Mediterranean California (LRR-C)					
					ication: N/A
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation No , Soil No , or Hydrology No sig	-				present? Yes 🔲 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na				eded, explain any answ	·
SUMMARY OF FINDINGS – Attach site map s			•		,
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Remarks:			e Sampled in a Wetlan		No⊠
SP PC-1 characterizes an agricultural field with mixed grass	ses approx	cimately 850) feet North	of the Santa Clara Rive	r.
The 2006-2007 rain season had an abnormally low amount	of precipit	ation.			
VEGETATION					
		Dominant Species?	Status	Dominance Test wor Number of Dominant S That Are OBL, FACW	Species
2				Total Number of Domi Species Across All Str	inant
3				Percent of Dominant S That Are OBL, FACW	Species
Total Cover:				Prevalence Index wo	
Sapling/Shrub Stratum				Total % Cover of:	Multiply by
1				OBL species	x 1 =
2Total Cover:				FACW species	x 2 =
Herb Stratum				FAC species	x 3 =
1. Eleusine indica	25	Υ	FACU	FACU species	x 4 =
2. <u>Poa</u> sp.	25	<u>Y</u>		UPL species	x 5 =
3. <u>Dactyloctenium aegyptium</u>	25	<u>Y</u>	<u>NI</u>	Column Totals:	(A) (B)
4. Ambrosia acanthicarpa	3	<u>N</u>	NI	Prevalence Inde	ex = B/A =
5. <u>Brassica nigra</u>	3	<u>N</u>	NI	Hydrophytic Vegetat	ion Indicators:
6. Trifolium sp.	1	<u>N</u>		Dominance Test	is >50%
7. <u>Leptochloa uninervia</u>				☐ Prevalence Index	is ≤3.0 ¹
8. Polygonum arenastrum	1	<u>N</u>	FAC	☐ Morphological Ad	laptations ¹ (Provide supporting or on a separate sheet)
9. Rumex sp.					• ,
10. Sonchus sp.				Problematic Hydr	ophytic Vegetation ¹ (Explain)
11. <u>Xanthium strumarium</u> Total Cover:		<u>N</u>	FAC+	,	oil and wetland hydrology must
Woody Vine Stratum				be present.	
1					
2				Hydrophytic Vegetation	
Total Cover:					es <u> </u>
% Bare Ground in Herb Stratum 13 % Cover Remarks:	of Biotic C	rust			
Reed 1988 was used to determine the wetland indicator sta	tus of plar	nts unless o	therwise no	ted.	

Profile Desc	ription: (Describe to the de	epth needed to docu	nent the ir	ndicator or	confirm	the absence of indicators.)
Depth	Matrix		x Features			
(inches)	Color (moist) %	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture Remarks
0-6	10YR4/3					sandy coarse
6-16	10YR4/3					coarse sand w/ gravel (riverwash)
	-					
			·			
		_				
1Typo: C-Co	oncentration, D=Depletion, R	M-Raduaad Matrix	2l continu	DI -Doro	Lining D	C=Root Channel, M=Matrix.
	ndicators: (Applicable to a				Lilling, K	Indicators for Problematic Hydric Soils ³ :
☐ Histosol		☐ Sandy Red		u.,		1 cm Muck (A9) (LRR C)
	pipedon (A2)	Stripped M	, ,			2 cm Muck (A10) (LRR B)
☐ Black His		Loamy Muc		(F1)		Reduced Vertic (F18)
	n Sulfide (A4)	Loamy Gle				Red Parent Material (TF2)
	Layers (A5) (LRR C)	☐ Depleted M		(/		Other (Explain in Remarks)
	ick (A9) (LRR D)	Redox Darl	` ,	F6)		
	Below Dark Surface (A11)	☐ Depleted D	ark Surface	e (F7)		
Thick Da	ark Surface (A12)	Redox Dep	ressions (F	·8)		
☐ Sandy M	lucky Mineral (S1)	Vernal Poo	s (F9)			³ Indicators of hydrophytic vegetation and
	ileyed Matrix (S4)					wetland hydrology must be present.
Restrictive L	ayer (if present):					
Type:						
Depth (inc	ches):					Hydric Soil Present? Yes No
Remarks:						
No hydric soi	I indicators were present.					
HYDROLO	^v					
_	Irology Indicators:					Secondary Indicators (2 or more required)
Primary Indic	ators (any one indicator is su	ıfficient)				Water Marks (B1) (Riverine)
☐ Surface \(\)	Water (A1)	Salt Crust	(B11)			Sediment Deposits (B2) (Riverine)
☐ High Wa	ter Table (A2)	☐ Biotic Cru	st (B12)			☐ Drift Deposits (B3) (Riverine)
☐ Saturation	on (A3)	Aquatic In	vertebrates	s (B13)		☐ Drainage Patterns (B10)
	arks (B1) (Nonriverine)	Hydrogen	Sulfide Od	or (C1)		☐ Dry-Season Water Table (C2)
Sedimen	t Deposits (B2) (Nonriverine	e)	Rhizospher	es along Li	iving Root	ts (C3) Thin Muck Surface (C7)
☐ Drift Dep	oosits (B3) (Nonriverine)	Presence	of Reduced	d Iron (C4)		Crayfish Burrows (C8)
Surface	Soil Cracks (B6)	Recent Ire	n Reductio	n in Plowe	d Soils (C	C6)
Inundation	on Visible on Aerial Imagery ((B7)	olain in Rer	marks)		Shallow Aquitard (D3)
	tained Leaves (B9)					☐ FAC-Neutral Test (D5)
Field Observ	vations:					
Surface Water	er Present? Yes 🔲	No 🔲 Depth (in	ches):		_	
Water Table	Present? Yes	No 🔲 Depth (in	ches):		_	
Saturation Pr	resent? Yes	No 🔲 Depth (in	ches):		Wetla	and Hydrology Present? Yes No
(includes cap	oillary fringe)					
Describe Red	corded Data (stream gauge, i	monitoring well, aerial	ohotos, pre	vious inspe	ections), i	f available:
Remarks:						
No evidence	of hydrology was observed.					

Project/Site: Newhall Ranch/Potrero Canyon	(City/County	: Los Angele	es County	Sampling [Date: <u>9/26/07</u>
Applicant/Owner: Newhall Land and Farming Company	-			State: CA	_ Sampling F	Point: PC-2
Investigator(s): E. Larsen, J. Kisner, W. Vogler, J. Love		Section, To	wnship, Rar	nge: San Francis Land (Grant	
Landform (hillslope, terrace, etc.): Floodplain						
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: <u>6358</u>	3883.57767	00	Long: <u>1971698.14017</u>	'00	Datum: NAD83
				NWI classif		
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation no , Soil no , or Hydrology no si	gnificantly	disturbed?	Are "l	Normal Circumstances"	present? Ye	es 🗵 No 🔲
Are Vegetation no , Soil yes , or Hydrology no na	aturally pro	blematic?	(If ne	eded, explain any answ	ers in Remar	ks.)
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point lo	ocations, transect	s, importa	nt features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SPRIC 3 characterizes singuian forcet North of Senta Class		with	e Sampled in a Wetlan	d? Yes <u> </u>	No_	
SP PC-2 characterizes riparian forest North of Santa Clara area.			mentea from	п прапап павітат пеаг п	ver due to ag	ncultural use in the
The 2006-2007 rain season had an abnormally low amount VEGETATION	t of precipit	ation.				
	Absolute	Dominant	Indicator	Dominance Test wor	rksheet.	
		Species?		Number of Dominant	Species	- (1)
1. Populus fremontii				That Are OBL, FACW		(A)
2				Total Number of Dom Species Across All St		(B)
3 4				Percent of Dominant S That Are OBL, FACW		66% (A/B)
Total Cover:	95			Prevalence Index wo		(-1
Sapling/Shrub Stratum 1. Baccharis salicifolia	E	V		Total % Cover of:		Multiply by
Baccharis salicifolia Salix exigua				OBL species 2		x 1 = <u>2</u>
3. Tamarix sp.				FACW species10)0	x 2 = <u>200</u>
4			170	FAC species 2		x 3 = <u>6</u>
5.				FACU species <u>0</u>		x 4 = <u>0</u>
Total Cover:	9			UPL species 0		x 5 = <u>0</u>
Herb Stratum				Column Totals: 10		(B)
1. grass	_25	<u>Y</u>		Prevalence Inde	ex = B/A = _	2
2				Hydrophytic Vegetat	tion Indicator	rs:
3				□ Dominance Test	is >50%	
4				□ Prevalence Index		
5				Morphological Ac data in Remarks		
6				☐ Problematic Hydr	•	. '
7				r robiomado r iyan	opily to vogo	(Explain)
8 Total Cover:				¹ Indicators of hydric so be present.	oil and wetlan	d hydrology must
1				-		
2				Hydrophytic Vegetation		
Total Cover:					′es <u>⊠</u>	No
	of Biotic C	rust				
Remarks:	wordin's (4	1070\ rinori	n forcet			
The vegetation of SP PC-2 most closely corresponds to Co	waiuiii S (1	i <i>ara)</i> riparia	an ioiest.			
Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W Wetland indicator status was assumed FAC for all Tamarix species that we					ors of at least FAC	2

Depth (inches) Matrix (inches) Redox Features 0-2 10YR4/3 Color (moist) % Type¹ Loc² Texture Remarks	
<u>2-3</u> <u>10YR4/3</u> <u>sand</u>	
_3-16	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1) ☐ Sandy Redox (S5) ☐ 1 cm Muck (A9) (LRR C)	
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6) ☐ 2 cm Muck (A10) (LRR B)	
□ Black Histic (A3) □ Loamy Mucky Mineral (F1) □ Reduced Vertic (F18)	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2)	
☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3) ☐ Other (Explain in Remarks)	
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7) ☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8)	
Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1)	
Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) wetland hydrology must be present.	
Restrictive Layer (if present):	
Type:	
Depth (inches): No _	
Remarks:	
Shovel refusal was experienced due to difficulty getting through the thick layer of grass.	
Due to the "neutral" characteristics of sandy soils, sandy alluvial land is problematic and often considered to be hydric under flooded condition	S.
200 to the frontier of our and formation and the frontier and of t	
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (2 or more requi	ed)
Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine)	
☐ Surface Water (A1) ☐ Salt Crust (B11) ☐ Sediment Deposits (B2) (Riverine	.)
☐ High Water Table (A2) ☐ Biotic Crust (B12) ☐ Drift Deposits (B3) (Riverine)	,
☐ Saturation (A3) ☐ Aquatic Invertebrates (B13) ☐ Drainage Patterns (B10)	
Water Marks (B1) (Nonriverine)	
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7)	
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Image	ry (Ca)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3)	1y (C3)
Water-Stained Leaves (B9) Grant Water Stained Leaves (B9) FAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
L Water Lable Brosent's Vec. L.L. No. IVI Donth (inches):	
Water Table Present? Yes No Depth (inches): Water Table Present? Yes No	
Saturation Present? Yes 🔲 No 🔯 Depth (inches): Wetland Hydrology Present? Yes 🔯 No	
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)	
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)	
Saturation Present? Yes \(\subseteq \text{No} \(\subseteq \text{No} \subseteq \text{Depth (inches):} \) (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Saturation Present? Yes \(\subseteq \text{No \(\subseteq \text{Depth (inches):}} \) (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Saturation Present? Yes \(\subseteq \text{No \(\subseteq \text{Depth (inches):}} \) (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Project/Site: Newhall Ranch/Potrero Canyon	(City/County:	Los Angele	es County S	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA S	Sampling Point: PC-3
Investigator(s): J. Kisner, J. Love, W. Vogler, E. Larsen		Section, Tov	wnship, Ran	ge: San Francis Land Grai	nt
Landform (hillslope, terrace, etc.): Floodplain					
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6358	3781.724830	00	Long: <u>1971508.0936000</u>	Datum: NAD83
				NWI classificat	
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation No , Soil No , or Hydrology No signature size size size size size size size siz	-				esent? Yes 🗵 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na				eded, explain any answers	<u> </u>
SUMMARY OF FINDINGS – Attach site map s					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP PC-3 characterizes riparian habitat north of the Santa C the area.		withi	e Sampled in a Wetlan fragmented	d? Yes <u>⊠</u>	No river due to agricultural use in
The 2006-2007 rain season had an abnormally low amount	t of precipita	ation.			
VEGETATION					
		Dominant Species?	<u>Status</u>	Dominance Test worksh Number of Dominant Spe That Are OBL, FACW, or	ecies
2				Total Number of Dominar Species Across All Strata	
3				Percent of Dominant Spe That Are OBL, FACW, or	
Total Cover:				Prevalence Index works	sheet:
Sapling/Shrub Stratum 1. Baccharis salicifolia	70	V	FACW ^a	Total % Cover of:	Multiply by
2. Salix exigua			OBL	OBL species <u>15</u>	x 1 = <u>15</u>
3. Salix lasiolepis			FACW	FACW species <u>160</u>	x 2 = <u>320</u>
4. <i>Tamarix</i> sp.			FAC ^b	FAC species 8	x 3 = <u>24</u>
5.				FACU species 1	
Total Cover:	92			UPL species 0	
Herb Stratum				Column Totals: 184	(A) <u>363</u> (B)
1. <u>Distichlis spicata</u>		<u>Y</u>	FACW	Prevalence Index =	= B/A = <u>1.97</u>
2. Ambrosia psilostachya var. californica				Hydrophytic Vegetation	Indicators:
3. Cynodon dactylon				□ Dominance Test is >	
4. Melilotus alba				Prevalence Index is:	
5				Morphological Adapt data in Remarks or or	ations ¹ (Provide supporting
6					nytic Vegetation ¹ (Explain)
7				r robicinatio riyaropi	Tytio vogotation (Explain)
8Total Cover:				¹ Indicators of hydric soil a	and wetland hydrology must
Woody Vine Stratum	32			be present.	,
1					
2				Hydrophytic	
Total Cover:				Vegetation Present? Yes	
% Bare Ground in Herb Stratum _5	of Biotic Cr	rust			
Remarks:			•		
The vegetation of SP PC-3 most closely corresponds to Co	wardin's (1	979) riparia	n scrub.		
 a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wet b Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were 			•	•	at least FAC.

	cription: (Describe t	o the de				or confirn	n the absence	e of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature: %	S Type ¹	Loc ²	Texture	Remarks		
0-2	10YR4/3		none		_туре		silt loam	Remarks		
								· 		
2-16	10YR4/2	95	5YR4/6	5	<u>C</u>	RC,M	silty clay	small amount of root channels w/ mottles		
		-								
	-									
	oncentration, D=Depl					e Lining, F		nnel, M=Matrix.		
	Indicators: (Applica	able to al			ed.)			s for Problematic Hydric Soils ³ :		
Histosol	` '		☐ Sandy Red					Muck (A9) (LRR C)		
	oipedon (A2)		☐ Stripped M	, ,	L (5 4)			Muck (A10) (LRR B)		
	istic (A3)		Loamy Muc	-	. ,			ced Vertic (F18)		
	en Sulfide (A4) d Layers (A5) (LRR C	•)	☐ Loamy Gleg☐ Depleted M		(FZ)			Parent Material (TF2) r (Explain in Remarks)		
	uck (A9) (LRR D)	•)	☐ Redox Darl	, ,	(F6)		<u>⊿</u> Other	(Explain in Remarks)		
, 	d Below Dark Surface	e (A11)	Depleted D		` '					
	ark Surface (A12)	,,,,,	Redox Dep							
	/lucky Mineral (S1)		☐ Vernal Poo		/		³ Indicators	s of hydrophytic vegetation and		
-	Gleyed Matrix (S4)		_	` ,				nydrology must be present.		
Restrictive I	Layer (if present):									
Type:										
Depth (inc	ches):						Hydric Soi	l Present? Yes <u>⊠</u> No <u>□</u>		
Remarks:							· I			
Small mottlin	ng was found scattere	d through	the soil profile. Oxid	dation was	also obse	erved from	2-16 inches a	around the roots.		
	-	_						c under flooded conditions.		
HYDROLO							· · · · · · · · · · · · · · · · · · ·			
	drology Indicators:						Seco	andary Indicators (2 or more required)		
_		tor in out	ficiant)							
	cators (any one indica	ator is sui		(D44)				Water Marks (B1) (Riverine)		
☐ Surface	` ,		Salt Crust					Sediment Deposits (B2) (Riverine)		
	ater Table (A2)		☐ Biotic Cru	` ,	(D.40)		Drift Deposits (B3) (Riverine)			
☐ Saturation	` '	\	Aquatic In		` '		☐ Drainage Patterns (B10)			
<u> </u>	larks (B1) (Nonriveri	,	☐ Hydrogen		. ,	Library David		Dry-Season Water Table (C2)		
	nt Deposits (B2) (Nor			•	·	•	` ' =	Thin Muck Surface (C7)		
	posits (B3) (Nonriver	ine)	☐ Presence		•	•		Crayfish Burrows (C8)		
	Soil Cracks (B6)	/ F	Recent Iro			vea Solis (Saturation Visible on Aerial Imagery (C9)		
	on Visible on Aerial Ir	magery (E	37)	plain in Re	emarks)		· · · · · · · · · · · · · · · · · · ·	Shallow Aquitard (D3)		
	tained Leaves (B9)						<u> </u>	FAC-Neutral Test (D5)		
Field Obser			N 57 5 4 6							
Surface Water			No Depth (ir							
Water Table			No Depth (in					_		
Saturation P	resent? Ye	es 🔲	No Depth (in	iches):		Wetl	and Hydrolog	gy Present? Yes 🔀 No 🔲		
_ `	corded Data (stream	gauge, m	onitoring well, aerial	photos, pr	evious ins	pections),	if available:			
	(- : - = = = = = = = = = = = = = = = = =	5 5-,	3 - ,	- 7		//				
Remarks:										
	roughout soil pit.									
Jon damp til	. sagnout oon pit.									

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angele	es County	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-4
Investigator(s): J. Kisner, J. Love, W. Vogler, E. Larsen	:	Section, To	wnship, Rar	nge: <u>San Francis Land Gr</u>	ant
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, c	convex, none): none	Slope (%): <u>0</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6358	3690.62155	00	Long: <u>1971446.0286400</u>) Datum: NAD83
Soil Map Unit Name: Sandy Alluvial Land/Riverwash				NWI classifica	ation: PSS6
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	⊠ No		emarks.)
Are Vegetation No , Soil No , or Hydrology No s	-				resent? Yes No _ 🗵
Are Vegetation No , Soil Yes , or Hydrology No n	-			eded, explain any answer	·
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP PC-4 characterizes riparian habitat North of the Santa in the area.	0	with	e Sampled in a Wetlan	d? Yes <u>⊠</u>	No ar river due to agricultural use
The 2006-2007 rain season had an abnormally low amour	nt of precipit	ation.			
,	TO Prodipit	ation.			
VEGETATION	A l l (-	D ' 1	La d'a atau	Danis Tarkana	-h (
Tree Stratum (Use scientific names.) 1		Dominant Species?		Dominance Test works Number of Dominant Sp That Are OBL, FACW, o	pecies
2.				Total Number of Domina Species Across All Strat	
Total Cover	:			Percent of Dominant Sp	
Sapling/Shrub Stratum 1. Baccharis salicifolia	10	Υ	FACW ^a	That Are OBL, FACW, o	
Total Cover			TACW	Prevalence Index work	(sheet:
Herb Stratum				Total % Cover of:	Multiply by
1. Cynodon dactylon		<u>Y</u>	FAC	OBL species 2	
2. <u>Leptochloa uninervia</u>			FACW	FACW species 19	
3. Melilotus alba			FACU+	FAC species 45	
4. Echinochloa crus-galli			FACW	FACU species 6	
5. Polypogon monspeliensis		<u>N</u>	FACW+	UPL species 0	
6. Chenopodium album		N	FAC	Column Totals: 72	
Cyperus erythrorhizos Eleusine indica			OBL FACU		= B/A = <u>2.76</u>
9. Malvella leprosa			FAC*	Hydrophytic Vegetatio Dominance Test is	
10. Phalaris aquatica			FAC+	□ Dominance rest is □ Prevalence Index is	
11. <i>Poa</i> sp.			17101	' 	otations ¹ (Provide supporting
12. Sonchus asper		N	FAC	data in Remarks or	on a separate sheet)
13. Typha domingensis		N	OBL	☐ Problematic Hydrop	ohytic Vegetation ¹ (Explain)
14. Xanthium strumarium		N	FAC+		
Total Cover Woody Vine Stratum				¹ Indicators of hydric soil be present.	and wetland hydrology must
1				Hydrophytic	
2Total Cover				Vegetation	_
				Present? Yes	s <u>No </u>
% Bare Ground in Herb Stratum 30 % Cover Remarks:	r of Biotic C	rust			
The vegetation of SP PC-4 most closely corresponds to Co	owardin's (1	1979) riparia	an scrub.		
 Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W A tentative assignment to that indicator status by Reed, 1988 	Vetlands: 1996	National Summ	ary. U.S. Fish a	nd Wildlife Survey.	

I	oription: (Describe		iceaca to aoca		ilaicatoi	or confirm	n the absence of	indicators.)
Depth	Matrix			ox Feature		. ?	.	D .
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-16	10YR4/3	<u>98</u> <u>5Y</u> F	R4/6	_ 2		RC,M	silty clay mixed v	w/ silty loam
		<u> </u>						
		<u> </u>						
		·		_				-
		· — —						
	-							
l								
		. <u> </u>		_				
¹ Type: C=C	oncentration, D=Dep	letion, RM=Re	duced Matrix.	² Location	: PL=Por	e Lining, F	RC=Root Channel	, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRI	Rs, unless othe	rwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	` '		☐ Sandy Red	dox (S5)				ck (A9) (LRR C)
	pipedon (A2)		Stripped M					ck (A10) (LRR B)
Black H	, ,		Loamy Muc				Reduced	` ,
	en Sulfide (A4) d Layers (A5) (LRR (~ \	Loamy Gle	-	(F2)			ent Material (TF2)
	uck (A9) (LRR D)	ه)	☐ Depleted M☐ Redox Dar		(F6)			xplain in Remarks)
	d Below Dark Surfac	e (A11)	☐ Depleted D		. ,			
	ark Surface (A12)	o (/ · · · /)	Redox Dep		` ,			
	Mucky Mineral (S1)		☐ Vernal Poo		,		³ Indicators of	hydrophytic vegetation and
☐ Sandy Candy	Gleyed Matrix (S4)						wetland hydr	ology must be present.
Restrictive	Layer (if present):							
Type:			_					
Depth (in	ches):		_				Hydric Soil Pr	esent? Yes 🔀 No 🔲
Remarks:								
Due to the "r	neutral" characteristic	s of sandy soil	s, sandy alluvial	l land is pr	oblematic	and often	considered to be	hydric under flooded conditions.
HYDROLO	CV							
	GT							
Wetland Hy	drology Indicators:						<u>Seconda</u>	ury Indicators (2 or more required)
_			nt)				<u></u>	ary Indicators (2 or more required) er Marks (B1) (Riverine)
_	drology Indicators: cators (any one indic		nt)	t (B11)			☐ Wat	•
Primary India	drology Indicators: cators (any one indic						☐ Wat	er Marks (B1) (Riverine)
Primary India	drology Indicators: cators (any one indic Water (A1) ater Table (A2)		☐ Salt Crust	ıst (B12)	es (B13)		Wat ☐ Sed ☐ Drift	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine)
Primary India Surface High Wa Saturati	drology Indicators: cators (any one indic Water (A1) ater Table (A2)	ator is sufficier	Salt Crust	ist (B12) nvertebrate	, ,		☐ Wat ☐ Sed ☐ Drift ☐ Drai	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine)
Primary India Surface High Wa Saturati Water M	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3)	ator is sufficier	Salt Crust Biotic Cru Aquatic Ir Hydrogen	ust (B12) nvertebrate n Sulfide O	dor (C1)	Living Roo	Wat Sed Drift Drai	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10)
Primary India Surface High Wa Saturatia Water M Sedimen	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver	ator is sufficier ine) nriverine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen	ist (B12) nvertebrate n Sulfide O Rhizosphe	dor (C1) res along			er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2)
Primary India Surface High Wa Saturati Water M Sedimen Drift De	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver nt Deposits (B2) (No	ator is sufficier ine) nriverine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized	ust (B12) nvertebrate n Sulfide O Rhizosphe of Reduce	dor (C1) res along ed Iron (C4	1)		er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7)
Primary India Surface High Wa Saturati Water M Sedimer Drift De Surface Inundati	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver nt Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) ion Visible on Aerial I	ator is sufficier ine) nriverine) rine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence	nst (B12) nvertebrate Sulfide O Rhizosphe of Reduce on Reduct	dor (C1) res along ed Iron (C4 on in Plov	1)	□ Wat □ Sed □ Drift □ Drai □ Dry- ots (C3) □ Thin □ Cray C6) □ Satu □ Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Juration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Primary India Surface High Wa Saturatia Water M Sedimen Drift Dep Surface Inundati Water-S	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver nt Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) ion Visible on Aerial I Stained Leaves (B9)	ator is sufficier ine) nriverine) rine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	nst (B12) nvertebrate Sulfide O Rhizosphe of Reduce on Reduct	dor (C1) res along ed Iron (C4 on in Plov	1)	□ Wat □ Sed □ Drift □ Drai □ Dry- ots (C3) □ Thin □ Cray C6) □ Satu □ Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Visib Burrows (C8) Liration Visible on Aerial Imagery (C9)
Primary India Surface High Wa Saturati Water M Sedimer Drift Der Surface Inundati Water-S Field Obser	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver int Deposits (B2) (Noriver Soil Cracks (B6) ion Visible on Aerial I Stained Leaves (B9) vations:	ator is sufficier ine) nriverine) rine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	nst (B12) nvertebrate Sulfide O Rhizosphe of Reduce on Reduct	dor (C1) res along ed Iron (C4 on in Plov	1)	□ Wat □ Sed □ Drift □ Drai □ Dry- ots (C3) □ Thin □ Cray C6) □ Satu □ Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Juration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Primary India Surface High Wa Saturatia Water M Sedimen Drift Dep Surface Inundati Water-S	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver int Deposits (B2) (Noriver Soil Cracks (B6) ion Visible on Aerial I Stained Leaves (B9) reations:	ator is sufficier ine) nriverine) rine) magery (B7)	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	ist (B12) nvertebrate n Sulfide O Rhizosphe of Reduce on Reduct plain in Re	dor (C1) res along ed Iron (C4 on in Plow emarks)	1) ved Soils (□ Wat □ Sed □ Drift □ Drai □ Dry- ots (C3) □ Thin □ Cray C6) □ Satu □ Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Juration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Primary India Surface High Wa Saturati Water M Sedimer Drift Der Surface Inundati Water-S Field Obser	drology Indicators: cators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver nt Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) ion Visible on Aerial I Stained Leaves (B9) evations:	ine) nriverine) rine) magery (B7)	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Iro Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduce on Reducti plain in Re	dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils (□ Wat □ Sed □ Drift □ Drai □ Dry- ots (C3) □ Thin □ Cray C6) □ Satu □ Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Juration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
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Primary India Surface High Wa Saturati Water M Sedimer Drift Der Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes car	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver of Deposits (B2) (Nonriver of Deposits (B3) (Nonriver of Deposits (B3) (Nonriver of Deposits (B4) (Nonriver of Deposits	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturati Water M Sedimer Drift Der Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes car	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver one of the indicators (B2) (Nonriver one of the indicators (B3) (Nonriver one of the indicators (B4) In the	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturati Water M Sedimer Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver of Deposits (B2) (Nonriver of Deposits (B3) (Nonriver of Deposits (B3) (Nonriver of Deposits (B4) (Nonriver of Deposits	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturati Water M Sedimer Drift Der Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes car	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver of Deposits (B2) (Nonriver of Deposits (B3) (Nonriver of Deposits (B3) (Nonriver of Deposits (B4) (Nonriver of Deposits	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturati Water M Sedimer Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver of Deposits (B2) (Nonriver of Deposits (B3) (Nonriver of Deposits (B3) (Nonriver of Deposits (B4) (Nonriver of Deposits	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturati Water M Sedimer Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver of Deposits (B2) (Nonriver of Deposits (B3) (Nonriver of Deposits (B3) (Nonriver of Deposits (B4) (Nonriver of Deposits	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Primary India Surface High Wa Saturati Water M Sedimer Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	drology Indicators: cators (any one indicators (any one indicators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver of Deposits (B2) (Nonriver of Deposits (B3) (Nonriver of Deposits (B3) (Nonriver of Deposits (B4) (Nonriver of Deposits	ine) nriverine) rine) magery (B7) es No_ es No_	Salt Crust Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re anches):	dor (C1) wres along ed Iron (C4 on in Plow emarks)	t) ved Soils (Wat Sed Drift Drypots (C3) Thin Cray C6) Satu FAC	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angel	es County	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company	State: <u>CA</u> Sampling Point: <u>PC-5</u>				
Investigator(s): <u>J. Kisner, W. Vogler</u>		Section, To	wnship, Rar	nge: San Francis Land (Grant
Landform (hillslope, terrace, etc.): Channel Bank					
Subregion (LRR): Mediterranean California (LRR-C)					
				_	fication: PSS6
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation No , Soil No , or Hydrology No si	-				'present? Yes 🔲 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na				eded, explain any answ	
SUMMARY OF FINDINGS – Attach site map			`	, ,	,
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP PC-5 characterizes the floodplain North of the Santa Clare The 2006-2007 rain season had an abnormally low amoun	o o lara River.	with Sandy soils	e Sampled in a Wetlan present.		⊠ No <u> </u>
VEGETATION	<u> </u>				
Tree Stratum (Use scientific names.)	% Cover	Dominant Species?	Status	Dominance Test wor Number of Dominant That Are OBL, FACW	Species
1				Total Number of Dom Species Across All St	inant
3				Percent of Dominant S That Are OBL, FACW	Species
Total Cover:	i			Prevalence Index wo	,
Sapling/Shrub Stratum	40	.,	E4 0)4/8	Total % Cover of:	Multiply by
1. Baccharis salicifolia			FACW ^a	OBL species 2	x 1 =2
Populus fremontii Tamarix sp.		<u>N</u>		FACW species 20	x 2 = 40
4. Salix exigua				FAC species 13	x 3 = <u>39</u>
5. Salix laevigata			FACW+ ^a	FACU species50	x 4 = <u>200</u>
Total Cover:			TACVIT	UPL species 4	x 5 = <u>20</u>
Herb Stratum				Column Totals: 89	9 (A) <u>301</u> (B)
1. Melilotus alba	50	<u>Y</u>	FACU+	Prevalence Inde	ex = B/A =3.38
2. <u>Bassia hyssopifolia</u>	10	<u>N</u>	FAC	Hydrophytic Vegetat	tion Indicators:
3. Ambrosia acanthicarpa	2	<u>N</u>	<u>NI</u>	Dominance Test	is >50%
4. Aster subulatus var. ligulatus			FACW	☐ Prevalence Index	
5. <u>Brassica nigra</u>			NI		daptations ¹ (Provide supporting or on a separate sheet)
6. <u>Leptochloa uninervia</u>			FACW		rophytic Vegetation ¹ (Explain)
7. unknown grass		<u>N</u>		Problematic Hydr	ophytic vegetation (Explain)
8				¹ Indicators of hydric s	oil and wetland hydrology must
Woody Vine Stratum				be present.	
1				Uhadasahadis	
2Total Cover:				Hydrophytic Vegetation	
% Bare Ground in Herb Stratum 10 % Cover				Present? Y	′es <u> </u>
Remarks: Although the dominance test equals 50% and	the Prevale	ence Test w		han 3.0, the invasive na	ture and annual/biannual life
cycle of <i>Melilotus alba</i> has skewed the results. Most plants The vegetation of SP PC-5 most closely corresponds to Co ^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W	owardin's (1979) riparia		and Wildlife Survey.	
b Wetland indicator status was assumed FAC for all Tamarix species that were	e not identified	to species. Tal	marix species fo	ound in California have indicator	rs of at least FAC.

	ription: (Describe t	o the dept			ator or confirm	n the absence of i	ndicators.)		
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	ox Features % Typ	pe ¹ Loc ²	Texture	Remarks		
0-18	10YR6/2		n/a			coarse sand w/ co			
0-10	1011(0/2		ii/a			coarse sand w/ ce			
						· 			
						· 			
						·			
						· 			
				<u> </u>		. <u></u>			
				- '					
¹Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix.	² Location: PL=	=Pore Lining, F	RC=Root Channel,	M=Matrix.		
	Indicators: (Applica						Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy Red	ox (S5)		1 cm Mucl	k (A9) (LRR C)		
Histic Ep	oipedon (A2)		Stripped Ma	atrix (S6)			k (A10) (LRR B)		
Black Hi	` '			cky Mineral (F1)	1	Reduced \	* *		
	en Sulfide (A4)	• \		yed Matrix (F2)			nt Material (TF2)		
	d Layers (A5) (LRR C ick (A9) (LRR D)	•)	☐ Depleted M	k Surface (F6)			plain in Remarks)		
	d Below Dark Surface	e (A11)		ark Surface (F7	7)				
	ark Surface (A12)	(ressions (F8)	,				
☐ Sandy N	lucky Mineral (S1)		Vernal Poo	ls (F9)		³ Indicators of h	ydrophytic vegetation and		
	Bleyed Matrix (S4)					wetland hydro	ology must be present.		
_	_ayer (if present):								
,									
Depth (inc	ches):					Hydric Soil Pre	esent? Yes 🔲 No 🔲		
Remarks:									
	from the bank to the								
Due to the "r	eutral" characteristic	s of sandy	soils, sandy alluvial	land is problem	natic and often	considered to be h	ydric under flooded conditions.		
HYDROLO	GY								
Wetland Hy	drology Indicators:					Secondar	y Indicators (2 or more required)		
	ators (any one indica	ator is suffic	cient)			Wate	er Marks (B1) (Riverine)		
Surface	Water (A1)		Salt Crust			☐ Sedir	ment Deposits (B2) (Riverine)		
_	iter Table (A2)		☐ Biotic Crus	,		☐ Drift Deposits (B3) (Riverine)			
Saturation	` '			vertebrates (B1	,	☐ Drainage Patterns (B10)			
	arks (B1) (Nonriveri	•	<u> </u>	Sulfide Odor (C	,	_ ,	Season Water Table (C2)		
	nt Deposits (B2) (Non					ots (C3) Thin			
	oosits (B3) (Nonriver	ine)		of Reduced Iron			fish Burrows (C8)		
	Soil Cracks (B6) on Visible on Aerial Ir	magary (B7		on Reduction in plain in Remark		· , —	ration Visible on Aerial Imagery (C9) ow Aquitard (D3)		
	tained Leaves (B9)	nagery (b <i>i</i>) <u>II</u> Other (EX	piaiii iii Neiliaik	.5)		Neutral Test (D5)		
Field Obser							11001101 1001 (20)		
Surface Wat		es 🗆 1	No 🔲 Depth (in	iches): 0					
Water Table			No ☐ Depth (in						
Saturation P			No Depth (in		Wet	land Hvdrology Pr	resent? Yes 🔀 No 🔲		
(includes cap	oillary fringe)								
Describe Re	corded Data (stream	gauge, mo	nitoring well, aerial	photos, previous	s inspections),	if available:			
Remarks:									
A high water	table and saturated s	soils provid	ed evidence of hydi	rology.					

Project/Site: Newhall Ranch/Potrero Canyon	(City/County	: Los Angele	es County	Sampling Date: 9/26/07	
Applicant/Owner: Newhall Land and Farming Company State: CA Sampling Point: PC-6						
Investigator(s): E. Larsen, J. Love		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	3rant	
Landform (hillslope, terrace, etc.): Channel Bank						
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6358	3492.19039	00	Long: 1970877.063280	00 Datum: NAD83	
				-	ication: PSS6	
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si	-				present? Yes No D	
Are Vegetation no , Soil yes , or Hydrology no na				eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map s						
Hydrophytic Vegetation Present? Yes 🔼 No	<u> </u>					
Hydric Soil Present? Yes 🗵 No			e Sampled in a Wetlan		No □	
Wetland Hydrology Present? Yes X		With	iii a wellali	id: Tes /	<u> </u>	
Remarks:		•				
SP PC-6 characterizes the floodplain North of Santa Clara	River and i	ts water's e	dge. Sandy	soils present.		
The 2006-2007 rain season had an abnormally low amount	t of precipit	ation.				
VEGETATION						
	Absolute			Dominance Test wor		
,		Species?	Status	Number of Dominant S That Are OBL, FACW,		
1 2				Total Number of Domin	,	
Total Cover:				Species Across All Stra	rata <u>8</u> (B)	
Sapling/Shrub Stratum				Percent of Dominant S That Are OBL, FACW,		
1. Populus fremontii	_10	<u>Y</u>	FACW			
2. Salix laevigata	_10	Y	FACW+ ^a	Prevalence Index wo Total % Cover of:	Multiply by	
3. Salix exigua	_10	<u>Y</u>	OBL	OBL species 75		
4. Tamarix sp.		<u>Y</u>	FAC ^b	FACW species 40		
Total Cover: Herb Stratum	40			FAC species 20		
1. Agrostis viridis	20	Υ	OBL	FACU species 5		
Typha domingensis	20	Y	OBL	UPL species 0		
Eleocharis macrostachya			OBL	Column Totals: 140		
4. Juncus torreyi	10	Y	FACW+		ex = B/A = 2.68	
5. Tamarix sp.	40	Υ	FAC	Hydrophytic Vegetati		
6. Arundo donax	5	N	FACW			
7. Cyperus erythrorhizos	5	_N	OBL	Prevalence Index	is ≤3.0 ¹	
8. Cyperus involucratus	5	N	OBL		aptations ¹ (Provide supporting	
9. Epilobium ciliatum		<u>N</u>	FACW		or on a separate sheet)	
10. Juncus xiphodes	_5	<u>N</u>	OBL	Problematic Hydro	ophytic Vegetation ¹ (Explain)	
11. Melilotus alba	_5	<u>N</u>	FACU+	1		
Total Cover: Woody Vine Stratum	100			be present.	oil and wetland hydrology must	
1						
2				Hydrophytic Vegetation		
Total Cover:				_	es <u> </u>	
	of Biotic C	rust 0				
Remarks:						
The vegetation of SP PC-6 most closely corresponds to Co	wardin's (1	979) riparia	an scrub.			
a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W	etlands: 1996	National Summ	ary. U.S. Fish a	and Wildlife Survey.		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix Redox Features								
(inches)	Color (moist)	<u></u> % (Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-16		n/a					coarse sand	
·	-							
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :								
					eu.)			•
Histosol	` '		Sandy Red					Muck (A9) (LRR C)
	☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6) ☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1)						2 cm Muck (A10) (LRR B) Reduced Vertic (F18)	
	☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) ☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)						Reduced Vertic (F16) Red Parent Material (TF2)	
Stratified Layers (A5) (LRR C) Depleted Matrix (F2)							(Explain in Remarks)	
1 cm Muck (A9) (LRR D) Depleted Matths (19)						<u>23</u> 0o.	(2) plant in tremaine)	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)								
Thick D	ark Surface (A12)	,	Redox De	pressions (I	F8)			
Sandy Mucky Mineral (S1)						³ Indicators of hydrophytic vegetation and		
☐ Sandy Gleyed Matrix (S4)						wetland hydrology must be present.		
Restrictive Layer (if present):								
Type:								
Depth (inches):						Hydric Soil	Present? Yes 🔀 No 🔲	
Remarks:								
Due to the "neutral" characteristics of sandy soils, sandy alluvial land is problematic and often considered to be hydric under flooded conditions.								
Note: Water at 2 inches.								
HYDROLO	GY							
							Secon	ndary Indicators (2 or more required)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)						·		
		ator is sufficien	·	. (5.44)				Vater Marks (B1) (Riverine)
Surface Water (A1)								Sediment Deposits (B2) (Riverine)
☐ Biotic Crust (B12)							Orift Deposits (B3) (Riverine)	
☐ Saturation (A3) ☐ Aquatic Invertebrates (B13)							Orainage Patterns (B10)	
Water Marks (B1) (Nonriverine)							Ory-Season Water Table (C2)	
☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☒ Thin Muc								
	posits (B3) (Nonriver	ine)	☐ Presence		•	•		Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (Saturation Visible on Aerial Imagery (C9)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)							Shallow Aquitard (D3)	
	Stained Leaves (B9)						<u> </u> F	AC-Neutral Test (D5)
Field Obser								
Surface Wat		es 🔲 No _		, 		-		
Water Table Present? Yes 🔲 No 🔲 Depth (inches): 2-16								
						/etland Hydrology Present? Yes <u>⊠</u> No <u>□</u>		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
. (J J								
Remarks:								
nigh water ta	able provided evidend	Le or nyarology	•					

Project/Site: Newhall Ranch/Potrero Canyon	City/Cour	nty: Los Angele	es County	Sampling Date: 9/25/07		
Applicant/Owner: Newhall Land and Farming Company			State: CA	Sampling Point: PC-7		
Investigator(s): J. Davis, J. Love	Section,	Township, Rar	Range: San Francis Land Grant			
Landform (hillslope, terrace, etc.): Channel Bank	Local rel	ief (concave, c	convex, none): None	Slope (%): <u>0</u>		
Subregion (LRR): Mediterranean California (LRR-C) La	at: <u>6358467.097</u>	3400	Long: <u>1970634.245110</u>	0 Datum: NAD83		
Soil Map Unit Name: Sandy Alluvial Land			NWI classific	eation: PSS6		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	⊠ No	☐ (If no, explain in R	emarks.)		
Are Vegetation No , Soil No , or Hydrology No signifi	-			present? Yes 🗵 No 🔲		
Are Vegetation No , Soil Yes , or Hydrology No natura	-		eded, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map sho						
Hydrophytic Vegetation Present? Yes ✓ No —	п І.	4 0	A			
Hydric Soil Present? Yes 🗵 No	the Sampled ithin a Wetlan		No			
Wetland Hydrology Present? Yes No		itiliii a wetali	u: 163			
Remarks:						
SP PC-7 Characterizes the southern bank of the Santa Clara F						
The 2006-2007 rainy season received an abnormally low amou	unt of precipitation	on.				
VEGETATION						
Tree Stratum (Use scientific names.) % (Cover Species		Dominance Test work Number of Dominant Sp That Are OBL, FACW, of	pecies		
1			Total Number of Domin Species Across All Stra	ant		
3			Percent of Dominant Sp			
4			That Are OBL, FACW,			
Total Cover: Sapling/Shrub Stratum			Prevalence Index wor	ksheet:		
1. Salix exigua 90	0 Y	OBL	Total % Cover of:	Multiply by		
2. Populus fremontii 5	N	FACW	OBL species			
3			FAC species			
4			FAC species 0 FACU species 5			
5			UPL species 0			
Total Cover: 95 Herb Stratum	<u>5</u>		Column Totals: 125			
	5 Y	OBL°	Prevalence Index	x = B/A =1.24		
3. Salix laevigata 10			Hydrophytic Vegetation			
2. Melilotus alba5	<u>N</u>	FACU+	□ Dominance Test is	>50%		
4				s ≤3.0 ¹		
5			Morphological Ada	ptations ¹ (Provide supporting r on a separate sheet)		
6				phytic Vegetation ¹ (Explain)		
7			T Toblematic Hydro	priytic vegetation (Explain)		
Woody Vine Stratum 1			¹ Indicators of hydric soi be present.	I and wetland hydrology must		
2.			Heatra a beatle			
Total Cover:			Hydrophytic Vegetation			
· · · · · · · · · · · · · · · · · · ·	Biotic Crust		Present? Yes	s <u>N</u> No <u></u>		
Remarks:						
The vegetation of SP PC-7 most closely corresponds to Cowar	rdin's (1979) ripa	arian scrub.				
Wetland indicator status was assumed OBL for all Typha species that were not id Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wetlan				t least OBL		

Profile Desc	ription: (Describe to the dep	pth needed to document the indicator or o	confirm the absence of indicators.)
Depth	Matrix	Redox Features	
(inches)	Color (moist) %		
0-5	10YR 4/2	<u>N/A</u>	Silty clay loam
<u>5-16</u>	<u>N/A</u>	·	Coarse sand riverwash
		·	
	·		
		·	
		· ———— —— ——	
1- 0.0			
		M=Reduced Matrix. ² Location: PL=Pore Li	Inlig, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ :
☐ Histosol	, , ,	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
	pipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
☐ Black Hi		Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
	n Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
	d Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
☐ 1 cm Mu	ıck (A9) (LRR D)	Redox Dark Surface (F6)	
	d Below Dark Surface (A11)	Depleted Dark Surface (F7)	
	ark Surface (A12)	☐ Redox Depressions (F8)☐ Vernal Pools (F9)	3
	Mucky Mineral (S1)	³ Indicators of hydrophytic vegetation and	
	Gleyed Matrix (S4) _ayer (if present):		wetland hydrology must be present.
	Layer (ii present).		
			Hydric Soil Present? Yes ⊠ No □
Remarks:	ches):		nyuric soil Fresent? Tes No 1
was no addit			ere/soil profile. With the exception of organic material, there ils, sandy alluvial land is problematic and often considered to
HYDROLO	GY		
Wetland Hyd	drology Indicators:		Secondary Indicators (2 or more required)
Primary India	cators (any one indicator is suf	ficient)	Water Marks (B1) (Riverine)
☐ Surface	Water (A1)	☐ Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
	iter Table (A2)	☐ Biotic Crust (B12)	☐ Drift Deposits (B3) (Riverine)
☐ Saturation	on (A3)	Aquatic Invertebrates (B13)	☐ Drainage Patterns (B10)
	arks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)
☐ Sedimer	nt Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Livi	ing Roots (C3) Thin Muck Surface (C7)
☐ Drift Dep	oosits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface	Soil Cracks (B6)	Recent Iron Reduction in Plowed	Soils (C6)
Inundation	on Visible on Aerial Imagery (E	37)	☐ Shallow Aquitard (D3)
	tained Leaves (B9)		☐ FAC-Neutral Test (D5)
Field Observ	vations:		
Surface Water	er Present? Yes	No Depth (inches):	
Water Table	Present? Yes X	No Depth (inches): 4	
Saturation Pr		No Depth (inches):	Wetland Hydrology Present? Yes No No
(includes cap		nonitoring well, aerial photos, previous inspec	tions) if available:
Describe Rec	Joided Data (Stream gauge, m	ionitoring well, aerial priotos, previous inspec	ctions), ii avaliable.
Domorko			
Remarks:	ble provided evidence of bud-	ralogy	
riigh water ta	able provided evidence of hydr	ology.	

Project/Site: Newhall Ranch/Potrero Canyon	Los Angele	eles County Sampling Date: 9/25/07					
Applicant/Owner: Newhall Land and Farming Company		State: CA Sampling Point: PC-8					
Investigator(s): J. Davis, J. Love							
Landform (hillslope, terrace, etc.): Channel Bank		Local relief	(concave, c	convex. none): None Slope (%): 0			
Subregion (LRR): Mediterranean California (LRR-C)							
Soil Map Unit Name: Sandy Alluvial Land							
Are climatic / hydrologic conditions on the site typical for this							
	-						
Are Vegetation No., Soil No., or Hydrology No. si					present? Yes 🔲 No 🔲		
Are Vegetation No , Soil Yes , or Hydrology No na SUMMARY OF FINDINGS – Attach site map s			•	eded, explain any answe	,		
- Attach site map s	silowing	Sampini	g point ic	Cations, transects	, important reatures, etc.		
Hydrophytic Vegetation Present? Yes 🔼 No		Is th	e Sampled	Area			
Hydric Soil Present? Yes ✓ No			_	d? Yes <u></u> ∑	3 No □		
Wetland Hydrology Present? Yes 🔲 No							
Remarks:			01 "				
SP PC-8 characterizes the northern portion of southern about the river was present at this location. No vegetation exist							
The 2006-2007 rain season had an abnormally low amount		_			, g		
VECETATION	• •						
VEGETATION	Abackita	Dominant	Indiantar	Deminance Test worl	rahaati		
	Absolute % Cover	Species?		Dominance Test work Number of Dominant S			
1				That Are OBL, FACW,	or FAC: <u>3</u> (A)		
2				Total Number of Domir Species Across All Stra			
3Total Cover:				Percent of Dominant S That Are OBL, FACW,			
Sapling/Shrub Stratum				Prevalence Index wor	, , ,		
1. <u>Salix exigua</u>				Total % Cover of:	Multiply by		
2. Populus fremontii				OBL species 65	x 1 =65		
3				FACW species 32			
4				FAC species 3	x 3 = <u>9</u>		
5Total Cover:				FACU species0_	x 4 = <u>0</u>		
Herb Stratum	45			UPL species 0	x 5 = <u>0</u>		
3. Typha Sp.	25	Υ	OBL ^c	Column Totals: 100	(A) <u>138</u> (B)		
2. Baccharis salicifolia	_15	<u>Y</u>	FACW ^a	Prevalence Index	x = B/A = <u>1.38</u>		
3. Arundo donax	_5	_N	FACW	Hydrophytic Vegetati	on Indicators:		
4. Salix laevigata	_5	<u>N</u>	FACW+ ^a	□ Dominance Test is	\$ >50%		
5. <u>Tamarix sp.</u>	_2	_N	FAC ^b		is ≤3.0 ¹		
6. Artemisia douglasiana		<u>N</u>	<u>FACW</u>		aptations ¹ (Provide supporting		
7. <u>Urtica dioica</u>	_1	_N	<u>FACW</u>		or on a separate sheet) ophytic Vegetation ¹ (Explain)		
8. Xanthium strumarium		<u>N</u>	FAC+	T Froblematic Hydro	priytic vegetation (Explain)		
Woody Vine Stratum	_55			¹ Indicators of hydric so be present.	il and wetland hydrology must		
Total Cover:				•			
% Bare Ground in Herb Stratum % Cover				Hydrophytic Vegetation Present? Ye	es 🛛 No 🔲		
Remarks:							
The vegetation of SP PC-8 most closely corresponds to Co	wardin's (1	1979) riparia	n scrub.				
A lot of Freemont cottonwood leaf litter.	(, , , ,					
^c Wetland indicator status was assumed OBL for all Typha species that were r	not identified to	species. Typha	a species found	in California have indicators of a	at least OBL		
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wet	lands: 1996 N	ational Summar	y. U.S. Fish and	d Wildlife Survey.			
^b Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were	e not identified	to species. Tar	marix species fo	und in California have indicators	of at least FAC.		

Profile Desc	cription: (Describe to	the dep	oth needed to docu	ment the i	ndicator o	or confirn	n the absence	of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks		
0-4	10YR 2.5/1	70	N/A				coarse sandy			
			14/74				odaroc sariay			
4-5	2.5 YR 5-4/2		_					Organic layer		
5-7/8	10YR 4/2							Depositional layer		
10-16	N/A							oxidized roots		
			-							
¹ Type: C=Co	oncentration, D=Deple	etion. RM	=Reduced Matrix.	² Location	: PL=Pore	E Linina. F	RC=Root Chann	el. M=Matrix.		
	Indicators: (Applica					<u> </u>		for Problematic Hydric Soils ³ :		
Histosol	(A1)		☐ Sandy Red	ox (S5)			□ 1 cm N	luck (A9) (LRR C)		
Histic Ep	oipedon (A2)		Stripped M	atrix (S6)			□ 2 cm N	luck (A10) (LRR B)		
Black Hi	istic (A3)		Loamy Mud	cky Minera	l (F1)		Reduce	ed Vertic (F18)		
	en Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Pa	arent Material (TF2)		
	d Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)		
☐ 1 cm Mu	uck (A9) (LRR D)		Redox Dar	k Surface ((F6)					
	d Below Dark Surface	(A11)	Depleted D							
	ark Surface (A12)		Redox Dep	•	F8)		3			
☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9)								of hydrophytic vegetation and		
	Bleyed Matrix (S4) Layer (if present):						wetiand ny	drology must be present.		
_	Layer (ii present).									
,	ches):						Hydric Soil	Present? Yes 🗵 No 🔲		
Remarks:							,	100 <u>7</u> 110 <u>11</u>		
	ng visible in deposition	al laver								
	-	-	renile sandvalluvial	land is nro	hlematic :	and often	considered to b	e hydric under flooded conditions.		
		or sariay	30113, Saridy alluvial	iana is pre	Dicinatio	and onen	considered to b	e nyune under nooded conditions.		
HYDROLO										
	drology Indicators:							dary Indicators (2 or more required)		
-	cators (any one indica	tor is suff					Water Marks (B1) (Riverine)			
Surface	` '		Salt Crust				Sediment Deposits (B2) (Riverine)			
	ater Table (A2)		☐ Biotic Cru	` ,			☐ Drift Deposits (B3) (Riverine)			
□ Saturation	` '		Aquatic In	vertebrate	s (B13)		<u> </u>	rainage Patterns (B10)		
	larks (B1) (Nonriverir	ne)	Hydrogen	Sulfide Od	dor (C1)		☐ Di	ry-Season Water Table (C2)		
Sedimer	nt Deposits (B2) (Non	riverine)	Oxidized	Rhizosphe	res along	Living Roo	ots (C3) 🔲 Th	nin Muck Surface (C7)		
☐ Drift Dep	oosits (B3) (Nonriveri	ne)	Presence	of Reduce	d Iron (C4	!)	☐ Ci	rayfish Burrows (C8)		
Surface	Soil Cracks (B6)		Recent Iro	on Reduction	on in Plow	ed Soils (C6) 🔲 Sa	aturation Visible on Aerial Imagery (C9)		
Inundation	on Visible on Aerial Im	nagery (B	7) 🔲 Other (Ex	plain in Re	marks)		☐ SI	hallow Aquitard (D3)		
	tained Leaves (B9)						<u> </u>	AC-Neutral Test (D5)		
Field Obser			_							
Surface Wat			No Depth (ir			_				
Water Table			No Depth (ir			-				
Saturation P		s	No Depth (ir	iches):		_ Wetl	and Hydrology	Present? Yes 🔀 No 🔲		
(includes cap Describe Re	corded Data (stream o	gauge, m	onitoring well, aerial	photos, pre	evious ins	pections),	if available:			
	(,	3	,		, , ,				
Remarks:										
	er and a high water tal	ole provid	ed evidence of hydro	ology.						
	3		,	0,						

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angel	es County	Sampling Date: <u>9/25/07</u>
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-9
Investigator(s): <u>J. Davis, J. Love</u>		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	Frant
Landform (hillslope, terrace, etc.): Channel Bank		Local relief	(concave, o	convex, none): None	Slope (%): <u>0</u>
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: <u>6358</u>	3508.97422	00	Long: <u>6358508.974220</u>	00 Datum: <u>NAD83</u>
Soil Map Unit Name: Sandy Alluvial Land				NWI classific	cation: PSS6
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes	<u>⊠</u> No	[] (If no, explain in F	Remarks.)
Are Vegetation No , Soil No , or Hydrology No si	gnificantly	disturbed?	Are "	Normal Circumstances"	present? Yes 🔲 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na	aturally pro	blematic?	(If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point lo	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes No		Is th	e Sampled	Area	
Hydric Soil Present? Yes □ No Wetland Hydrology Present? Yes □ No		with	in a Wetlan	id? Yes 🗵	◯ No □
Remarks:	<u>'</u>				
SP PC-9 characterizes the southern embankment of the Sa	anta Clara	River within	relict alluvia	al channel.	
The 2006-2007 rain season had an abnormally low amount	of precipit	ation.			
VEGETATION					
Tree Stratum (Use scientific names.)		Species?	Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	Species
1 2				Total Number of Domir	nant
3				Species Across All Stra	
4				Percent of Dominant S That Are OBL, FACW,	
Total Cover:				Prevalence Index wor	rksheet:
Sapling/Shrub Stratum 1. Populus fremontii	1	Y	FACW/	Total % Cover of:	Multiply by
2. Tamarix Sp.				OBL species 0	
3				FACW species 31	
4.				FAC species1_	
5				FACU species 60	
Total Cover:	2			UPL species 0	
Herb Stratum	60	V	EACH.	Column Totals: 92	
Melilotus alba Baccharis salicifolia				Hydrophytic Vegetati	x = B/A = <u>3.31</u>
3				Dominance Test is	
4				☐ Prevalence Index	
5					aptations ¹ (Provide supporting
6.					or on a separate sheet)
Total Cover:				Problematic Hydro	ophytic Vegetation ¹ (Explain)
Woody Vine Stratum				1	
1				be present.	oil and wetland hydrology must
2Total Cover:				Lydrophytic	
% Bare Ground in Herb Stratum 8 % Cover				Hydrophytic Vegetation Present? Ye	es <u> </u>
Remarks:				Trootine.	,3 <u>74</u> 110 <u>11</u>
The vegetation of SP PC-9 most closely corresponds to Co	wardin's (1	1979) riparia	an scrub.		
Tree species are young saplings.		. ,	- >		
 Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that we Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W 					rs of at least FAC.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix			x Feature	S1	. 2					
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	Texture Remarks				
0-16	N/A	<u>N/A</u>	i				Medium gravel w/ coarse sand (riverwash)	_			
	-			_							
-								_			
	-						· 	—			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix.											
	Indicators: (Applic						Indicators for Problematic Hydric Soils ³ :				
☐ Histoso			☐ Sandy Red				☐ 1 cm Muck (A9) (LRR C)				
Histic E	pipedon (A2)		☐ Stripped M				2 cm Muck (A10) (LRR B)				
□ Black H	listic (A3)		Loamy Mu	cky Minera	al (F1)		Reduced Vertic (F18)				
	en Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Parent Material (TF2)				
	d Layers (A5) (LRR		Depleted N				☑ Other (Explain in Remarks)				
	uck (A9) (LRR D)		Redox Dar		. ,						
	ed Below Dark Surfac	, ,	Depleted D		` ,						
	ark Surface (A12)		Redox Dep		F8)		3to disease of hardwards discount of a second				
-	Mucky Mineral (S1) Gleyed Matrix (S4)		☐ Vernal Poor	ois (F9)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present.				
	Layer (if present):						wettand flydrology must be present.				
	Layor (ii procom).										
	ches):		_				Hydric Soil Present? Yes ⊠ No □				
Remarks:							Tryuno com resent. Tes No. 110				
	oxidation or organic r	material									
_	•		a condu alluvia	lland is nr	oblomotio	and often	considered to be hydric under flooded conditions.				
		55 OI Sariuy Soil	s, sariuy aliuvia	ianu is pit	oblemanc .	and onem (considered to be flydric drider flooded conditions.				
HYDROLO											
_	drology Indicators:						Secondary Indicators (2 or more required)				
Primary Indi	cators (any one indic	ator is sufficien	t)				Water Marks (B1) (Riverine)				
☐ Surface			Salt Crus	t (B11)			Sediment Deposits (B2) (Riverine)				
-	ater Table (A2)		☐ Biotic Cru	, ,			☐ Drift Deposits (B3) (Riverine)				
☐ Saturati	on (A3)		Aquatic Ir	vertebrate	es (B13)		☐ Drainage Patterns (B10)				
	Marks (B1) (Nonriver	ine)	☐ Hydroger	Sulfide O	dor (C1)		Dry-Season Water Table (C2)				
☐ Sedime	nt Deposits (B2) (No	nriverine)	Oxidized	Rhizosphe	res along	Living Roo	ots (C3) Thin Muck Surface (C7)				
☐ Drift De	posits (B3) (Nonrive	rine)	Presence	of Reduce	ed Iron (C4	1)	Crayfish Burrows (C8)				
☐ Surface	Soil Cracks (B6)		Recent Ir	on Reducti	on in Plow	ed Soils (0	(C6) Saturation Visible on Aerial Imagery (C9	9)			
☐ Inundat	ion Visible on Aerial	magery (B7)	Other (Ex	plain in Re	emarks)		Shallow Aquitard (D3)				
	Stained Leaves (B9)						☐ FAC-Neutral Test (D5)				
Field Obser	vations:										
Surface Wat	ter Present? Y	es 🔲 No	Depth (ir	nches):		_ [
Water Table	Present? Y	es 🗵 No	Depth (in	nches):	16	_ [
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches):											
(includes ca	pillary fringe)		-i				if a reitable.				
Describe Re	ecorded Data (stream	gauge, monito	iirig weii, aeriai	priotos, pri	evious iris	pections),	ii avaliable.				
Remarks:											
High water t	able provided eviden	ce of hydrology	' .								

Project/Site: Newhall Ranch/Potrero Canyon	City/County: Los Angeles County Sampling Date: 9.					
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-10	
Investigator(s): <u>J. Davis, J. Love</u>		Section, To	wnship, Raı	nge: <u>San Francis Land G</u>	rant	
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, o	convex, none): None	Slope (%): <u>0</u>	
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6358	3522.26202	00	Long: <u>1970339.655600</u>	Datum: NAD83	
Soil Map Unit Name: Sandy Alluvial Land				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	⊠ No	☐ (If no, explain in R	Remarks.)	
Are Vegetation No , Soil No , or Hydrology No si	gnificantly	disturbed?	Are "	Normal Circumstances" p	oresent? Yes 🔲 No 🔲	
Are Vegetation No , Soil Yes , or Hydrology No no				eded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point le	ocations, transects	, important features, etc.	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No Remarks:			e Sampled in a Wetlar] No⊠	
SP PC-10 characterizes change in soil type and a slight ele The 2006-2007 rain season had an abnormally low amoun		•	C-10 is Sou	th of the channel with ma	iture trees.	
VEGETATION						
<u>Tree Stratum</u> (Use scientific names.) 1. <u>Populus fremontii</u>	% Cover	Dominant Species? Y	Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	pecies	
2				Total Number of Domin Species Across All Stra		
3				Percent of Dominant S		
4				That Are OBL, FACW,		
Total Cover: Sapling/Shrub Stratum	80			Prevalence Index wor		
1. <u>Salix exigua</u>	80	Y	OBL	Total % Cover of:	Multiply by	
2				OBL species		
3				FACW species		
4				FAC species		
5				FACU species	<u> </u>	
Total Cover:	80			UPL species	x 5 =	
Herb Stratum				Column Totals:	(A) (B)	
3. <u>Leymus triticoides</u>					x = B/A =	
2. Baccharis salicifolia				Hydrophytic Vegetation		
3				Dominance Test is		
4				Prevalence Index i		
5				Morphological Ada	aptations ¹ (Provide supporting r on a separate sheet)	
6Total Cover:					ophytic Vegetation ¹ (Explain)	
Woody Vine Stratum 1 2				¹ Indicators of hydric soi be present.	il and wetland hydrology must	
Total Cover:				Hydrophytic		
% Bare Ground in Herb Stratum10				Vegetation	es 🗵 No 🔲	
Remarks:	Name and the	(4070)				
The vegetation of SP PC-10 most closely corresponds to C	cowardin's	(1979) ripar	an scrub.			
A lot of Freemont cottonwood leaf litter.						
Kartesz, J\.T. 1996. National List of Vascular Plant Species that Occur in V	vetlands: 1996	National Sumn	nary. U.S. Fish	and Wildlife Survey.		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks		
0-8	10YR 4/3	!	N/A				sandy			
8-16	10YR 4/2						silty clay	Oxidation around roots		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix.										
	Indicators: (Applica					<u> </u>		s for Problematic Hydric Soils ³ :		
Histosol	(A1)		☐ Sandy Red	ox (S5)			☐ 1 cm	Muck (A9) (LRR C)		
Histic Ep	pipedon (A2)		Stripped M	atrix (S6)			□ 2 cm	Muck (A10) (LRR B)		
Black Hi	istic (A3)		Loamy Muc	cky Mineral	(F1)		Redu	iced Vertic (F18)		
	en Sulfide (A4)		Loamy Gle		(F2)			Parent Material (TF2)		
	d Layers (A5) (LRR C	;)	Depleted M				Other	r (Explain in Remarks)		
	uck (A9) (LRR D)	(8.4.4)	Redox Darl	,	,					
	d Below Dark Surface ark Surface (A12)	e (A11)	☐ Depleted D		. ,					
	Mucky Mineral (S1)		☐ Redox Dep☐ Vernal Poo		-0)		3Indicators	s of hydrophytic vegetation and		
	Gleyed Matrix (S4)		U Vernari oo	13 (1 3)				hydrology must be present.		
	Layer (if present):						1.01.01.01	, a. e. e. g. e.		
Depth (inc							Hydric Soi	il Present? Yes ⊠ No □		
Remarks:							,			
	ng was found scattere	d through t	he soil profile Oxid	lation was	also obse	rved from	8-16 inches a	around the roots		
	-	•	·					be hydric under flooded conditions.		
		o or oarray t	one, carray anavia	iana io pro	bioinado	and onton	continuorou to	be flyane ander needed conduction.		
HYDROLO										
_	drology Indicators:							ondary Indicators (2 or more required)		
Primary India	cators (any one indica	ator is suffic	<u> </u>					Water Marks (B1) (Riverine)		
Surface	` '		Salt Crust	. ,				Sediment Deposits (B2) (Riverine)		
	ater Table (A2)		Biotic Cru	` '			·	Drift Deposits (B3) (Riverine)		
☐ Saturation	, ,		Aquatic In					Drainage Patterns (B10)		
	larks (B1) (Nonriveri	,	☐ Hydrogen		, ,		·	Dry-Season Water Table (C2)		
	nt Deposits (B2) (Nor			•	_	-	• • • =	Thin Muck Surface (C7)		
	posits (B3) (Nonriver	ine)	☐ Presence				·	Crayfish Burrows (C8)		
	Soil Cracks (B6)		Recent Iro			ed Soils (Saturation Visible on Aerial Imagery (C9)		
_	on Visible on Aerial II	magery (B7) <u> </u>	plain in Rei	marks)			Shallow Aquitard (D3)		
	tained Leaves (B9)							FAC-Neutral Test (D5)		
Field Obser		_ ,								
Surface Water			lo Depth (ir							
Water Table			lo 🔲 Depth (ir							
Saturation P		es 🔲 N	lo Depth (ir	iches):		_ Wetl	and Hydrolog	gy Present? Yes 🔲 No 🗵		
Describe Re	corded Data (stream	gauge, moi	nitoring well, aerial	photos, pre	vious ins	pections),	if available:			
	,		•		·	,				
Remarks:										
	of hydrology was ob	served with	in one meter of san	npling point	t.					
	, 3,			. 51						

Project/Site: Newhall Ranch/Potrero Canyon		City/County	y: Los Angel	es County	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-11
Investigator(s): <u>J. Davis, J. Love</u>		Section, To	ownship, Rai	nge: <u>San Francis Land G</u>	rant
Landform (hillslope, terrace, etc.): Floodplain		Local relie	f (concave,	convex, none): none	Slope (%): <u>flat</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 635	8614.50333	300	Long: <u>1970093.713020</u>	00 Datum: NAD83
Soil Map Unit Name: <u>Sandy Alluvial Land</u>				NWI classific	cation: N/A
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes _	⊠ No _	☐ (If no, explain in F	Remarks.)
Are Vegetation no , Soil no , or Hydrology no	-				
Are Vegetation no , Soil Yes , or Hydrology no				eeded, explain any answe	· · · · · · · · · · · · · · · · · · ·
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes 🗵 N					
Hydrophytic Vegetation Present? Yes ⊠ N Hydric Soil Present? Yes ⊠ N			he Sampled		
Wetland Hydrology Present? Yes N		with	hin a Wetlar	ıd? Yes	No <u></u>
Remarks:					
SP PC-11 characterizes mature riparian forest approxima	ately 100 fee	t away fron	n the southe	rn bank of the Santa Clar	a River.
The 2006-2007 rain season had an abnormally low amou	ınt of precipi	tation.			
VEGETATION					
VEGETATION	Absolute	Dominant	t Indicator	Dominance Test work	vehoot:
<u>Tree Stratum</u> (Use scientific names.)		Species?		Number of Dominant S	
1. Populus fremontii				That Are OBL, FACW,	or FAC: <u>5</u> (A)
2		<u> </u>		Total Number of Domir Species Across All Stra	
	er: <u>70</u>	-		Percent of Dominant S	
Sapling/Shrub Stratum	4.5	V	-^ O\^/ . a	That Are OBL, FACW,	
1. <u>Salix laevigata</u>				Prevalence Index wor	rksheet:
Salix sp. Sambucus mexicana				Total % Cover of:	Multiply by
	er: <u>35</u>		<u> </u>	OBL species	
Herb Stratum	n. <u>55</u>	•		FACW species	
1. <i>Salix</i> sp.	10	Y	FACW ^d	FAC species	
2		. ———		FACU species	
3				UPL species	
4		<u> </u>		Column Totals:	
5					x = B/A =
6				Hydrophytic Vegetation	
7				□ Dominance Test is □	
8				Prevalence Index	
Total Cove Woody Vine Stratum	er: <u>10</u>	•			aptations ¹ (Provide supporting or on a separate sheet)
1					ophytic Vegetation ¹ (Explain)
2.					, prijuc : - g (
	er:				il and wetland hydrology must
% Bare Ground in Herb Stratum 90 % Cove	er of Biotic C	Crust 0		be present.	
	,			Hydrophytic Vegetation Present? Ye	es 🗵 No 🔲
Remarks:				<u> </u>	
The vegetation of SP PC-11 most closely corresponds to	Cowardin's	(1979) ripa	rian scrub.		
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in	Wetlands: 1996	National Sumr	mary. U.S. Fish a		
^d Wetland indicator status was assumed FACW for all <i>Salix</i> species not ide	ntified to specie	s at this SP. Al	I unidentified Sa	lix sp. were either S. lasiolepis (F.	ACW) or S. laevigata (FACW+), which in

		epth needed to document the indicator or o	confirm the absence	e of indicators.)
Depth (inches)	Matrix Color (moist) %	Redox Features Color (moist) % Type ¹ L	_oc² Texture	Remarks
0-8	10YR 4/3			Nemaino
<u>8-16</u>	10YR 4/2	<u>N/A</u>	silty clay	Oxidation around roots
1				
		M=Reduced Matrix. ² Location: PL=Pore Li all LRRs, unless otherwise noted.)		nel, M=Matrix. s for Problematic Hydric Soils ³ :
☐ Histosol	, , ,	Sandy Redox (S5)		Muck (A9) (LRR C)
	pipedon (A2)	Stripped Matrix (S6)		Muck (A10) (LRR B)
☐ Black Hi		Loamy Mucky Mineral (F1)		ced Vertic (F18)
Hydroge	en Sulfide (A4)	Loamy Gleyed Matrix (F2)		Parent Material (TF2)
	d Layers (A5) (LRR C)	Depleted Matrix (F3)	Other	(Explain in Remarks)
	ick (A9) (LRR D)	Redox Dark Surface (F6)		
	d Below Dark Surface (A11) ark Surface (A12)	☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)		
	Mucky Mineral (S1)	³ Indicators	of hydrophytic vegetation and	
	Gleyed Matrix (S4)		lydrology must be present.	
-	_ayer (if present):			
Type:				
Depth (inc	ches):		Hydric Soi	l Present? Yes <u>⊠</u> No <u>□</u>
Remarks:			•	
Small mottlin	g was found scattered throug	gh the soil profile. Oxidation was also observe	ed from 8-16 inches a	round the roots.
Due to the "n	eutral" characteristics of sand	dy soils, sandy alluvial land is problematic and	d often considered to	be hydric under flooded conditions.
HYDROLO	GY			
Wetland Hyd	drology Indicators:		<u>Seco</u>	ndary Indicators (2 or more required)
Primary India	cators (any one indicator is su	ufficient)	D_V	Water Marks (B1) (Riverine)
☐ Surface	Water (A1)	☐ Salt Crust (B11)	<u> </u>	Sediment Deposits (B2) (Riverine)
High Wa	iter Table (A2)	☐ Biotic Crust (B12)	[Orift Deposits (B3) (Riverine)
☐ Saturation	on (A3)	Aquatic Invertebrates (B13)	[Orainage Patterns (B10)
_	arks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)		Ory-Season Water Table (C2)
	nt Deposits (B2) (Nonriverine	· =	• • • =	, ,
	posits (B3) (Nonriverine)	Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
	Soil Cracks (B6)	Recent Iron Reduction in Plowed	· · · · · · · · · · · · · · · · · · ·	Saturation Visible on Aerial Imagery (C9)
	on Visible on Aerial Imagery ((B7)		Shallow Aquitard (D3) FAC-Neutral Test (D5)
Field Observ	tained Leaves (B9)		<u> </u>	-AC-Neutral Test (D3)
Surface Water	<u></u>	No Depth (inches):		
Water Table		No Depth (inches):		
Saturation Pr		No Depth (inches):	Watland Hydrolog	y Present? Yes 🔲 No 🗵
(includes cap	oillary fringe)			ly Fresent: Tes NO
Describe Red	corded Data (stream gauge, r	monitoring well, aerial photos, previous inspec	ctions), if available:	
Remarks:				
No evidence	of hydrology was observed.			

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angel	es County	Date: <u>9/25/07</u>		
Applicant/Owner: Newhall Land and Farming Company	hall Land and Farming Company				Sampling Point: PC-12		
Investigator(s): <u>J. Davis, J. Love</u>		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	rant		
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, c	convex, none): None Slope (%): 0			
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: <u>6358</u>	3800.88116	00	Long: <u>1969648.391260</u>	00	Datum: NAD83	
Soil Map Unit Name: Sandy Alluvial Land				NWI classific	cation: N/A		
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	⊠ No	(If no, explain in F	Remarks.)		
Are Vegetation No , Soil No , or Hydrology No si	ignificantly	disturbed?	Are "	Normal Circumstances"	present? Y	es 🔲 No 🔲	
Are Vegetation No , Soil No , or Hydrology No no	aturally pro	blematic?	(If ne	eded, explain any answe	ers in Remar	ks.)	
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point lo	ocations, transects	s, importa	nt features, etc.	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No No No Remarks:	o <u> </u>		ie Sampled in a Wetlan		No	⊠	
SP PC-12 characterizes the edge of a ranch road. Recent SP.			as evident ir	n the area. Riparian fore	st surrounds	and overhangs this	
The 2006-2007 rainy season had an abnormally low amou VEGETATION	nt or precip	itation.					
	Absolute	Dominant	Indicator	Dominance Test work	sheet:		
Tree Stratum (Use scientific names.)		Species?		Number of Dominant S That Are OBL, FACW,		(A)	
1. Salix laevigata		<u>Y</u>		Total Number of Domir		(^)	
2				Species Across All Stra		(B)	
Total Cover	30			Percent of Dominant S That Are OBL, FACW,		100 (A/P)	
Sapling/Shrub Stratum				Prevalence Index wor		(A/B)	
1. <u>Arundo donax</u>				Total % Cover of:	noncet.	Multiply by	
2				OBL species		x 1 =	
3				FACW species	<u></u>	x 2 =	
4Total Cover.				FAC species		x 3 =	
Herb Stratum	. <u> </u>			FACU species		x 4 =	
1				UPL species		x 5 =	
2				Column Totals:	(A)	(B)	
3				Prevalence Index	κ = B/A = _		
4				Hydrophytic Vegetati	on Indicato	rs:	
5				□ Dominance Test is	s >50%		
6				☐ Prevalence Index	is ≤3.0¹		
7				Morphological Ada			
Total Cover				☐ Problematic Hydro	phytic Vege	tation ¹ (Explain)	
Woody Vine Stratum 1				¹ Indicators of hydric so be present.	il and wetlar	d hydrology must	
Total Cover				,			
% Bare Ground in Herb Stratum 80 % Cover	of Biotic C	rust <u>20</u>		Hydrophytic Vegetation Present? Ye	es 🗵	No	
Remarks:							
The vegetation of SP PC-12 most closely corresponds to 0	Cowardin's	(1979) ripar	ian scrub.				
Ruderal with elements of riparian forest. a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W	/etlands: 1996	National Summ	ary. U.S. Fish a	and Wildlife Survey.			

	ription: (Describe to	the depth				or confirm	the absend	ce of indicators.)			
Depth (inches)	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks			
	Color (molot)	70	Color (moloc)				<u> </u>	romano			
No Soil Pit											
				·							
								<u> </u>			
							-				
											
				. ——				<u> </u>			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :											
l	,	ble to all LR			ed.)		_	rs for Problematic Hydric Soils ³ :			
Histosol	` '		Sandy Red					n Muck (A9) (LRR C)			
☐ Histic Ep☐ Black His			☐ Stripped Ma☐ Loamy Muc		I (E1)			n Muck (A10) (LRR B) uced Vertic (F18)			
	n Sulfide (A4)		Loamy Gley	-	. ,			Parent Material (TF2)			
	Layers (A5) (LRR C)	☐ Depleted M		(· _)			er (Explain in Remarks)			
	ck (A9) (LRR D)		Redox Dark		F6)			,			
Depleted	Below Dark Surface	(A11)	Depleted Date								
	rk Surface (A12)		Redox Dep		- 8)		a				
	ucky Mineral (S1)		☐ Vernal Pool	s (F9)				rs of hydrophytic vegetation and			
	leyed Matrix (S4) ayer (if present):						wetland	hydrology must be present.			
	h) .						Usalaia Ca	sil Bracout? Voc 🗆 No 🖂			
	hes):						nyunc 30	oil Present? Yes □ No ⊠			
Remarks:											
No soil pit wa	s excavated due to la	ick of vegeta	ition and observat	ole nyarolo	ogy.						
HYDROLOG	3Y										
Wetland Hyd	rology Indicators:						Sec	ondary Indicators (2 or more required)			
Primary Indic	ators (any one indica	tor is sufficie	nt)					Water Marks (B1) (Riverine)			
☐ Surface \	` '		☐ Salt Crust	(B11)			Sediment Deposits (B2) (Riverine)				
-	ter Table (A2)		☐ Biotic Crus	. ,			☐ Drift Deposits (B3) (Riverine)				
☐ Saturation	n (A3)		Aquatic In	vertebrate	s (B13)		Д	Drainage Patterns (B10)			
☐ Water Ma	arks (B1) (Nonriverir	ne)	Hydrogen	Sulfide Od	dor (C1)			Dry-Season Water Table (C2)			
	t Deposits (B2) (Non	•	· · · · · · · · · · · · · · · · · · ·		_	-	· · · =	Thin Muck Surface (C7)			
	osits (B3) (Nonriveri	ne)	☐ Presence				· <u></u> -	Crayfish Burrows (C8)			
	Soil Cracks (B6)	(D.7)	Recent Iro			ved Soils (C	C6) <u> </u>	Saturation Visible on Aerial Imagery (C9)			
	on Visible on Aerial Im	nagery (B7)	☐ Other (Exp	olain in Re	marks)			Shallow Aquitard (D3)			
Field Observ	ained Leaves (B9)					1		FAC-Neutral Test (D5)			
		- 🗆 N-	Donath (in	-l\.							
Surface Water			Depth (in	, 							
Water Table I			Depth (in								
Saturation Pr (includes cap		s <u> </u>	Depth (in	cnes):		Wetia	and Hydroid	ogy Present? Yes 🔲 No 🗵			
	orded Data (stream o	gauge, monit	oring well, aerial p	ohotos, pre	evious ins	pections), i	if available:				
			·								
Remarks:											
No evidence	of hydrology was obs	erved.									

Project/Site: Newhall Ranch/Potrero Canyon		City/County	Los Angele	eles County Sampling Date: 9/25/07		
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-13	
Investigator(s): J. Love, L. Rizzo, J. Davis, J. Kisner		Section, To	wnship, Rar	nge: San Francis Land G	rant	
Landform (hillslope, terrace, etc.): River Channel Bank						
Subregion (LRR): Mediterranean California (LRR-C)			•	, <u>-</u>	. , , -	
Soil Map Unit Name: Sandy Alluvial Land						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation No., Soil No., or Hydrology No. si					oresent? Yes 🔲 No 🔲	
Are Vegetation No , Soil Yes , or Hydrology No na	aturally pro	blematic?	(If ne	eded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point lo	ocations, transects	, important features, etc.	
Hydrophytic Vegetation Present? Yes 🔲 No		Is th	e Sampled	Area		
Hydric Soil Present? Yes No			in a Wetlan		No	
Wetland Hydrology Present? Yes No						
Remarks:				~ .		
SP PC-13 characterizes the southern edge of a vegetated			anta Clara I	River.		
The 2006-2007 rain season had an abnormally low amount	t of precipit	ation.				
VEGETATION						
	Absolute			Dominance Test work		
, , ,		Species?	<u>Status</u>	Number of Dominant S That Are OBL, FACW,		
1				Total Number of Domin	、 ,	
2				Species Across All Stra		
3				Percent of Dominant Sp		
Total Cover: Sapling/Shrub Stratum				That Are OBL, FACW,	` ,	
1. <u>Salix exigua</u>	20	Υ	OBL	Prevalence Index wor		
2. Salix laevigata	20	Υ	FACW+a	Total % Cover of:	Multiply by	
3. <u>Baccharis salicifolia</u>		N	FACW ^a	OBL species 42		
4. Populus fremontii	10	<u>N</u>	FACW	FACW species 52		
5. <u>Tamarix sp.</u>	5	_N	FAC ^b	FAC species 9		
Total Cover:	65			FACU species 20		
Herb Stratum				UPL species 0		
1. Melilotus alba		<u>Y</u>	FACU+	Column Totals: 123	、 , 、 ,	
2. <u>Typha</u> sp.		<u>Y</u>	OBL ^c		c = B/A = <u>2.03</u>	
3. <u>Arundo donax</u>		<u>Y</u>	FACW	Hydrophytic Vegetation		
4. <u>Epilobium ciliatum</u>		<u>Y</u>	FACW			
5. <u>Euthamia occidentalis</u>	_5	<u>Y</u>	OBL	Prevalence Index i		
6. Aster subulatus var. ligulatus	2	_N	FAC	☐ Morphological Ada data in Remarks o	ptations ¹ (Provide supporting r on a separate sheet)	
7. Cyperus eragrostis		_N	FACW		ophytic Vegetation ¹ (Explain)	
8. Polygonum lapathifolium			OBL	<u> </u>	priyite regetation (2/piami)	
9. Xanthium strumarium	2	<u>N</u>	FAC+	¹ Indicators of hydric soi	il and wetland hydrology must	
Total Cover: Woody Vine Stratum	<u> </u>			be present.	, , , , , , , , , , , , , , , , , , , ,	
1						
2				Hydrophytic		
Total Cover:				Vegetation Present? Ye	es ⊠ No □	
% Bare Ground in Herb Stratum 3 % Cover	of Biotic C	rust		16	- <u> </u>	
Remarks:		·				
The vegetation of SP PC-13 most closely corresponds to C					ed from 10'-15'.	
 Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were 			•	-	of at least FAC	
 Wetland indicator status was assumed that for all Typha species that were r 						

Profile Desc	ription: (Describe to the de			onfirm the absence of indicators.)
Depth (inches)	Matrix Color (moist) %	Redox Fe	<u>eatures</u> % Type ¹ L	oc ² Texture Remarks
· <u></u>				
	<u>n/a</u>	<u>n/a</u>		coarse sandy No gravel
-				
	·			
	·	<u> </u>		
				<u> </u>
				
1		2.		
	oncentration, D=Depletion, RM ndicators: (Applicable to al			ning, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³:
		_	-	<u> </u>
Histosol	ipedon (A2)	☐ Sandy Redox (☐ Stripped Matrix		☐ 1 cm Muck (A9) (LRR C) ☐ 2 cm Muck (A10) (LRR B)
☐ Black His		Loamy Mucky		Reduced Vertic (F18)
	n Sulfide (A4)	Loamy Gleyed	` '	Red Parent Material (TF2)
Stratified	Layers (A5) (LRR C)	Depleted Matrix	x (F3)	
	ck (A9) (LRR D)	Redox Dark Su	, ,	
	Below Dark Surface (A11)	☐ Depleted Dark	, ,	
	rk Surface (A12) lucky Mineral (S1)	☐ Redox Depress ☐ Vernal Pools (F		³ Indicators of hydrophytic vegetation and
	leyed Matrix (S4)	vernari oois (i	3)	wetland hydrology must be present.
	ayer (if present):			
Type:				
Depth (inc	hes):			Hydric Soil Present? Yes ⊠ No □
Remarks:	•			I
Small organic	layer indicates young hydric	soils layer (1/8") thick.		
Due to the "n	autral" characteristics of sand	v soils, sandy alluvial land	d is problematic and	often considered to be hydric under flooded conditions.
HYDROLO		y solis, saridy alluvial lark	a is problematic and	onen considered to be flydric dilder flooded conditions.
				Occasional Indicators (Occasional Indicators)
•	Irology Indicators:	f:-:t\		Secondary Indicators (2 or more required)
	ators (any one indicator is suf			Water Marks (B1) (Riverine)
Surface \	` ,	Salt Crust (B1		Sediment Deposits (B2) (Riverine)
☐ Saturatio	ter Table (A2)	☐ Biotic Crust (E☐ Aquatic Invert	•	☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)
	arks (B1) (Nonriverine)	Hydrogen Sul		☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2)
·	t Deposits (B2) (Nonriverine)	·		ng Roots (C3) Thin Muck Surface (C7)
·	osits (B3) (Nonriverine)	☐ Presence of R	-	Crayfish Burrows (C8)
	Soil Cracks (B6)		deduction in Plowed	
	on Visible on Aerial Imagery (E			Shallow Aquitard (D3)
	ained Leaves (B9)			☐ FAC-Neutral Test (D5)
Field Observ	rations:			
Surface Water	er Present? Yes	No Depth (inche	es):	
Water Table I	Present? Yes 🗵	No Depth (inche	es): <u>2-3</u>	
Saturation Pr		No Depth (inche	es): <u>0-2</u>	Wetland Hydrology Present? Yes 🔀 No 🔲
(includes cap	illary fringe) corded Data (stream gauge, m	onitoring well perial pho	toe previous inspec	ione) if available:
Describe Nec	orded Data (Stream gauge, II	oriitoring well, aeriai prior	tos, previous irispeci	ions), ii avaliabie.
Remarks:				
	r present adjacent to soil pit.			
Surface wate	i present adjacent to son pit.			

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angel	es County	Sampling	Date: 9/25/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	_ Sampling	Point: PC-14
Investigator(s): J. Love, L. Rizzo, J. Davis, J. Kisner		Section, To	wnship, Rar	nge: San Francis Land	Grant	
Landform (hillslope, terrace, etc.): River Channel Bank		Local relief	(concave, c	convex, none): none		Slope (%): 0
Subregion (LRR): Mediterranean California (LRR-C)						
				NWI classi		
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation No , Soil No , or Hydrology No si	-			Normal Circumstances'		′es ⊠ No □
Are Vegetation No , Soil Yes , or Hydrology No na				eded, explain any answ		
SUMMARY OF FINDINGS – Attach site map s						
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP PC-14 characterizes a man-created depression within the content of the cont	he Santa (with	e Sampled in a Wetlan	d? Yes	No_	
The 2006-2007 rain season had an abnormally low amoun VEGETATION	t or precipi	tation.				
VEGETATION	Absolute	Dominant	Indicator	Dominance Test wo	rkshoot:	
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dominant That Are OBL, FACW	Species	(A)
1 2				Total Number of Dom Species Across All St		1(B)
3				Percent of Dominant That Are OBL, FACW		(A/B)
Total Cover:	·			Prevalence Index wo		, ,
Sapling/Shrub Stratum				Total % Cover of:		Multiply by
1 2				OBL species 22	2	x 1 = <u>22</u>
3				FACW species11	<u> </u>	x 2 = <u>22</u>
4				FAC species 1		x 3 = <u>3</u>
Total Cover:				FACU species 60		x 4 = <u>240</u>
Herb Stratum				UPL species 0		x 5 =0
1. Melilotus alba	_60	<u>Y</u>			4(A)	(B)
2. <u>Typha sp.</u>	15	<u>N</u>	OBL ^c	Prevalence Inde		
3. Epilobium ciliatum			FACW	Hydrophytic Vegeta		ors:
4. <u>Leptochloa uninervia</u>			FACW	Dominance Test		
5. Cyperus erythrorhizos	3		OBL	Prevalence Index		None della communication
6. Polygonum lapathifolium			OBL	Morphological Acdata in Remarks		Provide supporting rate sheet)
Baccharis salicifolia Cyperus involucratus	1		FACW ^a OBL	☐ Problematic Hydi	•	*
9. Xanthium strumarium	1		FAC+		, , ,	,
Total Cover:			TACT	¹ Indicators of hydric s be present.	oil and wetla	nd hydrology must
1.						
2				Hydrophytic		
Total Cover:				Vegetation Present? Y	∕es <u></u>	No
% Bare Ground in Herb Stratum 6 % Cover	of Biotic C	rust				
Remarks: Although the dominance test equals 0% and the of <i>Melilotus alba</i> has skewed the results. Most plants are the the vegetation of SP PC-14 most closely corresponds to C	nydrophytic).		ın 3.0, the invasive natu	ire and annua	al/biannual life cycle
 Wetland indicator status was assumed OBL for all <i>Typha</i> species that were Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W 					f at least OBL.	

Profile Desc	ription: (Describe t	to the depth				or confirr	n the absence	of indicators.)		
Depth	Matrix			x Features		. 2	- .		D	
(inches)	Color (moist)	<u></u> %	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	-	Remarks	
0-10	<u>n/a </u>						coarse gravel	soil consists	of riverwash within	
								Santa Clara R	tiver flood plain	
				. ——				-		
								-		
¹ Type: C=Ce	oncentration, D=Depl	etion. RM=R	educed Matrix.	² Location	: PL=Pore	e Linina. F	RC=Root Chan	nel. M=Matrix.	_	
	Indicators: (Applica					<u> </u>			ic Hydric Soils³:	
☐ Histosol	(A1)		☐ Sandy Redeleter	ox (S5)			☐ 1 cm N	Muck (A9) (LRF	RC)	
	oipedon (A2)		Stripped Ma					Muck (A10) (LR		
☐ Black Hi	stic (A3)		Loamy Muc	ky Minera	l (F1)		Reduc	ced Vertic (F18)		
☐ Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red P	arent Material ((TF2)	
Stratified	d Layers (A5) (LRR C	;)	Depleted M	atrix (F3)			Other	(Explain in Ren	narks)	
·	ıck (A9) (LRR D)		Redox Dark	,	` '					
	d Below Dark Surface	e (A11)	Depleted D		` '					
	ark Surface (A12)		Redox Dep	,	F8)		3			
-	Mucky Mineral (S1)		☐ Vernal Pool	s (F9)				of hydrophytic	-	
	Gleyed Matrix (S4) Layer (if present):						wetiand n	ydrology must b	pe present.	
_										
									-	
	ches):						Hydric Soil	Present? Y	es <u> </u>	
Remarks:										
Soil consiste	d of primarily 80% sn	nall gravel, 5	% small gravel, ba	lance 15%	6 sand.					
Due to the "r	neutral" characteristic	of sandy soi	ls they are probler	natic in ob	serving h	dric char	acteristics Alth	nough no sandy	redox was at this	
	dy alluvial land is ofte							iougii iio ouiiu)	Today was at iiiis	
HYDROLO	GY									
Wetland Hv	drology Indicators:						Secor	ndary Indicators	(2 or more required)	
_	cators (any one indica	ator is sufficie	ent)					Vater Marks (B1		
Surface Surface			☐ Salt Crust	(B11)					sits (B2) (Riverine)	
	ater Table (A2)		☐ Biotic Crus	` '						
☐ Flight We	(/		☐ Aquatic In	` '	c (B13)		☐ Drift Deposits (B3) (Riverine) ☐ Drainage Patterns (B10)			
	larks (B1) (Nonriveri	no)	☐ Hydrogen		` ,			Ory-Season Wat	` ,	
	nt Deposits (B2) (Nor	,	<u> </u>		` '	Livina Po	·	hin Muck Surfa	, ,	
_	posits (B3) (Nonriver	•	☐ Presence		_	_		Crayfish Burrows		
	Soil Cracks (B6)	1110)	Recent Iro		,	•		•	e on Aerial Imagery (C9)	
	on Visible on Aerial Ir	magery (R7)	Other (Exp			eu Solis (Shallow Aquitare	• • • •	
_	tained Leaves (B9)	nagery (Dr)	Other (Ex	nain in ixe	iliaiks)			AC-Neutral Tes	` '	
Field Obser	, ,						<u> </u>	AC-Neutral Tes	51 (D3)	
		M N-	Danath (in	م داه ما ما	_					
Surface Wat		·	Depth (in			-				
Water Table			Depth (in			-				
Saturation P		es 🗵 No	Depth (in	ches): <u>(</u>	D-1	Wet	and Hydrolog	y Present? Y	′es <u> </u>	
(includes car Describe Re	corded Data (stream	gauge, moni	toring well, aerial i	photos, pre	evious ins	pections).	if available:			
Docombo i to	oordod Bata (otroam	gaago, mom	torning won, aorian	oriotoo, pro	011000 1110	podilollo),	ii availabio.			
Domorko										
Remarks:		4.6		PC	\A/ · · ·	1-1-1-1		Discount of the	0 Ol D'	
Recent rains floodplain.	may have contribute	a to surface	water and moist c	onaitions.	vvater tab	pie is high	pecause the S	r is within the S	Santa Clara River	
.iocapiairi.										

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angele	eles County Sampling Date: 9/25/07			
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling	Point: PC-15	
Investigator(s): J. Kisner, L. Rizzo		Section, To	wnship, Rar	nge: San Francis Land G	Grant		
Landform (hillslope, terrace, etc.): Channel Bank							
Subregion (LRR): Mediterranean California (LRR-C)							
				NWI classifi			
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation No , Soil No , or Hydrology No sig	-			Normal Circumstances"		es ⊠ No □	
Are Vegetation No , Soil Yes , or Hydrology No na				eded, explain any answe			
SUMMARY OF FINDINGS – Attach site map s							
Hydrophytic Vegetation Present? Yes 🔀 No							
Hydric Soil Present? Yes No	e Sampled			_			
Wetland Hydrology Present? Yes No		with	in a Wetlan	d? Yes <u></u>	<u> </u>		
Remarks:							
SP PC-15 characterizes the center portion of a side channel	el, located	to the South	of the Sant	ta Clara River. Recently	received rai	nfall.	
The 2006-2007 rain season had an abnormally low amount	of precipit	ation.					
VEGETATION							
	Absolute			Dominance Test wor			
, , ,		Species?		Number of Dominant S That Are OBL, FACW,		1(A)	
1 2				Total Number of Domi		(۲)	
3				Species Across All Str	ata	(B)	
4.				Percent of Dominant S That Are OBL, FACW,		50% (A/B)	
Total Cover:				Prevalence Index wo		(: "=)	
Sapling/Shrub Stratum				Total % Cover of:		Multiply by	
1. Baccharis salicifolia	30	<u>Y</u>	<u>FACW</u> ^a	OBL species 5		x 1 = <u>5</u>	
2. Populus fremontii		<u>N</u>	FACW	FACW species 48		x 2 = 96	
3. Salix exigua			OBL	FAC species 8		x 3 =24	
4. Salix laevigata			FACW+ ^a	FACU species 20		x 4 = <u>80</u>	
5. <u>Tamarix sp.</u>	<u>5</u>	<u>N</u>	FAC	UPL species7		x 5 = <u>35</u>	
Total Cover: Herb Stratum				Column Totals: 88	(A)	(B)	
1. Melilotus alba	20	Υ	FACU+	Prevalence Inde	x = B/A = _	4.15	
2. Ambrosia acanthicarpa	4	<u>N</u>	NI	Hydrophytic Vegetati	ion Indicato	rs:	
3. Conyza canadensis	3	<u>N</u>	FAC	Dominance Test is	s >50%		
4. Brassica sp.	2	<u>N</u>	<u>NI</u>	Prevalence Index	is ≤3.0 ¹		
5. Artemisia douglasiana	_1	<u>N</u>	FACW				
6. Aster subulatus var. ligulatus	_1	<u>N</u>	FACW	data in Remarks o	•	· ·	
7. <u>Heterotheca grandiflora</u>	_1	<u>N</u>	<u>NI</u>	Problematic Hydro	ophytic Vege	etation (Explain)	
8. <u>Oenothera elata</u>	_1	<u>N</u>	<u>FACW</u>	¹ Indicators of hydric so	ما المصادرة	ad budralagu muat	
Total Cover: Woody Vine Stratum				be present.	iii ariu wellal	id flydrology fflust	
1							
2				Hydrophytic			
Total Cover:				Vegetation Present? Ye	es 🗵	No	
% Bare Ground in Herb Stratum 67 % Cover							
Remarks: Although the dominance test equals 50% and the cycle of <i>Melilotus alba</i> has skewed the results. Most plants			s greater th	an 3.0, the invasive natu	ure and annu	ual/biannual life	
Willow height between 10'-15'. The vegetation of SP PC-15			onds to Cow	ardin's (1979) rinarian s	scrub.		
a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We		-					
b Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were			•	•	of at least FAC		

Profile Desc Depth	cription: (Describe to Matrix	to the depth		ment the in x Features		or confirm	n the absence of ind	icators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-18	n/a	n/	/a				coarse sandy w/ cob	obles
¹ Type: C=C	oncentration, D=Depl	etion. RM=R	Reduced Matrix.	² Location:	PL=Por	e Linina. R	C=Root Channel, M=	
	Indicators: (Applica					<u> </u>		oblematic Hydric Soils ³ :
☐ Histosol	I (A1)		☐ Sandy Red	ox (S5)			☐ 1 cm Muck (//	49) (LRR C)
Histic E	pipedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck (A	410) (LRR B)
Black H	, ,		Loamy Mud	-			Reduced Ver	, ,
	en Sulfide (A4)		Loamy Gle		(F2)		Red Parent N	` ,
	d Layers (A5) (LRR C	5)	☐ Depleted M		Te)		Other (Explain Other (Explain Other (Explain Other (Explain Other (Explain Other (Explain Other (Explain Other (Explain) Other (Explain) Other (Explain) 	n in Remarks)
	uck (A9) (LRR D) d Below Dark Surface	a (Δ11)	Redox Dark Depleted D					
	ark Surface (A12)	5 (ATT)	Redox Dep		. ,			
	Mucky Mineral (S1)		☐ Vernal Poo		0)		³ Indicators of hyd	rophytic vegetation and
	Gleyed Matrix (S4)		_	` ,			•	gy must be present.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Prese	nt? Yes 🗵 No 🔲
Remarks:							L	_
Thin layer of	silty crust on top whi	ch is dark in	color.					
Due to the "r	neutral" characteristic	s of sandy s	oils, sandy alluvial	land is pro	blematic	and often	considered to be hydi	ric under flooded conditions.
HYDROLO	GY							
Wetland Hy	drology Indicators:						Secondary I	ndicators (2 or more required)
Primary Indi	cators (any one indica	ator is suffici	ent)				Water M	Marks (B1) (Riverine)
☐ Surface	Water (A1)		☐ Salt Crust	(B11)			Sedime	nt Deposits (B2) (Riverine)
	ater Table (A2)		☐ Biotic Cru				☐ Drift De	posits (B3) (Riverine)
Saturati	on (A3)		Aquatic In	vertebrates	s (B13)		🔼 Drainag	e Patterns (B10)
	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide Oc	lor (C1)		□ Dry-Sea	ason Water Table (C2)
Sedime	nt Deposits (B2) (Nor	nriverine)	Oxidized I	Rhizospher	es along	Living Roo	ots (C3) 🔲 Thin Mu	ck Surface (C7)
☐ Drift De	posits (B3) (Nonriver	rine)	Presence	of Reduce	d Iron (C	1)	Crayfish	Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	n Reduction	on in Plow	ved Soils (C6) 🔲 Saturati	on Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial I	magery (B7)	Other (Exp	olain in Rei	marks)		☐ Shallow	Aquitard (D3)
	Stained Leaves (B9)						☐ FAC-Ne	eutral Test (D5)
Field Obser								
Surface Wat			Depth (in			-		
Water Table		·	Depth (in			_		
Saturation P		es 🔲 No	Depth (in	iches): <u>0</u>	1	Wetl	and Hydrology Pres	ent? Yes 🔲 No 🔲
	pillary fringe) corded Data (stream	gauge, mon	itoring well. aerial	photos, pre	vious ins	pections)	if available:	
2000000100	Data (otrodin	J		,, pro		r 00.10110/,		
Remarks:								
	table and saturated	soils provide	d evidence of hydi	ology				
, triigii watei	asio and saturated	cono provide	a criacino di fiyal	ciogy.				

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angele	es County	Sampling Date: 9/25/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-16
Investigator(s): J. Kisner, L. Rizzo		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	Grant
Landform (hillslope, terrace, etc.): Channel Bank		Local relief	(concave, c	convex, none): none	Slope (%): <u>0</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6358	3381.07217	00	Long: <u>1970400.97105</u>	Datum: NAD83
Soil Map Unit Name: Sandy Alluvial Land				NWI classifi	cation: PSS6
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation No , Soil No , or Hydrology No signature , Soil No , or Hydrology No , Signature , Sign					present? Yes 🔲 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na	aturally pro	blematic?	(If ne	eded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point lo	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP PC-16 characterizes previous channel of the Santa Cla The 2006-2007 rain season had an abnormally low amount	ra River ac	with	e Sampled in a Wetlan aerial field m	nd? Yes [No □
,	of precipit	ation.			
VEGETATION				,	
		Species?	Status	Number of Dominant S That Are OBL, FACW,	Species
2.				Total Number of Domi	
3				Percent of Dominant S	
4				That Are OBL, FACW,	
Total Cover: Sapling/Shrub Stratum				Prevalence Index wo	
1. Populus fremontii	30	Y	FACW	Total % Cover of:	Multiply by
2. Baccharis salicifolia	25	<u>Y</u>	FACW ^a	OBL species 25	
3. Salix exigua	25	Υ	OBL	FACW species <u>65</u> FAC species <u>5</u>	
4. Salix laevigata				FACU species 3	
		<u>N</u>	FAC ^b	UPL species 2	
Total Cover: Herb Stratum	93			Column Totals: 100	
1. Melilotus alba	3	Υ	FACU+		x = B/A = 1.92
2. Arundo donax				Hydrophytic Vegetati	
3. Brassica sp.				Dominance Test is	
4				□ Prevalence Index	
5					aptations ¹ (Provide supporting
6					or on a separate sheet)
7				Problematic Hydro	ophytic Vegetation ¹ (Explain)
8				No diagram of budging a	il and water developed as week
Woody Vine Stratum				be present.	oil and wetland hydrology must
1				Hydrophytic	
2Total Cover:				Vegetation	
				Present? Ye	es 🔲 No 🔲
% Bare Ground in Herb Stratum 7 % Cover Remarks:	ot Biotic C	rust			
The vegetation of SP PC-16 most closely corresponds to C	owardin's	(1979) rinar	ian scrub		
Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were	tlands: 1996 N	National Summa	ary. U.S. Fish ar	· ·	s of at least FAC.

	ription: (Describe to	the dep				or confirm	the absence of in	dicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks	
0-13	n/a		n/a				coarse sandy w/ co		
0 10	Ι// α		11/4	-			Coarde Sarray W/ Co	<u></u>	
				·					
	oncentration, D=Deple					e Lining, R			
	Indicators: (Applica	ble to all			ed.)			Problematic Hydric Soils ³ :	
Histosol	` '		Sandy Red				1 cm Muck		
☐ Black Hi	oipedon (A2)		☐ Stripped Ma☐ Loamy Muc	` '	I (E1)		☐ 2 cm Muck ☐ Reduced V		
	en Sulfide (A4)		Loamy Gley	-	. ,		Red Parent	,	
	d Layers (A5) (LRR C)	١	Depleted M		(12)			lain in Remarks)	
	ick (A9) (LRR D)	,	☐ Redox Dark		'F6)		<u>24</u> Other (2xp)	an in Romano,	
·	d Below Dark Surface	(A11)	☐ Depleted D	,	,				
☐ Thick Da	ark Surface (A12)	,	Redox Dep						
☐ Sandy M	lucky Mineral (S1)		Vernal Poo	ls (F9)			³ Indicators of hy	drophytic vegetation and	
☐ Sandy G	Gleyed Matrix (S4)						wetland hydrole	ogy must be present.	
Restrictive I	_ayer (if present):								
Type:									
Depth (inc	ches):						Hydric Soil Pres	sent? Yes <u> </u>	
Remarks:									
Very thin silty	surface layer crust;	dark in col	or.						
Due to the "n	eutral" characteristics	of sandy	soils, sandy alluvial	land is pro	blematic	and often	considered to be hy	dric under flooded conditions.	
HYDROLO	GY								
	drology Indicators:						Secondary	Indicators (2 or more required	4/
		tor in ouffi	oiont)						<u>1</u>
•	cators (any one indica	tor is suili		(D44)				Marks (B1) (Riverine)	
☐ Surface	()		☐ Salt Crust					ent Deposits (B2) (Riverine)	
_	iter Table (A2)		☐ Biotic Crus	` '	(5.46)		· <u></u>	peposits (B3) (Riverine)	
☐ Saturation	` '	,	Aquatic In		` ,			age Patterns (B10)	
	arks (B1) (Nonriverir	,	☐ Hydrogen		` '			eason Water Table (C2)	
	nt Deposits (B2) (Non	,		•	_	•	ots (C3) Thin M	, ,	
	oosits (B3) (Nonriveri	ne)	Presence		,	•		sh Burrows (C8)	, - - \
	Soil Cracks (B6)		Recent Iro			ed Soils (·	ation Visible on Aerial Imagery	(C9)
	on Visible on Aerial Im	nagery (B7	7) 🔲 Other (Exp	olain in Re	marks)		· <u></u>	w Aquitard (D3)	
	tained Leaves (B9)						☐ FAC-N	Neutral Test (D5)	
Field Observ			. 5						
Surface Water			No 🔲 Depth (in	,		-			
Water Table			No Depth (in			_			
Saturation Pr		s <u> </u>	No Depth (in	ches):()-13	Wetla	and Hydrology Pre	esent? Yes 🔲 No	
(includes cap Describe Red	corded Data (stream ç	auge, mo	nitoring well, aerial	photos, pre	evious ins	pections).	if available:		
		,	g, aonai	,, pi		,,,			
Remarks:									
	n south side, approxii	mately 6 i	nches in height						
Jugin bank C	σοστιτ σιαο, αρριολίι	acory 0 II	ionoo in noight.						

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angele	es County	Sampling Date: 9/25/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: PC-17
Investigator(s): <u>J. Kisner, L. Rizzo</u>		Section, To	wnship, Rar	nge: <u>San Francis Land</u>	Grant
Landform (hillslope, terrace, etc.): Flat Upland		Local relief	(concave, c	convex, none): none	Slope (%): <u>0</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6358	8407.43311	00	Long: <u>1970270.4295</u> 4	400 Datum: <u>NAD83</u>
Soil Map Unit Name: Sandy Alluvial Land				NWI classi	ification: N/A
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	⊠ No	[] (If no, explain in	Remarks.)
Are Vegetation No , Soil No , or Hydrology No si	gnificantly	disturbed?	Are "	Normal Circumstances	" present? Yes 🔲 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na	aturally pro	blematic?	(If ne	eded, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point lo	ocations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP PC-17 characterizes a flat upland area south of the Sar The 2006-2007 rain season had an abnormally low amount	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	with	e Sampled in a Wetlan		<u> </u>
VEGETATION					
	% Cover	Dominant Species?	Status	Dominance Test wo Number of Dominant That Are OBL, FACW	Species
2				Total Number of Dom	
3.				Species Across All S	、 ,
4				Percent of Dominant That Are OBL, FACW	
Total Cover: Sapling/Shrub Stratum				Prevalence Index w	orksheet:
1. <u>Salix exigua</u>	45	Υ	OBL	Total % Cover of:	<u>Multiply by</u>
2. Baccharis salicifolia				OBL species	
3.				FACW species	
4				FAC species	
5				FACU species	
Total Cover:	50			UPL species	
Herb Stratum	25	V	E AC	Column Totals:	
1. Ambrosia psilostachya var. californica				Hydrophytic Vegeta	lex = B/A =
2 3				Dominance Test	
4				☐ Prevalence Inde	
5					daptations ¹ (Provide supporting
6.				data in Remarks	or on a separate sheet)
7				☐ Problematic Hyd	Irophytic Vegetation ¹ (Explain)
8				1	
Total Cover: Woody Vine Stratum	25			'Indicators of hydric s be present.	soil and wetland hydrology must
1					
2Total Cover:				Hydrophytic Vegetation	
				Present?	Yes <u> </u>
% Bare Ground in Herb Stratum 5 % Cover Remarks:	OI DIOTIC C	rust			
The vegetation of SP PC-17 most closely corresponds to C	owardin's	(1979) ripar	ian scrub.		
Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W.	etlands: 1996	National Summ	ary. U.S. Fish a	and Wildlife Survey.	

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the	indicator	or confir	m the absend	ce of indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-16	10YR4/2	<u>85</u> <u>5</u>	YR4/6	15	RM	M	Loam	_			
		· 		_		-	•				
					-	-					
-					-		-	-			
						-					
								_			
	oncentration, D=Dep					e Lining, I	RC=Root Cha	annel, M=Matrix.			
Hydric Soil	Indicators: (Application	able to all L	RRs, unless othe	rwise not	ed.)		Indicato	rs for Problematic Hydric Soils ³ :			
☐ Histosol	(A1)		Sandy Red	lox (S5)			□ 1 cn	n Muck (A9) (LRR C)			
☐ Histic E	pipedon (A2)		Stripped M	atrix (S6)			□ 2 cn	n Muck (A10) (LRR B)			
□ Black H	istic (A3)		Loamy Mu	cky Minera	al (F1)		☐ Red	luced Vertic (F18)			
	en Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red	Parent Material (TF2)			
	d Layers (A5) (LRR (C)	Depleted N	Matrix (F3)			☑ Other	er (Explain in Remarks)			
	uck (A9) (LRR D)		Redox Dar								
-	d Below Dark Surfac	e (A11)	Depleted D								
	ark Surface (A12)		Redox Dep		(F8)		3				
	Mucky Mineral (S1)		☐ Vernal Poor	ols (F9)				rs of hydrophytic vegetation and			
	Gleyed Matrix (S4)						wetland	hydrology must be present.			
_	Layer (if present):										
, , <u> </u>											
Depth (in	ches):						Hydric So	oil Present? Yes 🔲 No 🗌			
Remarks:											
Due to the "r	neutral" characteristic	s of sandy s	oils, sandy alluvia	land is pr	oblematic	and often	considered to	o be hydric under flooded conditions.			
HYDROLO	GY										
	drology Indicators:						Sec	condary Indicators (2 or more required)			
-	cators (any one indica	ator is suffici	ant)					Water Marks (B1) (Riverine)			
	•	ator is sumon	-	L (D44)							
Surface			☐ Salt Crus	, ,			Sediment Deposits (B2) (Riverine)				
_	ater Table (A2)		☐ Biotic Cru		(5.40)			Drift Deposits (B3) (Riverine)			
Saturati			Aquatic Ir					Drainage Patterns (B10)			
	farks (B1) (Nonriveri	•	☐ Hydroger					Dry-Season Water Table (C2)			
	nt Deposits (B2) (No				_	_	· · · · · · · · · · · · · · · · · · ·	Thin Muck Surface (C7)			
	posits (B3) (Nonriver	rine)	Presence				·	Crayfish Burrows (C8)			
☐ Surface	Soil Cracks (B6)		Recent Ir	on Reduct	ion in Plov	ved Soils	(C6) <u> </u>	Saturation Visible on Aerial Imagery (C9)			
☐ Inundati	on Visible on Aerial I	magery (B7)	Other (Ex	plain in Re	emarks)			Shallow Aquitard (D3)			
	Stained Leaves (B9)							FAC-Neutral Test (D5)			
Field Obser	vations:										
Surface Wat	er Present? Y	es 🔲 No	Depth (ir	nches):							
Water Table	Present? Y	es 🔲 No	Depth (ir	nches):							
Saturation P	resent? Ye	es 🗌 No	Depth (ir	nches):		Wet	land Hydrolo	ogy Present? Yes 🔲 No 🔀			
(includes ca	oillary fringe)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:											
Recent rains	may have caused so	oil to be mois	t down through th	e bottom o	of pit, but i	no hydrolo	gy indicators	were present.			

Project/Site: Newhall Ranch/Potrero Canyon	(City/County	Los Angele	es County	Sampling	Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling	Point: PC-18
Investigator(s): J. Kisner, L. Rizzo						
Landform (hillslope, terrace, etc.): Flat Upland						
Subregion (LRR): Mediterranean California (LRR-C)						
Soil Map Unit Name: Sandy Alluvial Land						
Are climatic / hydrologic conditions on the site typical for this	-					
Are Vegetation No , Soil No , or Hydrology No sign					•	es 🔲 No 🔲
Are Vegetation No., Soil Yes, or Hydrology No. na	aturally prol	blematic?	(If ne	eded, explain any ans	wers in Rema	rks.)
SUMMARY OF FINDINGS - Attach site map s	showing	samplin	g point lo	ocations, transec	ts, importa	ant features, etc.
Hydrophytic Vegetation Present? Yes ☑ No) □	la 4h	- Cl-d	A		
Hydric Soil Present? Yes 🔲 No			e Sampled in a Wetlan		□ No	57
Wetland Hydrology Present? Yes No	<u> </u>	with	ın a wenan	id? fes	□ No_	
Remarks:		•				
SP PC-18 characterizes the boundary between vegetation. The Western area includes riparian forest with few small sh	types; ripar rubs.	rian scrub a	nd riparian t	forest. This SP focuses	s on the scrub	habitat to the East.
The 2006-2007 rain season had an abnormally low amount	t of precipita	ation.				
VEGETATION						
	Absolute	Dominant Species?		Dominance Test wo Number of Dominant		
1				That Are OBL, FACV		3 (A)
2.				Total Number of Don Species Across All S	ninant	(B)
Total Cover:				Percent of Dominant		(b)
Sapling/Shrub Stratum	00	V	E4 0)4/	That Are OBL, FACV	•	100%(A/B)
1. Salix lasiolepis		<u>Y</u>		Prevalence Index w	orksheet:	
2. Salix exigua			OBL	Total % Cover of:		Multiply by
3. Baccharis sp.			FACW	OBL species		x 1 =
Baccharis salicifolia Populus fremontii		<u>N</u> N	FACW	FACW species		x 2 =
Populus tremontii Salix laevigata				FAC species		x 3 =
7. Baccharis pilularis			NI	FACU species		x 4 =
Total Cover:				UPL species		x 5 =
Herb Stratum				Column Totals:	(A)	(B)
Ambrosia psilostachya var. californica	15	<u>Y</u>	FAC	Prevalence Inc	$lex = B/A = $ _	
2. <u>Leymus triticoides</u>	_5	<u>N</u>	FAC+	Hydrophytic Vegeta	tion Indicato	ors:
3				□ Dominance Test	t is >50%	
4				Prevalence Inde	x is ≤3.0 ¹	
5				☐ Morphological A		
6				data in Remarks Problematic Hyd		·
7				The Problematic Hyd	rophytic vege	etation (Explain)
8				¹ Indicators of hydric	soil and wetla	nd hydrology must
Total Cover: Woody Vine Stratum	_20			be present.	Jon and Wolla	na nyarology mast
1						
2.				Hydrophytic		
Total Cover:				Vegetation Present?	Yes 🗵	No. □
		rust		Present?	res <u>M</u>	NO
Remarks:	5. 210110 01			<u> </u>		
The vegetation of SP PC-18 most closely corresponds to C	owardin's ((1979) ripar	ian scrub ar	nd Cowardin's (1979) r	iparian forest.	
	·			` ,		
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wo	etlands: 1996 N	National Summ	ary. U.S. Fish a	nd Wildlife Survey.		

Depth	ription: (Describe t Matrix		Redo	ox Features	S		ale abseile	o or maloatoro.			
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks			
0-16	n/a		5YR4/6	55	RM	M	fine sand	moist for first 6"			
			-		-						
			-				· - 				
						-		•			
								· 			
	oncentration, D=Deple					e Lining, F					
	Indicators: (Applica	ible to all			ed.)			s for Problematic Hydric Soils ³ :			
Histosol	(A1) Dipedon (A2)							Muck (A9) (LRR C) Muck (A10) (LRR B)			
☐ Black Hi			Loamy Mu	` '	l (F1)			ced Vertic (F18)			
	n Sulfide (A4)		Loamy Gle	•	. ,			Parent Material (TF2)			
	d Layers (A5) (LRR C	:)	☐ Depleted N	-	,			r (Explain in Remarks)			
☐ 1 cm Mu	ıck (A9) (LRR D)		Redox Dar	k Surface ((F6)						
	d Below Dark Surface	e (A11)	Depleted D								
	ark Surface (A12)		Redox Dep		F8)		31	- A books a books or so taken and			
	Mucky Mineral (S1) Bleyed Matrix (S4)		☐ Vernal Poor	ois (F9)				s of hydrophytic vegetation and nydrology must be present.			
	_ayer (if present):						Wetland	rydrology must be present.			
	, , ,										
	ches):						Hydric Soi	il Present? Yes 🛛 No 🔲			
Remarks:	,										
Small chucks	s of clay deposits pres	sent in so	l sample.								
Due to the "r	eutral" characteristics	s of sandy	soils, sandy alluvia	l land is pro	oblematic	and often	considered to	be hydric under flooded conditions.			
HYDROLO	GY										
Wetland Hy	drology Indicators:						Seco	ondary Indicators (2 or more required)			
Primary India	cators (any one indica	tor is suff	icient)					Water Marks (B1) (Riverine)			
☐ Surface	Water (A1)		☐ Salt Crus	t (B11)			Sediment Deposits (B2) (Riverine)				
High Wa	iter Table (A2)		☐ Biotic Cru				Drift Deposits (B3) (Riverine)				
Saturation	on (A3)		Aquatic Ir	nvertebrate	s (B13)			Drainage Patterns (B10)			
	arks (B1) (Nonriveri i	ne)	Hydrogen	Sulfide O	dor (C1)			Dry-Season Water Table (C2)			
Sedimer	nt Deposits (B2) (Non	riverine)	Oxidized	Rhizosphe	res along	Living Ro	ots (C3) 🔲 .	Thin Muck Surface (C7)			
☐ Drift Dep	oosits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C	4)		Crayfish Burrows (C8)			
Surface	Soil Cracks (B6)		Recent Ir	on Reducti	on in Plov	ved Soils	(C6) <u> </u>	Saturation Visible on Aerial Imagery (C9)			
Inundation	on Visible on Aerial Ir	nagery (B	7)	plain in Re	emarks)			Shallow Aquitard (D3)			
	tained Leaves (B9)							FAC-Neutral Test (D5)			
Field Obser			_								
Surface Wat			No 🔲 Depth (ir								
Water Table		· · · · · · · · · · · · · · · · · · ·	No 🔲 Depth (ir								
Saturation P		es 🔲	No 🔲 Depth (ir	nches):		Wet	land Hydrolog	gy Present? Yes 🔲 No 🗵			
(includes cap Describe Re	corded Data (stream	gauge, m	onitoring well, aerial	photos, pre	evious ins	spections),	if available:				
	,	0 0 /	5			. ,					
Remarks:											
No evidence	of hydrology was obs	served.									

Project/Site: Newhall Ranch/Potrero Canyon		City/Count	y: Los Angel	es County	Sampling Date: 9/28/07
Applicant/Owner: Newhall Land and Farming Company	_			State: CA	Sampling Point: PC-19
Investigator(s): J. Love, J. Kisner, W. Vogler, E. Larsen					· -
Landform (hillslope, terrace, etc.): Floodplain					
Subregion (LRR): Mediterranean California (LRR-C)					
					fication: N/A
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation No , Soil No , or Hydrology No si	-				"present? Yes 🔲 No 🔲
Are Vegetation No , Soil Yes , or Hydrology No na				eded, explain any ansv	•
SUMMARY OF FINDINGS – Attach site map s					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes □ No Yes □ No			he Sampled hin a Wetlar		□ No <u>⊠</u>
Remarks:					
SP PC-19 characterizes flat floodplain area to the south of			r.		
The 2006-2007 rainy season had an abnormally low amoun	nt of precip	itation.			
VEGETATION					
		Species?		Dominance Test wo Number of Dominant That Are OBL, FACW	Species
1				Total Number of Dom Species Across All St	ninant , , ,
3				Percent of Dominant That Are OBL, FACW	Species
Total Cover:				Prevalence Index we	,
Sapling/Shrub Stratum 1. Pluchea sericea	75	V	EACW/	Total % Cover of:	Multiply by
2				OBL species	x 1 =
3				FACW species	x 2 =
4				FAC species	
5				FACU species	
Total Cover:				UPL species	
Herb Stratum				Column Totals:	
1					ex = B/A =
2				Hydrophytic Vegeta	
3				☑ Dominance Test☑ Prevalence Index	
4					x is ≤3.0 daptations¹ (Provide supporting
5 6				data in Remarks	or on a separate sheet)
7				☐ Problematic Hyd	rophytic Vegetation ¹ (Explain)
8.					
Total Cover:				¹ Indicators of hydric s be present.	soil and wetland hydrology must
1					
2				Hydrophytic Vegetation	
Total Cover:					′es <u> </u>
	of Biotic C	rust			
Remarks:		(40=0) :			
The vegetation of SP PC-19 most closely corresponds to C	owardin's	(1979) ripa	arıan scrub.		

Profile Des	cription: (Describe	to the depth	needed to docu	nent the i	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature		. 2		
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/2	99 5	YR 4/6	<1	C	<u>M</u>		
-								
		· — — —						
								_
1Type: C-C	oncentration, D=Dep	Jetion PM-P	educed Matrix	² Location	· DI –Dor	e Lining P	C-Root Channel	M-Matrix
	Indicators: (Applic					e Liming, iv		r Problematic Hydric Soils ³ :
☐ Histoso			☐ Sandy Red		·,			ck (A9) (LRR C)
	pipedon (A2)		☐ Stripped Ma					ck (A10) (LRR B)
☐ Black H			Loamy Muc		ıl (F1)		Reduced	
	en Sulfide (A4)		Loamy Gle					nt Material (TF2)
	d Layers (A5) (LRR	C)	☐ Depleted M				Other (Ex	plain in Remarks)
☐ 1 cm M	uck (A9) (LRR D)		Redox Darl	c Surface	(F6)			
	d Below Dark Surfac	e (A11)	Depleted D					
	ark Surface (A12)		Redox Dep		F8)		2	
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				hydrophytic vegetation and
	Gleyed Matrix (S4)						wetland hydro	ology must be present.
	Layer (if present):							
	ches):						Hydric Soil Pre	esent? Yes 🔀 No 🔲
Remarks:								
	at this SP is within flo		-					
Due to the "i	neutral" characteristic	cs of sandy so	oils, sandy alluvial	land is pr	oblematic	and often	considered to be h	nydric under flooded conditions.
HYDROLO	GY							
Wetland Hy	drology Indicators:						Seconda	ry Indicators (2 or more required)
Primary Indi	cators (any one indic	ator is sufficie	ent)				☐ Wate	er Marks (B1) (Riverine)
☐ Surface			☐ Salt Crust	(B11)				ment Deposits (B2) (Riverine)
	ater Table (A2)		☐ Biotic Cru					Deposits (B3) (Riverine)
☐ Saturati	, ,		Aquatic In	, ,	es (B13)		·	nage Patterns (B10)
	Marks (B1) (Nonriver	ine)	☐ Hydrogen					Season Water Table (C2)
	nt Deposits (B2) (No	,	· · ·			Livina Roc	,	Muck Surface (C7)
	posits (B3) (Nonrive		☐ Presence		_	-		rfish Burrows (C8)
	Soil Cracks (B6)		Recent Iro					ration Visible on Aerial Imagery (C9)
	ion Visible on Aerial I	magery (B7)	Other (Ex			vou cons (· —	low Aquitard (D3)
	Stained Leaves (B9)	magory (Dr)	<u> </u>	olalii iii i te	inano,			-Neutral Test (D5)
Field Obser							<u> </u>	ricatal rest (20)
Surface Wat		es □ No	Depth (ir	rchas).				
Water Table			Depth (in			l l		
Saturation P	resent? Y pillary fringe)	es No	Depth (ir	icnes):		weti	and Hydrology P	resent? Yes 🔲 No 🗵
	corded Data (stream	gauge, moni	toring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
No evidence	of hydrology was ob	served.						

Project/Site: Newhall Ranch/Potrero Canyon		City/County	: Los Angel	es County	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company	_			State: CA	Sampling Point: PC-20
Investigator(s): J. Love, J. Kisner, W. Vogler, E. Larsen					· -
Landform (hillslope, terrace, etc.): Floodplain					
Subregion (LRR): Mediterranean California (LRR-C)					
					fication: PSS6
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation No , Soil No , or Hydrology No sig	-				" present? Yes 🔲 No 🔲
Are Vegetation NO , Soil Yes , or Hydrology No na				eded, explain any answ	·
SUMMARY OF FINDINGS – Attach site map s			,	•	,
Hydrophytic Vegetation Present? Hydric Soil Present? Wes ☑ No Yes ☑ No Wetland Hydrology Present? Yes ☑ No			ne Sampled in a Wetlar		⊠ No <u>□</u>
Remarks:			T	This CD is stated as well as	war and want of the autima DC site
SP PC-20 is located in a small side drainage adjacent to a s The 2006-2007 rainy season had an abnormally low amoun		_	nch road. I	his SP is at the souther	nmost part of the entire PC site.
The 2000-2007 famy season had an abhormany low amoun	it of precip	ntation.			
VEGETATION					
Tree Stratum (Use scientific names.)		Species?	Status	Dominance Test wor Number of Dominant That Are OBL, FACW	Species
1				Total Number of Dom Species Across All St	ninant , ,
3				Percent of Dominant S That Are OBL, FACW	Species
Total Cover:				Prevalence Index wo	,
Sapling/Shrub Stratum	0.5		E4 014/	Total % Cover of:	Multiply by
1. Pluchea sericea				OBL species	x 1 =
2				FACW species	x 2 =
3				FAC species	x 3 =
5				FACU species	x 4 =
Total Cover:	95			UPL species	x 5 =
Herb Stratum				Column Totals:	(A) (B)
1. Arundo donax	5	<u>Y</u>	FACW		ex = B/A =
2				Hydrophytic Vegetat	tion Indicators:
3				□ Dominance Test	
4				Prevalence Index	
5				☐ Morphological Ac	daptations ¹ (Provide supporting or on a separate sheet)
6					rophytic Vegetation ¹ (Explain)
7					(=
8 Total Cover:				¹ Indicators of hydric s be present.	soil and wetland hydrology must
1					
2				Hydrophytic Vegetation	
Total Cover:					/es <u> </u>
	of Biotic C	rust	<u> </u>		
Remarks:					
The vegetation of SP PC-20 most closely corresponds to C	owardin's	(1979) ripaı	rian scrub.		

		to the dep				or confire	m the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %		Loc ²	Texture Remarks
0-18	10YR3/2			2		M	silty clay mixed with fine sand
	101110/2		<u>0110170</u>	_ 			Sity diay mixed with into dana
					· 		
	-				· 		
					· 		
				-			·
¹ Type: C=Ce	oncentration, D=Dep	oletion, RM=	Reduced Matrix.	² Location	n: PL=Po	re Lining, F	RC=Root Channel, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :
Histosol	` '		☐ Sandy Red				1 cm Muck (A9) (LRR C)
	pipedon (A2)		Stripped Ma		1 (54)		☐ 2 cm Muck (A10) (LRR B)
Black Hi	en Sulfide (A4)		Loamy Muc	•	` '		☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M		(FZ)		☐ Red Parent Material (1F2) ☐ Other (Explain in Remarks)
	uck (A9) (LRR D)	O)	Redox Dark		(F6)		Za Cuter (Explain in Remains)
	d Below Dark Surfac	ce (A11)	Depleted D				
Thick Da	ark Surface (A12)		Redox Dep	ressions (F8)		
☐ Sandy N	Mucky Mineral (S1)		Vernal Poo	ls (F9)			³ Indicators of hydrophytic vegetation and
-	Gleyed Matrix (S4)						wetland hydrology must be present.
_	Layer (if present):						
	- I V						Undrin Cail Brancout 2 Van Ma D
	ches):						Hydric Soil Present? Yes No No
Remarks:		.		and blace of			and to be booked and an Orandad and delegate
Due to the r	neutrai characteristi	cs or sandy	soils, riverwash is p	robiematio	c and one	n consider	red to be hydric under flooded conditions.
HYDROLO	GY						
	drology Indicators:						Secondary Indicators (2 or more required)
_	cators (any one indic		cient)				Water Marks (B1) (Riverine)
☐ Surface		outor io ouiii	Salt Crust	(B11)			Sediment Deposits (B2) (Riverine)
	ater Table (A2)		☐ Biotic Crus				Drift Deposits (B3) (Riverine)
☐ Saturation			Aquatic In	` '	es (B13)		☐ Drainage Patterns (B10)
	larks (B1) (Nonrive r	rine)	☐ Hydrogen		` ,		☐ Dry-Season Water Table (C2)
	nt Deposits (B2) (No		<u> </u>		` '	Living Ro	oots (C3) Thin Muck Surface (C7)
	oosits (B3) (Nonrive		Presence		-	_	☐ Crayfish Burrows (C8)
-	Soil Cracks (B6)	,	Recent Iro				(C6) Saturation Visible on Aerial Imagery (C9)
☐ Inundati	on Visible on Aerial	Imagery (B	7) 🔲 Other (Ex	olain in Re	emarks)		☐ Shallow Aquitard (D3)
	tained Leaves (B9)				,		FAC-Neutral Test (D5)
Field Obser	vations:						
Surface Wat	er Present?	′es <u> </u>	No 🔲 Depth (in	iches):			
Water Table	Present?	′es <u> </u>	No 🔲 Depth (in	iches):			
Saturation P		′es <u> </u>	No 🔲 Depth (in	iches):		Wet	tland Hydrology Present? Yes 🔀 No 🔲
(includes cap	oillary fringe) corded Data (stream	naline mo	nitoring well aerial	nhotos nr	avious in	enactions)	if available:
Dogonibe Ne	co. dod Data (Stream	. gaago, mic	acilal	ρ.10.03, μι	CVICUS III	-podioi is),	, ii aranasio.
Remarks:							
	nic created berms vis	sible. Possi	bly created from soil	Lbeing pu	shed up a	alona the s	sides of the nearby road during soil removal activities
after high flo		J.J.O. 1 0001	2., 0.00.00 110111 001	. Joing pu	ca up c		S Hours, road daring our formoval donvittos

Onion Field Bank Stabilization

Sapling/Shrub Stratum 1. Rosa californica 40	Project/Site: Newhall Ranch/Onion Field Bank Stabilization		City/County	/: Los Angel	es County	Sampling	Date: <u>9/28/07</u>
Landform (hillslope, terrace, etc.): River Bank Slope Local relief (concave, convex, none): name Slope (%): 5 Subregion (LRR): Mediterranean California (LRR-C) Lat: 6361684 5315100 Long: 1971370.3761690 Datum: NAD83 Solid Map Unit Name: Sandy Allovial Land Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (In no. explain in Remarks.) Are Vegetation no Soli po of Hydrology no significantly disturbed? Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (In no. explain in Remarks.) Are Vegetation no Soli yes or Hydrology no naturally problematic? Are Vegetation no Soli yes or Hydrology no naturally problematic? Hydrophytic Vegetation Present? Yes No (In needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e Hydrophytic Vegetation Present? Yes No (In needed approximately for the south of the Santa Clara Reversants: Series the northern portion of the bank stabilization site. This SP is located approximately 60 feet to the south of the Santa Clara Reversants: SP BS1 characterizes the northern portion of the bank stabilization site. This SP is located approximately 60 feet to the south of the Santa Clara Reversants of the pagnate forest on the south bank. The 2006-2007 rainy season had an abnormally low amount of precipitation. VEGETATION Tee Stratum (Use scientific names.) Absolute Dominant Indicator Sapling/Shrub Stratum Total Cover: 100 Sapling/Shrub Stratum Total Cover: 25 Y FACW- 2 Poolute immediate Total Cover: 25 Y FACW- 2 Contum mediate Total Cover: 25 Y FACW- 3 Aunatio donglesiana Total Cover: 25 Y FACW- 4 Authority the Mydrophytic Vegetation Indicators: 20 Dominance Test is solve. No Indicators of hydric soil and wetland hydrology must be presented. Providence Index of pagnation (Explain) Indicators of hydric soil and wetland hydrology must be presented to the pagnation of the stream of the willow and Freemont cottonwood compr	Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling	Point: BS-1
Landform (hillslope, terrace, etc.): River Bank Slope Local relief (concave, convex, none): name Slope (%): 5 Subregion (LRR): Mediteranean California (LRR-C) Lat: 6361664 5315100 Long: 1971370.3761600 Datum: NAD83 Solf Map Unit Name: Sandy Alluvial Land Are clamatic / hydrologic conditions on the site typical for this time of year? Yes No (In no. explain in Remarks.) Are Vegetation no Soil no or Hydrology no adjunctantly disturbed? Are clamatic / hydrologic conditions on the site typical for this time of year? Yes No (In no. explain in Remarks.) Are Vegetation no Soil no or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.) Are Vegetation Present? Yes No (In needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e Wetand Hydrology Present? Yes No (In needed approximately for feet to the south of the Santa Clara Reversants: Series entire of the pagnan forest on the south bank. The 2006-2007 rainy season had an abnormally low amount of precipitation. VEGETATION Absolute Dominant Indicator Yes Shockes? Shatus. The 2006-2007 rainy season had an abnormally low amount of precipitation. VEGETATION Absolute Dominant Indicator Yes Shatus (Use scientific names.) Absolute Dominant Indicator Yes Cover Shatus Total Cover: 100 N FACCY 2 Populus fermanii Species No (AB) That Are OB, FACV, or FAC; 5 (A) Tatal Number of Dominant Species That Are OB, FACV, or FAC; 5 (A) Tatal Number of Dominant Species That Are OB, FACV, or FAC; 5 (A) Tatal Number of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The Cover of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The Cover of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The Cover of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The Cover of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The Cover of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The Cover of Dominant Species That Are OB, FACV, or FAC; 100% (AB) The C	Investigator(s):J. Davis, J. Love, W, Vogler, L. Rizzo		Section, To	ownship, Ra	nge: San Francis Land	Grant	
Solf Map Unit Name: Sandy Alluvial Land Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (fine Accessification: PFO6 Are Vegetation no Sol no or Hydrology no significantly disturbed? Are Vegetation no Sol no or Hydrology no naturally problematic? (If no explain in Remarks.) Are Vegetation no Sol no or Hydrology no naturally problematic? (If no explain in Remarks.) Are Vegetation no Sol no or Hydrology no naturally problematic? (If no explain in Remarks.) Are Vegetation no Sol no or Hydrology no naturally problematic? (If no explain in Remarks.) Are Vegetation no Sol no or Hydrology no naturally problematic? (If no explain in Remarks.) Are Vegetation no Sol no or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, e Hydrophytic Vegetation Present? Yes No							
Soli Map Unit Name: Sandy Alluvial Land Are climate: / hydrologic conditions on the site bytical for this time of year? Yes No (If no, explain in Remarks.) Are vegetation no Soli yes, or Hydrology no naturally problematic? Are Vegetation no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Wesplain no Soli yes, or Hydrology no naturally problematic? Westland Hydrology Present? Yes No Soli yes, or Hydrology no naturally problematic? Is the Sampled Area within a Westland? Yes No Soli yes, or Hydrology naswers in Remarks.) Is the Sampled Area within a Westland? Yes No Soli yes, or Hydrology naswers in Remarks.) Is the Sampled Area within a Westland? Yes No Soli yes, or Hydrology naswers in Remarks. Is the Sampled Area within a Westland? Yes No Soli yes, or Hydrology naswers in Remarks. Is the Sampled Area within a Westland? Yes No Soli yes, or Hydrology naswers in Remarks. Is the Sampled Area within a Westland? Yes No Soli yes, or Hydrology naswers in Remarks. Is the Sampled Area within a Westland? Yes No S							
Are Climatic / hydrologic conditions on the site typical for this time of year? Yes							
Are Vegetation no Soil yes or Hydrology no auturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e Hydrophytic Vegetation Present? Yes No Washinian Wetland Pythoric Soil Present? Yes No Washinian Wetland Pythoric Soil Present? Yes No Washinian Wetland? Yes No Washinian Wetland Present? Yes No Washinian Wetland Present? Yes No Washinian Wetland Present? Yes No Presen							
Are Vegetation no, Soil Yes, or Hydrology no		-					/es ⊠ No □
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, e Hydrophytic Vegetation Present?						•	
Wetland Hydrology Present? Yes No No Memory Presentative of the riparian forest on the south bank. The 2006-2007 rainy season had an abnormally low amount of precipitation. Tree Stratum (Use scientific names.) Absolute Dominant Indicator Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A) Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A) Total Knewigata 60							
Hydric Soil Present? Yes No No Wetland Hydrology Present? Yes No Memory Presentative of the park stabilization site. This SP is located approximately 60 feet to the south of the Santa Clara Remarks: Yes No Memory Present Presentative of the riparian forest on the south bank stabilization site. This SP is located approximately 60 feet to the south of the Santa Clara Remarks: Yes No Memory Present? No Memory Present Present Present Present Present Present Present Present Present Present? No Memory Present. No M							
Wetland Hydrology Present? Yes No All Within a Wetland? Tes No All Within a Wetland. Tes No All Within a Wetland. The Social All Within a Wetland. The Social Ala				•			
Remarks: SP BS-1 characterizes the northern portion of the bank stabilization site. This SP is located approximately 60 feet to the south of the Santa Clara River and is representative of the riparian forest on the south bank. The 2006-2007 rainy season had an abnormally low amount of precipitation. VEGETATION Tree Stratum (Use scientific names.) Absolute Species? Status Number of Dominant Indicator Species? Status Number of Dominant Species Status Number of Dominant Species Across All Strata Po SL, FACW, or FAC: 5 (A) Total Number of Dominant Species Across All Strata Species Across All Strata Species Across All Strata Species Number of Dominant Species Across All Strata Po SL, FACW, or FAC: 100 N FACW Sapling/Shrub Stratum Total Cover: 100 Sapling/Shrub Stratum Total Cover: 75 Herb Stratum 1. Artemisia douglasiana 5 Y FACW 2. Conium maculatum 1 N FACW 3. Annotodonax 1 N FACW 3. Annotodonax 1 N FACW 4. Prevalence Index worksheet: Total Species Number of Dominant Species Number of Domina			with	nin a Wetlar	nd? Yes	□ No _	
River and is representative of the riparian forest on the south bank. The 2006-2007 rainy season had an abnormally low amount of precipitation. Tree Stratum (Use scientific names.)							
VEGETATION Tree Stratum (Use scientific names.) Absolute % Cover Species? Status. I. Salix laevigata 60 Y FACW+3 2. Populus fremontii 30 Y FACW 3. Tamarix Sp. 10 N FACb 3. Tamarix Sp. 10 N FACb 1. Rosa californica 40 Y FACH 2. Urrica dioica 25 Y FACW 3. Arundo donax 10 N FACW 1. Artemisia douglasiana 5 Y FACW Species X 3 = FACW Species X 4 = Species X 3 = FACW Species X 4 = Species X 3 = FACW Species X 4 = Species X 3 = FACW Species X 4 = Species X 3 = FACW Species X 4 = Species X 4 = Species X 3 = FACW Species X 4 = Species X 4	River and is representative of the riparian forest on the sou	uth bank.		o is located	approximately 60 feet t	o the south o	f the Santa Clara
Absolute % Cover Species? Status Species St	, , ,						
Tree Stratum (Use scientific names.) % Cover (50 yr.) Species? Status (1. Salik laevigata) Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A) (A) 2. Populus fremontii 30 Y FACW+2 Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 5 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 7 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 7 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 7 (B) Total Number of Dominant Species That Are OBL, FACW, or FACW. Total Number of Dominant Species That Are OBL, FACW, or FAC: 7 (B) Total Number of Dominant Species That Are OBL, FACW, or FACW. Prevalence Index worksheet: 7 (Total Number of Dominant Species Are 7 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 7 (B) Total Number of Dominant Species Are 7 (B) Total Number of Dominant Species That Are OBL, FACW, or FAC: 7 (B) Total Number of Dominant Species Are 7 (B) Total Number of	VEGETATION	A la a a la sta	Daminant	lo di e ete u	Deminence Test	ulvah aat.	
Total Number of Dominant Species Across All Strata Species Across Species Across All Strata Species Across Species Across All Strata Species Across Species Across Species Across Species Across Species Across Species Across Species	Tree Stratum (Use scientific names.)						
Species Across All Strata 5 (B) Total Cover: 100	1. Salix laevigata	60	Υ	FACW+ ^a	That Are OBL, FACV	V, or FAC:	(A)
3. Tamanix Sp.	2. Populus fremontii	30	Υ	FACW			F (D)
Total Cover: 100 Sapling/Shrub Stratum 1. Rosa californica 40	3. Tamarix Sp.	10	<u>N</u>	FAC ^b			(D)
1. Rosa californica 2. Urtica dioica 2. Urtica dioica 3. Arundo donax 10 N FACW Total Cover: 75 Herb Stratum 1. Artemisia douglasiana 2. Conium maculatum 3		r: <u>100</u>				•	100%(A/B)
2. Urtica dioica 2. Interest dioica 3. Arundo donax 4. Interest dioica 3. Interest dioica 4. Interest dioica 3. Interest dioica 4. Interest dioica 5. Interest dioica 6. Interest dioica 7. Interest dioica 7. Interest dioica 7. Interest dioica 8. Interest dioica 9. Interest dioica		40	V	540 .	Prevalence Index w	orksheet:	
3. Arundo donax Total Cover: 75 Herb Stratum 1. Artemisia douglasiana 5. Y FACW 2. Conium maculatum 1. N FACW 4. Sepcies 5. Y FACW 4. Sepcies 7. Sepcies					Total % Cover of:		Multiply by
Herb Stratum					OBL species		x 1 =
Herb Stratum				<u> </u>	FACW species		x 2 =
2. Conium maculatum 1. N. FACW 3.		. 10			FAC species		x 3 =
3	1. <u>Artemisia douglasiana</u>	_ 5	<u>Y</u>	FACW	FACU species		x 4 =
4	2. Conium maculatum	1	N	FACW	UPL species		x 5 =
5	3				Column Totals:	(A)	(B)
6	4				Prevalence Ind	lex = B/A = 1	
7	5				Hydrophytic Vegeta	tion Indicate	ors:
8	6						
Total Cover: 6							
Woody Vine Stratum 1							
2		0	•			•	. '
**Total Cover: be present. **Bare Ground in Herb Stratum 94	1						
% Bare Ground in Herb Stratum 94 % Cover of Biotic Crust 0 Hydrophytic Vegetation Present? Yes 🖂 No 🗔 Remarks: Vegetation is representative of a riparian forest habitat (Cowardin 1979) with red willow and Freemont cottonwood comprising the dominant canopy	2				¹ Indicators of hydric s	soil and wetla	nd hydrology must
Vegetation Present? Yes ☑ No □ □	Total Cover	r:	-		be present.		
Vegetation is representative of a riparian forest habitat (Cowardin 1979) with red willow and Freemont cottonwood comprising the dominant canopy	% Bare Ground in Herb Stratum 94 % Cover	r of Biotic C	rust <u>0</u>		Vegetation	Yes <u>⊠</u>	No
	Remarks:						
a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wetlands: 1996 National Summary. U.S. Fish and Wildlife Survey. b Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were not identified to species. <i>Tamarix</i> species found in California have indicators of at least FAC.	layer. Vegetation is open to dense with a high leaf/branch a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in V	litter conte Wetlands: 1996	ent. National Summ	mary. U.S. Fish a	and Wildlife Survey.	, ,	.,

Profile Desc	ription: (Describe t	to the dep		ment the indicator or o	confirm t	he absence	of indicators.)
Depth	Matrix Color (moist)	%	Color (moist)	ox Features % Type ¹ L	Loc ²	Texture	Domorto
(inches)			· ·	<u>%</u> <u>Type'</u> <u>L</u>			Remarks
<u>0-16</u>	10YR 3/2	100	None OBS		<u>S</u>	andy loam	Soil texture & color consistent throughout
							
						-	
			_				
	oncentration, D=Depl			² Location: PL=Pore Li	ining, RC		
•	ndicators: (Applica	able to all		•			for Problematic Hydric Soils ³ :
Histosol			Sandy Red				Muck (A9) (LRR C)
☐ Histic Ep ☐ Black Hi			Stripped M	atrix (56) cky Mineral (F1)			Muck (A10) (LRR B) ced Vertic (F18)
	n Sulfide (A4)		Loamy Gle				earent Material (TF2)
	l Layers (A5) (LRR C	:)	Depleted M			· ——	(Explain in Remarks)
	ick (A9) (LRR D)	,	☐ Redox Dari				(
Depleted	Below Dark Surface	e (A11)	Depleted D	ark Surface (F7)			
	ark Surface (A12)			ressions (F8)			
-	lucky Mineral (S1)		Vernal Poo	ls (F9)			of hydrophytic vegetation and
	leyed Matrix (S4) ayer (if present):					wetland h	ydrology must be present.
_	.ayer (ii present):						
Type:	.l \						Brassario Van D. Na M
	ches):					Hyaric Soil	Present? Yes No
Remarks:							
No hydric soi	I indicators were pre-	sent.					
HYDROLO	GY						
	Irology Indicators:					Secor	ndary Indicators (2 or more required)
_	ators (any one indica	ator is suffi	rient)				Vater Marks (B1) (Riverine)
☐ Surface		ator io odin	Salt Crust	(R11)			Sediment Deposits (B2) (Riverine)
	ter Table (A2)		☐ Biotic Cru				Orift Deposits (B3) (Riverine)
☐ Saturation				vertebrates (B13)			Orainage Patterns (B10)
	arks (B1) (Nonriveri	ne)		Sulfide Odor (C1)		·	Ory-Season Water Table (C2)
	it Deposits (B2) (Nor			Rhizospheres along Livi	ina Roots		
	oosits (B3) (Nonriver			of Reduced Iron (C4)	9		Crayfish Burrows (C8)
	Soil Cracks (B6)	,		on Reduction in Plowed	Soils (C6		Saturation Visible on Aerial Imagery (C9)
Inundation	on Visible on Aerial II	magery (B		plain in Remarks)	`		Shallow Aquitard (D3)
	tained Leaves (B9)					<u></u>	AC-Neutral Test (D5)
Field Observ	vations:						
Surface Wate	er Present? Ye	es 🔲 I	No Depth (ir	nches):			
Water Table	Present? Ye	es 🔲 I	No Depth (ir	nches):			
Saturation Pr	resent? Ye	es 🔲 I	No Depth (ir	nches):	Wetlan	d Hydrolog	y Present? Yes 🔲 No 🔀
(includes cap	illary fringe)						
Describe Red	corded Data (stream	gauge, mo	nitoring well, aerial	photos, previous inspec	ctions), if a	avallable:	
Remarks:							
No evidence	of hydrology was ob	served.					

Long Canyon Bridge

Project/Site: Newhall Ranch/Long Canyon Bridge	(City/County	: Los Angele	es County	Sampling I	Date: 9/28/07
Applicant/Owner: Newhall Land and Farming Company				State: CA		
Investigator(s): W. Vogler, J. Love						·
Landform (hillslope, terrace, etc.): <u>Upland/Agriculture</u>						
Subregion (LRR): Mediterranean California (LRR-C)						
				NWI classifi		
Are climatic / hydrologic conditions on the site typical for this						
•	•				,	M N- 0
Are Vegetation no , Soil no , or Hydrology no signal Are Vegetation no , Soil no , or Hydrology no signal Are Vegetation no , Soil no , or Hydrology no , or	-			Normal Circumstances"	•	
Are Vegetation <u>no</u> , Soil <u>yes</u> , or Hydrology <u>no</u> na SUMMARY OF FINDINGS – Attach site map s			•	eded, explain any answ ocations, transects		•
Liberten Britis Venetation Present	. [7]					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes No			e Sampled			
Wetland Hydrology Present? Yes □ No		with	in a Wetlan	d? Yes <u> </u>	No	
Remarks:						
SP LC-1 characterizes the upland/agricultural area north of precipitation.	the Santa	Clara Rive	. The 2006-	2007 rain season had a	n abnormally	low amount of
VEGETATION						
	Absolute	Dominant Species?		Dominance Test wor		
1		Species?		Number of Dominant S That Are OBL, FACW,		(A)
2				Total Number of Domi Species Across All Str		(B)
3				Percent of Dominant S That Are OBL, FACW,		0% (A/B)
Total Cover:				Prevalence Index wo		(, , , _)
Sapling/Shrub Stratum				Total % Cover of:		Multiply by
1				OBL species		x 1 =
2				FACW species		x 2 =
3				FAC species		x 3 =
4. 5.				FACU species		x 4 =
Total Cover:				UPL species		x 5 =
Herb Stratum				Column Totals:	(A)	(B)
1. annual grasses	70	<u>Y</u>		Prevalence Inde	x = B/A =	
2. Conyza canadensis	8	<u>N</u>	FAC	Hydrophytic Vegetat	ion Indicato	rs:
3. Zea mays	_7	<u>N</u>	<u>NI</u>	Dominance Test i	s >50%	
4. <u>Spergularia sp.</u>				☐ Prevalence Index		
5. Ambrosia acanthicarpa				Morphological Addata in Remarks of the control o		
6. Polygonum arenastrum			<u>FAC</u>	☐ Problematic Hydro	•	,
7				Troblematic riyan	opriyac vege	tation (Explain)
8				¹ Indicators of hydric so	nil and wetlar	nd hydrology must
Total Cover: Woody Vine Stratum				be present.		na riyarology maot
1				Uvdranhvtia		
2				Hydrophytic Vegetation		
Total Cover:				Present? Yo	es	No <u> </u>
	of Biotic Cı	rust				
Remarks:	o. tha =!t= !:	a abore etc.	and by	rol vocatotics and are d	ad aandiii	
SP LC-1 does not have any natural vegetation communities	s, trie site is	s characteri	zeu by rude	rai vegetation and grade	sa conditions	

SOIL Sampling Point: <u>LC-1</u>

Depth Matrix Redox Features	onnim the absenc	e of malcators.)
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type¹	oc ² Texture	Remarks
0-12 10YR4/3	loamy sand	
12-16 10YR5/3	sand	
··		<u>-</u> , -, -
·		
		·
		_
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore L		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		rs for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Redox (S5) Stripped Matrix (S6)		Muck (A9) (LRR C)
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6) ☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1)		Muck (A10) (LRR B) uced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)		Parent Material (TF2)
☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3)		r (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)	<u>—</u>	(1 2 2 3 4 4 4 4 4 4 4 4 4
☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7)		
☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8)		
☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9)		s of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)	wetland	hydrology must be present.
Restrictive Layer (if present):		
Type:	Hardela Oa	il Bassania Van 🗖 Na 💆
Depth (inches):	Hydric So	il Present? Yes 🔲 No 🗵
Remarks:		
Hydric soil indicators are absent due to sandy soils.		
HYDROLOGY		
Wetland Hydrology Indicators:	Sec	ondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
☐ Surface Water (A1) ☐ Salt Crust (B11)		Sediment Deposits (B2) (Riverine)
☐ High Water Table (A2) ☐ Biotic Crust (B12)		Drift Deposits (B3) (Riverine)
☐ Saturation (A3) ☐ Aquatic Invertebrates (B13)		Drainage Patterns (B10)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1)		Dry-Season Water Table (C2)
☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Liv	ng Roots (C3)	Thin Muck Surface (C7)
☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed	Soils (C6)	Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks)	旦	Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):		
Saturation Present? Yes No No Depth (inches):		gy Present? Yes 🔲 No 🗵
(includes capillary fringe)	Wetland Hydrolo	gy : :000:::: : :00 ::0
		gy:::000
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe		gy . 1655 166 <u>L</u> 116 <u>L</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe		g) 11000mi 100 <u>L</u> 110 <u>L</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks:		gy 1.1650.11.1.166 <u>L</u> 116
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe		gy 1.1650.11. 1.16 <u>L</u> 1.16 <u>L</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks:		<u></u> <u></u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks:		gy
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks:		<u></u> <u></u>

Project/Site: Newhall Ranch/Long Canyon Bridge	(City/County	: Los Angele	es County	Sampling Date: 9/28/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: <u>LC-2</u>
Investigator(s): J. Davis, L. Rizzo		Section, To	wnship, Rar	nge: <u>San Francis Land Gra</u>	ant
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, c	convex, none): none	Slope (%): <u>5</u>
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: <u>636</u> 4	<u> 4702.46178</u>	00	Long: <u>1974675.5218600</u>	Datum: NAD83
Soil Map Unit Name: Riverwash				NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes		[] (If no, explain in Re	emarks.)
Are Vegetation no , Soil no , or Hydrology no si	gnificantly	disturbed?	Are "l	Normal Circumstances" pr	esent? Yes 🔲 No 🔲
Are Vegetation no , Soil yes , or Hydrology no na	aturally pro	blematic?	(If ne	eded, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ∑ No) [lo 4h	a Campled	Area	
Hydric Soil Present? Yes No			e Sampled in a Wetlan		No. ⊠
Wetland Hydrology Present? Yes No.		With	ili a wellali	id: les	
Remarks:					
SP LC-2 characterizes the floodplain of the northern side o according to aerial field maps (Psomas, 2003). Vegetation precipitation.	f the Santa is young in	Clara Rive age. The 2	r. The "mair 006-2007 ra	n channel" was recently loo ain season had an abnorm	cated adjacent to this point ally low amount of
VEGETATION					
Tree Charters (Lles eximplific serves)	Absolute			Dominance Test works	
Tree Stratum (Use scientific names.)		Species?		Number of Dominant Sp That Are OBL, FACW, o	
1. Nicotiana glauca				Total Number of Domina	、 ,
2 3.				Species Across All Strat	
Total Cover:	20			Percent of Dominant Sports That Are OBL, FACW, o	
Sapling/Shrub Stratum				Prevalence Index work	,
1. <u>Arundo donax</u>				Total % Cover of:	Multiply by
2. <u>Populus fremontii</u>				OBL species	x 1 =
3. <u>Baccharis salicifolia</u>				FACW species	
4. <u>Tamarix</u> sp.				FAC species	
5. <u>Salix exigua</u>		<u>N</u>		FACU species	
6. Typha latifolia (?)		_N	OBL	UPL species	
Total Cover:	100			Column Totals:	
1. Brassica sp.	5	Υ	NI		= B/A =
2. Heliotropium curassavicum			OBL	Hydrophytic Vegetation	
3. Melilotus alba				□ Dominance Test is :	
4				Prevalence Index is	≤3.0 ¹
5					tations ¹ (Provide supporting
6					on a separate sheet)
7				Problematic Hydrop	hytic Vegetation ¹ (Explain)
8				1	
Total Cover:				be present.	and wetland hydrology must
1				Hydrophytic	
2Total Cover:				Vegetation	_
				Present? Yes	<u> </u>
-	of Biotic C	rust			
Remarks:	wordin!- /4	070\ *:*- ~ *'-	n 00" - h		
The vegetation of SP LC-2 most closely corresponds to Co	wardin's (1	ere) riparia	III SCIUD.		
Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were					6 d 4540

SOIL Sampling Point: <u>LC-2</u>

Depth (inches)	
0-12 n/a	— — — —
12-16 10YR3/3 80 n/a coarse sand/sandy loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C)	— — — —
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: ☐ Histosol (A1) ☐ Sandy Redox (S5) ☐ 1 cm Muck (A9) (LRR C)	— — — —
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	— — — —
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	— — — —
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	— — —
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	— — —
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	<u> </u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1) ☐ Sandy Redox (S5) ☐ 1 cm Muck (A9) (LRR C)	
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6) ☐ 2 cm Muck (A10) (LRR B)	
☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) ☐ Reduced Vertic (F18)	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2)	
☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3) ☐ Other (Explain in Remarks) ☐ 1 cm Muck (A9) (LRR D) ☐ Redox Dark Surface (F6)	
☐ 1 cm Muck (A9) (LRR D) ☐ Redox Dark Surface (F6) ☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7)	
☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8)	
Sandy Mucky Mineral (S1) Vernal Pools (F9) 3Indicators of hydrophytic vegetation and	
☐ Sandy Gleyed Matrix (S4) wetland hydrology must be present.	
Restrictive Layer (if present):	
Type:	
Depth (inches): Hydric Soil Present? Yes No No	
Remarks:	
Soil primarily consisted of riverwash or recently deposited sediment (coarse sand/small gravel). Soil became apparent in low stratum where sandy loam was present. No hydric soil indicators were present.	′
oan was present. No flydic son maleators were present.	
LIVEROLOGY	
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	
Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine)	
☐ Surface Water (A1) ☐ Salt Crust (B11) ☐ Sediment Deposits (B2) (Riverine)	
☐ High Water Table (A2) ☐ Biotic Crust (B12) ☐ Drift Deposits (B3) (Riverine)	
L. L. Saturation (A2). M. Drainaga Battarna (B10)	
☐ Saturation (A3) ☐ Aquatic Invertebrates (B13) ☐ Drainage Patterns (B10) ☐ Water Marks (B1) / Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7)	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8)	29)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7)	C 9)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (CA)	2 9)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3)	C9)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5)	C9)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (F7) ☐ Unundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5)	C9)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Unundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ☐ No ☐ Depth (inches): ☐ Depth (inches): Water Table Present? Yes ☐ No ☐ Depth (inches): ☐ Wetland Hydrology Present? Yes ☐ No ☐	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Unundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ☐ No ☐ Depth (inches): ☐ Depth (inc	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Unundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Water Table Present? Yes ☐ No ☐ Depth (inches): ☐ Depth (inches): ☐ Saturation Present? Yes ☐ No ☐ Depth (inches): ☐ Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): ☐ No ☐ Depth (inches): ☐ Other (Inches): ☐ Ot	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Unundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ☐ No ☐ Depth (inches): Water Table Present? Yes ☐ No ☐ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): Includes Capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): Yes ☐ No ☐ Depth (inch	
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ☐ No ☐ Depth (inches): Water Table Present? Yes ☐ No ☐ Depth (inches): Water Table Present? Yes ☐ No ☐ Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes ☐ No ☐ Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	1
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Unundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ☐ No ☐ Depth (inches): Water Table Present? Yes ☐ No ☐ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): Includes Capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland Hydrology Present? Yes ☐ No ☐ Depth (inches): Yes ☐ No ☐ Depth (inch	1
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7) ☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8) ☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C6) ☐ Saturation Visible on Aerial Imagery (B7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes ☐ No ☐ Depth (inches): ☐ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Primary indicators, secondary indicators, and water table presence provided evidence of hydrology. Inundation visible on aerial from 2003 (Psomal Primary indicators, secondary indicators, and water table presence provided evidence of hydrology. Inundation visible on aerial from 2003 (Psomal Primary indicators, secondary indicators, and water table presence provided evidence of hydrology. Inundation visible on aerial from 2003 (Psomal Primary indicators).	1

Project/Site: Newhall Ranch/Long Canyon Bridge		City/County	: Los Angel	es County	Sampling Date: 9/28/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: LC-3
Investigator(s): W. Vogler, J. Love		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	rant
Landform (hillslope, terrace, etc.): Riverbed		Local relief	(concave, o	convex, none): none	Slope (%): <u>5</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: <u>636</u> 4	4716.86582	00	Long: <u>1974603.289370</u>	Datum: NAD83
Soil Map Unit Name: Riverwash				NWI classific	cation: PSS6
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation no , Soil no , or Hydrology no signal	gnificantly	disturbed?	Are "	Normal Circumstances" p	oresent? Yes 🔲 No 🔲
Are Vegetation no , Soil yes , or Hydrology no na	aturally pro	blematic?	(If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point lo	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No			e Sampled in a Wetlan		<u> </u>
SP LC-3 characterized the floodplain on the northern side of precipitation.	of the Sant	a Clara Rive	er. The 2006	6-2007 rain season had a	an abnormally low amount of
VEGETATION					
	% Cover	Dominant Species?	Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	pecies
2				Total Number of Domir Species Across All Stra	
3				Percent of Dominant S	
4 Total Cover:				That Are OBL, FACW,	
Sapling/Shrub Stratum				Prevalence Index wor Total % Cover of:	ksheet: Multiply by
1. Tamarix sp.	35	<u>Y</u>	FAC ^b	OBL species 0	·
2. <u>Baccharis salicifolia</u>		<u>Y</u>		FACW species 12	
3. Melilotus alba		<u>N</u>		FAC species 35	
4. <u>Salix exigua</u>				FACU species 0	
		<u>N</u>	FACW+"	UPL species 1	
Total Cover: Herb Stratum	50			Column Totals: 48	
1. Arundo donax	2	<u>Y</u>	FACW	Prevalence Index	x = B/A = <u>2.79</u>
2. Conyza bonariensis	_1	<u>Y</u>	NI	Hydrophytic Vegetation	on Indicators:
3. Populus fremontii	<1	<u>N</u>	FACW	□ Dominance Test is	s >50%
4				□ Prevalence Index	is ≤3.0 ¹
5				Morphological Ada	aptations ¹ (Provide supporting r on a separate sheet)
6					ophytic Vegetation ¹ (Explain)
7				r robicinatio riyare	priyilo vogotation (Explain)
8Total Cover:					il and wetland hydrology must
Woody Vine Stratum 1				be present.	
2				Hydrophytic	
Total Cover:				Vegetation Present? Ye	es <u> </u>
	of Biotic C	rust 0			
Remarks:	or and the total	1070) -: -: -:			
The vegetation of SP LC-3 most closely corresponds to Co	wardin's (1	1979) riparia	ın scrub.		
 Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that were Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wet 		•			of at least FAC.

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SOIL Sampling Point: <u>LC-3</u>

	ription: (Describe t	o the depti				or confirr	n the absenc	ce of indicators.)	
Depth (inches)	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks	
			Color (IIIOlat)		- ype				
0-16	10YR5/2						coarse sand	1	
								- <u> </u>	
						-		_	
	oncentration, D=Deple					e Lining, F			
	Indicators: (Applica	ble to all L			ed.)			rs for Problematic Hydric Soils ³ :	
Histosol	` '		Sandy Red					n Muck (A9) (LRR C)	
☐ Black Hi	pipedon (A2)		Stripped Ma	, ,	I /E1)			n Muck (A10) (LRR B) uced Vertic (F18)	
	en Sulfide (A4)		Loamy Muc	-				Parent Material (TF2)	
	d Layers (A5) (LRR C	:)	Depleted M		(12)			er (Explain in Remarks)	
	ick (A9) (LRR D)	,	☐ Redox Dark		(F6)		<u> </u>	(Explain in Homano)	
	d Below Dark Surface	e (A11)	Depleted D		` ,				
	ark Surface (A12)	, ,	Redox Dep						
☐ Sandy M	lucky Mineral (S1)		Vernal Poo	ls (F9)			³ Indicato	rs of hydrophytic vegetation and	
	Bleyed Matrix (S4)						wetland	hydrology must be present.	
Restrictive L	_ayer (if present):								
,, <u> </u>									
Depth (inc	ches):						Hydric Sc	oil Present? Yes 🔀 No 🔲	
Remarks:									
				o the "neut	tral" chara	cteristics	of sandy soils	s, riverwash is problematic and often	
considered to	be hydric under floo	ded conditi	ons.						
HYDROLO	GY								
Wetland Hyd	drology Indicators:						Sec	ondary Indicators (2 or more required)	
Primary Indic	cators (any one indica	tor is suffic	ient)					Water Marks (B1) (Riverine)	
☐ Surface	Water (A1)		☐ Salt Crust	(B11)				Sediment Deposits (B2) (Riverine)	
	iter Table (A2)		☐ Biotic Cru				Drift Deposits (B3) (Riverine)		
Saturation Saturation	` '		Aquatic In	` '	s (B13)			Drainage Patterns (B10)	
Water M	arks (B1) (Nonriveri i	ne)	Hydrogen				·	Dry-Season Water Table (C2)	
	nt Deposits (B2) (Non					Living Ro		Thin Muck Surface (C7)	
	oosits (B3) (Nonriver		Presence		_	_		Crayfish Burrows (C8)	
	Soil Cracks (B6)	,	Recent Iro					Saturation Visible on Aerial Imagery (C9)	
	on Visible on Aerial Ir	nagery (B7)	Other (Ex	olain in Re	marks)			Shallow Aquitard (D3)	
	tained Leaves (B9)							FAC-Neutral Test (D5)	
Field Observ	vations:								
Surface Wate	er Present? Ye	s 🔲 N	o 🔲 Depth (in	ches):					
Water Table	Present? Ye	s 🛛 N	o Depth (in	ches):	4				
Saturation Pr			o Depth (in			Wet	land Hvdrolo	gy Present? Yes 🔀 No 🔲	
(includes cap	oillary fringe)							<u></u>	
Describe Red	corded Data (stream	gauge, mor	nitoring well, aerial	photos, pro	evious ins	pections),	if available:		
Remarks:									
		cators, and	water table and sa	turation p	resence p	rovided ev	vidence of hyd	drology. Inundation visible on aerial from	
2003 (Psoma	as, 2003).								

Project/Site: Newhall Ranch/Long Canyon Bridge		City/County	r: Los Angel	es County	Date: <u>9/18/07</u>	
Applicant/Owner: Newhall Land and Farming Company	State: CA Sampling Point: LC-4					
Investigator(s): <u>J. Davis, L. Rizzo</u>		Section, To	wnship, Rai	nge: <u>San Francis Land G</u>	rant	
Landform (hillslope, terrace, etc.): Riverbed		Local relief	(concave,	convex, none): none		_ Slope (%): <u>5</u>
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: 6364	4715.69907	00	Long: <u>1974536.675510</u>	0	Datum: NAD83
Soil Map Unit Name: Riverwash				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for this	s time of ye	ar? Yes	No	(If no, explain in R	Remarks.)	
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> s	ignificantly	disturbed?	Are "	Normal Circumstances" p	oresent? Ye	es 🔲 No 🔲
Are Vegetation <u>no</u> , Soil <u>yes</u> , or Hydrology <u>no</u> n	aturally pro	blematic?	(If ne	eded, explain any answe	ers in Remark	ks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point le	ocations, transects	s, importa	nt features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes □ N Yes □ N	o <u> </u>		ne Sampled nin a Wetlar] No	<u> </u>
Remarks: SP LC-4 characterized a stable sandbar in the Santa Clara is approximately 18" above the channel. The 2006-2007 ra					n channel of	the river. Elevation
VEGETATION						
Tree Stratum (Use scientific names.) 1	% Cover	Dominant Species?	Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	pecies	(A)
2				Total Number of Domir Species Across All Stra		(B)
3				Percent of Dominant S That Are OBL, FACW,		(A/B)
Total Cover Sapling/Shrub Stratum	:			Prevalence Index wor		
1. Baccharis salicifolia	70	Υ	FACW ^a	Total % Cover of:		Multiply by
2. Tamarix sp.		N		OBL species		x 1 =
3. unknown plant				FACW species		x 2 =
4. Populus fremontii				FAC species		x 3 =
5				FACU species		x 4 =
Total Cover	: 95			UPL species		x 5 =
Herb Stratum	_	V	EAOU.	Column Totals:		(B)
1. Melilotus alba				Prevalence Index		
2				Hydrophytic Vegetation		S:
3				☑ Dominance Test is☑ Prevalence Index is		
4				Morphological Ada		ovido supporting
6.				data in Remarks o		
7				☐ Problematic Hydro	phytic Veget	ation ¹ (Explain)
Total Cover						
Woody Vine Stratum 1				¹ Indicators of hydric so be present.	il and wetlan	d hydrology must
2.						
Total Cover				Hydrophytic Vegetation		
% Bare Ground in Herb Stratum % Cover	of Biotic C	rust		Present? Ye	s 🗵 I	No
Remarks:			_ 			
The vegetation of SP LC-4 most closely corresponds to Co above channel. To the north was an existing sparsely vege a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We b Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that we	etated wash	n. Dense ve	getation is a	approximately 12 ft wide and Wildlife Survey.	at this locatio	

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SOIL Sampling Point: <u>LC-4</u>

Depth (inches)	Texture Remarks coarse sand small to large gravel, no saturation C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Sandy Redox (S5) ☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6) ☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) ☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2) ☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3) ☐ 1 cm Muck (A9) (LRR D) ☐ Redox Dark Surface (F6) ☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7) ☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8) ☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9) Restrictive Layer (if present): Type:	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Perpleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Stratified Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F4) Restrictive Layer (if present): Type:	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)			
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Comy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	☐ 2 cm Muck (A10) (LRR B) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Other (Explain in Remarks)			
□ Black Histic (A3) □ Loamy Mucky Mineral (F1) □ Hydrogen Sulfide (A4) □ Loamy Gleyed Matrix (F2) □ Stratified Layers (A5) (LRR C) □ Depleted Matrix (F3) □ 1 cm Muck (A9) (LRR D) □ Redox Dark Surface (F6) □ Depleted Below Dark Surface (A11) □ Depleted Dark Surface (F7) □ Thick Dark Surface (A12) □ Redox Depressions (F8) □ Sandy Mucky Mineral (S1) □ Vernal Pools (F9) □ Sandy Gleyed Matrix (S4) Restrictive Layer (if present): □ Type: □ □ Toamy Mucky Mineral (F1) □ Depleted Matrix (F3) □ Vernal Pools (F9)	☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Other (Explain in Remarks)			
☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2) ☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3) ☐ 1 cm Muck (A9) (LRR D) ☐ Redox Dark Surface (F6) ☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7) ☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8) ☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9) ☐ Sandy Gleyed Matrix (S4) ☐ Restrictive Layer (if present): ☐ Type:	Red Parent Material (TF2) Other (Explain in Remarks)			
☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7) ☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8) ☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9) ☐ Sandy Gleyed Matrix (S4) ☐ Restrictive Layer (if present): Type:	Other (Explain in Remarks)			
☐ 1 cm Muck (A9) (LRR D) ☐ Redox Dark Surface (F6) ☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7) ☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8) ☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9) ☐ Sandy Gleyed Matrix (S4) ☐ Restrictive Layer (if present): ☐ Type:				
☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7) ☐ Thick Dark Surface (A12) ☐ Redox Depressions (F8) ☐ Sandy Mucky Mineral (S1) ☐ Vernal Pools (F9) ☐ Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	³ Indicators of hydrophytic vegetation and			
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	³ Indicators of hydrophytic vegetation and			
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	³ Indicators of hydrophytic vegetation and			
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:	indicators of riguloprigite regulation and			
Restrictive Layer (if present): Type:	wetland hydrology must be present.			
Type:	menana nyarenegy maerize precena			
	Hydric Soil Present? Yes ☐ No ☒			
Remarks:				
Substrate mainly consists of river sediment deposit with small cobbles, no saturation present. Ne	lo hydric soil indicators were present.			
YDROLOGY				
Netland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)			
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)			
High Water Table (A2) Biotic Crust (B12)	☐ Drift Deposits (B3) (Riverine)			
☐ Aquatic Invertebrates (B13)	☐ Drainage Patterns (B10)			
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1)	□ Dry-Season Water Table (C2)			
Sediment Deposits (B2) (Nonriverine)				
☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4)	Crayfish Burrows (C8)			
☐ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Plowed Soils (C	C6)			
Inundation Visible on Aerial Imagery (B7)	☐ Shallow Aquitard (D3)			
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes No Depth (inches):				
: , ,				
Water Table Present? Yes □ No □ Depth (inches):	nd Hydrology Present? Yes 🔲 No 🗵			
Water Table Present? Yes No Depth (inches):				
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if				
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetlan Wetlan Wetlan Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if Remarks:	f available:			
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetlan Wincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if Remarks: Sandbar area of the greater Santa Clara River. Sediment deposits are evident on the sandbar; h	f available:			
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if Remarks:	f available:			

Project/Site: Newhall Ranch/Long Canyon Bridge	(City/County	Los Angele	es County	Sampling Date: 9/28/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: LC-5
Investigator(s): <u>J. Davis, L. Rizzo</u>					· -
Landform (hillslope, terrace, etc.): Riverbed					
Subregion (LRR): Mediterranean California (LRR-C)					
				_	eation: PSS6
Are climatic / hydrologic conditions on the site typical for this	-				
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si					oresent? Yes 🔲 No 🔲
Are Vegetation <u>no</u> , Soil <u>yes</u> , or Hydrology <u>no</u> no				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map s	silowing	Sampini	g point it	cations, transects	, important leatures, etc.
Hydrophytic Vegetation Present? Yes X		Is th	e Sampled	Area	
Hydric Soil Present? Yes 🗵 No			in a Wetlan		No □
Wetland Hydrology Present? Yes No					
Remarks:	. 0. 5				-
SP LC-5 characterizes the main summer channel of the Sa an abnormally low amount of precipitation.	inta Clara F	River that wa	as present o	luring the 2007 site visit.	The 2006-2007 rain season had
an abnormally for amount of proophation.					
VECETATION					
VEGETATION	A b = = b d =	D ' 1	La d'a atau	Danis Tariana	ali and
	Absolute % Cover	Dominant Species?		Dominance Test work Number of Dominant Sp	
1				That Are OBL, FACW,	
2.				Total Number of Domin	
3				Species Across All Stra Percent of Dominant Sp	、
4				That Are OBL, FACW, of	
Total Cover: Sapling/Shrub Stratum				Prevalence Index wor	ksheet:
1. Salix exigua	35	Υ	OBL	Total % Cover of:	Multiply by
2. Salix laevigata		Y	FACW+ ^a	OBL species 100	x 1 = <u>100</u>
3. Arundo donax		N	FACW	FACW species <u>55</u>	x 2 = <u>110</u>
4. Typha latifolia				FAC species <u>5</u>	
5. Populus fremontii				FACU species 0	
Total Cover:	95			UPL species 0	
Herb Stratum				Column Totals: 160	
1. Polygonum lapathifolium		<u>Y</u>	OBL		x = B/A =1.41
2. unknown grass				Hydrophytic Vegetation	
3. <u>Urtica dioica</u>			FACW		
4. Xanthium strumarium				Prevalence Index is	
5 6					ptations ¹ (Provide supporting ron a separate sheet)
7				☐ Problematic Hydro	phytic Vegetation ¹ (Explain)
8					
Total Cover:					I and wetland hydrology must
Woody Vine Stratum				be present.	
1					
2				Hydrophytic Vegetation	
Total Cover:					s_ <u>N</u> No
% Bare Ground in Herb Stratum % Cover	of Biotic C	rust			
Remarks:					
The vegetation of SP LC-5 most closely corresponds to Co	wardin's (1	979) riparia	n scrub.		
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We	tlands: 1996 N	ational Summa	y. U.S. Fish an	d Wildlife Survev.	

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SOIL Sampling Point: <u>LC-5</u>

Profile Desc	ription: (Describe to	the depth	needed to docur	nent the i	ndicator	or confirm	the abse	nce of indicators.)		
Depth	Matrix			x Feature:	S					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Textur</u>	e Remarks		
No soil pit										
				- ——						
				- ——						
				- ——						
	oncentration, D=Deple					e Lining, R		hannel, M=Matrix.		
Hydric Soil I	ndicators: (Application	ble to all L	RRs, unless othe	rwise note	ed.)		Indica	tors for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy Red	ox (S5)			<u> </u>	cm Muck (A9) (LRR C)		
	pipedon (A2)		Stripped Ma	, ,				cm Muck (A10) (LRR B)		
Black His	` ,		Loamy Muc	-	. ,			educed Vertic (F18)		
	n Sulfide (A4)		Loamy Gle		(F2)			ed Parent Material (TF2)		
	☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3) ☐ 1 cm Muck (A9) (LRR D) ☐ Redox Dark Surface (F6)							ther (Explain in Remarks)		
	ck (A9) (LRR D) Below Dark Surface	(111)	Depleted D		` '					
	rk Surface (A12)	(A11)	Redox Dep							
	lucky Mineral (S1)		☐ Vernal Poo		10)		3Indica	ntors of hydrophytic vegetation and		
	leyed Matrix (S4)		<u></u>	(. 0)				nd hydrology must be present.		
	ayer (if present):							, 3, 1		
Type:										
Depth (inc	:hes):						Hvdric	Soil Present? Yes 🔀 No 🔲		
Remarks:										
Site was inaccessible. Soil was assumed hydric due to its vegetation and position in the main channel. Due to the "neutral" characteristics of sandy										
	sh is problematic and						mariner. D	de to the fleutial characteristics of sandy		
			•							
HYDROLO	GY									
Wetland Hyd	Irology Indicators:						S	econdary Indicators (2 or more required)		
_	ators (any one indica	or is suffici	ent)				_	<u> </u>		
		ioi is suilici		(D44)			Water Marks (B1) (Riverine)			
Surface \	` ,		☐ Salt Crust	` '			Sediment Deposits (B2) (Riverine)			
_ `	ter Table (A2)		☐ Biotic Cru	, ,	o (D12)		☐ Drift Deposits (B3) (Riverine)			
Saturation Saturation	` '	>	Aquatic In		` '		<u> </u>	Drainage Patterns (B10)		
	arks (B1) (Nonriveri r		☐ Hydrogen			Listan Dan	L (C2)	Dry-Season Water Table (C2)		
	t Deposits (B2) (Non			•	_	-		Thin Muck Surface (C7)		
	osits (B3) (Nonriveri	ne)	☐ Presence				_	Crayfish Burrows (C8)		
·	Soil Cracks (B6)	(D.7)	Recent Iro			vea Solis (C		Saturation Visible on Aerial Imagery (C9)		
	on Visible on Aerial Im	iagery (B7)	☐ Other (Explanation)	olain in Re	emarks)		_	Shallow Aquitard (D3)		
	tained Leaves (B9)					1	<u>L</u>	FAC-Neutral Test (D5)		
Field Observ										
Surface Water			Depth (in							
Water Table			Depth (in							
Saturation Pr		s No	Depth (in	ches):		Wetla	and Hydro	ology Present? Yes 🔲 No 🔲		
(includes cap Describe Red	olliary fringe) corded Data (stream g	lauge, mon	itoring well, aerial	photos. pr	evious ins	pections) i	if available	9:		
		,, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,, pi		,,, 1		-		
Remarks:										
	ators, secondary indic	ratore and	saturation present	e provido	d evidenc	e of hydrolo	any			
i illiary illulc	ators, securidary indic	aiois, aiiú	saturation present	o provide	a evideric	o or riyurold	Jgy.			

Project/Site: Newhall Ranch/Long Canyon Bridge		City/County	: Los Angel	es County	Sampling Date: <u>9/28/07</u>		
Applicant/Owner: Newhall Land and Farming Company	Applicant/Owner: Newhall Land and Farming Company State: CA Sampling Point: LC-6						
Investigator(s): <u>J. Davis, L. Rizzo</u>		Section, To	wnship, Rar	nge: <u>San Francis Land (</u>	Grant		
Landform (hillslope, terrace, etc.): <u>Upland terrace/Bank slope</u>	<u> </u>	Local relief	(concave, c	convex, none): none	Slope (%): <u>5</u>		
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: <u>636</u> 4	1920.41950	00	Long: <u>1974289.06056</u>	Datum: NAD83		
Soil Map Unit Name: Riverwash				NWI classit	fication: N/A		
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes		[(If no, explain in	Remarks.)		
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si	gnificantly	disturbed?	Are "	Normal Circumstances"	'present? Yes 🗵 No 🔲		
Are Vegetation no , Soil yes , or Hydrology no na	aturally pro	blematic?	(If ne	eded, explain any answ	vers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	showing	samplin	g point lo	ocations, transect	s, important features, etc.		
Hydrophytic Vegetation Present? Yes 🗵 No) П						
Hydric Soil Present? Yes No			e Sampled in a Wetlan		□ No ⊠		
Wetland Hydrology Present? Yes No	_ 🗵	With	iii a vvetiaii	iu: iesi	NO 📈		
Remarks:							
SP LC-6 characterizes the southern bank edge of the Sant within riparian scrub habitat directly south of the OHWM. To							
, ,				•			
VEGETATION							
	Absolute	Dominant		Dominance Test wor			
1		Species?		Number of Dominant That Are OBL, FACW			
2				Total Number of Dom			
3				Species Across All St Percent of Dominant	、 ,		
4				That Are OBL, FACW	•		
Total Cover: Sapling/Shrub Stratum				Prevalence Index wo	orksheet:		
1. Baccharis salicifolia	75	Υ	FACW ^a	Total % Cover of:	Multiply by		
2				OBL species			
3.				FACW species			
4.				FAC species			
5				FACU species	· · · · · · · · · · · · · · · · · · ·		
Total Cover:				UPL species			
Herb Stratum		.,		Column Totals:	, , ,, , ,		
1. unknown grass (dry)			,		ex = B/A =		
2. Brassica spp.				Hydrophytic Vegetat			
3				☐ Dominance Test☐ Prevalence Index			
4					daptations ¹ (Provide supporting		
6.					or on a separate sheet)		
7				☐ Problematic Hydr	rophytic Vegetation ¹ (Explain)		
8							
Total Cover: Woody Vine Stratum				¹ Indicators of hydric s be present.	oil and wetland hydrology must		
1							
2				Hydrophytic			
Total Cover:				Vegetation	/es ⊠ No □		
		rust		rieseitt: i	es NO II		
Remarks:				I			
Riparian vegetation primarily consists of mule fat with grass	s understor	y. The vege	etation of SF	LC-6 most closely cor	responds to Cowardin's (1979)		
riparian scrub.							
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wet	tlands: 1996 N	ational Summa	ry. U.S. Fish an	d Wildlife Survey.			

US Army Corps of Engineers

SOIL Sampling Point: <u>LC-6</u>

	ription: (Describe t	o the dep				or confirr	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature: %		Loc ²	Texture	Remarks
0-16	n/a		n/a				coarse sand	
	11/4		11/0				course carra	
						•		
						-		
								
			-					
¹Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix.	² Location	: PL=Por	e Lining, F	RC=Root Chanr	nel, M=Matrix.
Hydric Soil	Indicators: (Applica	ble to all	LRRs, unless othe					for Problematic Hydric Soils ³ :
Histosol	, ,		Sandy Red					Muck (A9) (LRR C)
	pipedon (A2)		Stripped M					Muck (A10) (LRR B)
☐ Black Hi	` '		Loamy Mu					red Vertic (F18)
	n Sulfide (A4) d Layers (A5) (LRR C	.)	☐ Loamy Gle☐ Depleted M	-	(F2)			arent Material (TF2) (Explain in Remarks)
	ick (A9) (LRR D)	')	☐ Redox Dar		(F6)		<u> </u>	(Explain in Remarks)
	d Below Dark Surface	(A11)	Depleted D		` '			
	ark Surface (A12)		Redox Dep	,	F8)			
	lucky Mineral (S1)		Vernal Poor	ls (F9)				of hydrophytic vegetation and
	Bleyed Matrix (S4) Layer (if present):						wetland hy	ydrology must be present.
Depth (inc	ahaa):						Hydric Soil	Present? Yes □ No ⊠
Remarks:	nes)						Hyuric 30ii	rieseiit: ies No
	sists of old riverwash	and alluvi	al material. Hydric s	oil indicato	re ara lika	ly abcont	duo to candy co	sile
THE SOIL COIN	sists of old fiverwasif	anu anuvi	ai matenai. Hydric St	Jii ii iulcato	is are like	iy absent	due to salidy sc	ons.
HYDROLO								
	drology Indicators:							dary Indicators (2 or more required)
	cators (any one indica	tor is suff	·					/ater Marks (B1) (Riverine)
☐ Surface	` '		Salt Crust	` '				ediment Deposits (B2) (Riverine)
	iter Table (A2)		☐ Biotic Cru	. ,	(5.15)			prift Deposits (B3) (Riverine)
Saturation	, ,	>	Aquatic Ir		` '		· 	Prainage Patterns (B10)
	arks (B1) (Nonriveri nt Deposits (B2) (Non		☐ Hydrogen		` '	Livina Bo		ry-Season Water Table (C2) hin Muck Surface (C7)
_	oosits (B3) (Nonriver		☐ Presence	•	ŭ	Ū	` ' ==	rayfish Burrows (C8)
	Soil Cracks (B6)	····c)	Recent Iro		•	•	·	aturation Visible on Aerial Imagery (C9)
	on Visible on Aerial Ir	nagery (E				ioa collo (hallow Aquitard (D3)
_	tained Leaves (B9)	-3-7(, <u> </u>		,		· 	AC-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present? Ye	es 🔲	No 🔲 Depth (ir	nches):				
Water Table	Present? Ye	es 🔲	No 🔲 Depth (ir	nches):				
Saturation P	resent? Ye	es 🔲	No 🔲 Depth (ir	nches):		Wet	and Hydrology	y Present? Yes 🔲 No 🖂
(includes cap	oillary fringe)						9 9-61	
Describe Re	corded Data (stream	gauge, m	onitoring well, aerial	pnotos, pr	evious ins	pections),	if available:	
Domorko								
Remarks:	of hydrology was ab-	convod						
ino evidence	of hydrology was obs	servea.						

Project/Site: Newhall Ranch/Long Canyon Bridge		City/County	: Los Angel	es County	Sampling Date: 9/28/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: LC-7
Investigator(s): W. Vogler, J. Love		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	rant
Landform (hillslope, terrace, etc.): Upland terrace		Local relief	(concave, o	convex, none): none	Slope (%): <u>5</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6364	4943.00130	00	Long: <u>1974168.559320</u>	0 Datum: NAD 1983
Soil Map Unit Name: Riverwash				NWI classific	cation: N/A
Are climatic / hydrologic conditions on the site typical for this	time of year	ar? Yes		(If no, explain in R	Remarks.)
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> sig	gnificantly	disturbed?	Are "	Normal Circumstances" p	oresent? Yes 🔲 No 🔲
Are Vegetation no , Soil yes , or Hydrology no na	turally pro	blematic?	(If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point lo	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes \(\subseteq \) No No			e Sampled in a Wetlan] No⊠
SP LC-7 characterizes the upland terrace south of the Sant	a Clara Ri	ver. The 20	06-2007 raiı	n season had an abnorm	ally low amount of precipitation.
VEGETATION					
	Absolute	Dominant	Indicator	Dominance Test work	«sheet:
Tree Stratum (Use scientific names.) 1		Species?		Number of Dominant S That Are OBL, FACW,	
2				Total Number of Domir Species Across All Stra	
3 4				Percent of Dominant S That Are OBL, FACW,	
Total Cover: Sapling/Shrub Stratum				Prevalence Index wor	ksheet: Multiply by
1. <u>Baccharis salicifolia</u>	60	<u>Y</u>	FACW ^a	OBL species	
2. <u>Salix exigua</u>				FACW species	
3				FAC species	
4				FACU species	
5Total Cover:				UPL species	
Herb Stratum	70			Column Totals:	(A)(B)
1. Bromus diandrus (dead)	80	<u>Y</u>	NI	Prevalence Index	c = B/A =
2. Bromus diandrus (live)	_1	<u>N</u>	NI	Hydrophytic Vegetation	on Indicators:
3. <u>Leymus triticoides (?)</u>		<u>N</u>	FAC+	Dominance Test is	s >50%
4				Prevalence Index	
5					aptations ¹ (Provide supporting r on a separate sheet)
6					ophytic Vegetation ¹ (Explain)
7 8					
Total Cover:				¹ Indicators of hydric so be present.	il and wetland hydrology must
1					
2				Hydrophytic Vegetation	
Total Cover:					es 🔲 No 🔲
	of Biotic C	rust			
Remarks:	wordint- /4	1070\ !'			
The vegetation of SP LC-7 most closely corresponds to Co	wardin's (1	1979) riparia	in Scrud.		
a Kartesz, LT 1996 National List of Vascular Plant Species that Occur in Wet	lande: 1006 N	ational Summo	rv IIS Eich oo	d Wildlife Survey	

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SOIL Sampling Point: <u>LC-7</u>

	ription: (Describe	to the depth				or confirn	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	<u></u> %	Color (moist)	x Feature: %	S Type ¹	Loc ²	Texture	Remarks
	,		Color (moist)		Туре			Remarks
0-16	10YR4/3	100					clay loam	
						-		
				-				
1Type: C-C	oncentration, D=Depl	otion DM_E	Paduaad Matrix	² L continu		o Lining E	RC=Root Chann	and M-Matrix
	Indicators: (Application)					e Litility, r		for Problematic Hydric Soils ³ :
Histosol			☐ Sandy Red		,			fluck (A9) (LRR C)
	oipedon (A2)		☐ Stripped Ma					Muck (A10) (LRR B)
☐ Black Hi	stic (A3)		Loamy Muc	cky Minera	ıl (F1)			ed Vertic (F18)
	n Sulfide (A4)		Loamy Gle		(F2)			arent Material (TF2)
	d Layers (A5) (LRR (S)	☐ Depleted M		(E0)		Other ((Explain in Remarks)
	ick (A9) (LRR D) d Below Dark Surface	o (A11)	Redox Dark Depleted D		` '			
	ark Surface (A12)	5 (A11)	Redox Dep					
	fucky Mineral (S1)		☐ Vernal Poo	•	,		³ Indicators	of hydrophytic vegetation and
	Gleyed Matrix (S4)						wetland hy	drology must be present.
Restrictive I	_ayer (if present):							
,, <u> </u>								
Depth (inc	ches):						Hydric Soil	Present? Yes 🔲 No 🗵
Remarks:								
No hydric so	il indicators were pre	sent.						
HYDROLO	GY							
Wetland Hyd	drology Indicators:						Secon	dary Indicators (2 or more required)
	cators (any one indica	ator is suffici	ent)				□ w	/ater Marks (B1) (Riverine)
Surface	Water (A1)		☐ Salt Crust	(B11)			□ s	ediment Deposits (B2) (Riverine)
High Wa	iter Table (A2)		☐ Biotic Cru	st (B12)			<u> </u>	rift Deposits (B3) (Riverine)
Saturation	on (A3)		Aquatic In	vertebrate	es (B13)		<u> </u>	rainage Patterns (B10)
	arks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		<u> </u>	ry-Season Water Table (C2)
Sedimer	nt Deposits (B2) (Nor	nriverine)	Oxidized I	Rhizosphe	res along	Living Ro	ots (C3) 🔲 Ti	hin Muck Surface (C7)
☐ Drift Dep	oosits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	1)	<u> </u>	rayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iro			ved Soils (aturation Visible on Aerial Imagery (C9)
	on Visible on Aerial I	magery (B7)	Other (Exp	plain in Re	emarks)			hallow Aquitard (D3)
	tained Leaves (B9)						<u> </u>	AC-Neutral Test (D5)
Field Observ								
Surface Water			o 🔲 Depth (in					
Water Table			o 🔲 Depth (in					
Saturation Procession (includes cap		es <u> </u>	o 🔲 Depth (in	iches):		_ Wetl	and Hydrology	/ Present? Yes 🔲 No 🗵
	corded Data (stream	gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
No evidence	of hydrology was ob	served.						

Project/Site: Newhall Ranch/Long Canyon Bridge	c	City/County:	Los Angele	es County	Sampling !	Date: <u>9/28/07</u>	
Applicant/Owner: Newhall Land and Farming Company State: CA Sampling Point: LC-8							
Investigator(s): J. Davis, J. Love, W. Vogler, L. Rizzo		Section, To	wnship, Rar	nge: <u>San Francis Land G</u>	irant		
Landform (hillslope, terrace, etc.): Upland terrace/Agriculture		Local relief	(concave, c	convex, none): none		Slope (%): <u>5</u>	
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6364	920.41950	00	Long: <u>1974289.060560</u>)0	Datum: NAD83	
Soil Map Unit Name: Sorrento loam				NWI classific	cation: N/A		
Are climatic / hydrologic conditions on the site typical for this t							
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> sig	nificantly c	disturbed?	Are "I	Normal Circumstances"	present? Y	es 🔲 No 🔲	
Are Vegetation no , Soil no , or Hydrology no nat	turally prob	olematic?	(If ne	eded, explain any answe	ers in Remar	ks.)	
SUMMARY OF FINDINGS – Attach site map sl	howing	samplin	g point lo	ocations, transects	s, importa	int features, etc.	
Hydrophytic Vegetation Present? Yes No	\boxtimes	la 4h	- Campled	A			
Hydric Soil Present? Yes No			e Sampled in a Wetlan		∃ No	\bowtie	
Wetland Hydrology Present? Yes No		WILLI	ili a vvetiali	d? Yes <u></u>	NO	<u> </u>	
Remarks:							
SP LC-8 characterizes upland habitat consisting of a recentl precipitation.	ly tilled agr	icultural fie	ld. The 2006	6-2007 rain season had	an abnorma	lly low amount of	
VEGETATION							
	Absolute	Dominant	Indicator	Dominance Test work	ksheet:		
Tree Stratum (Use scientific names.)	% Cover	Species?	<u>Status</u>	Number of Dominant S	Species	(4)	
1				That Are OBL, FACW, Total Number of Domir		(A)	
2				Species Across All Stra		(B)	
3				Percent of Dominant S That Are OBL, FACW,		(A/B)	
Total Cover: _ Sapling/Shrub Stratum				Prevalence Index wor	rksheet:		
1				Total % Cover of:		Multiply by	
2				OBL species		x 1 =	
3.				FACW species		x 2 =	
4.				FAC species		x 3 =	
5				FACU species		x 4 =	
Total Cover: _				UPL species		x 5 =	
Herb Stratum				Column Totals:		(B)	
1				Prevalence Index			
2				Hydrophytic Vegetati		rs:	
3				☐ Dominance Test is			
4				☐ Prevalence Index		and the second of the second	
5				Morphological Ada data in Remarks o	aptations (P or on a separ	rovide supporting ate sheet)	
7				Problematic Hydro	phytic Vege	tation ¹ (Explain)	
8.							
Total Cover: _				¹ Indicators of hydric so be present.	il and wetlar	nd hydrology must	
Woody Vine Stratum				be present.			
1				Hydrophytic			
2				Vegetation	_	_	
				Present? Ye	es 🔲	No <u> </u>	
% Bare Ground in Herb Stratum % Cover of Remarks:	טווטום וכ	นธเ					
SP LC-8 does not have any natural vegetation communities;	; the site is	characteri	zed by rude	ral vegetation and grade	ed conditions	j.	
, , , , , , , , , , , , , , , , , , ,			•	5 0			

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SOIL Sampling Point: <u>LC-8</u>

Profile Description: (Describe to the dep			icator o	r confirm	the absence	of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist)	x Features	Γype ¹	Loc ²	Texture	Domostro
	Color (moist)	<u>%</u> T	ı ype	LOC	rexture	Remarks Remarks
No Soil Pit		· —— —				
		·		•		
		· —— —				-
¹ Type: C=Concentration, D=Depletion, RM=	=Reduced Matrix.	² Location: P	PL=Pore	Lining, R	C=Root Chani	nel, M=Matrix.
Hydric Soil Indicators: (Applicable to all	LRRs, unless other					for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Red	ox (S5)			☐ 1 cm I	Muck (A9) (LRR C)
☐ Histic Epipedon (A2)	Stripped Ma					Muck (A10) (LRR B)
☐ Black Histic (A3)	Loamy Muc					ced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gley		2)			Parent Material (TF2)
Stratified Layers (A5) (LRR C)	☐ Depleted M		.,			(Explain in Remarks)
1 cm Muck (A9) (LRR D)		Surface (F6)				
☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)	Redox Dep	ark Surface (I				
Sandy Mucky Mineral (S1)	☐ Vernal Pool		,		³ Indicators	of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)	vernari oo	(i 0)				ydrology must be present.
Restrictive Layer (if present):						, 3,
Type:						
Depth (inches):					Hydric Soil	Present? Yes 🔲 No 🖂
Remarks:					,	
No soil pit was excavated due to lack of veg	etation and observal	ale hydrology	,			
Two son pit was excavated due to lack of veg	ctation and observal	oic riyarology	•			
HYDROLOGY						
Wetland Hydrology Indicators:					Secor	ndary Indicators (2 or more required)
Primary Indicators (any one indicator is suffi	cient)				v	Vater Marks (B1) (Riverine)
☐ Surface Water (A1)	☐ Salt Crust	(B11)			□s	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	☐ Biotic Crus	,			_	Orift Deposits (B3) (Riverine)
☐ Saturation (A3)	Aquatic In		B13)			Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen	•	,			Ory-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)				iving Roo		Thin Muck Surface (C7)
☐ Drift Deposits (B3) (Nonriverine)	Presence	of Reduced I	ron (C4)			Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iro	n Reduction	in Plowe	ed Soils (0	C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B				·		Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	<u> </u>		,		F	AC-Neutral Test (D5)
Field Observations:						· ,
Surface Water Present? Yes □	No Depth (in	ches):				
	No ☐ Depth (in	· · ·		_		
	No Depth (in	,		_	and Hydrolog	y Present? Yes 🔲 No 🗵
(includes capillary fringe)	TVO Deptil (iii	ones)		_ ""	ana myarolog	y 1 1030111. 103 <u> </u>
Describe Recorded Data (stream gauge, mo	onitoring well, aerial p	ohotos, previo	ous insp	ections), i	if available:	
Remarks:						
No evidence of hydrology was observed.						

Commerce Center Bridge

Project/Site: Newhall Ranch/Commerce Center Bridge		City/County	/: Los Angel	es County Sampling Date: 9/26/07					
Applicant/Owner: Newhall Land and Farming Company	-		•	State: <u>CA</u> Sampling Point: <u>CC-1</u>					
Investigator(s): J. Kisner, W. Vogler, J. Love, E. Larsen		Section, To	wnship, Rai	nge: San Francis Land Grant					
				convex, none): none Slope (%): 5					
Subregion (LRR): Mediterranean California (LRR-C)				Long: 1980360.7805500 Datum: NAD83					
				NWI classification: PSS6					
Are climatic / hydrologic conditions on the site typical for thi									
	-			'Normal Circumstances" present? Yes ⊠ No □					
Are Vegetation no , Soil no , or Hydrology no .	-			'					
Are Vegetation no , Soil yes , or Hydrology no 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 Hydric Soil Present? Yes N	lo		ne Sampled nin a Wetlar						
Wetland Hydrology Present? Yes 🗵 N	10								
Remarks: SP CC-1 characterizes the floodplain on the southern side of the Santa Clara River. This SP is immediately adjacent to the water's edge and incorporates a portion of a sandbar, a portion of a side channel, and a portion of the adjacent floodplain. The 2006-2007 rain season had an abnormally low amount of precipitation.									
VEGETATION									
Sapling/Shrub Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species					
Baccharis salicifolia	20	Y	FACW	That Are OBL, FACW, or FAC: 3 (A)					
2. <u>Salix exigua</u>	20	Y	OBL	Total Number of Dominant					
3. Salix laevigata		N	FACW+ ^a	Species Across All Strata 5 (B)					
4. <i>Tamarix</i> sp.	8	N	FAC ^b	Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)					
5. <u>Populus fremontii</u>	_ 5	<u>N</u>	FACW	Prevalence Index worksheet:					
Total Cove	r: <u>63</u>	<u>.</u>		Total % Cover of: Multiply by					
Herb Stratum 1. Melilotus alba	40	Υ	FACU+	OBL species <u>40</u> x 1 = <u>40</u>					
Polygonum lapathifolium		Y	OBL	FACW species <u>20</u> x 2 = <u>40</u>					
Veronica anagallis-aquatica			OBL	FAC species <u>0</u> x 3 = <u>0</u>					
Leptochloa uninervia	5	N	FACW	FACU species <u>40</u> x 4 = <u>160</u>					
5. Typha angustifolia	5	N	OBL	UPL species <u>0</u> x 5 = <u>0</u>					
6. Aster subulatus var. ligulatus	3	N	FACW	Column Totals:(A)(B)					
7. Cyperus erythrorhizos	2	N	OBL	Prevalence Index = B/A = 2.4					
8. Agrostis viridis	1	N	OBL	Hydrophytic Vegetation Indicators:					
9. Ambrosia acanthicarpa	_ 1	N	NI	☐ Dominance Test is >50%					
10. Apium graveolens	_ 1	<u>N</u>	FACW	Prevalence Index is ≤3.0¹					
11. Epilobium ciliatum	1	<u>N</u>	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)					
12. <u>Heterotheca grandiflora</u>	1	<u>N</u>	NI	Problematic Hydrophytic Vegetation ¹ (Explain)					
13. <u>Ludwigia peploides</u>	1	<u>N</u>	OBL						
14. <u>Rumex sp.</u>		<u>N</u>	· ——	¹ Indicators of hydric soil and wetland hydrology must					
15. <u>Urtica dioica</u>	1	. <u>N</u>	FACW	be present.					
16. Xanthium strumarium Total Cove Bare Ground in Herb Stratum 0 % Cove	<u>1</u> r: <u>84</u> er of Biotic C	N Crust 0	FAC+	Hydrophytic Vegetation					
	or blotte C			Present? Yes No No					
Remarks:	tatue ef el	اسررمه	uthom:	tod					
Reed 1988 was used to determine the wetland indicator s The vegetation of SP CC-1 most closely corresponds to C	•			itea.					
Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in W Wetland indicator status was assumed FAC for all <i>Tamarix</i> species that we									

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SOIL Sampling Point: <u>CC-1</u>

Profile Des	cription: (Describe t	to the depth	needed to docu	ıment the i	indicator	or confir	rm the absence of indicators.)	
Depth	Matrix			ox Feature:		2	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-16							coarse sand riverwash	
							-	
							-	
							-	—
	. <u></u>							
				_				
1Tupo: C-C	Concentration D-Deal	otion DM_D	aduand Matrix	² l continu			PC-Post Channel M-Matrix	—
	concentration, D=Depl Indicators: (Application)					e Lining,	, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ :	
☐ Histoso		15.0 to all 21.	☐ Sandy Re		ou.,		1 cm Muck (A9) (LRR C)	
	pipedon (A2)		☐ Stripped M				2 cm Muck (A10) (LRR B)	
☐ Black F			Loamy Mu	. ,	ıl (F1)		Reduced Vertic (F18)	
	en Sulfide (A4)			eyed Matrix			Red Parent Material (TF2)	
	ed Layers (A5) (LRR C	;)	Depleted I	-	` '		Other (Explain in Remarks)	
☐ 1 cm M	uck (A9) (LRR D)		Redox Da	rk Surface	(F6)			
☐ Deplete	ed Below Dark Surface	e (A11)	Depleted [Dark Surfac	e (F7)			
	ark Surface (A12)		Redox De	pressions (F8)			
	Mucky Mineral (S1)		☐ Vernal Pool	ols (F9)			³ Indicators of hydrophytic vegetation and	
	Gleyed Matrix (S4)						wetland hydrology must be present.	
Restrictive	Layer (if present):							
Type:			_					
Depth (in	nches):		<u>—</u>				Hydric Soil Present? Yes ⊠ No □	Щ.
Remarks:							•	
							nydric soil indicators. Due to the "neutral" characteristi	CS
of sandy soi	ls, sandy alluvial land	is problemati	ic and often cons	sidered to b	e hydric u	nder floo	oded conditions.	
HYDROLO	GY							
Wetland Hy	drology Indicators:						Secondary Indicators (2 or more required)	
Primary Indi	cators (any one indica	ator is sufficie	nt)				Water Marks (B1) (Riverine)	
	Water (A1)		☐ Salt Crus	st (B11)			Sediment Deposits (B2) (Riverine)	
	ater Table (A2)		☐ Biotic Cru				Drift Deposits (B3) (Riverine)	
☐ Saturat			Aquatic I		s (B13)		☐ Drainage Patterns (B10)	
	Marks (B1) (Nonriveri	ne)	Hydroger				☐ Dry-Season Water Table (C2)	
	ent Deposits (B2) (Nor	•				Livina Ra	coots (C3) Thin Muck Surface (C7)	
	posits (B3) (Nonriver		☐ Presence		_	_	Crayfish Burrows (C8)	
	Soil Cracks (B6)		Recent Ir		,	•		C9)
	ion Visible on Aerial II	magery (R7)	Other (Ex			rea cons	Shallow Aquitard (D3)	55)
	Stained Leaves (B9)	nagery (D7)	Other (Ex	Apiaiii iii ike	iliaiks)		FAC-Neutral Test (D5)	
Field Obser						1	TAO NOUTAI TOST (DO)	
		e 🗆 No	□ Depth (i)	nches).				
			`	,	0	_		
Water Table			Depth (i			-	otton d Hodrolo no Brosson (O. Mar. M	7
Saturation F (includes ca	resent? Ye pillary fringe)	es <u>K</u> No	Depth (i	nches):	<u>6</u>	vve	etland Hydrology Present? Yes <u> </u>	
	ecorded Data (stream	gauge, monit	oring well, aerial	photos, pr	evious ins	pections)	s), if available:	
Remarks:								
Water table	and saturation provid	ed evidence o	of hydrology. No	primary or	secondary	/ indicato	ors were present.	
	r		, 3, 10	. ,			•	
Ī								

Project/Site: Newhall Ranch/Commerce Center Bridge		City/County:	Los Angele	es County Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA Sampling Point: CC-2
Investigator(s): E. Larsen, W. Vogler		Section, To	wnship, Rar	nge: San Francis Land Grant
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, c	convex, none): none Slope (%): 5
Subregion (LRR): Mediterranean California (LRR-C)				
				NWI classification: PSS6
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si	-			Normal Circumstances" present? Yes 🛛 No 🗆
Are Vegetation <u>no</u> , Soil <u>yes</u> , or Hydrology <u>no</u> na				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s			`	
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ☑ No Yes ☑ No Wetland Hydrology Present? Yes ☑ No			e Sampled in a Wetlan	
Remarks: SP CC-2 characterizes the floodplain on the southern side Santa Clara River. The 2006-2007 rain season had an abn				
VEGETATION				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
2				Total Number of Dominant Species Across All Strata 6 (B)
3				Percent of Dominant Species
4Total Cover:				That Are OBL, FACW, or FAC: 100% (A/B)
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. Baccharis salicifolia	_30	Υ	FACW ^a	Total % Cover of: Multiply by OBL species 35 x 1 = 35
2. Salix exigua	30	<u>Y</u>	OBL	OBL species <u>35</u> x 1 = <u>35</u> FACW species <u>55</u> x 2 = <u>110</u>
3. Populus fremontii	_20	Υ	FACW	FAC species 20 x 3 = 60
4. <u>Tamarix aphylla</u>	_20	<u>Y</u>	FAC	FACU species 0 x 4 = 0
5				UPL species 0 x 5 = 0
Total Cover: Herb Stratum	100			Column Totals: 110 (A) 205 (B)
1. Arundo donax	5	V	FΔCW	Prevalence Index = $B/A = 1.86$
Cyperus involucratus			OBL	Hydrophytic Vegetation Indicators:
3. Ambrosia acanthicarpa			NI	☐ Dominance Test is >50%
Washingtonia robusta				 ✓ Prevalence Index is ≤3.0¹
5				☐ Morphological Adaptations¹ (Provide supporting
6.				data in Remarks or on a separate sheet)
7				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
8				
Total Cover: Woody Vine Stratum	_12			¹ Indicators of hydric soil and wetland hydrology must be present.
1				
2Total Cover:				Hydrophytic Vegetation Present? Yes ⊠ No □
% Bare Ground in Herb Stratum 50 % Cover	of Riotic C	rust 0		165 <u>M</u> NO []
Remarks:	OI DIOUG O	1431 0		
The vegetation of SP CC-2 most closely corresponds to Co	owardin's (1	1979) riparia	ın scrub.	
Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We	tlands: 1996 N	ational Summar	y. U.S. Fish an	d Wildlife Survey.

SOIL Sampling Point: <u>CC-2</u>

Profile Descri	ption: (Describe to	o the depth r	needed to docu	ment the i	ndicator o	or confirm	n the absen	ce of indicators.)
Depth _	Matrix			ox Features	_	. 2	_	
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-6							sand	moist; dark layers 1 cm intervals
6-16							sand	
							· - <u></u>	
	_							
	_							
						-		_
							·	_
	ncentration, D=Deple					e Lining, F		annel, M=Matrix. ors for Problematic Hydric Soils ³ :
	dicators: (Applica	DIE TO AII LK			ea.)			
Histosol (/	pedon (A2)		☐ Sandy Red☐ Stripped M					m Muck (A9) (LRR C) m Muck (A10) (LRR B)
☐ Black Hist			☐ Loamy Mu	` '	l (F1)			duced Vertic (F18)
	Sulfide (A4)		Loamy Gle	,	` '			Parent Material (TF2)
	Layers (A5) (LRR C)	□ Depleted N	Matrix (F3)			☑ Oth	er (Explain in Remarks)
	k (A9) (LRR D)		Redox Dar	,				
	Below Dark Surface	(A11)		ark Surfac	` '			
·	k Surface (A12) ucky Mineral (S1)		Redox Dep Vernal Poo		-8)		3Indicate	ors of hydrophytic vegetation and
	eyed Matrix (S4)		<u> </u>)IS (I-9)				I hydrology must be present.
-	yer (if present):						110110110	, a. e. egy aet 20 p. eee
Type:								
Depth (inch	nes):						Hydric S	oil Present? Yes 🔀 No 🔲
Remarks:								
Sand has blac	k, organic layering (1cm). Soil is	characterized as	riverwash.	Due to th	e "neutral	l" characteris	stics of sandy soils, sandy alluvial land is
	nd often considered							•
HYDROLOG	Υ							
	ology Indicators:						Sec	condary Indicators (2 or more required)
_	tors (any one indica	tor is sufficier	nt)					Water Marks (B1) (Riverine)
☐ Surface W			☐ Salt Crus	t (B11)				Sediment Deposits (B2) (Riverine)
☐ High Wate	` '		☐ Biotic Cru					Drift Deposits (B3) (Riverine)
☐ Saturation	` '		Aquatic Ir	, ,	s (B13)			Drainage Patterns (B10)
	rks (B1) (Nonriveri r	ne)	☐ Hydrogen					Dry-Season Water Table (C2)
Sediment	Deposits (B2) (Non	riverine)			. ,	Living Ro	ots (C3)	Thin Muck Surface (C7)
	sits (B3) (Nonriveri		Presence					Crayfish Burrows (C8)
☐ Surface S	oil Cracks (B6)		Recent Ir	on Reduction	on in Plow	ed Soils ((C6)	Saturation Visible on Aerial Imagery (C9)
Inundation	n Visible on Aerial In	nagery (B7)	Other (Ex	plain in Re	marks)			Shallow Aquitard (D3)
	ined Leaves (B9)							FAC-Neutral Test (D5)
Field Observa	ations:							
Surface Water	Present? Ye	s No	Depth (ir	nches):		_		
Water Table P	resent? Ye	s 🔲 No	Depth (ir	nches):		_		
Saturation Pre		s No	Depth (ir	nches):		Wet	land Hydrol	ogy Present? Yes 🔀 No 🔲
(includes capil Describe Reco	iary fringe) orded Data (stream g	gauge, monito	oring well, aerial	photos, pre	evious insi	pections).	if available:	
2 0001.20 11000	2 (0 0)	gaage,e	omig tron, aona	p, p	, , , , , , , , , , , , , , , , , , ,	,,	avanabioi	
Remarks:								
	licators provided evi	dence of hvdi	rology.					

Project/Site: Newhall Ranch/Commerce Center Bridge		City/County	: Los Angele	es County Sa	mpling Date: <u>9/26/07</u>					
Applicant/Owner: Newhall Land and Farming Company				State: <u>CA</u> Sa	mpling Point: CC-3					
Investigator(s): <u>J. Love</u> , J. Kisner		Section, To	wnship, Rar	nge: San Francis Land Grant						
Landform (hillslope, terrace, etc.): Floodplain										
Subregion (LRR): Mediterranean California (LRR-C)										
				NWI classification						
Are climatic / hydrologic conditions on the site typical for this										
	-				ent? Yes 🏻 No 🗆					
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> sign	•			•						
Are Vegetation <u>no</u> , Soil <u>yes</u> , or Hydrology <u>no</u> na SUMMARY OF FINDINGS – Attach site map s	Are Vegetation no , Soil yes , or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydric Soil Present? Yes 🔲 No	o o of the Sant	with	e Sampled in a Wetlan er. The 200	d? Yes <u>⊠</u>						
VEGETATION										
	Absolute % Cover	Dominant Species?		Dominance Test workshe Number of Dominant Speci						
Populus fremontii	20	<u>орссісз :</u> Ү	FACW	That Are OBL, FACW, or F						
2. Salix lasiolepis	15	Y	FACW	Total Number of Dominant						
3. <u>Salix laevigata</u>	5	N	FACW+ ^a	Species Across All Strata	(B)					
Total Cover:	40			Percent of Dominant Speci That Are OBL, FACW, or F						
Sapling/Shrub Stratum				Prevalence Index worksh	,					
1. Populus fremontii	_20	<u>Y</u>	FACW	Total % Cover of:	Multiply by					
2. <u>Salix lasiolepis</u>		<u>Y</u>	FACW	OBL species 5						
3. <u>Baccharis salicifolia</u>		<u>N</u>	FACW ^a	FACW species 126						
4. <u>Salix exigua</u>		N	OBL	FAC species 0						
5. Artemisia tridentata		<u>N</u>	<u>NI</u>	FACU species 0						
6. <u>Salvia mellifera</u>		<u>N</u>	<u>NI</u>	UPL species 3						
Total Cover: Herb Stratum	42			Column Totals: 134	(A) <u>272</u> (B)					
1. Arundo donax	50	Υ	FACW	Prevalence Index = I	_ ` ' ` ' '					
Ambrosia acanthicarpa				Hydrophytic Vegetation I						
3. Distichlis spicata										
4.				Prevalence Index is ≤3						
5										
6				data in Remarks or on	a separate sheet)					
7				☐ Problematic Hydrophy	tic Vegetation ¹ (Explain)					
8										
Total Cover: Woody Vine Stratum				¹ Indicators of hydric soil an be present.	d wetland hydrology must					
1				l leadanna di a						
2Total Cover:				Hydrophytic Vegetation Present? Yes	No □					
% Bare Ground in Herb Stratum 30 % Cover	of Biotic C	rust	<u></u> _							
Remarks: SP is located in small depression/drainage. The vegetation	of SP CC-	3 most clos	ely correspo	onds to Cowardin's (1979) rip	parian scrub.					
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wet	tlands: 1996 N	ational Summa	ry. U.S. Fish and	d Wildlife Survey.						

SOIL Sampling Point: <u>CC-3</u>

Profile Desc	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confir	m the absence	e of indicators.)
Depth	Matrix			x Feature		. 2	_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR3/2	80 5	YR4/6	20	<u>C</u>	_M	silt loam	
6-16						-	fine sand	
	-							
							<u> </u>	
				<u> </u>				
¹ Type: C=C	oncentration, D=Dep	letion, RM=F	Reduced Matrix.	² Location	: PL=Por	e Lining, I	RC=Root Chan	nel, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless other	rwise not	ed.)		Indicators	s for Problematic Hydric Soils ³ :
☐ Histosol	I (A1)		Sandy Red	ox (S5)			□ 1 cm	Muck (A9) (LRR C)
☐ Histic E	pipedon (A2)		Stripped Ma	atrix (S6)				Muck (A10) (LRR B)
	istic (A3)		Loamy Muc	-	. ,			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gley		(F2)			Parent Material (TF2)
·	d Layers (A5) (LRR	C)	☐ Depleted M		(5 0)		Other	(Explain in Remarks)
	uck (A9) (LRR D)	- (044)	Redox Dark		. ,			
	d Below Dark Surfac ark Surface (A12)	e (A11)	☐ Depleted D☐ Redox Dep		` '			
	Mucky Mineral (S1)		☐ Vernal Poo		го)		3Indicators	of hydrophytic vegetation and
	Gleyed Matrix (S4)		vernari oo	3 (1 3)				hydrology must be present.
-	Layer (if present):							у,
	, , , ,							
Depth (in	ches):						Hydric Soil	I Present? Yes ⊠ No □
Remarks:	,							
Hydric soils	are present due to pi	resence of re	dox concentrations	or iron m	ottles Du	e to the "r	neutral" charact	teristics of sandy soils, sandy alluvial land
	ic and often consider						Tourist official	concenses of carray cone, carray anarramana
HYDROLO	GY							
Wetland Hy	drology Indicators:						Seco	ndary Indicators (2 or more required)
Primary Indi	cators (any one indic	ator is suffici	ent)				D_ v	Water Marks (B1) (Riverine)
☐ Surface	Water (A1)		☐ Salt Crust	(B11)			<u></u>	Sediment Deposits (B2) (Riverine)
☐ High Wa	ater Table (A2)		☐ Biotic Crus	st (B12)				Orift Deposits (B3) (Riverine)
☐ Saturati			Aquatic In		s (B13)			Orainage Patterns (B10)
	Marks (B1) (Nonriver	ine)	Hydrogen		. ,			Dry-Season Water Table (C2)
·	nt Deposits (B2) (No	•			. ,	Livina Ro		Γhin Muck Surface (C7)
	posits (B3) (Nonrive	•	Presence	•	_	-		Crayfish Burrows (C8)
	Soil Cracks (B6)	-,	Recent Iro		,	•		Saturation Visible on Aerial Imagery (C9)
	ion Visible on Aerial I	magery (B7)						Shallow Aquitard (D3)
	Stained Leaves (B9)	-3-7()			,			FAC-Neutral Test (D5)
Field Obser	. ,							
Surface Wat	er Present? Y	es □ N	o 🔲 Depth (in	ches):				
Water Table			o <u>⊠</u> Depth (in					
Saturation P		· · · · · · · · · · · · · · · · · · ·	o <u> </u>				land Hydrolog	y Present? Yes 🗵 No 🔲
	pillary fringe)	62 <u> </u>	Deptif (iii	cries)		_ wei	ianu nyurolog	y Fresent: Tes No II
Describe Re	corded Data (stream	gauge, mon	itoring well, aerial	ohotos, pr	evious ins	pections)	, if available:	
Remarks:								
Secondary in	ndicators provided ev	idence of hy	drology.					

Project/Site: Newhall Ranch/Commerce Center Bridge		City/County:	Los Angel	es County	Sampling Date: 9/26/07
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: CC-4
Investigator(s): E. Larsen, W. Vogler	:	Section, To	wnship, Rar	nge: <u>San Francis Land Gr</u>	ant
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, c	convex, none): none	Slope (%): <u>5</u>
Subregion (LRR): Mediterranean California (LRR-C)	_ Lat: <u>6376</u>	6115.95301	00	Long: <u>1980069.5899200</u>	Datum: NAD83
Soil Map Unit Name: Sandy Alluvial Land				NWI classifica	ation: PSS6
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes[No	[] (If no, explain in Re	emarks.)
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si	gnificantly	disturbed?	Are "	Normal Circumstances" pr	resent? Yes 🗵 No 🔲
Are Vegetation no , Soil yes , or Hydrology no na	aturally pro	blematic?	(If ne	eded, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	sampling	g point lo	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP CC-4 characterizes the floodplain on the southern side precipitation.		with	e Sampled in a Wetlan er. The 200	d? Yes <u>⊠</u>	No In abnormally low amount of
VEGETATION					
	% Cover	Dominant Species?	Status	Dominance Test works Number of Dominant Sp That Are OBL, FACW, o	pecies
2				Total Number of Domina Species Across All Strat	ant
3				Percent of Dominant Sp	
Total Cover:				That Are OBL, FACW, or Prevalence Index work	,
Sapling/Shrub Stratum				Total % Cover of:	Multiply by
1. Arundo donax				OBL species 40	x 1 = 40
2. <u>Salix exigua</u>		<u>Y</u>		FACW species	x 2 = <u>140</u>
3				FAC species 0	x 3 =0
4				FACU species0	x 4 =0
Total Cover:	100			UPL species 0	x 5 = <u>0</u>
Herb Stratum				Column Totals: 110	(A)180 (B)
1				Prevalence Index	= B/A = <u>1.64</u>
2				Hydrophytic Vegetatio	n Indicators:
3				□ Dominance Test is a limit of the second control of the	>50%
4				□ Prevalence Index is	
5				Morphological Adap	otations ¹ (Provide supporting on a separate sheet)
6					ohytic Vegetation ¹ (Explain)
7				Troblematic Hydrop	onytic vegetation (Explain)
8				¹ Indicators of hydric soil	and wetland hydrology must
Total Cover:				be present.	, , , , , , , , , , , , , , , , , , , ,
1					
2Total Cover:				Hydrophytic Vegetation Present? Yes	s_⊠_ No_
% Bare Ground in Herb Stratum % Cover	of Biotic C	rust 0		100	
Remarks:	Diolio O				
The vegetation of SP CC-4 most closely corresponds to Colleaf litter with some woody debris.	owardin's (1	1979) riparia	ın scrub. Th	e ground was 100 percen	nt covered, consisting of mostly

SOIL Sampling Point: <u>CC-4</u>

Depth			oth necaea to aoca		iiaioatoi	or comm	m the absence	or indicators.)			
_ op	Matrix			x Feature							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-6	10YR4/3	95+	5YR5/4	<5	<u>C</u>	_M	silt/loam	organic flakes 25%			
6-20	10YR5/4		n/a	n/a	n/a	n/a	sand/loam				
		-		_							
						-					
		-									
	·										
	· · ·										
¹ Type: C=C	concentration, D=Dep	letion, RM	=Reduced Matrix.	² Location	: PL=Por	e Lining,	RC=Root Chan				
Hydric Soil	Indicators: (Application	able to al	LRRs, unless othe	rwise not	ed.)		Indicators	for Problematic Hydric Soils ³ :			
Histoso	` '		Sandy Red Sandy R					Muck (A9) (LRR C)			
	pipedon (A2)		Stripped M					Muck (A10) (LRR B)			
Black H	` '		Loamy Mu	-	. ,			ced Vertic (F18)			
	en Sulfide (A4) ed Layers (A5) (LRR (C)	Loamy Gle	-	(F2)			Parent Material (TF2) (Explain in Remarks)			
	uck (A9) (LRR D)	()	☐ Depleted M☐ Redox Dar		(F6)		<u>⊠</u> Other	(Explain in Remarks)			
	ed Below Dark Surface	e (A11)	☐ Depleted D		` '						
	ark Surface (A12)	- (/	☐ Redox Dep		` ,						
	Mucky Mineral (S1)		☐ Vernal Poo		,		³ Indicators	of hydrophytic vegetation and			
☐ Sandy (Gleyed Matrix (S4)						wetland h	ydrology must be present.			
Restrictive	Layer (if present):										
Type:											
Depth (in	nches):						Hydric Soi	Present? Yes 🔀 No 🔲			
Remarks:											
						Due to the	ne "neutral" cha	racteristics of sandy soils, sandy alluvial			
land is probi	ematic and often con	isiaerea to	be nyaric under floo	aea conai	'IONE						
HYDROLO											
DIXOLO)GY										
Wotland Hy							Soco	ndany Indicators (2 or more required)			
_	drology Indicators:		(initial)					ndary Indicators (2 or more required)			
Primary Indi	drology Indicators:		<u> </u>				<u>N</u> _ V	Vater Marks (B1) (Riverine)			
Primary Indi	rdrology Indicators: cators (any one indicate Water (A1)		☐ Salt Crus	t (B11)	ions.		⊠ V ⊠ \$	Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)			
Primary Indi	rdrology Indicators: cators (any one indicate Water (A1) ater Table (A2)		☐ Salt Crus	t (B11)			⊠ V ⊠ S □_ [Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)			
Primary Indi Surface High Wa	rdrology Indicators: cators (any one indicated water (A1) ater Table (A2) ion (A3)	ator is suf	Salt Crus Biotic Cru Aquatic Ir	t (B11) ist (B12) ivertebrate	es (B13)		\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)			
Primary Indi Surface High Wi Saturati Water M	rdrology Indicators: cators (any one indicated Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveri	ator is suf	Salt Crus Biotic Cru Aquatic Ir Hydrogen	t (B11) est (B12) evertebrate Sulfide O	es (B13) dor (C1)	Living Po		Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2)			
Primary Indi Surface High Water Mater Mate	rdrology Indicators: cators (any one indicated water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveriant Deposits (B2) (Non	ator is suf ine) nriverine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized	t (B11) est (B12) nvertebrate s Sulfide O Rhizosphe	es (B13) dor (C1) res along	_		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)			
Primary Indi Surface High Wi Saturati Water M Sedime Drift De	rdrology Indicators: cators (any one indicate Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriverience)	ator is suf ine) nriverine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence	t (B11) Ist (B12) Invertebrate I Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4	1)		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)			
Primary Indi Surface High Water N Sedime Drift De Surface	rdrology Indicators: cators (any one indicated water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriveries Soil Cracks (B6)	ator is suf ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	t (B11) st (B12) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) dor (C1) ires along ed Iron (C4 on in Plov	1)		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Primary Indi Surface High Water Mater Mat	rdrology Indicators: cators (any one indicated water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriveries Soil Cracks (B6) ion Visible on Aerial I	ator is suf ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	t (B11) st (B12) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) dor (C1) ires along ed Iron (C4 on in Plov	1)		Water Marks (B1) (Riverine) Gediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Orayfish Burrows (C8) Gaturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)			
Primary Indi Surface High Water Mater Surface Inundat Water-S	rdrology Indicators: cators (any one indicated water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriveries Soil Cracks (B6) ion Visible on Aerial Instanced Leaves (B9)	ator is suf ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	t (B11) st (B12) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) dor (C1) ires along ed Iron (C4 on in Plov	1)		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriveries) Soil Cracks (B6) ion Visible on Aerial Instance Leaves (B9) rvations:	ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire S7) Other (Ex	t (B11) ast (B12) avertebrate a Sulfide O Rhizosphe of Reduct on Reduct plain in Re	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils		Water Marks (B1) (Riverine) Gediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Orayfish Burrows (C8) Gaturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriveries) Soil Cracks (B6) ion Visible on Aerial Instance Leaves (B9) rvations: ter Present?	ine) nriverine) rine) magery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Cother (Ex	t (B11) st (B12) evertebrate Sulfide O Rhizosphe of Reduct on Reduct plain in Re	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) yed Soils		Water Marks (B1) (Riverine) Gediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Orayfish Burrows (C8) Gaturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Wat Water Table	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveriant Deposits (B2) (Nonriveriant Deposits (B6)) posits (B3) (Nonriveriant Deposits (B6)) ion Visible on Aerial Instained Leaves (B9) rvations: ter Present? Yes	ine) nriverine) magery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Other (Ex	t (B11) ust (B12) uvertebrate u Sulfide O Rhizosphe of Reduct on Reduct plain in Re unches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) yed Soils		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Wat Water Table Saturation F	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveriant Deposits (B2) (Nonriveriant Deposits (B3) (Nonriveriant Deposits (B6) ion Visible on Aerial Instained Leaves (B9) rvations: ter Present? Present? Yeseent? Yeseent? Yeseent? Yeseent? Yeseent?	ine) nriverine) magery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Cother (Ex	t (B11) ust (B12) uvertebrate u Sulfide O Rhizosphe of Reduct on Reduct plain in Re unches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) yed Soils		Water Marks (B1) (Riverine) Gediment Deposits (B2) (Riverine) Orift Deposits (B3) (Riverine) Orainage Patterns (B10) Ory-Season Water Table (C2) Thin Muck Surface (C7) Orayfish Burrows (C8) Gaturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriveriant Deposits (B2) (Nonriveriant Deposits (B6)) posits (B3) (Nonriveriant Deposits (B6)) ion Visible on Aerial Instained Leaves (B9) rvations: ter Present? Yes	ine) nriverine) magery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Other (Ex No Depth (ir No Depth (ir	t (B11) list (B12) livertebrate li Sulfide O Rhizosphe of Reduct on Reduct plain in Re inches): inches): inches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils Wet		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriverient Deposits (B6)) posits (B3) (Nonriverient Cracks (B6)) ion Visible on Aerial Instance Leaves (B9) rvations: ter Present? Present? Present? Vieresent?	ine) nriverine) magery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Other (Ex No Depth (ir No Depth (ir	t (B11) list (B12) livertebrate li Sulfide O Rhizosphe of Reduct on Reduct plain in Re inches): inches): inches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils Wet		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriverient Deposits (B6)) posits (B3) (Nonriverient Cracks (B6)) ion Visible on Aerial Instance Leaves (B9) rvations: ter Present? Present? Present? Vieresent?	ine) nriverine) magery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Other (Ex No Depth (ir No Depth (ir	t (B11) list (B12) livertebrate li Sulfide O Rhizosphe of Reduct on Reduct plain in Re inches): inches): inches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils Wet		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			
Primary Indi Surface High Wi Saturati Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicators: cators (any one indicators) Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriverient Deposits (B6)) posits (B3) (Nonriverient Cracks (B6)) ion Visible on Aerial Instance Leaves (B9) rvations: ter Present? Present? Present? Vieresent?	ine) nriverine) magery (E	Salt Crust Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Other (Ex No Depth (ir No Depth (ir No Depth (ir onitoring well, aerial	t (B11) list (B12) livertebrate li Sulfide O Rhizosphe of Reduct on Reduct plain in Re inches): inches): inches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils Wet		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			
Primary Indi Surface High Wi Saturati Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	rdrology Indicators: cators (any one indicated water (A1) atter Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriverient Deposits (B3) (Nonriverient Deposits (B3) (Nonriverient Deposits (B3) (Nonriverient Deposits (B3) (Nonriverient Deposits (B4) (Nonriverient Depos	ine) nriverine) magery (E	Salt Crust Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Other (Ex No Depth (ir No Depth (ir No Depth (ir onitoring well, aerial	t (B11) list (B12) livertebrate li Sulfide O Rhizosphe of Reduct on Reduct plain in Re inches): inches): inches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils Wet		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			
Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation P (includes ca Describe Re	rdrology Indicators: cators (any one indicated water (A1) atter Table (A2) ion (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriverient Deposits (B3) (Nonriverient Deposits (B3) (Nonriverient Deposits (B3) (Nonriverient Deposits (B3) (Nonriverient Deposits (B4) (Nonriverient Depos	ine) nriverine) magery (E	Salt Crust Biotic Cru Aquatic Ir Hydrogen Coxidized Presence Recent Ir Other (Ex No Depth (ir No Depth (ir No Depth (ir onitoring well, aerial	t (B11) list (B12) livertebrate li Sulfide O Rhizosphe of Reduct on Reduct plain in Re inches): inches): inches):	es (B13) dor (C1) res along ed Iron (C4 on in Plov emarks)	t) ved Soils Wet		Vater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Drayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)			

Project/Site: Newhall Ranch/Commerce Center Bridge		City/County	: Los Angel	es County	Sampling	Date: <u>9/26/07</u>
Applicant/Owner: Newhall Land and Farming Company				State: CA	Sampling [Point: CC-5
Investigator(s): <u>J. Love, J. Kisner</u>		Section, To	wnship, Raı	nge: <u>San Francis Land</u>	Grant	
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, o	convex, none): none		Slope (%): <u>5</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6376	6253.16963	00	Long: <u>1979866.4310</u> 2	200	Datum: NAD83
Soil Map Unit Name: Sandy Alluvial Land				NWI classi	fication: PSS6	6
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	⊠ No	☐ (If no, explain in	Remarks.)	
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si	gnificantly	disturbed?	Are "	Normal Circumstances	" present? Y	es 🔲 No 🔲
Are Vegetation no , Soil yes , or Hydrology no no	aturally pro	blematic?	(If ne	eded, explain any ansv	vers in Remar	·ks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point le	ocations, transec	ts, importa	int features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ☑ No Yes ☑ No Remarks:			e Sampled in a Wetlar		⊠ No	
SP CC-5 characterizes the floodplain on the southern side precipitation.	of the San	ta Clara Riv	er. The 200	6-2007 rain season had	d an abnorma	lly low amount of
VEGETATION						
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?		Dominance Test wo Number of Dominant		
1. Populus fremontii	70	Y		That Are OBL, FACW		(A)
2	· 			Total Number of Dom Species Across All St		(B)
4				Percent of Dominant That Are OBL, FACW		100%(A/B)
Total Cover: Sapling/Shrub Stratum	: _70			Prevalence Index we	orksheet:	
1				Total % Cover of:		Multiply by
2.				OBL species 0		x 1 = <u>0</u>
3				FACW species 16		x 2 = <u>320</u>
4				FAC species 0		x 3 = <u>0</u>
5				UPL species 0		$x 4 = \underline{0}$ $x 5 = \underline{0}$
Total Cover:	:			Column Totals: 16		320 (B)
1. <u>Arundo donax</u>	90	Υ	FACW	Prevalence Ind		
2				Hydrophytic Vegeta		
3.						
4				□ Prevalence Index		
5				☐ Morphological A	daptations ¹ (P	rovide supporting
6				data in Remarks	•	•
7				☐ Problematic Hyd	rophytic Vege	tation' (Explain)
8				¹ Indicators of budgies	sail and watlar	ad budralagu muat
Woody Vine Stratum Total Cover:				¹ Indicators of hydric s be present.	oii and wetiar	na nyarology must
1				Usalance be at a		
Z				Hydrophytic Vegetation		
Total Cover:				Present?	∕es <u>⊠</u>	No
% Bare Ground in Herb Stratum 5 % Cover Remarks:	of Biotic C	rust				
The vegetation of SP CC-4 most closely corresponds to Co	nwardin'e (1979) rinari:	an scruh			
The regulation of the open most diosely corresponds to ob	Swaraii 3 (.o.o, npane	oorub.			

US Army Corps of Engineers

SOIL Sampling Point: <u>CC-5</u>

Depth	Matrix	o une aep	needed to docui	x Features		or commen	n une absei	nice of mulcators.)		
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture	e Remarks		
0-16	10YR3/2	98					silt loam			
0-4										
				<u> </u>						
-			-	-						
						-				
				· ——			-			
						-				
17			Darker d Matrix	21 1'				harried NA Markin		
	ncentration, D=Deplementation, D=Deplement					e Lining, F		hannel, M=Matrix. cors for Problematic Hydric Soils³:		
☐ Histosol			☐ Sandy Red		,			cm Muck (A9) (LRR C)		
Histic Ep	` '		Stripped M					cm Muck (A10) (LRR B)		
☐ Black Hi	, ,		Loamy Mud	-	. ,			educed Vertic (F18)		
	n Sulfide (A4) d Layers (A5) (LRR C	`	☐ Loamy Gleg ☐ Depleted M		(F2)			ed Parent Material (TF2) her (Explain in Remarks)		
	ick (A9) (LRR D))	Redox Darl	` ,	F6)		<u> </u>	nei (Explain in Nemarks)		
	d Below Dark Surface	(A11)	Depleted D	`	,					
_	ark Surface (A12)		Redox Dep		- 8)		3			
	flucky Mineral (S1) Gleyed Matrix (S4)		☐ Vernal Poo	ls (F9)				tors of hydrophytic vegetation and and hydrology must be present.		
	_ayer (if present):						Wellan	ia nyarology must be present.		
	, , ,									
Depth (inc	ches):						Hydric S	Soil Present? Yes 🔀 No 🔲		
Remarks:										
Hydric soils a	are present due the p	resence c	f redox concentration	ns or iron n	nottles. D	ue to the "	'neutral" cha	aracteristics of sandy soils, sandy alluvial		
land is proble	ematic and often cons	idered to	be hydric under floo	ded conditi	ons.					
HYDROLO	GV									
	drology Indicators:							accordent Indicators (2 or more required)		
	arology indicators: ators (any one indica	tor is suff	icient)					econdary Indicators (2 or more required)		
☐ Surface	· · ·	itor is suii	☐ Salt Crust	(B11)			Water Marks (B1) (Riverine) ✓ Sediment Deposits (B2) (Riverine)			
	iter Table (A2)		☐ Biotic Cru				Sediment Deposits (B2) (Riverine)Drift Deposits (B3) (Riverine)			
☐ Saturation	` '		Aquatic In	` ,	s (B13)		☐ Drainage Patterns (B10)			
	arks (B1) (Nonriveri	ne)	Hydrogen	Sulfide Od	dor (C1)			Dry-Season Water Table (C2)		
	nt Deposits (B2) (Non				_	_	ots (C3)	Thin Muck Surface (C7)		
	oosits (B3) (Nonriver	ine)	Presence					Crayfish Burrows (C8)		
·	Soil Cracks (B6)	oogon/(P	☐ Recent Ird 7) ☐ Other (Ex			ed Soils ((C6) <u></u>	Saturation Visible on Aerial Imagery (C9)		
	on Visible on Aerial Ir tained Leaves (B9)	nagery (b	(Ex	Jiaili ili Ke	iliaiks)		<u></u>	Shallow Aquitard (D3) FAC-Neutral Test (D5)		
Field Obser	. ,						<u></u>	T 1710 Neutral Test (Bb)		
Surface Wate	er Present? Ye	s 🔲	No 🔲 Depth (in	iches):						
Water Table	Present? Ye	s 🔲	No 🔲 Depth (in	ches):						
Saturation Pr		s 🔲	No 🔲 Depth (in	iches):		Wetl	land Hydro	logy Present? Yes 🗵 No 🔲		
(includes cap	oillary fringe) corded Data (stream	nauna m	onitoring well serial	nhotos nre	vious ins	nections)	if available			
Peroning IVE	טייסים במומ (אויפמוווי	gaugu, III	otornig won, acrial	priotos, pie	, 110uo 1115	poolioi ia),	avaliable	•		
Remarks:										
	dicators provided evi	dence of	hydrology.							
•										

Project/Site: Newhall Ranch/Commerce Center Bridge	City/0	County: Los Angele	es County	Sampling Date: <u>9/26/07</u>
Applicant/Owner: Newhall Land and Farming Company				
Investigator(s): E. Larsen, W. Vogler				· -
Landform (hillslope, terrace, etc.): Floodplain				
Subregion (LRR): Mediterranean California (LRR-C)				
Soil Map Unit Name: Sandy Alluvial Land				
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> si	-			s" present? Yes 🔲 No 🔲
Are Vegetation <u>no</u> , Soil <u>yes</u> , or Hydrology <u>no</u> no SUMMARY OF FINDINGS – Attach site map s			eded, explain any ans	
Attach site map t	Jilowing Jai			is, important reatures, etc.
Hydrophytic Vegetation Present? Yes 🗵 No		Is the Sampled	Area	
Hydric Soil Present? Yes No.		within a Wetlan	d? Yes	No □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Wetland Hydrology Present? Yes No	<u> </u>			,
Remarks:	of the Conta Cl	oro Divor Cimilar t	a compling point CC 7	in vegetation and CC E in sails
SP CC-6 characterizes the floodplain on the southern side The 2006-2007 rain season had an abnormally low amoun			o sampling point CC-7	in vegetation and CC-5 in soils.
,				
VEGETATION				
VEGETATION	Absolute Dor	ninant Indicator	Dominance Test wo	orkshoot:
Tree Stratum (Use scientific names.)	% Cover Spe		Number of Dominant	
1. Populus fremontii	20 Y	FACW	That Are OBL, FACV	V, or FAC: <u>3</u> (A)
2			Total Number of Dor Species Across All S	
3			Percent of Dominant	
4			That Are OBL, FACV	•
Total Cover: Sapling/Shrub Stratum	20		Prevalence Index w	orksheet:
1. Baccharis salicifolia	20 Y	FACW ^a	Total % Cover of:	Multiply by
Daccrians salicitoria Artemisia californica		NI	OBL species 0	x 1 = <u>0</u>
3. Nicotiana glauca		FAC	FACW species <u>6</u>	<u>0</u> x 2 = <u>120</u>
4. Eriodictyon crassifolium			·	x 3 = <u>15</u>
			FACU species <u>0</u>	
Total Cover:	40		· · ·	<u>5</u> x 5 = <u>75</u>
Herb Stratum			Column Totals: 8	
1. Arundo donax				dex = B/A =2.6
2			Hydrophytic Vegeta	
3			□ Dominance Test □ Drawalance Index □ Drawalance In	
4			☐ Prevalence Inde	daptations¹ (Provide supporting
6.				s or on a separate sheet)
7.			☐ Problematic Hyd	drophytic Vegetation ¹ (Explain)
8.				
Total Cover:				soil and wetland hydrology must
Woody Vine Stratum			be present.	
1				
2			Hydrophytic Vegetation	
Total Cover:	·			Yes 🔲 No 🔲
	of Biotic Crust			
Remarks:		National distribution		
The vegetation of SP CC-6 most closely corresponds to Co	owardin's (1979)) riparian scrub.		
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in We	tlands: 1996 Nationa	I Summary. U.S. Fish an	d Wildlife Survey.	

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SOIL Sampling Point: <u>CC-6</u>

Profile Des	cription: (Describe	to the dept	th needed to docui	ment the	indicator	or confir	m the absence of	indicators.)
Depth	Matrix			x Feature			<u>. </u>	
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-6	10YR3/2	98					silt loam	
6-20			5YR4/6	2	<u>C</u>	M		
	_	·			-			
						-		
				_				
				_				
	oncentration, D=Dep					e Lining,		
Hydric Soil	Indicators: (Application	able to all	LRRs, unless othe	rwise no	ted.)		Indicators for	Problematic Hydric Soils ³ :
☐ Histoso	` '		Sandy Red					k (A9) (LRR C)
	pipedon (A2)		Stripped M					k (A10) (LRR B)
Black H	` '		Loamy Muc	-			Reduced	
	en Sulfide (A4) d Layers (A5) (LRR (~)	☐ Loamy Gleg ☐ Depleted M	-				nt Material (TF2) plain in Remarks)
l ——	uck (A9) (LRR D)	•)	Redox Darl				<u>⊠</u> Other (Ex	piairi ir Kemarks)
	ed Below Dark Surface	e (A11)	Depleted D		` '			
	ark Surface (A12)	- (Redox Dep		. ,			
☐ Sandy I	Mucky Mineral (S1)		☐ Vernal Poo	ls (F9)	. ,		³ Indicators of h	nydrophytic vegetation and
	Gleyed Matrix (S4)						wetland hydro	ology must be present.
	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pre	esent? Yes 🔲 No 🔲
Remarks:								
						Due to t	he "neutral" charact	eristics of sandy soils, sandy alluvial
iand is probi	ematic and often con	sidered to t	be nyaric under 1100	aea cona	tions.			
HYDROLO)GY							
	drology Indicators:						Seconda	ry Indicators (2 or more required)
_	cators (any one indicators	ator is suffic	cient)				<u></u>	er Marks (B1) (Riverine)
☐ Surface			Salt Crust	(B11)				ment Deposits (B2) (Riverine)
	ater Table (A2)		☐ Biotic Cru					Deposits (B3) (Riverine)
☐ Saturati			☐ Aquatic In		es (B13)			nage Patterns (B10)
	Marks (B1) (Nonriver i	ine)	☐ Hydrogen		` ,			Season Water Table (C2)
·	nt Deposits (B2) (Noi	•				Livina Ro	-	Muck Surface (C7)
, ———·	posits (B3) (Nonriver	•	Presence	•	•	-	· · · _	fish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro					ration Visible on Aerial Imagery (C9)
	ion Visible on Aerial I	magery (B7						low Aquitard (D3)
	Stained Leaves (B9)	3 , (,		,			-Neutral Test (D5)
Field Obser	rvations:							
Surface Wat	ter Present? Y	es <u> </u>	No 🔲 Depth (in	nches):				
Water Table			No 🔲 Depth (in					
Saturation P			No 🔲 Depth (in				land Hydrology P	resent? Yes 🗵 No 🔲
(includes ca	pillary fringe)							
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aerial	pnotos, p	revious ins	pections)	, if available:	
Develop								
Remarks:	adiantam massida d	dalama Cl						
Secondary II	ndicators provided ev	riaence of h	yarology.					

Project/Site: Newhall Ranch/Commerce Center Bridge	(City/County:	Los Angele	es County	Sampling Date: 9/26/07
licant/Owner: Newhall Land and Farming Company				State: CA	Sampling Point: CC-7
nvestigator(s): E. Larsen, W. Vogler Section, Township, Range: San Francis Land Grant					
Landform (hillslope, terrace, etc.): Hillslope		Local relief	(concave, c	convex, none): convex	Slope (%): <u>45</u>
Subregion (LRR): Mediterranean California (LRR-C)	Lat: 6364	1920.419500	00	Long: <u>1974289.06056</u>	Datum: NAD83
Soil Map Unit Name: Sandy Alluvial Land					
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation <u>no</u> , Soil <u>no</u> , or Hydrology <u>no</u> signature.					resent? Yes 🔲 No 🔲
Are Vegetation no , Soil yes , or Hydrology no na	aturally pro	blematic?	(If ne	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	sampling	g point lo	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes ⊠ No	. П				
Hydric Soil Present? Yes No			e Sampled in a Wetlan		No. ⊠
Wetland Hydrology Present? Yes No	<u> </u>	With	ii a vveuaii	ur res	No <u> </u>
Remarks:					
SP CC-7 characterizes the beginning of the upland area on 2007 rain season had an abnormally low amount of precipit		ern side of tl	he Santa Cl	ara River. Similar in vege	tation to SP CC-6. The 2006-
2007 failt season flad all abhomiany low amount of precipit	iation.				
VEGETATION					
	Absolute	Dominant	Indicator	Dominance Test work	sheet:
		Species?		Number of Dominant Sp	pecies
1. Populus fremontii	20	<u>Y</u>	FACW	That Are OBL, FACW, o	or FAC: <u>3</u> (A)
2				Total Number of Domin Species Across All Stra	
3				Percent of Dominant Sp	
4				That Are OBL, FACW, of	
Total Cover: Sapling/Shrub Stratum	_20			Prevalence Index world	ksheet:
Baccharis salicifolia	20	V	FACW ^a	Total % Cover of:	Multiply by
Artemisia californica			NI	OBL species	
Nicotiana glauca				FACW species	x 2 =
4. Eriodictyon crassifolium				FAC species	
5.				FACU species	
Total Cover:	40			UPL species	x 5 =
Herb Stratum				Column Totals:	
1. <u>Arundo donax</u>					= B/A =
2				Hydrophytic Vegetation	
3				□ Dominance Test is □ Dominance Test is	
4				Prevalence Index is	s ≤3.0 ptations¹ (Provide supporting
5 6					on a separate sheet)
7				Problematic Hydro	phytic Vegetation ¹ (Explain)
8.					
Total Cover:					I and wetland hydrology must
Woody Vine Stratum				be present.	
1					
2				Hydrophytic Vegetation	
Total Cover:					s <u>No </u>
	of Biotic C	rust			
Remarks:					
The vegetation of SP CC-7 most closely corresponds to Cowardin's (1979) riparian scrub; however this SP was at the bottom edge of a hill dominated by coastal sage scrub.					
^a Kartesz, J.T. 1996. National List of Vascular Plant Species that Occur in Wet	tlands: 1996 N	ational Summar	y. U.S. Fish and	d Wildlife Survey.	

US Army Corps of Engineers

SOIL Sampling Point: <u>CC-7</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-6	10YR5/4	97	5YR5/6	3			silt loam		
6-20							silt loam		
-		-		-			-		
					· 				
									
1				2					
	oncentration, D=Dep					re Lining, R	C=Root Chann	-	
		able to al	LRRs, unless othe		ed.)			for Problematic Hydric Soils ³ :	
Histosol	` '		Sandy Red	. ,				Muck (A9) (LRR C)	
	pipedon (A2)		Stripped M		J (E4)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18)		
☐ Black Hi	, ,		Loamy Muc	-	. ,			, ,	
	n Sulfide (A4) d Layers (A5) (LRR (C)	☐ Loamy Gle☐ Depleted M		((FZ)			arent Material (TF2) (Explain in Remarks)	
	ick (A9) (LRR D)	C)	☐ Redox Darl	` ,	(F6)		☐ Other ((Explain in Nemarks)	
	d Below Dark Surfac	- (Δ11)	Depleted D		` '				
	ark Surface (A12)	(/ (/ ())	Redox Dep						
	fucky Mineral (S1)		☐ Vernal Poo		. 0)		3Indicators	of hydrophytic vegetation and	
-	Gleyed Matrix (S4)		<u></u>	. ()				drology must be present.	
	ayer (if present):						1	,	
Type:									
,, <u> </u>	ches):						Hydric Soil	Present? Yes □ No ⊠	
Remarks:							1.7		
	l indicatora wara pro	nont							
No flydlic soi	l indicators were pre	esent.							
HYDROLO	GY								
Wetland Hyd	drology Indicators:						Secon	dary Indicators (2 or more required)	
_	ators (any one indic		ficient)					/ater Marks (B1) (Riverine)	
		ator is sur		(D44)					
Surface Water (A1) Salt Crust (B11) Bigliot Water Table (A2)					ediment Deposits (B2) (Riverine)				
☐ High Water Table (A2) ☐ Biotic Crust (B12)					rift Deposits (B3) (Riverine)				
☐ Saturation (A3) ☐ Aquatic Invertebrates (B13)						rainage Patterns (B10)			
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2)									
☐ Sediment Deposits (B2) (Nonriverine) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Thin Muck Surface (C7)									
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)									
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9)									
	on Visible on Aerial I	Imagery (E	37) <u> </u>	olain in Re	emarks)			hallow Aquitard (D3)	
	tained Leaves (B9)						<u>□</u> F/	AC-Neutral Test (D5)	
Field Observ	vations:								
Surface Water	er Present? Y	'es <u> </u>	No Depth (ir	iches):					
Water Table	Present? Y	es	No 🗵 Depth (in	ches):					
Saturation Present? Yes No Depth (inches):			Wetla	and Hydrology	/ Present? Yes 🔲 No 🗵				
(includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									
No evidence of hydrology was observed.									

APPENDIX B LIST OF ON-SITE PLANT SPECIES AND THEIR WETLAND INDICATOR STATUS

LIST OF PLANT SPECIES THAT WERE OBSERVED WITHIN THE STUDY AREAS AND THEIR WETLAND INDICATOR STATUS

Scientific Name	Common Name	Wetland Indicator Status ³
Agrostis viridis#	Water Bent Grass	OBL
Ambrosia acanthicarpa	Annual Burweed	NI
Ambrosia psilostachya var. californica	Western Ragweed	FAC
Apium graveolens#	Wild Celery	FACW*
Artemisia californica	California Sagebrush	NI
Artemisia douglasiana	Mugwort	FACW
Artemisia tridentata	Big Sagebrush	NI
Arundo donax#,1	Giant Reed	FACW
Aster subulatus var. ligulatus	Slender Aster	FACW
Baccharis pilularis	Coyote Brush	NI
Baccharis salicifolia	Mulefat	FACW ⁴
Bassia hyssopifolia#,1	Five-hook Bassia	FAC
Brassica nigra#,1	Black Mustard	NI
Brassica spp.#,1	Mustard	NI
Bromus diandrus#,1	Ripgut Brome	NI
Chenopodium album#	White Goosefoot	FAC
Conium maculatum#.1	Poison Hemlock	FACW
Conyza bonariensis#	South American Horseweed	NI
Conyza canadensis	Horseweed	FAC
Cynodon dactylon#,1	Bermuda Grass	FAC
Cyperus eragrostis	Flatsedge	FACW
Cyperus erythrorhizos	Redroot Flatsedge	OBL
Cyperus involucratus#	Umbrella Plant	OBL
Dactyloctenium aegyptium#	Crowfoot Grass	NI
Distichlis spicata	Saltgrass	FACW
Echinochloa crus-galli#	Barnyard Grass	FACW
Eleocharis macrostachya	Common Spikerush	OBL
Eleusine indica#	Goose Grass	FACU
Epilobium ciliatum	Willow Herb	FACW
Eriodictyon crassifolium	Yerba Santa	NI
Euthamia occidentalis	Western Goldenrod	OBL
Heliotropium curassavicum	Alkali Heliotrope	OBL
Heterotheca grandiflora	Telegraph Weed	NI
Juncus torreyi	Torrey's Rush	FACW+

LIST OF PLANT SPECIES THAT WERE OBSERVED WITHIN THE STUDY AREAS AND THEIR WETLAND INDICATOR STATUS (CONTINUED)

Scientific Name	Common Name	Wetland Indicator Status ³
Juncus xiphioides	Iris-leaved Rush	OBL
Leptochloa uninervia	Mexican Sprangletop	FACW
Leymus triticoides	Alkali Ryegrass	FAC+
Ludwigia peploides	Floating Water Primrose	OBL
Malvella leprosa	Alkali Mallow	FAC*
Melilotus alba#	White Sweetclover	FACU+
Nicotiana glauca#,1	Tree Tobacco	FAC
Oenothera elata	Hooker's Evening Primrose	FACW
Phalaris aquatica#,1	Harding Grass	FAC+
Pluchea sericea	Arrowweed	FACW
Poa annua#	Annual Bluegrass	FACW-
Poa spp.	Bluegrass	
Polygonum arenastrum#	Common Knotweed	FAC
Polygonum lapathifolium	Willow Weed	OBL
Polypogon monspeliensis#,1	Rabbitsfoot Grass	FACW+
Populus fremontii	Fremont Cottonwood	FACW
Rosa californica	California Rose	FAC+
Rumex spp.#	Dock	
Salix exigua	Narrowleaf Willow	OBL
Salix laevigata	Red Willow	FACW+4
Salix lasiolepis	Arroyo Willow	FACW
Salvia mellifera	Black Sage	NI
Sambucus mexicana	Blue Elderberry	FAC
Sonchus asper#,1	Prickly Sow-thistle	FAC
Sonchus spp.#	Sow-thistle	
Spergularia spp.	Sandspurry	
Tamarix aphylla#,1	Athel Tamarisk	FACW-
Tamarix spp.#,1	Tamarisk	FAC ⁵
<i>Trifolium</i> spp.#	Clover	
Typha angustifolia	Narrowleaf Cattail	OBL
Typha domingensis	Southern Cattail	OBL
Typha latifolia	Cattail	OBL
Typha spp.	Cattail	OBL ⁶

LIST OF PLANT SPECIES THAT WERE OBSERVED WITHIN THE STUDY AREAS AND THEIR WETLAND INDICATOR STATUS (CONTINUED)

Scientific Name	Common Name	Wetland Indicator Status ³
Urtica dioica	Stinging Nettle	FACW
Veronica anagallis-aquatica#	Water Speedwell	OBL
Washingtonia robusta ^{2,1}	Fan Palm	NI
Xanthium strumarium	Cocklebur	FAC+
Zea mays²	Corn	NI

Notes:

- # Non-native (Hickman 1993)
- ¹ Invasive (California Invasive Plant Council 2007)
- ² Non-native (Calflora 2007)
- ³ As described in Reed, 1988 unless otherwise noted
- 4 Kartesz 1996
- Wetland indicator status was assumed FAC for all *Tamarix* species that were not identified to species. *Tamarix* species found in California have indicators of at least FAC.
- 6 Wetland indicator status was assumed OBL for all *Typha* species that were not identified to species. *Typha* species found in California have indicators of at least OBL.

Wetland Indicator Status Key

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

FACW = Facultative Wetland species, usually occur in wetlands (67 to 99% probability), but occasionally found in non-wetlands.

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

FACU = Facultative Upland, usually occur in non-wetlands (67% to 99%), but occasionally found in wetlands.

UPL = Obligate Upland species, occur almost always in non-wetlands (>99% probability).

NI = Non Indicator, not present on list.

- + = Modifier that indicates a frequency toward the higher end of the category (more frequently found in wetlands).
- = Modifier that indicates a frequency toward the lower end of the category (less frequently found in wetlands).
- * = A tentative assignment to that indicator status by Reed, 1988.

APPENDIX C PHOTO DOCUMENTATION



Photo 1. Viewing west along the Santa Clara River, featuring the main channel and riparian scrub vegetation. Wetlands occur adjacent to the river and riparian scrub vegetation is visible in the background. This photo was taken on September 26, 2007 (CC-1).



Photo 2. A mix of hydrophytic vegetation is displayed consisting of narrowleaf willow, red willow, western goldenrod, and cattail. This vegetation arrangement is representative of the on-site riparian scrub wetlands. This photo was taken on September 25, 2007 (PC-13).



Photo 3. A view of a representative on-site mature riparian forest. This photo was taken on September 26, 2007 (PC-2).



Photo 4. A view of redox features that occurred in sandy soils in a riverwash land form adjacent to the Santa Clara River. This photo was taken on September 26, 2007 (CC-3).



Photo 5. A view of a depleted matrix that occurred in a sandy alluvial land form within a mature riparian forest wetland. This photo was taken on September 26, 2007 (PC-2).



Photo 6. A view of a high water table present within sandy soils. This photo was taken on September 26, 2007 (PC-6).



Photo 7. A view of a soil pit in a typical upland habitat. Hydric soils and hydrology indicators were absent. This photo was taken on September 28, 2007 (LC-7).



Photo 8. A view of wetland hydrology indicators including soil cracking, crust, and sediment deposits. This photo was taken on September 25, 2007 (PC-15).

APPENDIX D URS CORPORATION (2004) JURISDICTION DELINEATION FOR THE RMDP SITE

Under separate cover.

APPENDIX E LUKOS AND ASSOCIATES (2008) JURISDICTION DELINEATION FOR THE ENTRADA PLANNING AREA

Under separate cover.