September 14, 2022

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Subject: Draft Aquatic Resources Delineation for the 101 Garden Street Project in the City of Santa Barbara, California

Dear Mr. Gilbert and Ms. Mauceri:

This letter report (report) summarizes the methods and results of a formal aquatic resources delineation completed for the 101 Garden Street Project (Project) located in the City of Santa Barbara. The aquatic resources delineation focused on the previously identified ditch feature described in the previous biological studies (SAIC 2007 and Dudek 2018). Additionally, Dudek conducted field surveys of the entire Project site for aquatic features that could be considered jurisdictional to the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), the California Coastal Commission (CCC), and the City of Santa Barbara under their Local Coastal Program (City 2019). An initial field survey was conducted in January 2019, and a follow-up survey was conducted in March 2022, to verify and update the findings of the 2019 survey.

1 Introduction

1.1 Project Location and Survey Area

The Project is located at 101 Garden Street in the City of Santa Barbara (City), California, and encompasses Assessor's Parcel Numbers (APN) 017-630-018, 017-630-008, 017-630-027, 017-630-024, 017-630-009, and 017-630-021. The site is bordered by Garden Street to the north and east, by Yanonali Street and Santa Barbara Street to the west, and the Union Pacific Railroad right-of-way to the south (Attachment A, Figure 1). The aquatic resources delineation study area (study area) includes the APNs identified above. Connectivity with adjacent jurisdictional waterways was assessed during the wetland delineation based on publicly available resources including aerial photography and City of Santa Barbara Laguna Watershed Study (City 2013).

1.2 Project Description

The proposed project consists of the construction of a new 250-room hotel, parking, and onsite amenities. There would be 130 extended stay rooms and 120 lifestyle rooms for guests. Parking onsite will be available in an underground 233-space structure and an additional 33 spaces at-grade (total 266 spaces). The total building square footage will be approximately 261,139 sf gross/235,690 sf net. Grading in the amount of 25,500 cubic yard (CY) cut, 0 CY fill and export of 25,500 CY (takes into account losses due to clearing, grubbing and shrinkage) would be required for site improvements. Five existing structures totaling 15,300 sf will be demolished. The

entitlements requested from the City include approval by the Historic Landmarks Commission and Planning Commission for a Coastal Development Permit, Development Plan, Parking Modification, and subsequent Public Works and Building Permits.

Vehicular access into the property will be provided by two separate points. The primary guest entrance will be located on Garden Street and will lead to a central motor court and lobby areas. One secondary entrance will be located off Santa Barbara Street and Yanonali Street. To comply with City standards, driveways will be at least 20-feet wide, paved, and capable of supporting standard fire apparatus. The proposed Garden Street entrance is angled and positioned in such a way to accommodate the alignment of Garden St, as advised by City transportation staff. The proposed project also includes pervious pavers adjacent to the Garden Street entrance, to enable pedestrian access. These modifications will result in minimal encroachment within an existing storm drain ditch, the "Garden Street Drain," considered to include a coastal wetland that is an environmentally sensitive habitat area (ESHA), in accordance with the City of Santa Barbara (City) Local Coastal Program (LCP; City 2019). The proposed project also includes enhancement and habitat restoration within the Garden Street Drain, including installation of native vegetation throughout, as required by LCP policies and in accordance with comments provided by the City's Land Development Team.

1.3 Hydrologic Unit and Watershed

The Project site is located within the South Coast Hydrologic Unit, specifically the Santa Barbara Hydrologic Area (315.32), as defined in the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) (RWQCB 2019). City Creeks Division defines the Project site as located within the Laguna Watershed (City 2013).

2 Regulatory Setting

This section provides a summary of the federal and state regulatory framework pertinent to the aquatic features located in the study area. This section identifies and discusses the various federal and state policies and programs defining jurisdictional wetlands and waters as well as the regulatory requirements associated with these jurisdictional features.

2.1 U.S. Army Corps of Engineers

The USACE Regulatory Program regulates the discharge of dredge or fill material within wetland and other waters of the U.S., under Section 404 of the Clean Water Act (CWA). In light of the U.S. District Court for the District of Arizona's order on August 30, 2021, vacating the Navigable Waters Protection Rule, the Environmental Protection Agency (EPA) and USACE "have halted implementation of the rule and are interpreting "Waters of the U.S." consistent with pre-2015 regulatory regime" (EPA 2021). Therefore, "Waters of the U.S." include:

- Traditional navigable waterways (TNWs), interstate waters, and territorial seas
 - $\circ~$ Also including wetlands "adjacent" to these features. Adjacent is defined as bordering, contiguous, or neighboring
- Certain lakes, ponds, and impoundments of Waters of the U.S.



- Tributaries of TNWs, impoundments, interstate waters and territorial seas
 - o Tributaries need to meet the Relatively Permanent Standard or the Significant Nexus Standard
- Wetlands adjacent to impoundments and tributaries
 - Adjacent wetlands need to meet the Relatively Permanent Standard or the Significant Nexus Standard
- "Other Waters" that meet the Relatively Permanent Standard or Significant Nexus Standard

The Relatively Permanent Standard includes those waters that are relatively permanent, standing or continuously flowing, and waters with a continuous surface connection to such waters. A Relatively Permanent feature typically flows year-round or has continuous flow at least seasonally. Seasonal flow is generally defined as three months (as defined in USACE Approved Jurisdictional Determination forms).

Significant Nexus Standard applies to waters that either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. For a non-navigable, non-Relatively Permanent Water reach to be jurisdictional under the CWA, the physical, biological, and chemical functions must show more than a speculative or insubstantial effect on a downstream TNW. The primary focus of a Significant Nexus determination is stream and wetland functions and the role those functions have in maintaining the health of downstream navigable waters.

The discharge of dredge or fill material into wetland and non-wetland Waters of the U.S. requires authorization from the USACE prior to impacts.

2.2 Regional Water Quality Control Board

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter–Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredge or fill material into Waters of the U.S.) first obtain certification from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The Central Coast RWQCB has authority for Section 401 compliance in the Project area. A request for certification is submitted to the RWQCB at the same time that an application is filed with the USACE.

The Porter–Cologne Water Quality Control Act established the State Water Resources Control Board and each RWQCB as the principal state agencies responsible for the protection of water quality in California. The Porter–Cologne Water Quality Control Act provides that "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter–Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter–Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The Central Coast RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction.

2.3 California Department of Fish and Wildlife

Under Sections 1600–1616 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit" (Section 1601). In practice, CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

2.4 City of Santa Barbara Local Coastal Program

Under the California Coastal Act (CCA), the CCC regulates impacts to wetlands within their jurisdiction (the "Coastal Zone") and requires a coastal development permit for almost all development within this zone. Within the City of Santa Barbara Coastal Zone, the City has assumed jurisdiction and is responsible for the issuance of a coastal development permit in accordance with its certified Local Coastal Program (LCP; City 2019), and the CCC assumes jurisdiction only if the City's permit action is appealed. Section 30121 of the CCA defines wetlands as "lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, swamps, mudflats, and fens...." The CCA allows disking, filling, or dredging of wetlands for certain uses, such as restoration. Under Section 30121 of the CCA, coastal wetlands are defined as areas supporting a single wetland parameter (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology—"one-parameter" wetlands), in contrast to the three-parameter definition of the USACE. Additionally, under Section 30231 of the CCA, the CCC policies include maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams. Activities that will potentially affect coastal wetland and riparian resources require a coastal development permit from the City under the LCP (City 2019).

Local Coastal Program

The Biological Resources section of the LCP (City 2019) both designates environmentally sensitive habitats areas (ESHAs) and setbacks for specific locations and provides guidelines for determining them elsewhere.

The general requirements for setbacks around ESHAs are stated in policy 4.1-15 of the LCP:

Policy 4.1-15 <u>ESHA, Wetland, and Creek Habitat Buffers</u>. New development and substantial redevelopment in areas adjacent to ESHAs, wetlands, and creeks shall be sited and designed to prevent impacts that would significantly degrade those areas, and shall be compatible with the continuance of those habitat areas. A habitat buffer shall be required between new development or substantial redevelopment and any ESHA, wetland, or creek and shall be of sufficient size to: protect biological integrity, serve as transitional habitat, provide distance from human disturbances, and avoid hazards from erosion.

Policy 4.1-17 Development within Habitat Buffer Areas.

A. New development and substantial redevelopment shall only be allowed in ESHA, wetland, and creek habitat buffers if it does not significantly disrupt the habitat values of ESHAs, wetlands, or creeks and may include:



i. Habitat creation, restoration, and/or enhancement activities;

ii. Public accessways, trails, and associated minor improvements. Impervious trails, accessways, and associated minor improvements shall be located a minimum of 35 feet from the top of bank of any creek to the extent feasible;

iii. Directional, educational, and interpretive signs to protect public safety, manage open space areas, educate, and direct public access;

iv. Nature study;

v. ESHA-, wetland-, and creek-related educational uses;

vi. Bioswales or other bioengineered or non-structural storm water Best Management Practices (BMPs), provided that encroachment into the habitat buffer is minimized to the extent feasible and the BMP is designed to avoid impacts to ESHAs, wetlands, and creeks;

vii. Improvements to existing roads, road rights-of-way, utilities, public infrastructure and facilities, and public parking lots in a manner that involves no increase in development footprint for the portion within the habitat buffer area. If the improvement involves relocation, the new site shall be located no closer to ESHAs, wetlands, or creeks than the existing site and shall minimize encroachment into the habitat buffer to the maximum extent feasible;¹

viii. Fuel modification required by the City Fire Department to meet the Fire Code Defensible Space Requirements for existing development in High Fire Hazard Areas;

- ix. Geologic testing or boring;
- x. Mosquito abatement; and

ix. The following uses may be allowed where the encroachment into the habitat buffer is minimized to the extent feasible, where all feasible mitigation measures have been provided to minimize adverse environmental effects, and the maximum feasible habitat buffer between the development and the habitat is provided:

a. Adjacent to wetland areas, incidental public services and utilities and development required to complete a project pursuant to Policy 4.1-7 *Diking, Filling, or Dredging of Coastal Waters and Wetlands*;

b. Adjacent to creek areas, flood control projects necessary for public safety or to protect existing development, and necessary water supply and wastewater projects;

c. Fuel modification only when required by the City Fire Department to meet the Fire Code Defensible Space requirements for a new or substantially redeveloped primary structure

¹ With regard to the wetland setback for the storm drain ditch, the City, in a December 2021 letter provided by its Land Development Team (City 2021), stated that "Staff recommends a 15-foot buffer from the top of bank for this wetland area."

in a High Fire Hazard Area. New and substantially redeveloped accessory structures shall be sited to ensure that vegetation management necessary to meet City High Fire Hazard Defensible Space Requirements does not occur within habitat buffers to ESHAs, wetland, or creeks;

d. Structural, non-earthen storm water BMPs, provided that they are located a minimum of 35 feet from top of bank of any creek;

e. Limited exterior lighting for safety purposes; and

f. Fences or natural barriers necessary for safety, restoration, protection of habitat, or water quality improvement.

B. New development and substantial redevelopment that is not allowed within ESHA, wetland, and creek habitat buffers pursuant to subsection A. above shall also not be allowed to overhang or otherwise partially encroach into ESHA, wetland, and creek habitat buffers.

Policy 4.1-39 <u>Wetlands Defined</u>. As outlined in Coastal Act Section 30121, wetlands are lands within the Coastal Zone that may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. As detailed in Section 13577(b)(1) of the California Code of Regulations, wetlands shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within or adjacent to vegetated wetlands or deep-water habitats. Any areas that meet these definitions are wetlands and shall be accorded all of the protections provided for wetlands in the Coastal LUP, whether or not they were previously identified or mapped.

Policy 4.1-40 <u>Environmentally Sensitive Habitat Areas Defined</u>. As defined in Coastal Act Section 30107.5, areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments are Environmentally Sensitive Habitat Areas (ESHAs).

Policy 4.1-41 ESHA Determinations.

A. Identification of ESHAs shall be made on a case-by-case basis based upon site-specific evidence provided by a biological report prepared in accordance with Policy 4.1-42 Biological Reports and Wetland Delineations, and in consultation with a City Environmental Analyst. Any areas that meet the criteria outlined in Policy 4.1-40 Environmentally Sensitive Habitat Areas Defined shall be afforded all of the protections provided for ESHAs in the LUP, whether or not they have been previously identified or mapped.

B. Any determination of the location or extent of ESHAs must address:

Rare Species or Habitats. The first test to determine whether a habitat is an ESHA is whether a habitat or species (and its associated habitat) is rare. The California Natural Diversity Database (CNDDB) is a



state depository of lists of rare plant and animal species and rare natural communities (e.g., habitats, vegetation communities), generated by an array of regional, state, national, and international sources that are vetted, maintained, and continually updated by the Biogeographic Branch of the California Department of Fish and Wildlife (CDFW). The species and habitats on the following lists are considered rare:

a. Federal and state listed Rare, Threatened and Endangered Species;

b. Plants, animals, and natural communities ranked as of Global or state G1 or S1 (critically imperiled), G2 or S2 (imperiled), or G3 or S3 (vulnerable to extirpation or extinction) by the California Department of Fish and Wildlife's Natural Diversity Database and NatureServe;

c. California Fully Protected Species, California Species of Special Concern, and their habitats;

d. California Native Plant Society (CNPS) plant species designated 1B (rare or endangered in California and elsewhere), and 2 (rare, threatened, or endangered in California but more common elsewhere); and

e. Federal and state plants, animals, and natural communities that are candidates for listing or delisting.

Especially Valuable Species or Habitats. A second test to determine whether a habitat is an ESHA is whether a species or habitat is especially valuable because of its special nature or role in an ecosystem. Areas may be valuable because of their "special nature," such as being an unusually pristine example of a habitat type, containing an unusual mix of species, supporting species at the edge of their range, or containing species with extreme variation. Habitats or species may also be considered valuable because of their special "role in the ecosystem" because they provide habitat for endangered species, protect water quality, provide essential corridors linking one sensitive habitat to another, or provide critical ecological linkages such as the provision of pollinators or crucial trophic connections. While all species play a role in their ecosystem that is arguably "special," for a habitat or species to be considered an ESHA, its role must be considered "especially valuable;"

Potential for Human Induced Disturbance or Degradation. Thirdly, ESHAs are those areas that could be easily disturbed or degraded by human activities and developments. In most areas of coastal California affected by urbanization, native plants, animals, and natural communities are in danger of direct loss or significant degradation as a result of many factors related to anthropogenic changes; and

Habitat Quality. Finally, judgment of the viability and quality of a habitat area must be conducted by a qualified biologist, ecologist, or resource specialist on a case-by-case basis, taking into account the physical and biological conditions and requirements necessary for the health and sustainability of the respective species or habitat. Such consideration includes assessment of the following criteria:

- a. Size of the population or habitat;
- b. Evidence of population/habitat health (sprouts, seedlings, adult individuals of reproductive age);
- c. Level of isolation/fragmentation;

- d. Connectivity to other natural areas/open space;
- e. Level of disturbance/degradation of the area;
- f. Invasive, non-native species;
- g. Disease or insect damage; and

h. Anthropogenic disturbance (development, grading, ornamental plants, agriculture, livestock, etc.). Certain habitats in specific locations may not be ESHAs because they are extremely degraded, too small to be sustainable, have been taken over by invasive and non-native species, or are so isolated or fragmented that they are not viable in the long term or do not have substantial habitat value or a special role in the ecosystem. However, some habitats, like coastal estuaries, wetlands, creeks, and many riparian areas, are so rare or play such an important role in the ecosystem that they should be considered ESHAs, even if significantly degraded. It is important to note that while habitat viability and quality are factored into decisions as to whether an area is an ESHA, once an area has been determined to be an ESHA, all the policies protecting ESHA in the Coastal LUP apply regardless of the quality of the ESHA.

C. Habitat types that could potentially occur in the City of Santa Barbara's Coastal Zone that usually meet the definition of an ESHA include, but are not limited to, the list below. General areas where these habitat types have the potential to occur are shown on Figure 4.1-1 *Potential Vegetation Communities*. For any particular area, site-specific evidence may indicate that the site does not meet the definition of an ESHA. Conversely, there are areas not contained in the following list that could be determined by site-specific evidence to meet the definition of an ESHA. The status and presence of certain habitats within the City is also subject to change over time.

- i. Estuaries and Lagoons.
- ii. Wetlands.
- ii. Creeks and Streams.
- iv. Riparian Areas.
- v. Southern Coastal Bluff Scrub.
- vi. Coastal Sage Scrub or Chaparral that:
 - a. Supports sensitive species;

b. Is within or adjacent to creeks, riparian, or wetland ESHAs and is an important component in the functioning of these habitats; or

c. Is a vegetation association or alliance with a global or state ranking of 1, 2, or 3 on the California Department of Fish and Wildlife's Natural Diversity Database or NatureServe



- vii. Perennial Grasslands (Coastal Prairie).
- viii. Oak Woodlands.
- ix. Southern Foredune.
- x. Western Snowy Plover Nesting Habitat.
- xi. White-Tailed Kite Nesting and Communal Roosting Habitat.
- xii. Monarch Butterfly Autumnal and Winter Roost Sites.

3 Methods

As the initial step of the formal aquatic resources delineation, Dudek conducted a literature review of publicly available sources documenting known or potential aquatic resources within the study area and in the local vicinity. These included National Wetland Inventory (NWI; USFWS 2022), the National Hydrography Dataset (NHD; USGS 2022), the U.S. Geological Survey (USGS) 7.5-minute Santa Barbara quadrangle map, historical aerial photographs, and previous biological studies completed within the study area. On January 2, 2019, Dudek surveyed the project site to delineate aquatic features and determine the extent of wetland and other waters of the U.S. potentially subject to USACE jurisdiction under the CWA. On March 3, 2022, Dudek regulatory and permitting specialist Heather Moine conducted a follow-up survey to verify the 2019 delineation. Both aquatic resources delineations were conducted in accordance with the procedures established in the Corps of Engineers Wetlands Delineation Manual (USACE Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE Environmental Laboratory 2008a). In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) (33 CFR 328.3(e)), the delineation of which follows A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE Environmental Laboratory 2008b). The aquatic resources delineations also included the collection of CDFW jurisdictional boundaries subject to Section 1600-1616 of the Fish and Game Code (DFG Code), which extend to the top of bank or the outermost edge of riparian vegetation, whichever is greater, associated with a stream channel or waterway. Lastly, the aquatic resources delineations included an evaluation of the study area for features meeting the definition of a coastal wetland under Section 30121 of the CCA. During the March 2022 verification, boundaries of potentially jurisdictional aquatic resources were mapped using a handheld iOS device equipped with the ESRI Collector app and a Trimble R1© Integrated GNSS System device for boosting the geographic information system (GIS) signal to submeter accuracy. Prior to the delineation field survey. Dudek also loaded the top of bank boundary for the drainage ditch as provided by Gilmour Land Surveying, Inc. During the field survey, Dudek compared the top of bank boundaries mapped in 2019 by Dudek and in 2022 by Gilmour Land Surveying with conditions observed in the field to determine the most accurate boundary.

9

4 Results

4.1 Wetland Habitat

Based on the findings of the formal aquatic resources delineation, Dudek determined that habitat meeting the definition of a one-parameter wetland is located within the Garden Street Drain. The Garden Street Drain was found to support indicators of riverine wetland hydrology and giant reed (*Arundo donax*) and California bullrush (*Schoenoplectus californicus*), species with wetland indicator status of FACW and OBL, respectively (Attachment A, Figure 2). The sole biological issue addressed in SAIC (2007) was the potential presence of jurisdictional resources. The report focused on the characterization of the above-mentioned Garden Street Drain, which "may qualify as a wetland pursuant to the Coastal Act." (SAIC 2007). The general findings of the wetland delineation completed by Dudek are largely consistent with those detailed in the SAIC biological analysis report (SAIC 2007), including the verification of only one aquatic feature extending along the boundary of the study area parallel to Garden Street. The single aquatic feature is characterized as an anthropogenic, vegetated, soft-bottom storm drain ditch supporting a limited variety of wetland- and upland-adapted, largely non-native plant species. In both 2019 and 2022, it was necessary to inspect and record the presence of indicators for a total of only two (2) sampling points (Attachment A, Figure 2). In addition, Dudek delineated the top of bank and edge of any riparian vegetation associated with the Garden Street Drain. Representative photographs of the aquatic feature are provided in Attachment C.

Hydrophytic vegetation was present within the Garden Street Drain and was limited to two plant species: giant reed and California bulrush. Each plant species encountered within the Garden Street Drain and its respective indicator status are listed in Table 1 below. Wetland indicator status is based on the Arid West 2020 Regional Wetland Plant List (USACE 2020). Giant reed, a facultative wetland species, is present in an isolated, monotypic stand within the Garden Street Drain. Facultative wetland species are found in both wetland and non-wetland habitats and can tolerate a variety of hydrologic regimes (Lichvar et al. 2012). California bulrush was found in one location within the Garden Street Drain. California bulrush was limited to a few individual plants and was not considered to be a dominant species within the ditch, although as an obligate wetland species, it almost always occurs in wetlands (Lichvar et al. 2012). Other dominant plant species identified within the storm drain ditch included upland-adapted species comprising castor bean (*Ricinus communis*), pampas grass (*Cortaderia selloana*), and Canary Island palm (*Phoenix canariensis*) in the shrub strata. The occurrence of these and other species shading and immediately along the Garden Street Drain support a highly degraded area of riparian vegetation (Figure 2). Note that, while the riparian vegetation in places overlaps existing development, overhanging a chain link fence bordering the Garden Street Drain, riparian vegetation was mapped to the edge of the canopy, as shown in Figure 2.

Dominant plant species in the herbaceous strata include upland-adapted species comprising ripgut brome (*Bromus diandrus*) and smilo grass (*Stipa miliacea* var. *miliacea*). In several places within the Garden Street Drain, vegetation has been disturbed due to the presence of homeless encampments or accumulations of trash.

No indicators of hydric soils were encountered during the inspection of the sampling points. Soils within the study area have been historically disturbed by development and are mapped as Aquents, fill areas (USDA and NRCS 2022a), which are characterized as earthen fill from variable sources. This soil type is not listed as hydric on the NRCS Hydric Soil List (USDA and NRCS 2022b). However, as part of the wetland delineation, Dudek investigated soils for the presence of indicators described in the *Field Indicators of Hydric Soils in the United States: A Guide for*

Identifying and Delineating Hydric Soils (USDA and NRCS 2018) to determine hydric status. Based on the uniform nature of the feature, one sampling point was analyzed in the bottom of the ditch, immediately upstream of a concrete culvert, which was determined to be sufficient to characterize the hydric status of soils within the feature. This sampling point was selected due its location in a topographical depression within the ditch, presumably increasing the potential for ponding and creation of anaerobic conditions suitable for hydric soil formation. A second sampling point was inspected on the eastern slope of the ditch, approximately six (6) vertical feet above the bottom of the ditch. The sampling locations were selected based on accessibility and the apparent lack of human disturbance relative to other portions of the ditch.

Species	Common Name	Indicator Status
Arundo donax*	giant reed	FACW
Bromus diandrus*	ripgut brome	NL
Chenopodium murale	nettleleaf goosefoot*	FACU
Cortaderia selloana*	Uruguayan pampas grass	FACU
Eridoium cicutarium*	redstem stork's bill	NL
Erodium moschatum*	musky stork's bill	NL
Euphorbia peplus*	petty spurge	NL
Galium aparine	stickywilly	FACU
Hordeum murinum	mouse barley*	FACU
Malva parvaflora	Cheeseweed mallow*	NL
Nicotiana glauca*	tree tobacco	FAC
Oxalis pes-caprae*	sourclover	NL
Phoenix canariensis*	Canary Island date palm	NL
Stipa miliacea var. miliacea*	smilo grass	NL
Ricinus communis*	castor bean	FACU
Rumex crispus *	curly dock	FAC
Schoenoplectus californicus	California bulrush	OBL
Sonchus oleraceus*	common sow thistle	UPL
Tropaeolum majus*	nasturtium	UPL

Table 1. Plant Species List and their Wetland Indicator Status

signifies a non-native species

Obligate Wetland (OBL), Facultative Wetland (FACW), Facultative (FAC), Facultative Upland (FACU), Upland (UPL), Not Listed (NL) Arid West 2020 Regional Wetland Plant List (USACE 2020)

Dudek determined that wetland hydrology was present within the Garden Street Drain (Attachment A, Figure 2). Hydrology was assessed within the sampling points as well as throughout the length of the Garden Street Drain to determine the presence of wetland hydrology indicators, an OHWM, or a defined bed and bank in accordance with the methodology described in Section 3. Additionally, Dudek assessed connectivity with adjacent jurisdictional waters. The Garden Street Drain was determined to flow in a north to south direction along a linear path, and to be confined within a relatively narrow channel, which begins as a shallow swale at the upstream end and turns into a relatively deep channel at the downstream end, where it discharges into a concrete culvert. Based on the literature review as well as observations collected during the wetland delineation, the Garden Street Drain is an anthropogenic feature constructed to convey urban runoff and stormwater flows. The northern (upstream) end of the ditch is isolated from flows further to the north and east along Garden Street and Yanonali Street by curb and gutter features as well as a slight rise in the topography, which would preclude concentrated water inputs from entering the ditch. The ditch is separated from the remainder of the study area by a chain-link fence, and the majority of the water inputs are anticipated to originate from the study area via sheet flow during storm events. One culvert originating from the upland portion of the study area was identified, and it apparently discharges into a short swale, which connects to the concrete culvert in the Garden Street Drain. No other areas displaying evidence of concentrated flow were identified during the aquatic resources delineation. Wetland hydrology indicators identified during the wetland delineation included water marks (B1), drift deposits (B3 – riverine) and drainage patterns (B10 – riverine) within the Garden Street Drain.

4.2 Waters of the U.S. and State

An OHWM was also identified and mapped based on the presence of a debris wrack line and water marks averaging approximately 3.0 feet in width. No other OHWM indicators (e.g., break in bank slope, change in sediment texture, or a change in vegetation cover) were encountered, which indicates that the flows within the ditch are generally slow moving and constitute low-energy runoff discharges. The OHWM was discontinuous within the Garden Street Drain due to human disturbances associated with homeless encampments. The defined bed and bank was also identified and mapped during the wetland delineation. While the extent of a typical channel bed would be determined based on indicators including a break in the bank slope, shelving, or benching, the low energy discharges within the Garden Street Drain are presumed to be insufficient to create these signs of flow. Absent these more typical indicators, the bed was determined to be coterminous with the OHWM width, based on the presence of a debris wrack line and water marks, which indicates a clearly defined flow path. The top of bank was determined based on the clear transition to uplands on both the east and west side of the Garden Street Drain, and was mapped at the point where the steeply-sloping bank shifts to a flat upland terrace lacking any indication of flow and associated riparian vegetation. The mapped extent of hydrology indicators are displayed on Attachment A, Figure 2.

Dudek confirmed that the Garden Street Drain is hydrologically connected to a TNW, the Pacific Ocean, via Laguna Channel. As noted above, the ditch discharges into a concrete culvert, at which point no visible connection is apparent. However, the City map (City 2013) maps show that this feature is hydrologically connected to Laguna Channel, which discharges into the Pacific Ocean approximately 0.26 mile (1,400 feet) downstream of the study area.

5 Jurisdictional Determination

Based on the results of the aquatic resources delineation, the Garden Street Drain identified within the study area is determined to be jurisdictional to the USACE, RWQCB, and CDFW (Table 2; Attachment A, Figure 2). The jurisdictional determination for each agency is provided below based on the agencies' respective jurisdictional definition described in Section 2.

The aquatic resources delineation resulted in the identification of wetland hydrology and isolated patches of hydrophytic vegetation within the Garden Street Drain. However, indicators of hydric soils were absent. As such, the Garden Street Drain is determined not to meet the definition of wetland waters of the U.S. under the CWA. Regardless, the ditch was found to support a readily identifiable OHWM based on the presence of a wrack line and water marks, and it is connected to Laguna Channel via a culvert under Garden Street, ultimately discharging into the Pacific Ocean. While a stormwater conveyance feature is not considered USACE jurisdictional by rule, the feature



is located within 4,000 linear feet of the Pacific Ocean (a TNW) and is therefore evaluated on a case-specific basis for a significant nexus with a jurisdictional water. Based on the connection with Laguna Channel and the presence of an OHWM, the feature is considered similarly situated and would be under the jurisdiction of the USACE within the extent of the OHWM as other waters of the U.S. (Attachment A, Figure 2).

Agency	Jurisdictional Resource	Acres/square feet
USACE, RWQCB, CDFW, and City (LCP)	Other Waters of the U.S., coastal wetland	0.025/1,085
RWQCB, CDFW	Waters of the State (riparian, streambed and bank)	0.207/9,017

Table 2. Jurisdictional Wetlands and Waters within the Study Area

Under Section 401 of the CWA, the RWQCB jurisdiction is coterminous with the USACE and would include the other waters of the U.S. described above (Attachment A, Figure 2). In addition, the RWQCB also regulates impacts to water quality and beneficial uses of waters of the State as defined in the Basin Plan. Although the Garden Street Drain is hydrologically connected to Laguna Channel, no beneficial uses are listed for this waterway (RWQCB 2017). However, as discussed in Section 2.2, waters of the State include "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050(e)). Currently, the RWQCB also regulates riparian vegetation as waters of the State. Riparian vegetation includes hydrophytic as well as upland-adapted species that are supported by the hydrologic conditions within a jurisdictional waterway. Within the Garden Street Drain, riparian vegetation is made up almost entirely of non-native species including giant reed, castor bean, and Uruguayan pampas grass; however, the vegetation is supported by the hydrologic conditions within a jurisdictional within the top of bank of the Garden Street Drain, but riparian vegetation extends beyond the banks in several places. Therefore, the outer limit of the combined area delimited by the top of bank and the edge of riparian, where it extends beyond the top of bank, meets the definition of waters of the State, which includes other waters of the U.S., and is considered to be under the jurisdiction of the RWQCB (Attachment A, Figure 2).

The CDFW jurisdiction extends to the outermost limit of the defined bed and bank and associated riparian vegetation of ephemeral, intermittent, and perennial waterways (Attachment A, Figure 2). The area described above and defined as waters of the State under the jurisdiction of RWQCB encompasses each of the components of CDFW jurisdiction, including the defined bed and bank and riparian vegetation. Therefore, in this case, CDFW jurisdiction in coterminous with that of the RWQCB.

CCC may, in some cases, retain appeal jurisdiction surrounding coastal wetlands that are within the City's LCP jurisdiction, as these habitats are considered ESHA under the CCA and LCP (City 2019) Policy 4.1-41. As discussed above, "one-parameter" wetlands were identified within the Garden Street Drain, which was found to support indicators of wetland hydrology and of hydrophytic vegetation within the area supporting hydrology (Attachment A, Figure 2). The City's Post LCP Certification Permit and Appeal Jurisdiction Map does show the subject property within CCC's appeal jurisdiction. However, this designation is not based on the presence of coastal wetlands or ESHA, but rather on the presence of public trust lands that are filled, developed, and committed to urban uses, pursuant to CCA Section 30613. Therefore, the coastal wetlands on site are not considered jurisdictional to CCC, and no further approvals or permitting actions are required by CCC for the proposed development.

Although the Garden Street Drain supports areas of riparian vegetation supported by hydrological conditions within the drain, as described above, these areas are highly degraded and do not qualify as ESHA under the LCP policies (City 2019). Policy 4.1-41 states that "For any particular area, site-specific evidence may indicate that the site does not meet the definition of an ESHA." Under Policy 4.1-41, the location or extent of ESHA is determined by several factors: presence of rare species or habitats; whether a species or habitat is especially valuable (e.g., due to its role in water quality, its importance as a habitat linkage, or its special role in the ecosystem); potential for human-induced disturbance or degradation; and viability and quality of the habitat. Because the Garden Street Drain is highly degraded, supporting almost entirely non-native vegetation and a high level of existing disturbance, it does not meet any of these ESHA criteria, as explained in detail below.

Presence of rare species or habitat. No rare plant species have been detected within the Garden Street Drain or anywhere on site, and given the highly disturbed nature of the site, the presence of extensive invasive vegetation, and its isolation from other natural habitats, no rare species have the potential to occur. Several rare species, and species listed under the federal Endangered Species Act (ESA) occur in the vicinity. However, the site does not support the persistent aquatic habitat required to support many of these species, it is unsuitable and too limited in extent to support any sensitive bird species, and it lacks dune or beach habitat suitable for species preferring these areas. One special-status wildlife species known to occur in the area along Laguna Creek and El Estero Drain is western pond turtle (*Emys marmorata*), a California species of special concern. But, in addition, to lacking habitat that could support this species in its aquatic phase, the site is separated from these areas by more than 400 feet of development, including Garden Street and associated vehicle traffic.

Especially valuable species or habitat. The Garden Street Drain meets none of the criteria listed in Policy 4.1-41 to qualify as "especially valuable." As mentioned above, it is isolated from other natural habitats and is highly degraded from invasive species and human disturbance, so it does not play a "special role in the ecosystem" and is not "an unusually pristine example of a habitat type." It does not support "an usual mix of species" or support "species at the edge of their range." Because the feature drains only a small area encompassing a portion of the project site, it does not play an important role in water quality. Because of its limited size and isolation from other habitats, it plays no role as an ecological linkage.

Potential for human-induced degradation or disturbance. The Garden Street Drain is currently highly disturbed, with several existing homeless encampments and several trash piles providing breaks in the vegetative cover. The entire surrounding area is already developed. Because of this baseline of disturbance, the feature does not meet this criterion as ESHA.

Viability and quality of habitat. Policy 4.1-41 lists a variety of factors to judge habitat quality. Several relate to population size and isolation, and as the Garden Street Drain supports no sensitive species and is highly isolated by surrounding development, it does not meet these criteria. Others relate to disturbance level and presence of invasive species, and as described above the drain is highly disturbed and supports mostly invasive species.

Given the above analysis, the riparian vegetation supported by the Garden Street Drain outside the coastal wetland does not meet any of the criteria for ESHA in Policy 4.1-41. Therefore, the extent of ESHA within the Garden Street Drain and the site is limited to coastal wetland as shown in Figure 2.

6 Project Impacts to Aquatic Resources

The proposed project is expected to result in 99 square feet of permanent impacts to the Garden Street Drain and associated non-native riparian vegetation due to widening of the driveway at the Garden Street entrance (Table 3; Attachment A, Figure 3). In addition, grading and recontouring adjacent to the driveway will result in 244 square feet of temporary impacts to the Garden Street Drain and associated non-native riparian vegetation (Table 4; Attachment A, Figure 3). These impacts will be limited to waters of the State under the jurisdictions of CDFW and RWQCB. As required by the City (2021), the proposed project incorporates a 15-foot development setback from the top of bank of the Garden Street Drain (Attachment A, Figure 3). However, based on City requirements for site access at the Garden Street entrance, widening of the existing driveway will also result in encroachment of 763 square feet of the setback from the top of bank. The project will result in no impacts to coastal wetland that is considered ESHA or to any area under the jurisdiction of USACE. The project's Habitat Restoration Plan (Attachment D) describes revegetation of the Garden Street Drain and 15-foot setback with native vegetation.

Table 3. Proposed Permanent Impacts to Jurisdictional Waters and Wetlands

Agency	Jurisdictional Resource	Square Feet	Linear Feet
USACE, RWQCB, CDFW, and CCC	Other Waters of the U.S., Coastal Wetland/ESHA	0	0
RWQCB, CDFW	Waters of the State	99	10

Table 4. Proposed Temporary Impacts to Jurisdictional Waters and Wetlands

Agency	Jurisdictional Resource	Square Feet	Linear Feet
USACE, RWQCB, CDFW, and City (LCP)	Other Waters of the U.S., Coastal Wetland/ESHA	0	0
RWQCB, CDFW	Waters of the State	244	10

7 Summary

Aquatic resources within the Garden Street Hotel project site are limited to a storm drain ditch along Garden Street (the Garden Street Drain), which supports 0.025 acres of other waters of the U.S. subject to the jurisdiction of USACE that is also waters of the State subject to the jurisdiction of RWQCB, streambed and bank subject to the jurisdiction of CDFW, and coastal wetland subject to the jurisdiction of the City's LCP (as the implementing authority of the CCA). An additional 0.207 acres within the Garden Street Drain and associated non-native riparian that is not considered waters of the U.S. is subject to RWQCB and CDFW jurisdictions. The project would result in 99 square feet of permanent impacts to a portion of the Garden Street Drain and associated non-native riparian subject to RWQCB and CDFW jurisdictions. Encroachment within the Garden Street Drain 15-foot setback due to modifications to the Garden Street Drain and setback will be restored and enhanced in accordance with specifications of the Habitat Restoration Plan (Attachment D).



If you have any questions regarding the contents of this letter report, please feel free to contact Heather Moine at 805.308.8522 (office) or 805.403.6241 (cell) or via email at hmoine@dudek.com. Or contact Dave Compton at 805.308.8536 (office) or 805.252.0557 (cell) or via email at <u>dcompton@dudek.com</u>.

Sincerely,

Heather Moine

Heather Moine

OM. CF

Dave Compton Senior Biologist

Aquatic Resource and Permitting Specialist *Att.: A Figures*

Att.: A Figures B Data Forms C Photographs D Habitat Restoration Plan cc: Carolyn Groves, Dudek Dave Irelan, Delawie

References

33 CFR 328. "Definition of Waters of the United States." USACE regulation.

80 FR 37054–37127. Clean Water Rule: Definition of "Waters of the United States". USACE and EPA regulation. June 29 2015.

City (City of Santa Barbara). 2013. Laguna Watershed Study and Water Quality Improvement Feasibility Analysis. Proposition 50 Clean Branches Grant Program, Agreement No. 07-585-550-2. Final Project Report. City of Santa Barbara, Creeks Division. March 13, 2013.

City. 2019. Local Coastal Program. May 1981. Amended November 2004.

City. 2021. 101 Garden Street, PLN2019-00052, APN: 017-630-008; -009; -018; -021; -024; and -027. Land Development Team (LDT) Application Response Letter Submittal #1. Letter to Carolyn Groves, Dudek. December 15, 2021.

Dudek. 2018. *Review of Revised Biological Analysis of the Proposed Wright Family Development (SAIC 2007) and Recommendations for Biological Resources at 101 Garden Street, Santa Barbara, California.* November.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station.

RWQCB (Regional Water Quality Control Board). 2019. *Water Quality Control Plan for the Central Coastal Basin.* Central Coast Region. June 2019 edition.

SAIC. 2007. Revised Biological Analysis of the Proposed Wright Family Development (Site 1) Located at 101 Garden Street, Santa Barbara, California. Letter to Susan Elledge Planning and Permitting Services. May 15.

USACE. 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, ed. J.S. Wakeley, R. W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Corps of Engineers Research and Development Center.

USACE. 2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OWHM) in the Arid West Region of the Western United States. A Delineation Manual. Robert W. Lichvar and Shawn M. McColley. ERDCCRREL TR-08-12. Hanover, NH: U.S. Army Corps of Engineers Research and Development Center.

USACE. 2020. "Arid West Regional Plant List." The National Wetland Plant List, Version 3.5. https://wetland-plants.sec.usace.army.mil/nwpl_static/v34/home/home.html. Accessed May 2022

USDA and NRCS (U.S. Department of Agriculture and Natural Resources Conservation Service). 2018. *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils*. Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

USDA and NRCS. 2022a. *Web Soil Survey*. National Cooperative Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm. Accessed May 2022.



USDA and NRCS. 2022b. Hydric Soils List. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/ nrcseprd1316620.html. Accessed May 2022.

USFWS (U.S. Fish and Wildlife Service). 2022. *National Wetlands Inventory website*. U.S. Department of the Interior, U.S. Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/. Accessed January 2019.

USGS (U.S. Geological Survey). 2019. *National Hydrography* Geodatabase: The National Map Viewer. http://viewer.nationalmap.gov/viewer/nhd.html?p=nhd. Accessed January 2019.

Attachment A Figures



DUDEK 💩 <u>1,000</u> 2,000 Feet FIGURE 1 Project Location Garden Street Hotel Aquatic Resources Delineation



SOURCE: Sanborn 2020

FIGURE 2 Aquatic Resources Delineation

Garden Street Hotel Aquatic Resources Delineation





SOURCE: Sanborn 2020, Flowers and Associates 2022

FIGURE 3

Impacts



Garden Street Hotel Aquatic Resources Delineation

Attachment B Photos



Photo 1. Looking northwest along the storm drain ditch, March 3, 2022



Photo 5. Looking southeast along the storm drain ditch, March 3, 2022



Photo 5. Debris within the storm drain ditch, March 3, 2022



Photo 5. Looking northwest to SP02, March 3, 2022



Photo 5. Soil profile for sample point SP01, March 3, 2022



Photo 6. Soil profile for sample point SP02, March 3, 2022



Photo 7. Trash associated with homeless encampment, August 3, 2022



Photo 8. Trash within Garden Street Drain, August 3, 2022



Attachment C Data Forms

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BU INALL IN	- 75		-	loam	her amount of rock !
0-16 109K412 100			1		
	Reduced Matrix CS=Co	wered or Coate	d Sand G	rains. ² Lo	 cation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all I	RRs. unless otherwise	e noted.)		Indicators	s for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox (S	(5)		1 cm	Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix	(S6)		2 cm	Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky M	lineral (F1)		Redu	ced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed M	Matrix (F2)		Red F	Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix	(F3)		Other	(Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Sur	face (F6)			
Depleted Below Dark Surface (A11)	Depleted Dark S	Surface (F7)			
Thick Dark Surface (A12)	Redox Depressi	ons (F8)		³ Indicators	s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9	9)		wetland	I hydrology must be present,
Sandy Gleyed Matrix (S4)	Marine Carles	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	- Sea	unless	disturbed or problematic.
Restrictive Layer (if present):	Ster I Paulous	the second		1211	
Type: TOCH	March March 1997			and the second	V
Depth (inches): 16				Hydric Soi	I Present? Yes No
YDROLOGY					
YDROLOGY Wetland Hydrology Indicators:	(- check all that anniv)			Sam	
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required	; check all that apply)			<u>Seco</u>	indary Indicators (2 or more required)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	I; check all that apply) Salt Crust (B11	1)		<u>Seco</u>	andary Indicators (2 or more required) Water Marks (B1) (Riverine)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	I <u>; check all that apply)</u> Salt Crust (B11 Biotic Crust (B	1) 12)		<u>Seco</u>	andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	I: check all that apply) Salt Crust (B11 Biotic Crust (B Aquatic Inverte	1) 12) ubrates (B13)		<u>Seco</u> 	andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	: check all that apply) Salt Crust (B11 Biotic Crust (B Aquatic Inverte Hydrogen Sulfi	1) 12) ubrates (B13) de Odor (C1)			andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	I; check all that apply) Salt Crust (B11 Biotic Crust (B Aquatic Inverte Hydrogen Sulfi Oxidized Rhizco	1) 12) bbrates (B13) de Odor (C1) ospheres along	Living Roo	<u>Seco</u> X X X X t ots (C3) _ 1	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	I; check all that apply) Salt Crust (B11 Biotic Crust (B Aquatic Inverte Hydrogen Sulfi Oxidized Rhizc Presence of Re	1) 12) bbrates (B13) de Odor (C1) ospheres along educed Iron (C4	Living Roc	<u>Seco</u> <u>X</u> <u>x</u> t ots (C3) <u>t</u>	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	I; check all that apply) Salt Crust (B11 Biotic Crust (B Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re	I) 12) 9brates (B13) de Odor (C1) 9spheres along educed Iron (C4 eduction in Tiller	Living Roc I) d Soils (Ct	<u>Seco</u> <u>X</u> <u>y</u> <u>y</u> ots (C3) <u></u> <u>y</u> <u>y</u> <u>y</u> <u>y</u> <u>y</u> <u>y</u> <u>y</u> <u>y</u> <u>y</u> <u></u>	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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YDROLOGY Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7 Water-Stained Leaves (B9) Field Observations: Surface Water Present?	Check all that apply) Check all that apply) Check all that apply Check all that apply Check all that apply Check all that apply Solution Check all that apply Check apply	1) 12) bbrates (B13) de Odor (C1) ospheres along educed Iron (C4 eduction in Tiller face (C7) in Remarks)	Living Roc I) d Soils (Ct	<u>Seco</u> X X X X 	Indary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required	I: check all that apply)	I) 12) brates (B13) de Odor (C1) papheres along educed Iron (C4 eduction in Tiller face (C7) in Remarks)):):): DS, previous ins	Living Roc t) d Soils (Cd Wett Wett	Seco X X y z t t t t t t t t t t t t t	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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YDROLOGY Primary Indicators (minimum of one required 	Check all that apply) Check all that apply Check a	I) 12) brates (B13) de Odor (C1) papheres along educed Iron (C4 eduction in Tiller face (C7) in Remarks)):):): os, previous ins	Living Roc () d Soils (Cd Wetl Wetl	Seco X v X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X _X	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOGY Primary Indicators (minimum of one required 	Check all that apply Check apply Chec	I) 12) brates (B13) de Odor (C1) papheres along educed Iron (C4 eduction in Tiller face (C7) in Remarks)):):): os, previous ins	Living Roc () d Soils (Cd Wetl Wetl	Seco X X y z z z z z z z z z z z z z	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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YDROLOGY Primary Indicators (minimum of one required 	Check all that apply Check apply Chec	1) 12) brates (B13) de Odor (C1) papheres along educed Iron (C4 eduction in Tillea face (C7) in Remarks)):): ps, previous ins	Living Roc () d Soils (Cd	Seco X 1 S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S _S	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLOGY Primary Indicators (minimum of one required 	Check all that apply) Check all that apply) Check all that apply) Check all that apply) Check all that apply Check apply	I) 12) brates (B13) de Odor (C1) ospheres along educed Iron (C4 eduction in Tillea face (C7) in Remarks)):	Living Roc () d Soils (Cd 	Seco X v X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X _X	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

participanticonner	Project/Site: 101 Garden Str	et city/County Santa Barbara / Santa Barba	ampling Date: 3/3/20
Minuscription (a): Hearhford (Minuscription) Section, Township, Range: 23, 04N, 27W Landom (Minuscription) Landom (Minuscription) Sol Map Unit Name: 20,004X Stope (%): 11 Sol Map Unit Name: 20,0000 Lat 24/16/18 'N Long: 11/16/16/2000 (Conditions on the site typical for this time of year? Yes	Applicant/Owner:	State: <u>CA</u> St	ampling Point:SP02
Landform (fillialope, lerrace, atc.):	nvestigator(s): <u>Heather</u> Mome	Section, Township, Range: 23, 04N, 27	7W
Subregion (LRR): C	andform (hillslope, terrace, etc.): hillslope	Local relief (concave, convex, none): Conve	X Slope (%): ~ [
Sold Map Unit Name: Aquents, Sill avear NVI classification: N/A Are climatic / hydrologic conditions on the site byloal for this time of year? Yes No (If no, explain in Remarks) Are climatic / hydrologic conditions on the site byloal for this time of year? Yes No (If no, explain in Remarks) Are Vegetation Soil or Hydrology naturally problematic? (If no, explain in Remarks) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et Hydrophylic Vegetation Present? Yes No Hydrophylic Vegetation Present? Yes No is the Sampled Area within a Wetland? Yes No Vestand Hydrology Present? Yes No is the Sampled Area within a Wetland? Yes No Yead Cover No Xic Cover Species Zover No Xic Cover Xic	Subregion (LRR): C	Lat: 34,416418 °N Long: 119,68769	10°W Datum:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vagetation Soil or Hydrology indurally problematic? Are Vagetation Soil or Hydrology indurally problematic? (If needed, explain any answers in Remarks.) SubMARX OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No If ed Stratum (Plot size:	Soil Map Unit Name: <u>Aquents</u> , fill	2V eau NWI classification	on: N/A
Are Vegetation Soll or Hydrology significantly disturbed? Are Normal Circumstances' present? Yes No Are Vegetation Soll or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Remarks: No Is the Sampled Area Wetland Hydrology Present? Yes No Yes No Xever Remarks: Account Stratum Present Commant In Electronic Present? Yes No Yes No Xever Secters? Saling/Shrub Stratum Plot size: Imaget and the stratus Imaget and the stratus 1 Is fold Number of Deminant Species Xever Mater and the stratus 2 Imaget and the stratum Plot size: Imaget and the stratus Imaget and the stratus 3 Imaget and the stratus Plot size: Imaget and the stratus<	Are climatic / hydrologic conditions on the site typical	this time of year? Yes No (If no, explain in Rem	arks.)
Are VegetationSel or Hydrologynaturally problematic? (if needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et Hydrobylic Vegetation Present? YesNo	Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Normal Circumstances" pre-	sent? Yes X No
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et Hydrophytic Vegetation Present? Yes No X Hydrophytic Vegetation Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Yes No X Is the Sampled Area within a Wetland? Yes No Z No X Wetland Hydrology Present? Yes No X 1. X Cereet Species Z status Number of Dominant Species That Are OBL, FACW, or FAC: X (A) 3. X X FACU Percent of Dominant Species X (A) 3. X X FACU Percent of Dominant Species X (A) 4. Species Across Al Stratus (B) Percent of Dominant Species X (A) 4. Species Across Al Stratus (A) FACU Percent of Dominant Species X X (A) 5. Total Cover Y NL Percent of Dominant Species X	Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed, explain any answers i	n Remarks.)
Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Hydrophytic Vegetation Present? Yes No Xes No Xes No Wetland Hydrology Present? Yes No Xes No Xes No VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Number of Dominant Species (A) 1. % Cover Species? Status Number of Dominant Species (A) 2.	SUMMARY OF FINDINGS – Attach site r	ap showing sampling point locations, transects, i	mportant features, et
Production Present? Yes No No Is the Sampled Area within a Wetland? Yes No Wetland Hydrology Present? Yes No X within a Wetland? Yes No Remarks: Wetland Hydrology Present? Yes No X Image: Stratum (Plot size: No X 1 Species? Status Dominant Indicator Species (Area worksheet: Number of Dominant Species (Area worksheet: X Number of Dominant Species (Area worksheet: X (A) 2	the design of the second se	×	
Wetand Hydrology Present? Yes No Within a Wetland? Yes No Remarks: No X within a Wetland? Yes No X Remarks: ////////////////////////////////////	Hydrophytic Vegetation Present? Yes	No Is the Sampled Area	Y
Remarks: VEGETATION – Use scientific names of plants. Interpretation (Plot size:	Wetland Hydrology Present? Yes	No X within a Wetland? Yes	No
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size:	Remarks:		
VEGETATION – Use scientific names of plants. Image: Statum 1 Absolute Dominant Indicator 2 Species? Statum 3 Species? Statum 4 Species? Statum 1 Total Number of Dominant Species (A) 3 Species Across All Strats: (B) 9 = Total Cover Percent of Dominant Species (A) 1 RiCI DUJ Communif 4 Y FACU 2 Species X 1 = (A) 3 Species X 2 = (A) 4 Y FACU Percent of Dominant Species (A) 4 Y FACU Percent of Dominant Species (A) 5 Species X 1 = (A) (A) 4 Species X 2 = (A) (A) 4 Species X 2 = (A) (A) 2 D Total Number of Dominant Species (A) (A) 3 Communif 4 Y FACU (A) <td< td=""><td></td><td></td><td></td></td<>			
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size:			
Vector FATION – Ose Scientific names of plants. Interesting (Plot size:			
Iree Stratum (Plot size:	COLITATION - Use scientific names of	Absolute Deminant Indicator Deminance Test worksh	
1.	Tree Stratum (Plot size:)	<u>% Cover Species?</u> Status Number of Dominant Spec	ies X
2.	1	That Are OBL, FACW, or F	AC: (A)
3.	2	Total Number of Dominant	2
Sapling/Shrub Stratum (Plot size:	3	Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:	4	Percent of Dominant Spec	ies Ø
1. Ricinuy (0mmuni) 41 Y FACU 2. Total % Cover of. Multiply by: 3. OBL species X 1 = Ø 4. FACW species X 2 = Ø 5. FACW species X 3 = Ø FACW species X 3 = Ø FACU species X 3 = Ø FACU species X 3 = Ø I. Bromus diandrus 20 2. Erodium Cicultarium 20 3. Chenopodium murale 3 4. Malva parvillora IS 5. Hordfum murale N 6. N N 7. N FACU 8. Ø Total Cover 1. Malva parvillora IS 6. N N 7. N FACU 8. Ø Total Cover 1. Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) N Problematic Hydrophytic Vegetation' (Explain) Woody Vine Stratum (Plot size: Ø 1. Problemati	Sapling/Shrub Stratum (Plot size:)	That Are OBL, FACW, or F	AC: (A/B
2.	1. Ricinus communis	FACU Prevalence Index worksh	neet:
3.	2		Multiply by:
4.	3	OBL species	$x_1 = 0$
S.	4	FAC species	- x2= 0
Herb Stratum (Plot size: 20 m 2) Image: statum 2) <td>5</td> <td>= Total Cover FACU species 5</td> <td>$x_{4} = \frac{10}{20}$</td>	5	= Total Cover FACU species 5	$x_{4} = \frac{10}{20}$
1. Bromus diandrus 20 Y NL 2. Erodium Cicutarium 20 Y NL 3. Chenopodium Murale 3 N FACU Prevalence Index = B/A = 4. Malva parvillora 15 N NL Hydrophytic Vegetation Indicators: 5. Hordfum Murinum 2 N FACU Norphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) 6.	Herb Stratum (Plot size: 20 m 2)	UPL species	x5= Ø
2	1. Bromus diandrys	Y Column Totals:	(A) 20 (B)
3. Chenopoalum murale 3. N FACU Prevalence index = B/A = 4. Malva parvitilora 15 N NL 5. Hordrum murinum 2 N FACU Hydrophytic Vegetation Indicators: 6. N FACU N Dominance Test is >50% 7. N FACU N Prevalence Index is \$3.0' 8. N FACU Norphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) N Problematic Hydrophytic Vegetation' (Explain) 1.	2 Eroalum cicutarium	$-\frac{20}{7}$ $+$ $\frac{NL}{FACIL}$	A
4.		- <u>3</u> N FACI Prevalence Index =	
5.	3. Chenopodium murale	- 15 N FACU N Dominance Test is 25	ndicators:
0.	3. Chenopodium murale 4. Malva parviflora Hordeum muripum		3.01
8.	3. Chenopodium murale 4. Malva parvillora 5. Hordeum murinum	N Prevalence Index is S	
Woody Vine Stratum (Plot size:)	3. <u>Chenopodium murale</u> 4. <u>Malva parvillora</u> 5. <u>Hordeum murinum</u> 6.	Prevalence Index is ≤	tions1 (Provide supporting
Woody Vine Stratum (Plot size:) 1 1	3. <u>Chenopodium murale</u> 4. <u>Malva parvillora</u> 5. <u>Hordeum murinum</u> 6 7 8.	N Prevalence Index is ≤ N Morphological Adapta data in Remarks or	tions ¹ (Provide supporting on a separate sheet)
1	3. <u>Chenopodium murale</u> 4. <u>Malva parvillora</u> 5. <u>Hordeum murinum</u> 6 7 8	Image: Norphological Adapta Image: Norphological Adapta <td>tions¹ (Provide supporting on a separate sheet) rtic Vegetation¹ (Explain)</td>	tions ¹ (Provide supporting on a separate sheet) rtic Vegetation ¹ (Explain)
2 = Total Cover % Bare Ground in Herb Stratum % Cover of Biotic Crust Hydrophytic Present? Yes No	3. <u>Chenopodium murale</u> 4. <u>Malva parvillora</u> 5. <u>Hordeum murinum</u> 6 7 8 <u>Woody Vine Stratum</u> (Plot size:)	Image: Normalized state Normalized state Image: Normalized state	tions ¹ (Provide supporting r on a separate sheet) /tic Vegetation ¹ (Explain)
% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust 9 Yes Yes No X	3. <u>Chenopodium murale</u> 4. <u>Malva parvillora</u> 5. <u>Hordfum murinum</u> 6 7 8 <u>Woody Vine Stratum</u> (Plot size:) 1	Image: Normal state st	tions ¹ (Provide supporting r on a separate sheet) tic Vegetation ¹ (Explain) nd wetland hydrology must ed or problematic.
% Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes No //	3. Chenopodium murale 4. Malva parvillora 5. Hordeum murinum 6.	Image: Second state st	tions ¹ (Provide supporting r on a separate sheet) tic Vegetation ¹ (Explain) nd wetland hydrology must ed or problematic.
	3. Chenopodium murale 4. Malva parvillora 5. Hordeum murinum 6.	Image: Second state st	tions ¹ (Provide supporting r on a separate sheet) rtic Vegetation ¹ (Explain) nd wetland hydrology must ed or problematic.

noth Matrix	uepui neede	d to docume	ent the l	ndicator	or confirm	the absen	ce of in	dicators.)	- Stately	De Carte
		Redox (moint)	Features	Type	1002	Torture			Jamest	
Color (moist) %		(moist)	/0	Type		locito		Canad	temarks	ra ele.
<u>)-13 1072313 10</u>			_			1001		Source	large	roder
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Type: C=Concentration, D=Depletion	, RM=Reduced	d Matrix, CS=	Covered	d or Coate	ed Sand Gr	rains. ² l	ocation	: PL=Pore	e Lining, M=	Matrix.
lydric Soil Indicators: (Applicable t	to all LRRs, u	nless otherw	vise not	ed.)		Indicato	rs for F	Problemati	ic Hydric So	oils ³ :
Histosol (A1)		Sandy Redox	(S5)			1 cn	n Muck	(A9) (LRR	C)	
Histic Epipedon (A2)		Stripped Mat	rix (S6)	1/541		2 cn	INUCK	(AIU) (LRI	(D)	
Black Histic (A3)	-	Loamy Mucky	y Minera	(F1)		Red	Parent	Material (7	(F2)	
Hydrogen Sulfide (A4)		Loamy Gleye	d Matrix	(F2)		Reu	Farent	ain in Rem	arks)	
1 cm Muck (A9) (LRR C)	-	Redex Dark	uix (F3) Surface	(E6)		_ 000	a (Expi	annin Kenn	unoj	
Depleted Below Dark Surface (A1	1) -	Depleted Day	k Surface	e (F7)						
Thick Dark Surface (A12)	" -	Redox Depre	ssions (F8)		³ Indicato	rs of hy	drophytic v	egetation a	nd
Sandy Mucky Mineral (S1)	-	Vernal Pools	(F9)	and the		wetlar	d hydro	ology must	be present,	
Sandy Gleyed Matrix (S4)						unless	disturb	ed or prob	lematic.	
Restrictive Layer (if present):		A MORE TO		14 300						
Type: rock						1				V
Depth (inches): 13	La and and					Hydric Se	oil Pres	ent? Ye	s	No A
YDROLOGY			-							
IDROLOGI					9-21	1.2.15	200	R. S. Land	A. 97 42	Maya 8
Wetland Hydrology Indicators:	Mar Maria	and and					Neg.			
Wetland Hydrology Indicators: Primary Indicators (minimum of one re	equired; check	all that apply)			<u>Sec</u>	ondary	Indicators	(2 or more r	required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one re Surface Water (A1)	equired; check	all that apply Salt Crust () B11)			<u>Sec</u>	condary Water	Indicators Marks (B1)	(2 or more r) (Riverine)	required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one re Surface Water (A1) High Water Table (A2)	equired; check —	all that apply Salt Crust (Biotic Crust) B11) (B12)			<u>Sec</u>	condary Water Sedim	Indicators Marks (B1) ent Deposi	(2 or more r) (Riverine) ts (B2) (Rive	required)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one re Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriver Drift Deposits (B3) (Nonriverine)	equired; check — — — • • • • • • • • • • • • • • • •	all that apply Salt Crust (I Biotic Crust Aquatic Inve Hydrogen S Oxidized RI Presence o) B11) (B12) ertebrate Sulfide O hizosphe f Reduce	es (B13) dor (C1) ires along ed Iron (C	Living Roc 4)	<u>Sec</u> 	Water Sedim Drift D Draina Dry-Se Crayfis	Indicators Marks (B1) ent Deposit eposits (B3 ge Pattern ason Wate sh Burrows	(2 or more r) (Riverine) ts (B2) (Rive)) (Riverine s (B10) er Table (C2 (C8)	erine))
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OHWM Indicators (at OHWM; primary indicators indicated with *)

- Natural line impressed on the bank
- Shelving
 Changes in the character of soil (texture)*
- Destruction of terrestrial vegetation
- Presence of litter and debris
- Wracking -of debris
- Vegetation matted down, bent, or absent
- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Bed and banks
- □ Water staining
- K Change in plant community and/or cover*

□ Break in Slope at OHWM*: □ Sharp (>60°) Moderate (30-60°) □ Gentle (<30°)

Soil Texture

	Clay/Silt	Sand	Gravel	Cobbles	Boulders
Above OHWM	X	×	X		La La Constanti
Below OHWM	X	×	×		

Total Vegetation Cover

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM	Ø	Ø	60	40
Below OHWM	Ø	60	15	25

Veg Stage: Early (herbs & seedlings) 🛱 Mid (herbs, shrubs, saplings) 🗆 Late (herbs, shrubs, mature trees)

Upland Species:	Bank Species:	Emergent Species:
Bromus diandrus.	+> Same	Cortadena strouris
Endium cicutariun	n	Ricinus communis
Changood um murale	a state of the second	Nicohana giaura
Cheriopodiuli du ne	a state of the second second	Schoenoplectus californicus
Maiva parvitiora	the second second second	Tropae dium majus
Hordeum murinum		Rumex Crispus
		Euphorbia peolus

V-3; updated 01/10/2021

OHWM DATA SHEET

Condition/Disturbances/Anthropo anthropogenic d	genic Influences (e., ISM rbances	g., erosion, grazing, - transien	culverts, etc.): Its habitating
feature. High	amounts	of task	present
			and the second sec

Hydrology

Flowing water	Avg. depth:	Min. depth:
Standing water	Temp:	Max. depth:
□ Saturated		
Dry		

Checklist of resources (if available):

Aerial photography	□ Vegetation maps	D GPS unit
Remotely-sensed images	Soil maps	Stream gage data
Topographic maps	Rainfall/precipitation data	□ Other studies:
Geologic maps	Existing delineation(s) for site	

Other drawings (aerial view), notes:

Other forms related to this feature: Yes I No

Terrace, fringe, or floodplain wetland (wetland datasheet)

Low flow channel or other representative section (OHWM datasheet)

V-3; updated 01/10/2021

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 101 Granden St.	City/County:	Santa I	Balanz	Sampling Date:	1/2/18-19
Applicant/Owner:			State: CA	_ Sampling Point:	051
Investigator(s): L. MCTAtte	Section, Tow	nship, Rang	e:		The second
Landform (hillslope, terrace, etc.): D:tch	Local relief (concave, col	rivex, none):	Slop	e (%): 1
Subregion (LRR): Lat	34.41631	lela 40 1	ong: -119.6876	AI07 Datur	n:
Soil Map Unit Name: Aquent, All and			NWI classi	ication: NA	
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes _ Y	No	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology signific	antly disturbed?	Are "No	rmal Circumstances'	present? Yes	K No
Are Vegetation, Soil, or Hydrology natural	ly problematic?	(If need	ed, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map show	ving sampling	point loc	ations, transect	s, important fea	atures, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: In a storm drain fedrer. Sdected a D.3turbunces from homeless cocompone	representative	Sampled An a Wetland bostion the fact	rea ? Yes where wher 202.		rds.
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size:) Absolution 1N/A	olute Dominant i over Species?	ndicator I Status N	Dominance Test wor Number of Dominant That Are OBL, FACW	ksheet: Species or FAC:O	(A)
2	;		otal Number of Dom Species Across All Str	nant ata: <u>3</u>	(B)
4	= Total Cov	er T	Percent of Dominant S That Are OBL, FACW	Species or FAC:	(A/B)
1. Costadoria sullacae 57	<u>y</u>	FACN. F	Prevalence Index wo	rksheet:	
2. Ricinus communis 10	N	FACH _	Total % Cover of:	Multiply	by:
3			BL species	x 1 =	

Sanling/Shrub Stratum (Plot size: 2 m)	1	_= Total C	over	That Are OBL, FACW,	or FAC:	Ö	(A/B
1. Coffideria Sellocne	50	Y	FAcn	Prevalence Index wo	rksheet:	5 A	1.4.1
2. Ricinus communs	10	N	FACH	Total % Cover of:	N	lultiply by:	
3				OBL species	x 1 =		_
4				FACW species	x 2 =		-
5				FAC species	x 3 =		
	60	_ = Total C	over	FACU species	<u>60</u> x4=	242	
Herb Stratum (Plot size:)			01	UPL species 2	x5=	105	_
1. (Nestartium) Tropaeblum nejus	0		UPL	Column Totals:	(A)	345	_ (B)
2. Sonchis pletacens 3. Bomus diandres	10	<u> </u>	NL	Prevalence Inde	x = B/A =	4.25	
4				Hydrophytic Vegetat	ion Indicators	s:	
5				Dominance Test is	s >50%		
6.		7		Prevalence Index	is ≤3.0 ¹		
7				Morphological Ada data in Remark	aptations ¹ (Proks or on a sep	ovide suppor arate sheet)	ting
8	21	_ = Total C	over	Problematic Hydro	ophytic Vegeta	ation ¹ (Explai	in)
1. NA 2.				¹ Indicators of hydric so be present, unless dist	oil and wetland turbed or prob	d hydrology n Ilematic.	nust
% Bare Ground in Herb Stratum % Cove	er of Biotic (_ = Total C Crust	over	Hydrophytic Vegetation Present? Ye	es N	10 X	
Remarks: Leaf litter makes up 150°	7 of f	the ba	re grou	vd.	7		

(2)

<u>ب</u>

Profile Dese				Fighter State and a second s Second second s Second second secon second second sec
	cription: (Describe to the depti	n needed to document the indicator or confi	rm the absence	of indicators.)
Depth (inchoo)	Matrix	Redox Features	Taxture	Remarks
			Texture	Q Canada anterial
-1.0		140	- <u>- h h</u>	AL ALL ALL
5-6.5	10 12-92 100	_N[A	- gailly own	Homen leaf DHar
5-125	10 yp3/2 100	NIA	gradelylown	Abrolant rocks
	with the second se		2 1	P desid
	· · · · · · · · · · · · · · · · · · ·		-	6 NI
	· · · · · · · · · · · · · · · · · · ·			
	·			-
ype: C=C	oncentration, D=Depletion, RM=F	Reduced Matrix, CS=Covered or Coated Sand (Grains, ² Loc	ation: PL=Pore Lining, M=Matrix.
dric Soil	Indicators: (Applicable to all L	RRs, unless otherwise noted.)	Indicators	for Problematic Hydric Soils ³ :
_ Histosol	(A1)	Sandy Redox (S5)	1 cm N	luck (A9) (LRR C)
_ Histic Ep	pipedon (A2)	Stripped Matrix (S6)	2 cm N	luck (A10) (LRR B)
Black Hi	istic (A3)	Loamy Mucky Mineral (F1)	Reduce	ed Vertic (F18)
_ Hydroge	en Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Pa	arent Material (TF2)
_ Stratified	d Layers (A5) (LRR C)	Depleted Matrix (F3)	Other (Explain in Remarks)
_ 1 cm Mu	uck (A9) (LRR D)	Redox Dark Surface (F6)		
_ Depleted	d Below Dark Surface (A11)	Depleted Dark Surface (F7)	31	of hudson hutis upgetation and
_ Thick Da	ark Surface (A12)	Redox Depressions (F8)	indicators	or nydropnytic vegetation and
_ Sandy N	Nucky Mineral (ST)			sturbed or problematic
_ Sanuy G	aver (if present):	· · · · · · · · · · · · · · · · · · ·		stabled of problematic.
T. O	al			
Type:	26			
Depth (Inc	ches):		Hydric Soli	
and Del		· · · · · · · · · · · · · · · · · · ·	-	C POILOR PO PAICE
one ici	d minuds but no e	propert redox. Soil bes trash	¢ debris,	mixed in as well.
DROLO	d minuels but no a gy	propert redox. Soil bes trash	¢ debris,	mixed in as well.
DROLO	d minuels but no a GY drology Indicators:	priorit redox. Soil bes trish	¢ debris,	mixed in as well.
DROLO	d minads but no a GY drology Indicators: cators (minimum of one required;	check all that apply)	¢ debris , Secon	dary Indicators (2 or more required)
DROLO	d minaels but no a GY drology Indicators: :ators (minimum of one required; Water (A1)	check all that apply) 	¢ debriš <u>Secon</u> _X w	dary Indicators (2 or more required) ater Marks (B1) (Riverine)
DROLO	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2)	check all that apply) Salt Crust (B11) Biotic Crust (B12)	¢ debris 	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine)
DROLO DROLO retland Hyd imary India _ Surface _ High Wa _ Saturatio	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	febris Secon X W Secon X W Secon X D X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine)
DROLO TOROLO Timary Indic Surface High Wa Saturatic Water M	GY drology Indicators: cators (minimum of one required; Water (A1) ater Table (A2) on (A3) barks (B1) (Nonriverine)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u>	¢ debris 	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) anage Patterns (B10)
DROLO etiand Hydrimary Indic Surface High Wa Saturatic Water M Sedimer	GY drology Indicators: cators (minimum of one required; Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverine) ht Deposits (B2) (Nonriverine)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along: Living Ro</u>	Secon Secon X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X<	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2)
DROLO etiand Hyd imary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	GY drology Indicators: cators (minimum of one required; Water (A1) ther Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) posits (B3) (Nonriverine)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along: Living Ro</u> <u>Presence of Reduced Iron (C4)</u>		dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8)
DROLO Vetland Hyd Surface High Wa Saturatic Water M Sedimer Drift Dep Surface	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) tarks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) posits (B3) (Nonriverine) Soil Cracks (B6)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrates (B13)</u> <u>Hydrogen Sulfide Odor (C1)</u> <u>Oxidized Rhizospheres along: Living Ro</u> <u>Presence of Reduced Iron (C4)</u> <u>Recent Iron Reduction in Tilled Soils (C</u>		dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) ayfish Burrows (C8) aturation Visible on Aerial Imagery (C9
DROLO Tetland Hyd rimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatid	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) Harks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) boosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7)	<u>check all that apply)</u> <u>Salt Crust (B11)</u> Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along: Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) aturation Visible on Aerial Imagery (CS nallow Aquitard (D3)
DROLO etiand Hyd imary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) tarks (B1) (Nonriverine) to Deposits (B2) (Nonriverine) posits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9)	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along: Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Other (Explain in Remarks)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) iff Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5)
DROLO Tetland Hyd Timary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S eld Observ	GY drology Indicators: cators (minimum of one required; water (A1) tter Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) posits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations:	check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along: Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Other (Explain in Remarks)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (CS nallow Aquitard (D3) AC-Neutral Test (D5)
DROLO	GY drology Indicators: cators (minimum of one required; Water (A1) ther Table (A2) on (A3) tarks (B1) (Nonriverine) to Deposits (B2) (Nonriverine) boosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (CS nallow Aquitard (D3) AC-Neutral Test (D5)
DROLO Vetland Hyd rimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatid Water-S ield Obser	GY drology Indicators: cators (minimum of one required; Water (A1) ther Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) bosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5)
DROLO Vetland Hyd imary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatia Water-S eld Obser urface Wate Vater Table	GY drology Indicators: cators (minimum of one required; Water (A1) ther Table (A2) on (A3) tarks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) boosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No resent? Yes No	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
DROLO International Action Internation	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) Harks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) boosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No resent? Yes No poillary fringe)	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) iff Deposits (B3) (Riverine) ainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5)
DROLO Vetland Hyd rimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S ield Obser urface Water Table aturation Pr neludes cap escribe Rec	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) tarks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) bosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No resent? Yes No	check all that apply)	Secon S	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) iff Deposits (B3) (Riverine) ainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5)
IDROLO Identification Interface Surface Surface Saturatic Water M Sedimer Drift Dep Surface Inundatio Water-S Inundatio Water-S Inundatio Vater Table aturation Princludes cap escribe Rec	GY drology Indicators: cators (minimum of one required; Water (A1) ther Table (A2) on (A3) larks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) boosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No resent? Yes No pillary fringe) corded Data (stream gauge, mon	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5)
IDROLO Identification Identification	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) Harks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) boosits (B3) (Nonriverine) boosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No p	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5) Present? Yes No
DROLO Vetland Hy rimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Unface Inundatic Water-S eld Obsern urface Water 'ater Table aturation P cludes cap escribe Rec	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) tarks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) bosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No resent? Yes No present?	check all that apply)	Secon S	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) iff Deposits (B3) (Riverine) ainage Patterns (B10) cy-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
DROLO	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) tarks (B1) (Nonriverine) to Deposits (B2) (Nonriverine) bosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No Present? Yes No resent? Yes No resent? Yes No present?	check all that apply)	Econ Secon	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) iff Deposits (B3) (Riverine) ainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5)
YDROLO Vetland Hyd rimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatid Water-S ield Obser varface Water Vater Table aturation Pr ncludes cap escribe Red	GY drology Indicators: cators (minimum of one required; Water (A1) tter Table (A2) on (A3) tarks (B1) (Nonriverine) nt Deposits (B2) (Nonriverine) bosits (B3) (Nonriverine) Soil Cracks (B6) on Visible on Aerial Imagery (B7) tained Leaves (B9) vations: er Present? Yes No resent? Yes No resent? Yes No resent? Yes No resent? Yes No present? Yes No resent? Yes No present? Yes No resent? Yes No present? Yes	check all that apply)		dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3) AC-Neutral Test (D5) Present? Yes No

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 101 Griden Str.	City/County: Santa Barbara Sampling Date: 1219
Applicant/Owner:	State: CA Sampling Point: bs 2
Investigator(s): R. MILAVLE	Section, Township, Range:
Landform (hillslope, terrace, etc.): 1+N slape	Local relief (concave, convex, none): Slope (%):0
Subregion (LRR):	Lat: 34.416 336.70 Long: -14.687600 908 Datum:
Soil Map Unit Name: Aguats fill and	NWI classification:/A
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	_ significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	_ naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	p ⁽ showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Sampled Area
Hydric Soil Present? Yes	No Within a Wetland? Yes No
Wetland Hydrology Present? Yes	No
Remarks: On slope above the bottom	in of the ditch approximately le varted feet durce have
of dital	
C C C C C	

VEGETATION – Use scientific names of plants.

3. 4

<u>Tree Stratum</u> (Plot size:) 1. <u>N/A</u>	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2 3 4.				Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: 2m)		_ = Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. Kicinik Ommuns	3	<u>N</u>	PHCh	Prevalence Index worksheet:
2				Total % Cover of:Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
		= Total Co	ver	FACU species 3 x 4 = 12.
Herb Stratum (Plot size:)	57	20		UPL species x 5 = 460
1. Bromus diantas	90	<u> </u>	NL	Column Totals: 65 (A) 472 (B)
2. Endium moschatzm		N	NL	
3. Okdis pes-cupier		N	NL	Prevalence Index = B/A =
4.				Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6	1		-	Prevalence index is $\leq 3.0^{1}$
7				 Morphological Adaptations¹ (Provide supporting data in Remarks or on a senarate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	92	_= Total Cov	ver	
1. N/N 2.	(· · · ·		·	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum % Cover	of Biotic C	= Total Cov	/er	Hydrophytic Vegetation Present? Yes No <u>X</u>
Remarks:				The second se
				1900 E
		10 -	12	

41

SOIL

Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ L	oc ² Texture Remarks
2-16 751R3/2 100	AIA	Sandaloan
- <u>- 164 a.</u> 200	- (
ype: C=Concentration, D=Depletion, R (dric Soil Indicators: (Applicable to a	M=Reduced Matrix, CS=Covered or Coated S	Indicators for Problematic Hydric Soils ³ :
	Sandy Baday (25)	1 om Muck (AQ) (I PB C)
_ HISTOSOI (A1)	Sandy Redox (S5)	2 cm Muck (A10) (LRR C)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (E18)
Hvdrogen Sulfide (A4)	Loamy Gleved Matrix (F2)	Red Parent Material (TF2)
Stratified Lavers (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)	5
Thick Dark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
_ Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	N	unless disturbed or problematic.
estrictive Layer (if present):		4114
Туре:		2010
Dopth (inchos):		
emarks: Soil is vay loose - G Eaddish minerals appear to l	Kaninal in-situ. Some trash &	debns mixed in the sail (bricks, wire, g
emarks: Soil is vog loose - g Loddish minurals gepur to l	kaninel in-site. Some trash & . be brock fagments.	debuis mixed in the sail (bricks, wire,g
emarks: Soil is vay loose - g Laddish minerals gopue to l DROLOGY	kaninel in-site. Some teesh & . be brock fagments.	dens mixed in the sail (bricks, wire,g
emarks: Soil is vay loose - G Laddish minuals gopus to 1 DROLOGY etland Hydrology Indicators:	kaninel in-site. Some trash & . be brock fay ments.	debris mixed in the soil (bricks, wire,g
emarks: Soil is vay hose - g Eddish minerals gpper to 1 DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir	Kaninel in-site. Some trash & . ke brock fagments. red; check all that apply)	debris mixed in the soil (bricks, wire, g
emarks: Soil is vay hose - G Eddish minuels gopue to I DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1)	Kaninel in-site. Some trash & . ke brock fagments. red; check all that apply) Salt Crust (B11)	Address mixed in the soil (bricks, wires <u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine)
emarks: Soil is vay hose - G Eddish minuels gopue to I DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2)	red; check all that apply) Salt Crust (B11) Biotic Crust (B12)	Address mixed in the soil (bricks, wires Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
emarks: Soil is vay hose - G Laddish minards apper to 1 DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	Kaninel in-site. Some tash & be brick fag ments. red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine)
emarks: Soil is vay hose - G Coldish minards ppur to 1 DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine)	Kaninel in-site. Some tash & be brick fag ments. red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Drianage Patterns (B10)
emarks: Soil is vay hose - G Coldish minuels opport to 1 DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Kaninel in-site. Some tash & ke brick fagments. red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Livir	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drianage Patterns (B10) g Roots (C3) Dry-Season Water Table (C2)
emarks: Soil is vay hose - g Coldish minuels gpur to i DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	Kaninul in-situ. Some tash & kaninul in-situ. Some tash & ka brick fag ments. <u></u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drianage Patterns (B10) g Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
amarks: Soil is vay hose - G Coldish minards gpeer to 1 TDROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine _ Drift Deposits (B3) (Nonriverine) _ Surface Soil Cracks (B6)	red; check all that apply) 	Hydric Soil Present? Yes No debris mifal in the Soil (bricks, wires
amarks: Soil is vay hose - G Coddish minards gpar to 1 DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine) _ Drift Deposits (B3) (Nonriverine) _ Surface Soil Cracks (B6) _ Inundation Visible on Aerial Imagery (red; check all that apply) 	Hydric Soil Present? Yes No debris mifal in the Soil (bricks, wires
marks: Soil is vay hose - G ballish minarals gover to i DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9)	red; check all that apply) 	Hydric Soil Present? Yes No debris mifal in the Soil (bricks, wires
marks: Soil is vay hose - G ballish minable gpper to a DROLOGY etland Hydrology Indicators: mary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Water-Stained Leaves (B9) etd Observations:	Kaninel in-site. Some trash \$ ka brock fagments. <u></u>	Hydric Soil Present? Yes No debris mixed in the Soil (bricks, wires
amarks: Soil is vay hose - G COROLOGY etland Hydrology Indicators: imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine) _ Drift Deposits (B3) (Nonriverine) _ Surface Soil Cracks (B6) _ Inundation Visible on Aerial Imagery (_ Water-Stained Leaves (B9) etd Observations: urface Water Present? Yes	Kaninel in-site. Some trash ∉ ka brock fagments. red; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) a) Oxidized Rhizospheres along Livir Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So (B7) Thin Muck Surface (C7) Other (Explain in Remarks) No Depth (inches):	Hydric Soil Present? Yes No debris mij.alin the Soil (bricks, wire)
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emarks: Soil is vag hose - G 2ddish minuels gper to a 2ddish minuels gper to 2ddish minuels gper to a 2ddish minuels g	Kaninul in- Situ. Some trash \$ ka brick fagments.	Hydric Soil Present? Yes No debris middin the Soil (bricks, wires
emarks: Soil is vag hose - G 2011 (incres) emarks: Soil is vag hose - G 2011 Sh minards gpeer to a 2011 Sh minards gpeer to a 2011 Show - G 2011 Show - G	Kaninel in-Sita. Some trash to brock fagments. red; check all that apply)	Hydric Soil Present? Yes No debris middin the Soil (bricks , wires

Project Number: Stream: Accord Stream: Accord Str		D-4 N 1 -	Time
Frome Number: Formation of the drive d	Project: W Gunden St.	Date: 1/2/16	Time:
Investigator(s): F. N=20. Investigator(s): F. N=20. Y [] / N [] bo normal circumstances exist on the site? Investigator(s): F. N=20. Y [] / N [] is the site significantly disturbed? Incordinates: Potential anthropogenic influences on the channel system: Strondham Subject to multif & other inpt from Scrondry built constonant, thendas, compute approximate to the second system: Strend have Alved the bed maked in multiple locations. Brief site description: to multiple locations. to make in bit didged property f finden st. Using equal to the scrondry flows on the scrondry flows. Theorem age data Galo in maps Date: Brief site description: Theorem age data Galo galo in maps Breid of record: Breid gelinetion(s) for site Galo gistioning system (GPS) Other studies Hydrogeomorphic Floodplain Units Active Floodplain Active Floodplain Usalt the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. Solar maps Charle procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: I walk the channel and floodplain within the study area t	Stream downed ston down dited	Photo begin file#	Photo end file#·
Y M / N Do normal circumstances exist on the site? Location Details: offlown DS A. Y M / N M Is the site significantly disturbed? Projection: Datum: Coordinates: Datum: Potential anthropogenic influences on the channel system: Datum: Coordinates: Datum: Appendix Subject to make the balance system: Datum: Coordinates: Datum: Spin Adam, Subject to make the balance system: Datum: Coordinates: Datum: Coordinates: Brief site description: to make the balance system: Spin Adam, Subject to the balance system: Spin Adam, Subject to the system of the system: Marcial photography Stream gage data Spin Adam, Subject to the system: Spin Adam, Spin Stream Stream gage data Marcial photography Stream gage data Gage number: Spin Stream St	Investigator(s): L. MT. r.4	I noto begin men.	
Y / N Is the site significantly disturbed? Projection: Coordinates: Datum: Coordinates: Potential anthropogenic influences on the channel system: Sorm data, Subject to ranoff & other input from subjective distingent, tooking built ontionant, tooking to subject to have alread the lock material, in multiple lockings. Datum: Coordinates: Brief site description: toomdain biff deschard propents for the subter of the s	$Y \times / N \square$ Do normal circumstances exist on the site?	Location Details:	DS AL
Potential anthropogenic influences on the channel system: there day, Subject to readf & other input from sureably built environment: theodes encoupants appent to have a thread the bed material in multiple bestims. Brief site description: tomdain b/f dataged property & Geden St. Visible organ! defth of ditch, geneally 2' of roturn and, up to 10 - N' defted property & Geden St. Visible organ! defth of ditch, geneally 2' of roturn and, up to 10 - N' defted property & Geden St. Visible organ! defth of ditch, geneally 2' of roturn and, up to 10 - N' defted suffere and Erlors a cubicity differences. Checklist of resources (if available): Acrial photography Gage number: Period of record: Geologic maps Vegetation maps Gage heights for 2-, 5-, 10-, and 25-year events and the most recent shift-adjusted rating Gage heights for 2-, 5-, 10-, and 25-year events and the most recent shift-adjusted rating Gage heights for 2-, 5-, 10-, and 25-year events and the most recent shift-adjusted rating Chew Flow Channels Hydrogeomorphic Floodplain Units Active Floodplain Vegetation present at the site. 2. Select a representative cross section and tabe the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 3. Determine the floodplain unit and GPS position. b) Describe the sectiment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify the OHWM and record the indicators. Record the OHWM position via: Distingene areant photograph (CPS)	Y / N X Is the site significantly disturbed?	Projection: Coordinates:	Datum:
Storm dram Subject to conself & other input from Surgently built covitionment, therebys encoupents append have altered the bod material in multiple locations. Brief site description: torm drain bit developed property & Green St. Visible or call depth of ditch, generally 2' of rothern and, up to to st. 't at the subdram and Extense a chieft processing flows into the Storm Sector Sector. Checklist of resources (if available): Bariel photography Stream gage data Gase number: Period of record: Topographic maps Period of frequency analysis Soils maps Gage number: Soils maps Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event Global positioning system (GPS) OHWM Palee Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWMI: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphic floodplain units. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 4. Record the floodplain unit and GPS position. b. Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain units. a) Record the floodplain unit acros	Potential anthropogenic influences on the channel syst	tem:	
appear to have allowed the bock material in multiple locations. Brief site description: tormdain b/f dadged paperty & Enden St. Variable organ II depth of ditch, genedity 2' of rothern and, up to 16-16' of the sadian end. Entres a colusity diversionably flows into the ditch, genedity 2' of rothern and, up to 16-16' of the sadian end. Entres a colusity diversionably flows into the ditch, genedity 2' of rothern and up to 16-16' of the sadian end. Entres a colusity diversionably flows into the ditch, genedity 2' of rother sadiants. Checklist of resources (if available): Stream gage data Gage number: Opographic maps Dates: Period of record: Geologic maps History of recent effective discharges Vegetation maps Results of flood frequency analysis Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event Global positioning system (GPS) OHWM Paleo Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphic floodplain units. 2. Select a representative cross section that is characteristic of one of the hydrogeomorphic floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain un	Stormdrain subject to runoff & other inputs for	ion surrounding built crisil	promont, Howeless encaugements
Brief site description: tormdain b/t dudged property & Greden St. Usrially ergen II depth of ditch, geneally 2' of return nd, up to 10 - 10' of the sufficient color. Extense culture fibrication of the distribution distribution different the distribution different hydrogeomorphic flo	appear to have altered the bed material in m	wittiple locations.	Y
<pre>tomdrain b/f. deviced property & Green St. Versite error of defth of different of the sector system ond, up to 10 - 11' of the suction and Entry a California Califoria California California California California Cal</pre>	Brief site description:		
Add_up for 16 - N° c4 - fbc Sadkan, Ext. Extras a Child of presences with the fire Sink Park go for the fore Sink go for the fore Sink Park for the fore Sink Park go fo	stormdrain b/f developed property & Enden St. V	windle overall depth of	ditch, generally 2' at nothern
Checklist of resources (if available): Stream gage data ☐ Acrial photography Gage number: ☐ Topographic maps History of recent effective discharges ☐ Vegetation maps History of recent effective discharges ☐ Vegetation maps History of recent effective discharges ☐ Soils maps History of recent effective discharges ☐ Rainfall/precipitation maps Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event ☐ Global positioning system (GPS) Other studies Procedure for identifying and characterizing the floodplain Units Active Floodplain Low Terrace I. Walk the channel and floodplain within the study area to get an impression of the geomorphic floodplain units. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the eross section that is characteristic of one of the hydrogeomorphic floodplain units. a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify any indicators present at the loca	end, up to 10-11 of the suchan end. Enters a Co	Wathpressmably Hows	The fire doin sear agoren.
Acrial photography Stream gage data Dates: Gage number: Topographic maps History of record: Geologic maps History of record: Vegetation maps Results of flood frequency analysis Soils maps Most recent shift-adjusted rating Rainfall/precipitation maps Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event Global positioning system (GPS) Hydrogeomorphic Floodplain Units Hydrogeomorphic Floodplain Units Active Floodplain Low-Flow Channels OHWM Paleo Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphic floodplain units. 3. Determine a point on the cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. 4. Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Jednetify the OHWM and record the indicators. Record the OHWM position via: Mapping on aerial photograph Other to be recent the start of the most recent the other of the recent the start of the recent the other of the mo	Checklist of resources (if available):		
□ Dates: Gage number: □ Topographic maps Period of record: □ Geologic maps □ History of recent effective discharges □ Vegetation maps □ Most recent shift-adjusted rating □ Rainfall/precipitation maps □ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event □ Global positioning system (GPS) □ Other studies □ Other studies Hydrogeomorphic Floodplain Units ■ Active Floodplain ↓ Low Terrace ↓ Low-Flow Channels OHWM Paleo Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWMI: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphic floodplain units. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characterizic of one of the hydrogeomorphic floodplain units. a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. b) Describe the sediment texture (using the Wen	Aerial photography Stream gag	ge data	
 ☐ lopographic maps ☐ Geologic maps ☐ Geologic maps ☐ History of recent effective discharges ☐ Wegetation maps ☐ Arinfall/precipitation maps ☐ Bainfall/precipitation maps ☐ Global positioning system (GPS) ☐ Other studies Hydrogeomorphic Floodplain Units Hydrogeomorphic Floodplain Units Active Floodplain Hydrogeomorphic Floodplain Units Active Floodplain Units Hydrogeomorphic Floodplain units Hydrogeomorphic Floodplain units OHWM Paleo Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWMI: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify any indicators present at the location. 6. Reprint a point on the cross section. 6. Identify any indicators present at the location. 6. Reprint a point on the cross section. 6. Identify any indicators present at the location. 6. Identify any indicators present at the location. 6. Reprint apprint on aerial photograph I GPS	Dates: Gage num	ber:	
Instory of recent electron discusses Coologic maps Instory of recent electron discusses Vegetation maps Results of flood frequency analysis Soils maps Most recent shift-adjusted rating Rainfall/precipitation maps Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event Global positioning system (GPS) Hydrogeomorphic Floodplain Units Active Floodplain Low Terrace Low-Flow Channels OHWM Paleo Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: Mapping on aerial photograph	Coolegie mans Period of r	ecord:	× *
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 Not new and the index of the in	Soils maps Most r	s of noou nequency analysive cent shift-adjusted rating	15
Cage freights to 12-5, 10, and 22-5, and and 22-5, and	Rainfall/precipitation mans	reights for 2_{-} 5_{-} 10_{-} and 2	5-year events and the
Hydrogeomorphic Floodplain Units Hydrogeomorphic Floodplain Units Active Floodplain Low Flow Channels Hydrogeomorphic Floodplain Units Low-Flow Channels OHWM Paleo Channel Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: Mapping on aerial photograph Mapping on aerial photograph Mapping on aerial photograph Mapping on aerial photograph	\Box Existing delineation(s) for site most r	ecent event exceeding a 5-x	year event
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Mapping on aerial photograph GPS	5. Identify the OHWM and record the indicators. Record	the OHWM position via:	
Digitized on computer	Mapping on aerial photograph	GPS	
	Digitized on computer	Other:	

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Inches (in)					Mil	imeters (m	im)	Wentworth size class	
		10.08	_	-	-	256		Boulder	-
		2.56	-	_		64		Cobble)rave
		0.157	_	-	-	4	- 1-	Pebble	
ŀ		0.079	_		-	2.00		Granue	-
		0.039	-	-	-	1.00	_ ~	Very coarse sand	
		0.020	-	-	-	0.50			P
	1 /2	8000.0	_	-	-	0.25		Medium sand	മ
	1/4	0.005	-	-	÷	0.125			
	1/8 —	0.0025	-		-	0.0625		Very fine sand	-
	1/16	0.0012	_	-	-	0.031		Coarse silt	
	1/32	0.00061	-	-		0.0156			Sit
	1/64	0.00031	-	-	-	0.0078			
l	1/128 —	0.00015	_		-	0.0039		very me sit	_
								Clay	Muc

Wentworth Size Classes

 $\gamma^{-1} \in X$

Project ID:	Cross section ID:		Date: 1/2/19	Time:
Cross section drawi	ng:	Goden St.		
	(nitth)	1		
Developed				
INF	No visible o thurse lout	which have is	or com-	
<u>OHWM</u>				
GPS point:	:			
Indicators:		_		
Change in ave	rage sediment texture setation species	Break in	bank slope	
Change in veg	setation cover	Other:		
Comments:				
Feature clishly resun	bus a swale that is	5 Composed	of soft sedimen	ts, feat lifter / regitation,
trish & debris. No	offwim indictors obsa	red with the	exception of	a wreck lose &
water marks - ~ 3	wide		X94	
Floodplain unit:	Low-Flow Channel	Active F	loodplain	Low Terrace
GPS point:				
Characteristics of the f	loodnlain unit:			
Average sediment texts		1. 6 0/	IT. 1. CO 0/	
Community succession	_ % 11ee: _ 0 _ % Sm al stage:	rud: <u>30</u> %	Hero: <u>669</u> %	
☐ NA ☐ Early (herbace	eous & seedlings)	Mid (her Late (her	baceous, shrubs, sar baceous, shrubs, ma	olings) ature trees)
Indicators:				
Mudcracks		Soil deve	elopment	
$\square \text{ Drift and/or de}$	ebris	Other:	ener	
Presence of be	d and hank	Other: Other:		
Comments:				
Ngetation is	argely up land ad apte	d. See we	Hand defineation	Sampling forms,

Project ID:	Cross section ID:		Date:	Time:	
Floodplain unit:	Low-Flow Channel		Active Floodplain	Low Terrac	e
GPS point:			2		
GI 5 point	3	(à			
Characteristics of th	e floodplain unit:			×	
Total veg cover:	% Tree:% S	hrub:	% Herb:	_%	
Community successi	ional stage:	F 1	Mid (herbaceous sh	mile sanlings)	
$\square Early (herba$	aceous & seedlings)		Late (herbaceous, sl	rubs, mature trees)	
Mudcracks			Soil development		
Ripples			Surface relief		
Drift and/or	debris bed and bank	H	Other:		
Benches			Other:		
Comments:	2				
N/A					
<i>A</i>	2		2		
Floodnlain unit	I ow-Flow Channel		Active Floodplain		e
<u>I Iooupium ume</u>			1100 0 1 100 ap-u		
GPS point:					
Characteristics of th	e floodplain unit:				
Average sediment te	exture: $\frac{9}{T_{roo:}}$		% Herb	0/_	
Community success	% Tree % S ional stage:		/0 IICIO		
	0		Mid (herbaceous, sl	urubs, saplings)	
Early (herb	aceous & seedlings)	L	Late (neroaceous, s	muos, maine nees)	•
Indicators:			Coil dovol-		
Mudcracks			Soll development Surface relief		
Drift and/or	r debris		Other:		
Presence of Parabas	f bed and bank		Other:		
Comments.		L1			
Comments.					
P/P					

68 34

Attachment D

Habitat Restoration Plan



A temporary drip irrigation system for uplands and overhead spray system for banks will be used to irrigate and

IRRIGATION

A final monitoring report will be submitted at the end of Year 5, or when success criteria have been achieved. The final report will include the information outlined above for Years 2, 3, and 4, as well as an evaluation of whether the restoration areas have met the goals and objectives of the HRP.

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	WATER USE	
	PLA R15	10	Platanus racemosa	California Sycamore	15 gal	Medium	
	POP BAL	2	Populus balsamifera trichocarpa	Black Cottonwood	5 gal	Medium	
	QUE AG1	12	Quercus agrifolia	Coast Live Oak	1 gal (3) 15 gal	Low	
	SAM CAE	19	Sambucus nigra caerulea	Blue Elderberry	5 gal	Low	
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	WATER USE	SPACING
	CAR PRA DIS SPI ELY AL2 JUN PAT SCH AME	1,998 sf 231 924 416 185 52	WETLAND (TO BE CREATED) Carex praegracilis Distichlis spicata Elymus triticoides Juncus patens Schoenoplectus americanus	California Field Sedge Saltgrass Alkali Rye California Gray Rush Three-square Bulrush	4"pot 72 cell plugs 4" Pots or Tubes 1 gal 1 gal	Medium Low Low Low High	25% @ 18" o.c. 25% @ 9" o.c. 20% @ 12" o.c. 20% @ 18" o.c. 10% @ 24" o.c.
	ART DOU BAC SAL CAL CYC CLE LIG ROS CAL RUB URS SAL EXI SAL LAS SCR CAL	8,816 sf 204 58 29 29 74 51 13 18 69	RIPARIAN SCRUB / TRANSITIONAL WETLAND (TO BE CREATED) Artemisia douglasiana Baccharis salicifolia Calystegia macrostegia cyclostegia Clematis ligusticifolia Rosa californica Rubus ursinus Salix exigua Salix lasiolepis Scrophularia californica	Mugwort Mulefat Coast Morning Glory Western White Clematis California Wild Rose California Blackberry Coyote Willow Arroyo Willow California Figwort	1 gal 1 gal 1 gal 1 gal 1 gal 1 gal 1 gal 1 gal 1 gal	Low Low Low Low Low High High Low	20% @ 36" o.c. 10% @ 48" o.c. 5% @ 48" o.c. 5% @ 48" o.c. 20% @ 60" o.c. 20% @ 72" o.c. 5% @ 72" o.c. 12% @ 96" o.c. 3% @ 24" o.c.
	ACM DEE ART CAL ASC FAS BAC CON BRO CAR DIS SP2 ELY CON ELY AL3 ENC CAL ERI PAR ERI CON FRA CA3 HET AR2 ISO MNZ MIM AUR MUH RIG RHU INT SAL LEU	11,755 sf 68 50 39 11 611 2,172 28 611 50 68 153 25 17 50 68 39 17 25 25	UPLAND COASTAL SAGE SCRUB (TO BE CREATED) Acmispon glaber Artemisia californica Asclepias fascicularis Baccharis pilularis consanguinea Bromus carinatus Distichlis spicata Elymus condensatus Elymus triticoides Encelia californica Eriogonum parvifolium Eriophyllum confertiflorum Frangula californica Heteromeles arbutifolia Isocoma menziesii menziesii Mimulus aurantiacus Muhlenbergia rigens Rhus integrifolia Salvia leucophylla	Deerweed California Sagebrush Narrowleaf Milkweed Coyote Brush California Brome Saltgrass Giant Wild Rye Alkali Rye California Encelia Cliff Buckwheat Golden Yarrow California Coffeeberry Toyon Menzie's Goldenbush Sticky Monkeyflower Deer Grass Lemonade Berry Purple Sage	1 gal 1 gal 1 gal 1 gal 72 cell plugs 72 cell plugs 72 cell plugs 1 gal 4" Pots or Tubes 1 gal 1 gal	Low Low Low Low Low Low Low Low Low Low	5% @ 36" o.c. 5% @ 42" o.c. 5% @ 48" o.c. 3% @ 72" o.c. 5% @ 12" o.c. 5% @ 36" o.c. 5% @ 36" o.c. 5% @ 36" o.c. 5% @ 24" o.c. 5% @ 60" o.c. 5% @ 42" o.c. 5% @ 60" o.c.

Vegetation Community	Existing SF	Proposed Native	Net Habitat	
		Habitat Area SF	Creation SF	
Non-native (ruderal)	14,533	0	0	
Wetland (Native)	19	1,998	1,979	
Riparian / Transitional (Ex. Is	7207	0.016	1,419	
Non native, Arundo etc.)	1331	0,010		
Native Upland / Coastal Sage	127	11 755	11,318	
Scrub (Ex. Is Oak)	437	11,/55		
TOTAL:	22,386	22,569	14,716	

Vegetation Community	Area	Mitigation Ratio	Mitigation Area	Net Habitat	
	Impacted SF	Required SF	Required SF	Restoration Area	
				Proposed SF	
Coastal Wetland	0	N/A	N/A	N/A	
Waters of the State,	99	5:1	495	1,419	
Permanent					
Waters of the State,	244	2.1	722	1 410	
Temporary	244	3:1	/32	1,419	
	763	N/A	N/A	N1/A	
15 Drain Buffer				N/A	
Total impacted area requiring	242		1 227	1 410	
mitigation	343		1,227	1,419	
Native Riparian/Transitional h	abitat type pro	posed for Required Mi	tigation		

