AQUATIC RESOURCE DELINEATION REPORT

TOLARI PROPERTY, SANTOS RANCH ROAD HAYWARD, ALAMEDA COUNTY, CALIFORNIA (APN: 946-3800-4-12)

SEPTEMBER 2022

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1.0 INTRODUCTION

Coast Range Biological, LLC conducted an aquatic resource delineation to identify the location and extent of: (1) waters of the U.S., including wetlands, potentially subject to jurisdiction by the U.S. Army Corps of Engineers (Corps) under Section 404 of the federal Clean Water Act (CWA); and (2) waters of the State, as defined by the State Water Resources Control Board (SWRCB) State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The study area for the aquatic resource delineation covers 17-acres and is located on Santos Ranch Road in Hayward, Alameda County, California (Figure 1). The study area includes the Tolari property (APN: 946-3800-4-12) and a portion of the adjacent parcel to the south (Bhupinder property, APN: 946-3800-4-9) that extends from the Tolari property south to Santos Ranch Road. The proposed project on the study area consists of development of a single-family residence, driveway, and associated infrastructure on the Tolari property, with a driveway easement crossing the Bhupinder property from Santos Ranch Road, though detailed project plans have not yet been completed.

2.0 REGULATORY FRAMEWORK AND DEFINITIONS

2.1 Wetlands

The CWA gives the Corps and Environmental Protection Agency (EPA) jurisdiction over "waters of the United States" which include lakes, rivers, streams, and wetlands. "Wetlands" are jointly defined by the Corps and EPA as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (Federal Register 1980; 1982).

Under normal circumstances and unproblematic situations, wetlands typically have positive indicators of three wetland parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. These parameters are discussed below.

2.1.1 Hydrophytic Vegetation

Hydrophytic vegetation is defined as "the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (Environmental Laboratory 1987). In order to determine if hydrophytic vegetation is present, each plant species occurring in a sample plot is identified and assigned a wetland indicator status (Table 1) based on the National Wetland Plant List (USACE 2020).

Plants that have an indicator status of OBL, FACW, and FAC are considered to be typically adapted for life in anaerobic soil conditions, and qualify as hydrophytic species for Section 404 delineations. If more than 50 percent of the dominant plant species in a sample plot are classified as hydrophytic species (e.g., FAC or wetter), the area has met the hydrophytic vegetation criterion. Dominant species are selected using the "50/20 rule" (USACE 2008a).

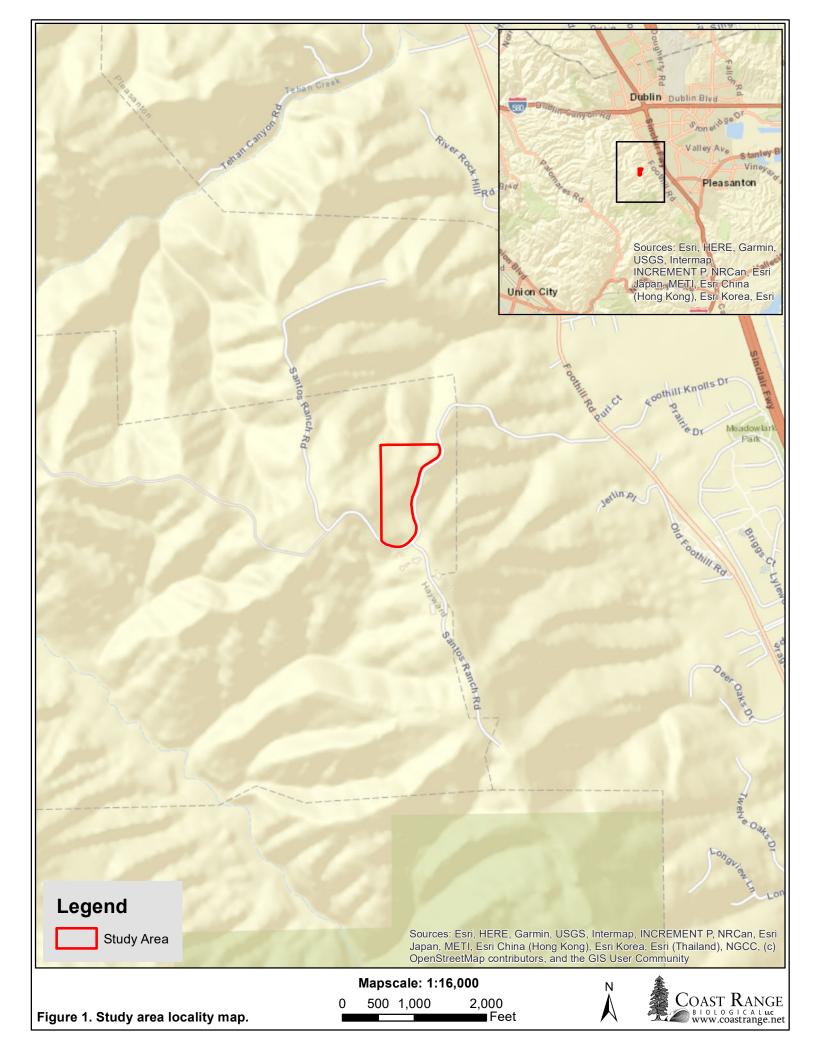


Table 1. Wetland Plant Indicator Status.

Indicator		Qualitative Description
Status Rating	Designation	(USACE 2020)
Obligate (OBL)	Hydrophyte	Almost always occur in wetlands
Facultative Wetland	Hydrophyte	Usually occur in wetlands, but may occur in non-
(FACW)		wetlands
Facultative (FAC)	Hydrophyte	Occur in wetlands and non-wetlands
Facultative Upland	Nonhydrophyte	Usually occur in non-wetlands, but may occur in
(FACU)		wetlands
Upland (UPL)	Nonhydrophyte	Almost never occur in wetlands

2.1.2 Wetland Hydrology

Wetland hydrology "encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season sufficient to create anaerobic and reducing conditions" (Environmental Laboratory 1987). The jurisdictional wetland hydrology criterion is satisfied if the area supports "14 or more consecutive days of flooding or ponding, or a water table 12 in. (30 cm) or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (50 percent or higher probability)" (USACE 2008a). If recorded data—such as stream, tidal gauge, or hydrologic monitoring—are lacking, field indicators are used to determine the presence of wetland hydrology. Field indicators include primary indicators, such as observed inundation or saturation, biotic crust, and oxidized rhizospheres on living roots; or secondary indicators, such as drainage patterns and FAC-neutral test. The presence of one primary indicator, or two secondary indicators, is sufficient to conclude that an area has wetland hydrology (USACE 2008a).

2.1.3 Hydric Soils

Hydric soils are defined by the Natural Resources Conservation Service as "soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil" (Federal Register 1994). Nearly all hydric soils exhibit characteristic morphologies that result from repeated periods of saturation or inundation, or both, for more than a few days. Characteristic hydric soil indicators observable in the field include: histic epipedons; sulfidic material; aquic or preaquic moisture regime; reducing conditions; iron and manganese concretions; and soil colors (gleyed soils, soils with mottles and/or low chroma matrix). Color designations are determined by comparing a soil sample with a standard Munsell soil color chart (Gretag Macbeth 2000). The presence of any one of the above listed field indicators is considered sufficient to meet the hydric soil criterion.

2.2 Other Waters of the U.S.

In addition to potential jurisdictional wetlands, this study evaluated the presence of any "waters of the U.S." other than wetlands potentially subject to jurisdiction under Section 404 of the CWA. Non-wetland "other waters" are water bodies, such as lakes, stream channels, drainages, ponds, and other surface water features that exhibit an Ordinary High Water Mark (OHWM) but lack positive indicators of one or more of the three wetland parameters

(hydrophytic vegetation, wetland hydrology, hydric soils) (Federal Register 1986). In non-tidal "other waters," Corps jurisdiction extends to the OHWM, defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressions on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris" (Federal Register 1986; USACE 2005; 2008b).

2.3 Waters of the State

On April 2, 2019, the SWRCB adopted a *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures), for inclusion in the *Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California* (SWRCB 2019). The Procedures took effect May 28, 2020. The Procedures consist of four major elements: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the State; (3) wetland delineation procedures; and (4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

Based on the new Procedures, the SWRCB and Regional Water Quality Control Board (RWQCB) define "wetland" as follows: "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2019). The Water Code defines "waters of the State" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." "Waters of the State" includes all "waters of the U.S." (SWRCB 2019).

The SWRCB/RWQCB delineation methodology follows the Corps delineation methodology. Areas that may be exempt from Corps jurisdiction, but may be included as waters of the State under the Procedures or the Porter-Cologne Water Quality Control Act, were identified during the delineation.

3.0 METHODS

Prior to the field delineation, available reference materials were reviewed, including the Web Soil Survey (NRCS 2022a), Hydric Soils Lists (NRCS 2022b), the National Wetlands Inventory (USFWS 2022), the National Hydrography Dataset (USGS 2022), topographic maps (USGS 2018), geologic data (California Geological Survey 2010), previous botanical surveys conducted on the study area (CRB 2022), and aerial imagery. A routine-level jurisdictional delineation was conducted on the study area on September 21, 2022. The study area was traversed on foot and field-checked for indicators of hydrophytic vegetation, wetland hydrology, and hydric soils, as well as drainages with a bed, bank, and OHWM. Twelve sample points were taken on the study area and recorded on Corps data forms provided in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* ("Arid West Manual"; USACE 2008a). Corps data forms are included in Appendix A.

This aquatic resource delineation was conducted in accordance with the Arid West Manual and the *Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987). Based on the presence or absence of field indicators—including vegetation, hydrology, and soils—the limits of potential jurisdictional wetlands and other waters of the U.S. and State were determined. Potential jurisdictional waters were mapped in the field with a Trimble GPS unit (sub-meter accuracy) and overlain on a digital orthophoto (data in UTM Zone 10, NAD 83 format) using ArcGIS mapping software. The property boundary was downloaded from the Alameda County parcel layer as an ArcGIS shapefile obtained from the County website. Due to apparent inaccuracies in the parcel layer, the property boundary used in this report was modified based on markers observed in the field and should be considered approximate.

4.0 STUDY AREA DESCRIPTION

The study area covers 17-acres and consists of undeveloped land with some areas of disturbance, including a graded hillside above Santos Ranch Road. Based on an analysis of historical aerial imagery, the road appears to have been constructed in the 1960s, with the hillside graded as part of road construction. Additional historic disturbance, dating to the 1960s, is present in the southern portion of the study area from apparent dirt roads and associated grading. Most of the study area was relatively undisturbed at the time of the delineation, though minor ground disturbance had occurred around the proposed homesite area, associated with story pole construction, prior to the delineation.

Land uses surrounding the study area consist of undeveloped land in Pleasanton Ridge Regional Park (owned by East Bay Regional Park District) to the west, private undeveloped land to the north, Santos Ranch Road and undeveloped private land to the east, and residential development and Pleasanton Township County Water District land to the south (Figure 1).

4.1 Vegetation

Six vegetation types are present on the study area: Coast Live Oak Woodland and Forest, Non-Native Grassland, Purple Needlegrass Grassland, Coyote Brush Scrub, Willow Scrub, and Ruderal Herbaceous (CRB 2022). Coast Live Oak Woodland and Forest, composed of the *Quercus agrifolia - Quercus kelloggii* Association¹ within the *Quercus agrifolia* Forest and Woodland Alliance², covers the northern portion of the study area on moderate to steep slopes. Coast Live Oak Woodland and Forest is dominated by a canopy of coast live oak (*Quercus agrifolia*³), with patchy dense areas of California black oak (*Quercus kelloggii*) and California bay (*Umbellularia californica*). Valley oak (*Quercus lobata*) and big-leaf maple (*Acer macrophyllum*) are occasionally present in the canopy and California buckeye (*Aesculus californica*) is scattered in the subcanopy. The understory consists of shrubs and herbaceous species, including poison oak (*Toxicodendron diversilobum*), creeping snowberry (*Symphoricarpos mollis*), oceanspray (*Holodiscus discolor*), California coffeeberry (*Frangula californica*), oso berry (*Oemleria cerasiformis*), soap plant (*Chlorogalum pomeridianum*),

¹ Association nomenclature follows the California Natural Community List (CDFW 2021).

² Alliance nomenclature follows *A Manual of California Vegetation* (Sawyer et al. 2009) and nomenclatural updates in CNPS (2022).

³ Botanical nomenclature follows Baldwin et al. (2012), along with taxonomic updates in the *Jepson eFlora* (The Jepson Flora Project 2022).

wild pea (*Lathyrus vestitus*), goose grass (*Galium aparine*), yarrow (*Achillea millefolium*), hound's tongue (*Cynoglossum grande*), wood fern (*Dryopteris arguta*), goldback fern (*Pentagramma triangularis*), California polypody (*Polypodium californicum*), California maidenhair (*Adiantum jordanii*), California man-root (*Marah fabacea*), Chinese houses (*Collinsia heterophylla* var. *heterophylla*), Pacific snakeroot (*Sanicula crassicaulis*), milk maids (*Cardamine californica*), blue wildrye (*Elymus glaucus*), and Bermuda buttercup (*Oxalis pes-caprae*).

Non-Native Grassland, composed of the Avena spp. - Bromus spp. Herbaceous Semi-Natural Alliance, occurs on slopes in the western and southern portion of the study area. Non-Native Grassland consists primarily of non-native grasses and forbs adapted to disturbance, including slender wild oat (Avena barbata), soft chess (Bromus hordeaceus), ripgut brome (Bromus diandrus), red brome (Bromus rubens), hedgehog dogtail (Cynosurus echinatus), Italian ryegrass (Festuca perennis), rattail fescue (Festuca myuros), barley (Hordeum murinum subsp. leporinum), silver hair grass (Aira caryophyllea), annual bluegrass (Poa annua), filaree (Erodium botrys), sheep sorrel (Rumex acetosella), cutleaf geranium (Geranium dissectum), vetch (Vicia sativa), hairy vetch (Vicia villosa), rose clover (Trifolium hirtum), narrow leaf clover (Trifolium angustifolium), subterranean clover (Trifolium subterraneum), Italian thistle (Carduus pycnocephalus), smooth cat's ear (Hypochaeris glabra), and bur clover (Medicago polymorpha). Native grasses and forbs are widely scattered throughout the grassland, including purple needlegrass (Stipa pulchra), California brome (Bromus sitchensis var. carinatus), small fescue (Festuca microstachys), California poppy (Eschscholzia californica), miniature lupine (Lupinus bicolor), Q-tips (Micropus californicus), rusty popcornflower (Plagiobothrys nothofulvus), dwarf plantain (Plantago erecta), purple sanicle (Sanicula bipinnatifida), blue dicks (Dipterostemon capitatus), narrowleaf mules ears (Wyethia angustifolia), and western blue-eyed-grass (Sisyrinchium bellum).

Purple Needlegrass Grassland, composed of the *Nassella pulchra – Avena* spp. – *Bromus* spp. Association within the *Nassella* spp. - *Melica* spp. Herbaceous Alliance, was mapped in two areas where purple needlegrass formed at least 10 percent relative cover in the herbaceous layer (CRB 2022). Purple Needlegrass Grassland is dominated by purple needlegrass, along with native forbs including fiddleneck (*Amsinckia menziesii*), ear-shaped wild buckwheat (*Eriogonum nudum* var. *auriculatum*), Ithuriel's spear (*Triteleia laxa*), spikeweed (*Centromadia fitchii*), vinegar weed (*Trichostema lanceolatum*), California poppy, and miniature lupine. Non-native grasses and forbs are also present, including slender wild oat, filaree, and sheep sorrel.

Coyote Brush Scrub, composed of the *Baccharis pilularis* Shrubland Alliance, is located on a slope above Santos Ranch Road. Coyote Brush Scrub is dominated by a dense cover of coyote brush (*Baccharis pilularis* subsp. *consanguinea*), with California sagebrush (*Artemisia californica*), sticky monkeyflower (*Diplacus aurantiacus*), silver lupine (*Lupinus albifrons* var. *albifrons*), deerweed (*Acmispon glaber*), French broom (*Genista monspessulana*), California figwort (*Scrophularia californica*), chaparral clarkia (*Clarkia affinis*), poison oak, California poppy, and soap plant scattered throughout openings in the shrub canopy.

Willow Scrub, composed primarily of the *Salix lasiolepis* Shrubland Alliance, occurs in a seep at the toe of a graded slope west of Santos Ranch Road. Willow Scrub is dominated by a

canopy of arroyo willow (*Salix lasiolepis*) and red willow (*Salix laevigata*), along with occasional big-leaf maple, California bay, and coast live oak. The understory consists of shrubs—including Himalayan blackberry (*Rubus armeniacus*), poison oak, coyote brush, and French broom—as well as occasional hydrophytic herbaceous species including brown-head rush (*Juncus phaeocephalus*).

Ruderal Herbaceous habitat, conforming to no recognized vegetation classification system but containing ruderal elements of Non-Native Grassland and Coyote Brush Scrub, occurs on the graded slope above Santos Ranch Road. Ruderal Herbaceous habitat consists of abundant bare ground from the graded slope, along with a mix of native and non-native grasses and forbs described above for Non-Native Grassland and Coyote Brush Scrub, including wild oats, filaree, soft chess, red brome, rattail fescue, coyote brush, California sagebrush, sticky monkeyflower, California poppy, deerweed, and ear-shaped wild buckwheat.

A vegetation map of the study area is included in CRB (2022).

4.2 Geology, Climate, and Soils

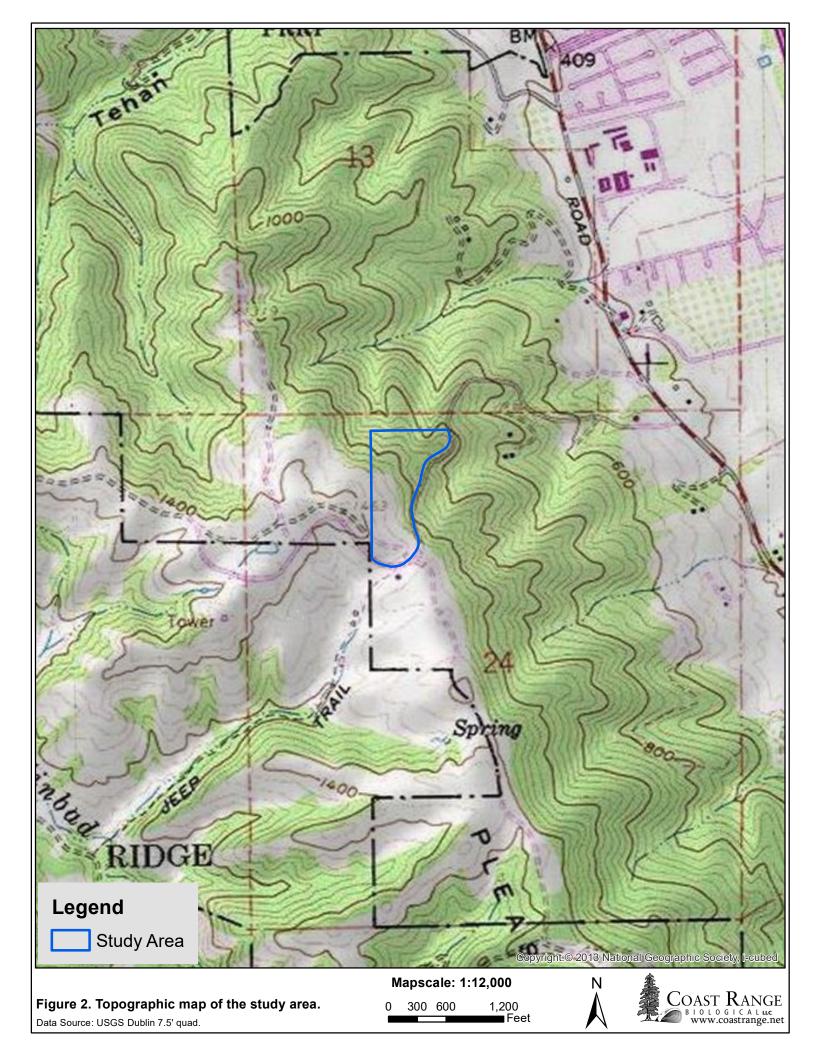
The study area is located between ~1,000 and ~1,400-feet elevation (NAVD 88; USGS 2018) and consists of hilly, ridgeline and upper slope topography sloping toward the north and east (Figure 2). The study area is underlain by marine sedimentary and metasedimentary rocks (undivided Cretaceous sandstone, shale, and conglomerate; California Geological Survey 2010).

Rainy season precipitation for the region prior to the September 21, 2022 delineation (October 2021 to September 19, 2022) was: (1) 17.43 inches (94 percent of normal) for Oakland Airport, ~15-miles northwest of the study area; (2) 12.89 inches (85 percent of normal) for Livermore, ~7-miles east of the study area; and (3) 8.24-inches (61 percent of normal) for San Jose, ~20-miles south of the study area (National Oceanic and Atmospheric Administration 2022). Rain (approximately 0.5-inch) had fallen on the study area on September 18-19, 2022, prior to the delineation.

Three soil types have been mapped on the study area in the Web Soil Survey (NRCS 2022a):

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LpF2—Los Gatos-Los Osos complex, 30 to 75 percent slopes, eroded, MLRA 15 LsC—Los Osos loam, seeped variant, 3 to 15 percent slopes MhE2—Millsholm silt loam, 30 to 45 percent slopes, eroded
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Los Gatos-Los Osos complex, 30 to 75 percent slopes, eroded, MLRA 15, consists of 45 percent Los Gatos and similar soils, 35 percent Los Osos and similar soils, and 20 percent minor components. Los Gatos Soils are Fine-loamy, mixed, active, mesic Typic Argixerolls. Los Osos Series soils are Fine, smectitic, thermic Typic Argixerolls. Los Gatos-Los Osos complex, 30 to 75 percent slopes, eroded, MLRA 15, is well drained, occurs on mountain slopes and hillslopes, and is derived from residuum weathered from sandstone, shale, and occasionally conglomerate. For the Los Gatos soil, a typical profile consists of loam from 0 to 39 inches and bedrock from 39 to 49 inches. The depth to a restrictive feature (lithic bedrock) is 24 to 39 inches, and the depth to water table is >80 inches. For the Los Osos soil, a typical



profile consists of silty clay loam from 0 to 30 inches and weathered bedrock from 30 to 40 inches. The depth to a restrictive feature (lithic bedrock) is 24 to 40 inches, and the depth to water table is >80 inches. Los Gatos-Los Osos complex, 30 to 75 percent slopes, eroded, MLRA 15, is not listed as a hydric soil for Alameda County (NRCS 2022b).

Los Osos loam, seeped variant, 3 to 15 percent slopes, is somewhat poorly drained, occurs in valleys, and is derived from loamy residuum weathered from sandstone and shale. A typical profile consists of loam from 0 to 20 inches, sandy clay loam from 20 to 41 inches, and weathered bedrock from 41 to 45 inches. The depth to a restrictive feature (lithic bedrock) is 18 to 48 inches, and the depth to water table is 24 to 48 inches. Los Osos loam, seeped variant, 3 to 15 percent slopes is listed as a hydric soil for Alameda County when containing unnamed inclusions in depressional landforms (NRCS 2022b).

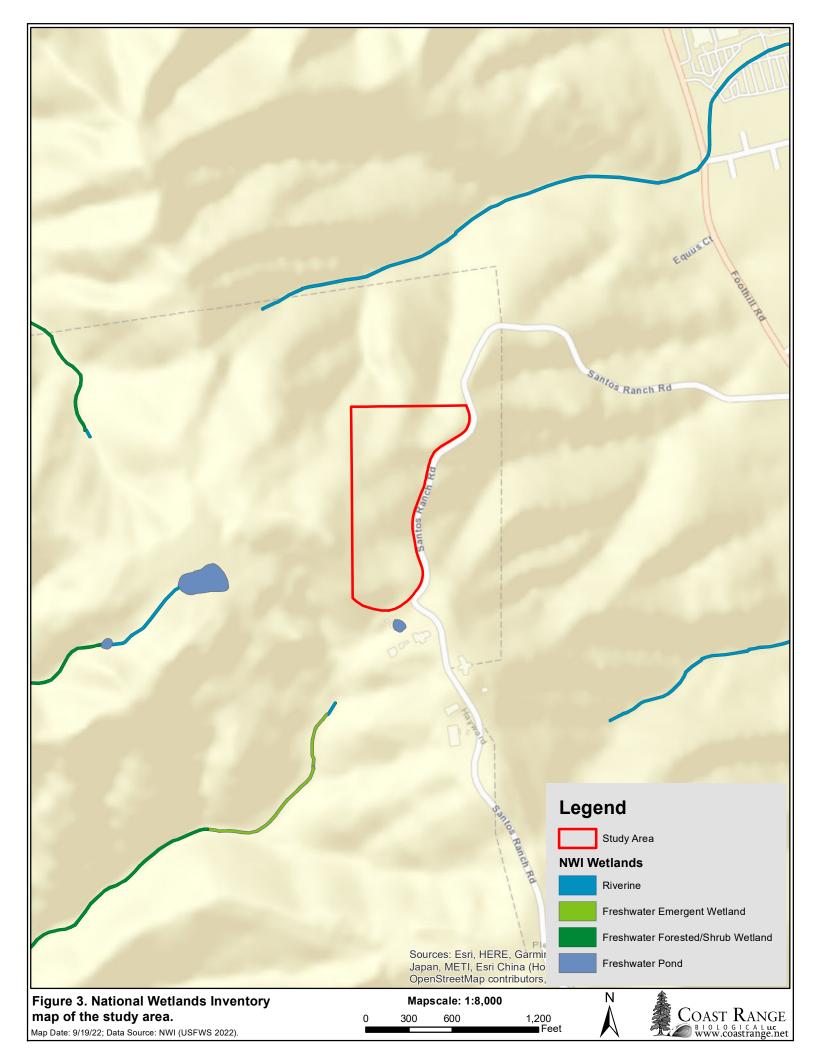
Millsholm Series soils are Loamy, mixed, superactive, thermic Lithic Haploxerepts. Millsholm silt loam, 30 to 45 percent slopes, eroded, is well drained, occurs on hills, and is derived from residuum weathered from sandstone and shale. A typical profile consists of silt loam from 0 to 6 inches, clay loam from 6 to 16 inches, and unweathered bedrock from 16 to 20 inches. The depth to a restrictive feature (lithic bedrock) is 10 to 20 inches, and the depth to water table is >80 inches. Millsholm silt loam, 30 to 45 percent slopes, eroded, is not listed as a hydric soil for Alameda County (NRCS 2022b).

Soils observed in soil pits on the study area are described in Corps datasheets in Appendix A. A soil map of the study area is included in Appendix B.

4.3 Hydrology

No wetlands, drainages, or other aquatic resources have been mapped on the study area in the USGS 7.5' Dublin topographic quadrangle (USGS 2018; Figure 2), the National Wetlands Inventory (NWI; USFWS 2022; Figure 3), or the National Hydrography Dataset (NHD; USGS 2022). The principal hydrologic sources for the study area are direct precipitation, surface sheet flow and shallow near-surface flow from surrounding uplands, and concentrated flow through five unnamed ephemeral drainages and a roadside ditch along Santos Ranch Road. The ephemeral drainages are unnamed tributaries to Arroyo de la Laguna, an intermittent creek located ~1-mile east of the study area. Arroyo de la Laguna drains southbound to its confluence with Alameda Creek, ~5.3-miles southeast of the study area. Alameda Creek drains generally westbound and discharges into San Francisco Bay, a Traditional Navigable Water (TNW) (USGS 2022).

The three northernmost ephemeral drainages on the study area drain northbound across the study area boundary. Based on topographic contours (Figure 2; USGS 2018) and field observations, the drainages appear to discharge into a larger tributary located offsite, ~1,200 feet north of the study area. The offsite tributary is mapped as a Riverine Wetland in the NWI and as a stream in the USGS 7.5' Dublin topographic quadrangle, and drains eastbound, under Highway 680, and into Arroyo de la Laguna. The remaining two ephemeral drainages, located in the north-central and south-central portions of the study area, drain eastbound into a concrete roadside ditch along Santos Ranch Road, discussed below. All ephemeral drainages observed on the study area contain a bed, bank, and OHWM, and were dry during the



September 21, 2022 delineation.

The roadside ditch, presumably excavated for roadside drainage, is present in the southern portion of the study area along Santos Ranch Road. The ditch supports an earthen bed, bank, and OHWM in the upstream reach in the southern portion of the study area. The ditch drains into a concrete roadside ditch, ~2-3-feet wide, that drains along Santos Ranch Road for ~1,491-feet and into a culvert under the road. The culvert drains offsite, presumably discharging eventually, via storm drain networks, engineered channels, and/or other drainages, into Arroyo de la Laguna. The concrete roadside ditch drains along the eastern study area boundary but is located outside the study area.

A seep is located in the eastern portion of the study area, at the toe of the slope west of Santos Ranch Road. The seep drains into the concrete roadside ditch described above.

5.0 RESULTS

5.1 Aquatic Resources

Aquatic resources delineated on the study area during the September 21, 2022 delineation consist of Potential Jurisdictional Wetlands (supporting positive indicators of all three wetland parameters), Potential Jurisdictional Other Waters (ephemeral drainages which have a bed, bank, and OHWM, but lack one or more of the three wetland parameters), and Roadside Ditches (ditches which have a bed, bank, and OHWM and were apparently excavated for roadside drainage). These features are discussed below, mapped in Figure 4, and summarized in Table 2. Delineation datasheets are included in Appendix A, study area photographs are included in Appendix C, and a list of all plant species observed on the study area (during both the delineation and botanical surveys conducted from April-July 2022 (CRB 2022)), and their wetland indicator status, is included in Appendix D.

5.1.1 Potential Jurisdictional Wetlands

Willow Scrub

Willow Scrub (WS) covers 2,722 ft² (0.062-acre) and is located at the toe of a graded slope west of Santos Ranch Road that receives seepage water and surfaced runoff from the adjacent slope (Table 2; Figure 4; Appendix C-1). WS is dominated by hydrophytic vegetation, including a canopy of arroyo willow and red willow, along with occasional big-leaf maple, California bay, and coast live oak. The understory consists of shrubs—including Himalayan blackberry, poison oak, coyote brush, and French broom—as well as occasional hydrophytic herbaceous species including brown-head rush (Sample Point 10a). Hydric soil indicators are present, including Loamy Gleyed Matrix (F2), as well as positive wetland hydrology indicators, including Surface Water (A1), High Water Table (A2), Saturation (A3), Drainage Patterns (B10), and FAC-Neutral Test (D5). WS discharges directly into the concrete roadside ditch that drains into a culvert under Santos Ranch Road (Appendix C-2). Adjacent uplands occur on slopes above the wetland, which are dominated by upland plant species and lack wetland hydrology and hydric soil indicators (Sample Point 10b; Appendix C-3).

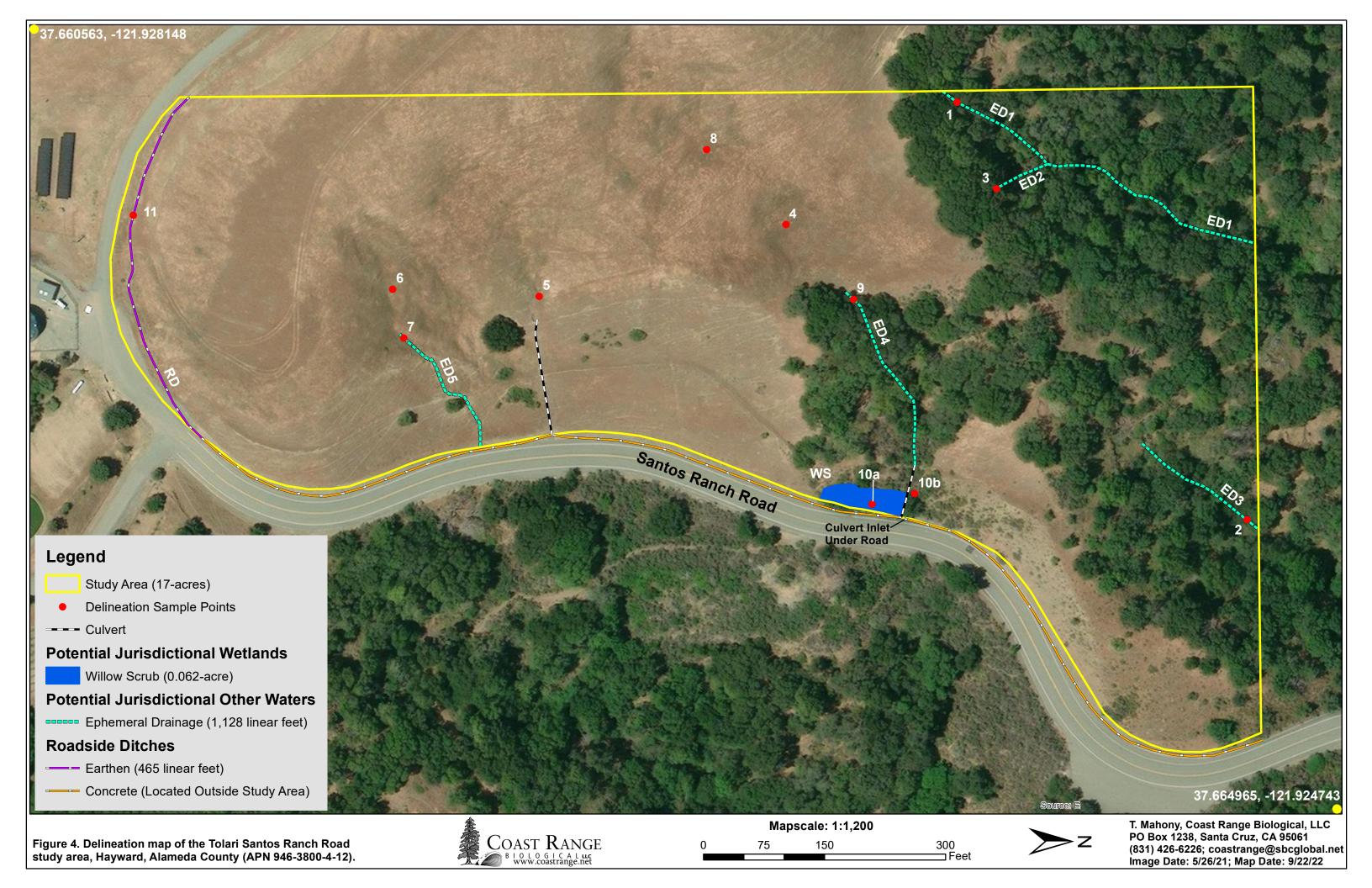


Table 2. Aquatic Resources Delineated on the Study Area.

Feature	Area	Length	Ave.	Sample	Hydric	Wetland	Hvdro	Cowardin	Lat/Lon
Name	(ft ²)	(ft)	Width (ft)	_	Soils	Hydro	Veg	Class	
			Pote	ntial Juris	dictional	Wetlands	3		
WS	2,722	N/A	N/A	10a	X	X	X	PFO	37.663374,
WB	2,122	1 N / A	1 V //A	10a	Λ	Λ	Λ	110	-121.926096
		Potentia	l Jurisdicti	ional Oth	er Waters	s of the U.	S. and/o	r State	
				Epheme	ral Drain	ages			
ED1	1,338	446	3	1		X		R4SB	37.663910,
EDI	1,336	440	3	1		Λ		K4SD	-121.927636
ED2	148	74	2	3		X		R4SB	37.663914,
EDZ	140	/4	2	3		Λ		K43D	-121.927468
ED3	724	181	4	2		X		R4SB	37.664506,
EDS	724	101	4	2		Λ		K43D	-121.926134
ED4	482	241	2	9		X		R4SB	37.663480,
ED4	462	241	2	9		Λ		K4SD	-121.926621
ED5	272	106	2	7		X		D4CD	37.661941,
ED5	372	186	2	/		Λ		R4SB	-121.926594
				Roads	ide Ditch	es			
DD	1 205	165	3	1.1		v		None	37.660870,
RD	1,395	465	3	11		X		None	-121.927052

5.1.2 Potential Jurisdictional Other Waters

Ephemeral Drainages

Five drainages were observed on the study area that likely support ephemeral hydrology (flowing only after significant rain events) based on indicators observed in the field (Table 2; Figure 4). The ephemeral drainages (ED) are typically 2 to 4-feet wide, with a bed, bank, and OHWM (scour, sediment deposition, bed/banks) along with wetland hydrology indicators, including Riverine Sediment Deposits (B2) and Drainage Patterns (B10), but lack a preponderance of hydrophytic vegetation and hydric soil indicators (Sample Points 1, 2, 3, 7, 9; Appendix C-4 to C-8).

Ephemeral drainages ED1, ED2, and ED3 appear to drain directly to a larger tributary located offsite, ~1,200 feet north of the study area. The offsite tributary is mapped as a Riverine Wetland in the NWI and as a stream in the USGS 7.5' Dublin topographic quadrangle, and drains eastbound, under Highway 680, and into Arroyo de la Laguna. Ephemeral drainages ED4 and ED5 drain into the concrete roadside ditch along Santos Ranch Road, which drains northbound and discharges into a culvert under Santos Ranch Road (Figure 4). ED5 discharges directly into the concrete roadside ditch. ED4 drains into a culvert located at the top of the road cut, which drains downslope and into either the concrete roadside ditch or adjacent culvert inlet.

Earthen Roadside Ditch

An earthen roadside ditch is present on the southern portion of the study area along Santos Ranch Road. The roadside ditch (RD) is ~3-feet wide, with a bed, bank, and OHWM (scour, sediment deposition, bed/banks) along with wetland hydrology indicators, including Riverine

Sediment Deposits (B2) and Drainage Patterns (B10), but lacks a preponderance of hydrophytic vegetation and hydric soil indicators (Sample Point 11; Appendix C-9).

RD appears to have been excavated in uplands for roadside drainage and—based on conditions observed in the field and a review of the NWI, NHD, USGS topographic maps, and other sources—is not a natural tributary to downstream TNW's. However, Santos Ranch Road appears to have been constructed in the 1960s, with the hillside graded as part of road construction, and pre-construction drainage is difficult to determine. RD drains into the concrete roadside ditch mentioned previously (Appendix C-10). The concrete roadside ditch is not located within study area boundaries, but is included on Figure 4 for reference.

Other Potential Aquatic Resources

Other areas were investigated on the study area that could potentially support aquatic resources, such as in slumps, draws, and other concave areas that may collect water from adjacent slopes (Figure 4). However, based on field sampling (Sample Points 4, 5, 6, 8; Appendix C-11 to C-14), these areas lack a bed, bank, and OHWM, as well as positive indicators of the three wetland parameters. Therefore, these areas do not qualify as aquatic resources.

6.0 POTENTIAL CORPS AND OTHER REGULATORY AGENCY JURISDICTION

Aquatic resources delineated on the study area during the September 21, 2022 delineation consist of Potential Jurisdictional Wetlands (supporting positive indicators of all three wetland parameters), Potential Jurisdictional Other Waters (ephemeral drainages which have a bed, bank, and OHWM, but lack one or more of the three wetland parameters), and Roadside Ditches (ditches which have a bed, bank, and OHWM and were apparently excavated for roadside drainage). These features are summarized in Table 2 and are mapped in Figure 4. The potential jurisdictional status of aquatic resources delineated on the study area are discussed below.

6.1 Potential Corps Jurisdiction

On January 23, 2020, the EPA and the Corps finalized the Navigable Waters Protection Rule to define "waters of the U.S." The rule took effect on June 22, 2020. On August 30, 2021, the U.S. District Court for the District of Arizona vacated and remanded the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. According to the EPA (USEPA 2022): "In light of this order, the agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice. The agencies are working expeditiously to move forward with the rulemakings announced on June 9, 2021, in order to better protect our nation's vital water resources that support public health, environmental protection, agricultural activity, and economic growth. The agencies remain committed to crafting a durable definition of "waters of the United States" that is informed by diverse perspectives and based on an inclusive foundation.

The agencies are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice ... The term waters of the United States means:

- 1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- 2. All interstate waters including interstate wetlands;
- 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purposes by industries in interstate commerce:
- 4. All impoundments of waters otherwise defined as waters of the United States under this definition;
- 5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
- 6. The territorial sea:
- 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA" (USEPA 2022).

According to guidance present prior to the pre-2015 regulatory regime (USEPA 2008):

"The agencies will assert jurisdiction over the following waters:

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

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

• Non-navigable tributaries that are not relatively permanent

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

The agencies generally will not assert jurisdiction over the following features:

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

The agencies will apply the significant nexus standard as follows:

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

The ephemeral drainages ED1-ED5 might qualify for Corps jurisdiction "based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water" as "Non-navigable tributaries that are not relatively permanent". If the ED1-ED5 channels qualify for Corps jurisdiction, wetland WS, which is located on the flow path along ED4 where it has been culverted at the top of a road cut, may potentially qualify for Corps jurisdiction as "Wetlands adjacent to non-navigable tributaries that are not relatively permanent."

The roadside ditch (RD) on the study area is likely exempt from Corps jurisdiction since, according to Corps/EPA guidance: "The agencies generally will not assert jurisdiction over the following features ... Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water."

The regulatory analysis described above is preliminary. Due to recent changes based on Court decisions, regulatory jurisdiction is in flux, and therefore the Corps would need to determine its jurisdiction on the study area based on a verification of this report. Discharge of dredged or fill material within Corps jurisdiction normally requires a permit under Section 404 of the federal CWA. In addition, the Corps, under Section 401 of the federal CWA, is required to meet state water quality regulations prior to granting a Section 404 permit. This is accomplished by application to the local RWQCB for Section 401 certification (or waiver) that requirements have been met.

6.2 Potential Waters of the State

According to the new Procedures (SWRCB 2019), which took effect May 28, 2020: "The permitting authority shall rely on any wetland area delineation from a final aquatic resource report verified by the U.S. Army Corps of Engineers (Corps) for the purposes of determining the extent of wetland waters of the U.S. A delineation of any wetland areas potentially

impacted by the project that are not delineated in a final aquatic resource report verified by the Corps shall be performed using the methods described in the three federal documents listed below (collectively referred to as "1987 Manual and Supplements") to determine whether the area meets the state definition of a wetland as defined above. As described in the 1987 Manual and Supplements, an area "lacks vegetation" if it has less than 5 percent areal coverage of plants at the peak of the growing season. The methods shall be modified only to allow for the fact that the lack of vegetation does not preclude the determination of such an area that meets the definition of wetland. Terms as defined in these Procedures shall be used if there is conflict with terms in the 1987 Manual and Supplements."

As described above, the principal difference in the aquatic resource delineation methodology between the Corps and SWRCB/RWQCB is that waters of the State include areas with positive indicators of wetland hydrology and hydric soils, but contain less than 5 percent areal coverage of plants at the peak of the growing season. However, though the remaining delineation methodology is the same under both the federal CWA and new SWRCB/RWQCB Procedures, numerous aquatic resources (such as ephemeral tributaries, some drainage ditches, and isolated wetlands), which may be exempt from federal jurisdiction are currently considered waters of the State under the Porter-Cologne Water Quality Control Act and/or the Procedures that took effect May 28, 2020.

Section IV.D of the Procedures lists activities and areas excluded from the application of the Procedures for regulation of discharges of dredged or fill material to waters of the State (pages 13-15). In general, activities excluded from the Procedures include: certain farming activities; suction dredge mining; and routine and emergency operation and maintenance activities conducted by public agencies, water utilities, or special districts that result in the discharge of dredged or fill material to artificial, existing waters of the State. Areas excluded from the Procedures include wetlands that are prior converted farmland; rice cultivation; and certain ditches that are used for agricultural purposes.

Ephemeral drainages ED1-ED5 and wetland WS (Figure 4; Table 2) would likely be considered "waters of the State", and the discharge of fill material to these aquatic resources would be subject to the Procedures. Roadside ditch RD could potentially qualify as "waters of the State" since the Water Code defines "waters of the State" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state" and roadside ditches (unlike some agricultural ditches) are not specifically excluded from the application of the Procedures. However, as with the Corps, the SWRCB/RWQCB would need to make the final determination regarding aquatic resources under its jurisdiction on the study area.

6.3 California Department of Fish and Wildlife and Local Agency Jurisdiction

Streams, rivers, and lakes up to the top-of-bank or dripline of riparian vegetation (whichever is greater) also fall within the jurisdiction of the California Department of Fish and Wildlife (CDFW). Work within CDFW jurisdiction typically requires a Streambed Alteration Agreement. In addition, aquatic resources could fall under the jurisdiction of local agencies which could have permit, setback, or other requirements for work conducted in or adjacent to aquatic resources. Neither CDFW nor local agency jurisdiction was determined as part of this aquatic resource delineation. The potential CDFW/local agency jurisdiction of aquatic

resources on the study area should be evaluated during a biological resources assessment or similar study, in conjunction with this aquatic resource delineation report.

7.0 LIMITATIONS

The results of this delineation are preliminary and based on conditions observed during the field visit, and the wetland scientist's interpretation of those conditions and Corps guidelines. Plants that are dominant at the time of this delineation may shift in importance depending on rainfall conditions and season, or population shifts over time. Wetlands and other waters that meet the technical parameters described in this report are presented as "potential jurisdictional wetlands/other waters." Ultimate authority over the jurisdictional nature of all aquatic features within the study area resides with the Corps and other regulatory agencies, as appropriate. The Corps makes the final determination (subject to administrative appeal and judicial review) about the location and extent of wetlands and other waters of the U.S. on the study area. This report does not constitute authorization to conduct the project, and the report should be sent to the Corps for verification, and any required permits obtained, prior to any work conducted in jurisdictional waters. In addition, California state agencies such as the SWRCB/RWQCB and CDFW, as well as local agencies, may also have jurisdiction over wetlands and other waters on the study area, and permits and/or other approvals should be obtained from these agencies as needed.

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CORPS DELINEATION DATA FORMS



See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-38	300-4-12)	City/Cou	nty: <u>Haywa</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	1
Investigator(s): T. Mahony, Coast Range Biological LL	_C	Section, 7	ownship, R	ange: S24 T3S R1W, Mo	ount Diablo Meridia	ın
Landform (hillside, terrace, etc.): ephemeral drainage	· 1	Local relief (co	oncave, con	vex, none): concave	Slop	oe (%): 60
Subregion (LRR): LRR C Lat: 37.663702			Long: -	121.927788	Datum:	NAD 83
Soil Map Unit Name: Los Gatos-Los Osos complex, 3	0 to 75 percer	nt slopes, eroo	ded, MLRA	15 NWI classifi	cation: None	
Are climatic / hydrologic conditions on the site typical			Yes X		olain in Remarks.)	
Are Vegetation, Soil, or Hydrology						0
Are Vegetation , Soil , or Hydrology X	_			xplain any answers in Rer	· · · · · · · · · · · · · · · · · · ·	
SUMMARY OF FINDINGS – Attach site m	_					tures, etc.
Lindrania dia Variatatian Duaranto Var	I- V	la tha	Commission	\		
, , ,	No X No X		Sampled A		No X	
· ——	10 <u>X</u>	****	i a vvotiana		<u> </u>	
Remarks:						
Seasonal hydrology naturally problematic. Located in	n an ephemera	al drainage ch	annel, ~3-fe	et wide, with a bed, bank,	and OHWM.	
VEGETATION – Use scientific names of	-	Daminant	lu dia atau	1		
Tree Stratum (Plot size: 10')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:	
1. Quercus agrifolia	30	Yes	UPL	Number of Dominant S	Species That	
2. Umbellularia californica	30	Yes	FAC	Are OBL, FACW, or FA		1 (A)
3				Total Number of Domi	nant Species	
4				Across All Strata:		5 (B)
Operation of Ohmush, Oderschause, (Disch editions)	60	=Total Cover		Percent of Dominant S	•	0.00/ (A/D)
Sapling/Shrub Stratum (Plot size: 5'	_)			Are OBL, FACW, or FA	4C: <u>2(</u>	0.0% (A/B)
2.				Prevalence Index wo	rksheet:	
3.				Total % Cover of:		iply by:
4.				OBL species 0		0
5.				FACW species 0	x 2 =	0
	:	=Total Cover		FAC species 30	0 x 3 =	90
Herb Stratum (Plot size: 5')				FACU species 0		0
Avena barbata	20	Yes	UPL	UPL species75		375
2. Carduus pycnocephalus	10	Yes	UPL	Column Totals: 10	`	465 (B)
3. Bromus diandrus	<u>10</u> 5	Yes No	UPL	Prevalence Index :	= B/A = <u>4.43</u>	3
4. Torilis arvensis 5.		INO	UPL	Hydrophytic Vegetati	ion Indicators:	
6				Dominance Test is		
7.				Prevalence Index		
8.					aptations ¹ (Provide	supporting
	45	=Total Cover			s or on a separate	
Woody Vine Stratum (Plot size: 5')			Problematic Hydro	ophytic Vegetation ¹	(Explain)
1.	- ′			¹ Indicators of hydric so	oil and wetland hvd	roloav must
2.				be present, unless dist		
		=Total Cover	_ 	Hydrophytic		
				Vegetation		
% Bare Ground in Herb Stratum 50 %	Cover of Bioti	c Crust	_	Present? Yes	NoX	_
Remarks:						
Trees mostly overhanging and not rooted in plot. Sar	mple point not	dominated by	nydrophytic	vegetation.		

SOIL Sampling Point: ____1

Profile Desc Depth	ription: (Describe Matrix	to the dept		ı ment th < Featur		ator or	confirm the absence	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	3
0-16	10YR 3/3	100	20.0. ()		71		Loamy/Clayey	loam with rock fr	
0 10	10111010	100	_				Loanly/Olayoy	IOGIII WIIII IOON II	4911101110
¹ Type: C=Co	oncentration, D=Dep	letion, RM=l	Reduced Matrix, C	S=Cove	ered or C	oated S	Sand Grains. ² Loca	ation: PL=Pore Lining, M	∕l=Matrix.
Hydric Soil	Indicators: (Applica	ble to all L	RRs, unless othe	rwise n	oted.)		Indicator	s for Problematic Hydi	ric Soils³:
Histosol	(A1)		Sandy Red	lox (S5)			1 cm	Muck (A9) (LRR C)	
Histic Ep	oipedon (A2)		Stripped M	atrix (S6	3)		2 cm	Muck (A10) (LRR B)	
Black Hi	stic (A3)		Loamy Mu	-	, ,		Iron-l	Manganese Masses (F1	2) (LRR D)
Hydroge	n Sulfide (A4)		Loamy Gle	yed Ma	trix (F2)		Redu	iced Vertic (F18)	
Stratified	l Layers (A5) (LRR (;)	Depleted N	,	,		Red	Parent Material (F21)	
	ck (A9) (LRR D)		Redox Dar		` '			Shallow Dark Surface (F	- 22)
	Below Dark Surfac	e (A11)	Depleted D)	Othe	r (Explain in Remarks)	
	rk Surface (A12)		Redox Dep	ression	s (F8)				
	lucky Mineral (S1)	3							
	leyed Matrix (S4)		s of hydrophytic ve	egetatio	n and we	etland h	ydrology must be prese	ent, unless disturbed or p	oroblematic.
	_ayer (if observed):								
Type:			<u></u>					_	
Depth (ir	nches):		<u> </u>				Hydric Soil Present	!? Yes	NoX
HYDROLO	GY								
-	drology Indicators:								
	cators (minimum of c	ne is require						ry Indicators (minimum c	of two required
	Water (A1)		Salt Crust					r Marks (B1) (Riverine)	
	ter Table (A2)		Biotic Crus					ment Deposits (B2) (Rive	•
Saturatio		· >	Aquatic Inv					Deposits (B3) (Riverine)	
	arks (B1) (Nonriver	•	Hydrogen S		-			age Patterns (B10)	١
	nt Deposits (B2) (No posits (B3) (Nonrive)	•	Oxidized R	•		_	` ' — '	Season Water Table (C2)
	Soil Cracks (B6)	ine)	Presence of Recent Iron					fish Burrows (C8) ration Visible on Aerial Ir	mageny (CQ)
	on Visible on Aerial I	magery (R7)				illeu Sui		ow Aquitard (D3)	nagery (C9)
	tained Leaves (B9)	magery (D7)	Other (Exp			1		Neutral Test (D5)	
Field Obser	· ,						<u></u>		
Surface Water		es.	No X	Depth (i	nches).				
Water Table				Depth (i	_				
Saturation P				Depth (i	· · · · · · · · · · · · · · · · · · ·		Wetland Hydrolog	gy Present? Yes X	No
(includes cap					′ -			<u></u>	
· ·	corded Data (stream	gauge, mor	nitoring well, aerial	photos	, previou	s inspe	ctions), if available:		
None	· 	<u> </u>							
Remarks:									
		e channel, ~	-3-feet wide, with a	a bed, b	ank, and	OHWM	l (scour, bed/banks, se	diment deposits). Drains	northbound o
the study are	ea.								

ENG FORM 6116-1, JUL 2018 Arid West – Version 2.0

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-38	300-4-12)	City/Cou	nty: <u>Haywa</u> ı	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	2
Investigator(s): T. Mahony, Coast Range Biological LL	.C	Section, 1	ownship, R	ange: <u>S24 T3S R1W, M</u>	ount Diablo Meridian	l
Landform (hillside, terrace, etc.): ephemeral drainage		ocal relief (co	oncave, con	vex, none): concave	Slope	e (%): <u>70</u>
Subregion (LRR): LRR C Lat: 37.664673			Long: -	121.925992	Datum:	NAD 83
Soil Map Unit Name: Los Gatos-Los Osos complex, 3	0 to 75 percer	nt slopes, eroo	ded, MLRA 1	NWI classifi	ication: None	
Are climatic / hydrologic conditions on the site typical f	for this time of	year?	Yes X	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly of	listurbed? A	re "Normal (Circumstances" present?	Yes X No	
Are Vegetation, Soil, or Hydrology_X	naturally prob	olematic? (I	f needed, ex	plain any answers in Rei	marks.)	
SUMMARY OF FINDINGS – Attach site m	ap showin	g samplin	g point lo	cations, transects,	important featu	ıres, etc.
Hydrophytic Vegetation Present? Yes N	lo X	Is the	Sampled A	rea		
	lo X		n a Wetland		No X	
Wetland Hydrology Present? Yes X	lo					
Remarks:						
Seasonal hydrology naturally problematic. Located in	n ephemeral di	ainage chanr	ıel, ∼4-feet v	<i>i</i> ide, with bed, bank, and	OHWM.	
VECETATION . Her rejentific names of	nla mta					
VEGETATION – Use scientific names of p	Absolute	Dominant	Indicator	Г		
<u>Tree Stratum</u> (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1				Number of Dominant S	Species That	
2.				Are OBL, FACW, or FA		(A)
3				Total Number of Domi Across All Strata:	•	2 (B)
<u>-</u>	· 	Total Cover		Percent of Dominant S		(D)
Sapling/Shrub Stratum (Plot size: 5')			Are OBL, FACW, or FA	•)% (A/B)
Toxicodendron diversilobum	30	Yes	FACU			
2.	<u> </u>			Prevalence Index wo		
3.				Total % Cover of OBL species		oly by:
5				FACW species 0))
	30	Total Cover		FAC species 0)
Herb Stratum (Plot size: 5')				FACU species 30	0 x 4 = 12	20
Carduus pycnocephalus	40	Yes	UPL	UPL species5		75
2. Bromus diandrus	5 5	No No	UPL	Column Totals: 8	. ,	95 (B)
Dryopteris arguta Avena barbata	5	No No	UPL UPL	Prevalence Index :	- B/A - 4.05	
5.				Hydrophytic Vegetat	ion Indicators:	
6.				Dominance Test is		
7.				Prevalence Index		
8				l <u>—</u>	aptations¹ (Provide s	
Mandy Vina Stratum (Diet aize) El	55	Total Cover			s or on a separate sl ophytic Vegetation ¹ (,
Woody Vine Stratum (Plot size: 5'	_)			l 		
1. 2.	· ——			¹ Indicators of hydric so be present, unless dis		
		Total Cover		Hydrophytic	·	
				Vegetation		
% Bare Ground in Herb Stratum 30 %	Cover of Bioti	c Crust	_	Present? Yes	No_X	i
Remarks:	-					
Sample point not dominated by hydrophytic vegetation	л.					

SOIL Sampling Point: 2

inches)	Color (moist)	%	Redo Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 2/2	100					Loamy/Clayey	loam with rock frag	ments
		. —— -							
		· —— -							
		· —— -					-		
		. —— -							
								-	
								-	
Гуре: C=Con	centration, D=Dep	letion, RM=	Reduced Matrix, 0	CS=Cove	ered or Co	oated Sa	and Grains. ² Loc	ation: PL=Pore Lining, M=N	Matrix.
=		able to all I	LRRs, unless othe					rs for Problematic Hydric	Soils ³ :
Histosol (A	•		Sandy Re					Muck (A9) (LRR C)	
Histic Epip			Stripped N	`	,			Muck (A10) (LRR B)	
Black Histi			Loamy Mu	•	, ,			Manganese Masses (F12)	(LRR D)
Hydrogen \$	Sulfide (A4)		Loamy Gle	eyed Ma	trix (F2)		Red	uced Vertic (F18)	
Stratified L	ayers (A5) (LRR ()	Depleted I	Matrix (F	3)			Parent Material (F21)	
1 cm Muck (A9) (LRR D)			Redox Da	rk Surfac	ce (F6)		Very	Shallow Dark Surface (F22	2)
Depleted B	elow Dark Surfac	e (A11)	Depleted I	Dark Sur	face (F7)		Othe	er (Explain in Remarks)	
Thick Dark	Surface (A12)		Redox De	pression	s (F8)				
Sandy Mud	ky Mineral (S1)								
Sandy Gle	yed Matrix (S4)	³ Indicato	ors of hydrophytic v	egetatio/	n and we	tland hy	drology must be pres	ent, unless disturbed or pro	blematic
estrictive La	yer (if observed):	:							
_									
Type:									
Depth (inchemarks:	nes):	d.	<u>-</u> 				Hydric Soil Presen	t? Yes	No_
Depth (inchemarks:	<u> </u>	d.					Hydric Soil Presen	t? Yes	No_
Depth (inch emarks: o hydric soil ii	ndicators observed	d.					Hydric Soil Presen	t? Yes	No_
Depth (inchemarks: o hydric soil in	ndicators observed						Hydric Soil Presen	t? Yes	No_
Depth (inchemarks: o hydric soil in	Y plogy Indicators:		red; check all that a	apply)			,	t? Yes	
Depth (inchemarks: o hydric soil in	Y Dlogy Indicators: ors (minimum of c		red; check all that a				Seconda		
Depth (inchemarks: o hydric soil in /DROLOG /etland Hydro rimary Indicat Surface Wi	Y Dlogy Indicators: ors (minimum of c		-	(B11)			Seconda Wate	ry Indicators (minimum of to	wo requi
Depth (inchemarks: b hydric soil in /DROLOG etland Hydro imary Indicat Surface Wi	Y Dlogy Indicators: ors (minimum of cater (A1) Table (A2)		Salt Crust	(B11) st (B12)	tes (B13)		Seconda Wate X Sedi	ry Indicators (minimum of to er Marks (B1) (Riverine)	wo requi
Depth (inchemarks: b hydric soil in DROLOG etland Hydro imary Indicat Surface Wo	Y Dlogy Indicators: ors (minimum of cater (A1) Table (A2)	one is requir	Salt Crust Biotic Crus	(B11) st (B12) vertebra	` ,		Seconda Wate X Sedi	ry Indicators (minimum of to er Marks (B1) (Riverine) ment Deposits (B2) (Riveri	wo requ
Depth (inchemarks: b hydric soil in b hy	Y Dlogy Indicators: ors (minimum of cater (A1) Table (A2) (A3)	one is requir	Salt Crust Biotic Crust Aquatic In	(B11) st (B12) vertebra Sulfide (Odor (C1))	Seconda Wate X Sedi Drift X Drain	ry Indicators (minimum of to er Marks (B1) (Riverine) ment Deposits (B2) (Riveri Deposits (B3) (Riverine)	wo requ
Depth (inchemarks: o hydric soil in /DROLOG /etland Hydro rimary Indicat Surface Water High Water Saturation Water Mark Sediment I	Y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) (xs (B1) (Nonriver	one is requir ine) nriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen	(B11) st (B12) vertebra Sulfide (Rhizosph	Odor (C1) neres on L	iving Ro	Seconda Wate X Sedi Drift X Drain Dots (C3) Dry-	ry Indicators (minimum of to er Marks (B1) (Riverine) ment Deposits (B2) (Riveri Deposits (B3) (Riverine) nage Patterns (B10)	wo requ
Depth (inch emarks: o hydric soil in YDROLOG /etland Hydro rimary Indicat Surface Water High Water Saturation Water Mark Sediment I Drift Depos	Y Dlogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) Ks (B1) (Nonriver) Deposits (B2) (No	one is requir ine) nriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	(B11) st (B12) vertebra Sulfide (Rhizosph	Odor (C1) neres on Loced Iron (ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of toer Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2)	wo requi
Depth (inchemarks: Depth hydric soil in the property of the pr	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) (KS (B1) (Nonriver Deposits (B2) (Nonriver Deposits (B3) (Nonriver)	one is requir ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduc	Odor (C1) heres on L ced Iron (ction in Til	ı ∟iving Ro C4)	Seconda Wate X Sedi Drift X Drain Dots (C3) Dry- Cray s (C6) Satu	ry Indicators (minimum of to er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2)	wo requi
Depth (inchemarks: b hydric soil in DROLOG Etland Hydro imary Indicat Surface War High Water Saturation Water Mari Sediment [Drift Depose Surface Soil	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) (A3) (A8 (B1) (Nonriver Deposits (B2) (Nonriver Deposits (B3) (Nonriver Definit (B3) (Nonriver) (B6)	one is requir ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduce on Reduce Surface	Odor (C1) neres on Loced Iron (ction in Tiles (C7)	ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of to er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Image	wo requ
Depth (inchemarks: b hydric soil in DROLOG etland Hydro imary Indicat Surface Water High Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stai	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) Ks (B1) (Nonriver Deposits (B2) (Nonriver ill Cracks (B6) Visible on Aerial I	one is requir ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduce on Reduce Surface	Odor (C1) neres on Loced Iron (ction in Tiles (C7)	ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of toer Marks (B1) (Riverine) ment Deposits (B2) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3)	wo requ
Depth (inch emarks: o hydric soil in YDROLOG Yetland Hydro rimary Indicat Surface Water Mark Saturation Water Mark Sediment I Drift Depos Surface So Inundation Water-Stail	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) (A3) (A5) (A5) (A6) (A6) (A6) (A6) (A6) (A6) (A6) (A6	ine) nriverine) rine) magery (B7	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduce on Reduce Surface	Odor (C1) heres on L ced Iron (ction in Til e (C7) Remarks)	ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of toer Marks (B1) (Riverine) ment Deposits (B2) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3)	wo requi
Depth (inchemarks: o hydric soil in //DROLOG //etland Hydro rimary Indicat Surface Water Saturation Water Mari Sediment I Drift Depose Surface Soil Inundation Water-Stail water-Stail iteld Observal	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) (A3) (A6) (A8) (A9) (A9) (A9) (A9) (A9) (A9) (A9) (A9	ine) nriverine) rine) magery (B7	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduce on Reduce s Surface blain in F	Odor (C1) heres on Led Iron (ction in Tile (C7) Remarks)	ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of toer Marks (B1) (Riverine) ment Deposits (B2) (Riverine) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3)	wo requi
Depth (inch emarks: o hydric soil in YDROLOG /etland Hydro rimary Indicat Surface Water High Water Saturation Water Marl Sediment I Drift Depos Surface So Inundation	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	ine) nriverine) magery (B7	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduc on Reduc s Surface blain in F	Odor (C1) heres on Led Iron (ction in Tile (C7) Remarks) hoches):	ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of tween Marks (B1) (Riverine) ment Deposits (B2) (Riverine) mage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3) -Neutral Test (D5)	wo requi
Depth (inchemarks: o hydric soil in hydric soil in hydric soil in hydrocation of the hydr	y cology Indicators: cors (minimum of colors) cater (A1) Table (A2) (A3) (A3) (A6) (A9) (A9) (A9) (A9) (A9) (A9) (A9) (A9	ine) nriverine) magery (B7	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduc on Reduc c Surface blain in F Depth (i Depth (i	Odor (C1) heres on Led Iron (ction in Tile (C7) Remarks) hoches):	ı ∟iving Ro C4)	Seconda	ry Indicators (minimum of tween Marks (B1) (Riverine) ment Deposits (B2) (Riverine) mage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3) -Neutral Test (D5)	wo requ
Depth (inchemarks: o hydric soil in //DROLOG //etland Hydro rimary Indicat Surface Water Saturation Water Mark Sediment I Drift Depose Surface So Inundation Water-Stail feld Observa furface Water //ater Table Presencludes capillitescribe Reco	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) Ks (B1) (Nonriver) Deposits (B2) (Nonriver) ill Cracks (B6) Visible on Aerial I ned Leaves (B9) tions: Present? Yesent? Yesent? Yesent? Yesent? Yesent?	one is requir ine) rine) magery (B7	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduct s Surface c Surface clain in F Depth (i Depth (i	Odor (C1) peres on L ced Iron (ction in Til e (C7) Remarks) nches): nches): nches):	Living Ro	Seconda	ry Indicators (minimum of tween Marks (B1) (Riverine) ment Deposits (B2) (Riverine) mage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3) -Neutral Test (D5)	wo requ
Depth (inchemarks: o hydric soil in //DROLOG //Etland Hydro //Etl	y plogy Indicators: ors (minimum of cater (A1) Table (A2) (A3) Ks (B1) (Nonriver) Deposits (B2) (Nonriver) ill Cracks (B6) Visible on Aerial I ned Leaves (B9) tions: Present? Yesent? Yesent? Yesent? Yesent? Yesent?	one is requir ine) rine) magery (B7	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebra Sulfide (Rhizosph of Reduct s Surface c Surface clain in F Depth (i Depth (i	Odor (C1) peres on L ced Iron (ction in Til e (C7) Remarks) nches): nches): nches):	Living Ro	Seconda	ry Indicators (minimum of tween Marks (B1) (Riverine) ment Deposits (B2) (Riverine) mage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imaglow Aquitard (D3) -Neutral Test (D5)	wo requ

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-380	0-4-12)	City/Cou	nty: <u>Haywar</u>	d, Alameda County	Sampling Date: 9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point: 3
Investigator(s): T. Mahony, Coast Range Biological LLC	;	Section, 7	Γownship, Ra	ange: S24 T3S R1W, Mo	ount Diablo Meridian
Landform (hillside, terrace, etc.): ephemeral drainage	I	Local relief (co	oncave, con	vex, none): concave	Slope (%):70
Subregion (LRR): LRR C Lat: 37.663828		,		121.927418	Datum: NAD 83
Soil Map Unit Name: Los Gatos-Los Osos complex, 30	to 75 percer	nt slopes, ero			cation: None
Are climatic / hydrologic conditions on the site typical fo	-	-	Yes X		-
Are Vegetation , Soil , or Hydrology s		-		 ·	•
Are Vegetation , Soil , or Hydrology X r					
SUMMARY OF FINDINGS – Attach site ma					
	·	1		<u> </u>	
	$\frac{x}{x}$		e Sampled A n a Wetland		No X
Wetland Hydrology Present? Yes X No		Within	ii a wetianu	. 165	NO
Remarks:					
Seasonal hydrology naturally problematic. Located in e	ephemeral di	rainage chanr	nel, ~2-feet v	vide, with bed, bank, and	OHWM.
VEGETATION – Use scientific names of pl	lants.				
Tree Stratum (Plot size: 10')	Absolute	Dominant Species 2	Indicator	Dominance Test wor	kshoot:
Tree Stratum (Plot size: 10') 1. Umbellularia californica	% Cover 30	Species? Yes	Status FAC		
Quercus agrifolia	30	Yes	UPL	Number of Dominant S Are OBL, FACW, or FA	•
3.				Total Number of Domi	
4.				Across All Strata:	4 (B)
	60	=Total Cover		Percent of Dominant S	•
Sapling/Shrub Stratum (Plot size: 5')				Are OBL, FACW, or F	AC: <u>25.0%</u> (A/B
1				Brovolonoo Indox wo	
				Prevalence Index wo Total % Cover of:	
4.				OBL species 0	
5.				FACW species 0	
	=	=Total Cover		FAC species 30	0 x 3 = 90
Herb Stratum (Plot size: 5')				FACU species0	
1. Carduus pycnocephalus	30	Yes	UPL	UPL species 90	
Cynosurus echinatus Dryopteris arguta	<u>20</u> 5	Yes No	UPL UPL	Column Totals: 12 Prevalence Index :	()
4. Avena barbata	5	No	UPL	1 Tevalence macx	- DIA - 4.00
5.				Hydrophytic Vegetati	ion Indicators:
6.				Dominance Test is	s >50%
7				Prevalence Index	
8					aptations ¹ (Provide supporting
Manda Vina Chatana (Diataina El	60	=Total Cover			s or on a separate sheet)
Woody Vine Stratum (Plot size: 5') 1.				-	ophytic Vegetation ¹ (Explain)
1				be present, unless dist	oil and wetland hydrology must turbed or problematic.
		Total Cover		Hydrophytic	· · · · · · · · · · · · · · · · · · ·
				Vegetation	
% Bare Ground in Herb Stratum 20 % C	over of Bioti	c Crust		Present? Yes	No <u>X</u>
Remarks:					
Sample point not dominated by hydrophytic vegetation	-				

SOIL Sampling Point: 3

Depth	ription: (Describe Matrix	e to the dept		ument t x Featu		itor or c	onfirm the absence of	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 3/2	100	, ,		·		Loamy/Clayey	clay loam w/ rock f	ragments
	-		_						
	-								
¹ Type: C=Co	oncentration, D=De	pletion, RM=	Reduced Matrix, 0	CS=Cov	ered or C	oated S	and Grains. ² Loca	tion: PL=Pore Lining, M	=Matrix.
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless other	erwise r	oted.)		Indicator	s for Problematic Hydr	ic Soils³:
Histosol	(A1)		Sandy Re	dox (S5))		1 cm	Muck (A9) (LRR C)	
Histic Ep	pipedon (A2)		Stripped N	/latrix (S	6)		2 cm	Muck (A10) (LRR B)	
Black Hi	, ,		Loamy Mu					Manganese Masses (F12	2) (LRR D)
	n Sulfide (A4)		Loamy Gle	•	, ,			ced Vertic (F18)	
	Layers (A5) (LRR	C)	Depleted I					Parent Material (F21)	
	ick (A9) (LRR D)		Redox Da		, ,			Shallow Dark Surface (F	22)
	Below Dark Surfa	ce (A11)	Depleted [)	Other	(Explain in Remarks)	
	ark Surface (A12)		Redox De	pression	ıs (F8)				
	lucky Mineral (S1)	3, ,, ,	61 1 1 1						
	lleyed Matrix (S4)		rs of hydrophytic v	egetatio	n and we	etland hy	drology must be prese	nt, unless disturbed or p	roblematic.
	Layer (if observed):							
Type:									
Depth (ir	nches):		_				Hydric Soil Present	? Yes	NoX
HYDROLO	GY								
Wetland Hy	drology Indicators):							
_	cators (minimum of		ed; check all that a	apply)			Secondar	y Indicators (minimum of	f two required
Surface	Water (A1)		Salt Crust	(B11)			Wate	r Marks (B1) (Riverine)	
High Wa	iter Table (A2)		Biotic Crus	st (B12)			X Sedin	nent Deposits (B2) (Rive	erine)
Saturation	on (A3)		Aquatic In	vertebra	tes (B13))	Drift [Deposits (B3) (Riverine)	
	arks (B1) (Nonrive	•	Hydrogen	Sulfide	Odor (C1)	X Drain	age Patterns (B10)	
	nt Deposits (B2) (No	•	Oxidized F			_	· · · · · · · · · · · · · · · · · · ·	Season Water Table (C2)	
	oosits (B3) (Nonrive	erine)	Presence		,	` '		ish Burrows (C8)	
	Soil Cracks (B6)		Recent Iro			lled Soil	` '	ation Visible on Aerial Im	nagery (C9)
	on Visible on Aerial		· —					ow Aquitard (D3)	
	tained Leaves (B9)		Other (Exp	Diain in F	Remarks)		FAC-	Neutral Test (D5)	
Field Obser		,	N V	5 " "					
Surface Water		'es	No X		inches): _				
Water Table Saturation P		′es ′es	No X No X		inches): _ inches):		Wetland Hydrolog	y Present? Yes X	No
(includes cap			NO	Deptii (inches).		wetiand rigurolog	y Present? Tes 🔨	NO
	corded Data (strear	m gauge mo	nitoring well aeria	l photos	. previous	s inspec	tions), if available		
None	Data (otrodi	5			, p. 011000	opou	, aranabio.		
Remarks:									
		channel, ~2-	feet wide, with bed	d, bank,	and OHV	VM (sco	ur, sediment deposits,	bed/banks). Drains north	bound and
discharges ir	nto drainage ED1.								

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-3	8800-4-12)	City/Cou	nty: <u>Haywar</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	4
Investigator(s): T. Mahony, Coast Range Biological L	LC	Section, 7	Րownship, Ra	ange: S24 T3S R1W, M	ount Diablo Meridia	n
Landform (hillside, terrace, etc.): slump/draw		Local relief (co	oncave, conv	/ex, none): concave	Slop	oe (%): 35
Subregion (LRR): LRR C Lat: 37.663110	l		Long: -	121.927274	Datum:	NAD 83
Soil Map Unit Name: Millsholm silt loam, 30 to 45 pe	rcent slopes, e	roded		NWI classif	ication: None	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes X	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrology	_significantly	disturbed? A	re "Normal (Circumstances" present?	Yes X No	<u> </u>
Are Vegetation, Soil, or Hydrology_X	naturally prol	olematic? (f needed, ex	plain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site r	nap showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	ırea		
	No X	withi	n a Wetland	? Yes	No X	
Wetland Hydrology Present? Yes	No X					
Remarks:		4				
Seasonal hydrology naturally problematic. No wetla	nd parameters	met.				
VEGETATION – Use scientific names of	nlante					
VEGETATION - Use scientific flames of	Absolute	Dominant	Indicator	T		
Tree Stratum (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1				Number of Dominant	•	
2.				Are OBL, FACW, or F		1 (A)
4				Total Number of Domi Across All Strata:	nant Species	2 (B)
		=Total Cover		Percent of Dominant S	Species That	(=)
Sapling/Shrub Stratum (Plot size: 5'	_)			Are OBL, FACW, or F	•	0.0% (A/B)
1						
2.				Prevalence Index wo		to to the co
3				Total % Cover of OBL species	x 1 =	ply by: 0
5.				· —	x 2 =	0
		=Total Cover		·		186
Herb Stratum (Plot size: 5')				FACU species 5	5 x 4 =	20
1. Festuca perennis	60	Yes	FAC	UPL species 3		160
2. Avena barbata		Yes	UPL	Column Totals: 9 Prevalence Index	`	866 (B)
Bromus diandrus Vicia sativa	<u>5</u> 5	No No	UPL FACU	Prevalence index	- B/A - 3.70	<u>'</u>
5. Epilobium brachycarpum	2	No	FAC	Hydrophytic Vegetat	ion Indicators:	
6. Trifolium hirtum	2	No	UPL	Dominance Test i		
7.				Prevalence Index		
8				l <u>—</u>	aptations ¹ (Provide	
Was du Vina Chahum (Dish sina)	99	=Total Cover			s or on a separate sophytic Vegetation ¹	•
Woody Vine Stratum (Plot size: 5'	_)			l 		` ' '
1. 2.				¹ Indicators of hydric so be present, unless dis		
		=Total Cover		Hydrophytic	· ·	
				Vegetation		
% Bare Ground in Herb Stratum 3 %	Cover of Bioti	c Crust		Present? Yes	No_X	_
Remarks:	ion					
Sample point not dominated by hydrophytic vegetat	IUII.					

SOIL Sampling Point: 4

Depth								
(inches)	Matrix Color (moist)	%	Color (moist)	x Featur %	es Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/3	100	Color (moist)	70	.) 0		Loamy/Clayey	loam
4-16	10YR 4/3	100					Loamy/Clayey	clay
4-10	10110 4/3	100					Loanly/Clayey	Clay
		· — –					-	
								·
¹ Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, C	S=Cove	red or C	oated S	and Grains. ² Loo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all Li	RRs, unless othe	rwise n	oted.)			ors for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Red	lox (S5)			1 cr	n Muck (A9) (LRR C)
Histic Ep	oipedon (A2)		Stripped M	atrix (S6	6)		2 cr	n Muck (A10) (LRR B)
Black Hi	stic (A3)		Loamy Mu	cky Mine	eral (F1)		Iron	-Manganese Masses (F12) (LRR D)
Hydroge	n Sulfide (A4)		Loamy Gle	yed Mat	rix (F2)		Red	uced Vertic (F18)
Stratified	d Layers (A5) (LRR 0	C)	Depleted N	/latrix (F	3)			Parent Material (F21)
1 cm Mu	ıck (A9) (LRR D)		Redox Dar		` '			y Shallow Dark Surface (F22)
	d Below Dark Surfac	e (A11)	Depleted D)	Oth	er (Explain in Remarks)
	ark Surface (A12)		Redox Dep	pression	s (F8)			
	lucky Mineral (S1)	2						
Sandy G	Gleyed Matrix (S4)	Indicator	s of hydrophytic v	egetatio	n and we	tland hy	drology must be pres	sent, unless disturbed or problematic.
Restrictive I	Layer (if observed):	:						
Type:			<u> </u>					
Depth (ir	nches):		_				Hydric Soil Presei	nt? Yes No X
No hydric so	il indicators observed	a.						
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India								
I IIIIai y IIIai	cators (minimum of c		ed; check all that a	ipply)			Seconda	ary Indicators (minimum of two required
	cators (minimum of c Water (A1)		Salt Crust	(B11)			<u> </u>	ary Indicators (minimum of two required er Marks (B1) (Riverine)
Surface	•		•	(B11)			Wat	•
Surface High Wa	Water (A1) tter Table (A2) on (A3)	one is require	Salt Crust	(B11) it (B12) vertebrat	` ,		Wat Sed Drift	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine)
Surface High Wa Saturatio Water M	Water (A1) Inter Table (A2) Ion (A3) Iarks (B1) (Nonriver	ne is require	Salt Crust Biotic Crus Aquatic Inv Hydrogen	(B11) it (B12) vertebrat Sulfide (Odor (C1))	Wat Sed Driff Dra	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) inage Patterns (B10)
Surface High Wa Saturatio Water M Sedimer	Water (A1) Iter Table (A2) Iter (A3) Iter (B1) (Nonriver It Deposits (B2) (No	ne is require ine) nriverine)	Salt Crust Biotic Crus Aquatic Inv Hydrogen S	(B11) It (B12) Vertebrat Sulfide (Odor (C1) eres on l) _iving R	Wat Sed Driff Dra Dry.	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) inage Patterns (B10) Season Water Table (C2)
Surface High Wa Saturatio Water M Sedimer Drift Dep	Water (A1) After Table (A2) After Table (A2) After (A3) After (B1) (Nonriver After (B2) (Nonriver After (B3) (Nonriver)	ne is require ine) nriverine)	Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R Presence of	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc	Odor (C1) eres on l ced Iron () _iving R (C4)	Wat Sed Driff Dra Cra	ter Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) Inage Patterns (B10) Season Water Table (C2) Institute of the season was presented by th
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface	Water (A1) Inter Table (A2) In (A3) Iarks (B1) (Nonriver Int Deposits (B2) (Nonriver) Into Deposits (B3) (Nonriver) Soil Cracks (B6)	ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence of	(B11) It (B12) Vertebrat Sulfide (Rhizosph of Reduc	Odor (C1) eres on l ced Iron (tion in Ti) _iving R (C4)	Wat Sed Drift Dra Oots (C3) Cra St (C6) Satu	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio	Water (A1) Inter Table (A2) In (A3) Iarks (B1) (Nonriver Int Deposits (B2) (Nonriver Int Desits (B3) (Nonriver Int Desits (B3) (Nonriver Int Desits (B6) Int Desits (B6) Int Desits (B6) Int Desits (B6)	ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	(B11) It (B12) Vertebrate Sulfide (Chizosph of Reduct n Reduct Surface	Odor (C1) eres on I ced Iron (tion in Til (C7)) _iving R (C4) Iled Soil	Wat Sed Sed Drift Dra Oots (C3) Cra Satt Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) i Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S	Water (A1) ther Table (A2) on (A3) larks (B1) (Nonriver th Deposits (B2) (Non cosits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9)	ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R Presence of	(B11) It (B12) Vertebrate Sulfide (Chizosph of Reduct n Reduct Surface	Odor (C1) eres on I ced Iron (tion in Til (C7)) _iving R (C4) Iled Soil	Wat Sed Sed Drift Dra Oots (C3) Cra Satt Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S	Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B2) Inter Table (B2) Inter Table (B3) Inter Table (B4)	ine) nriverine) rine) magery (B7)	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp	t (B11) t (B12) vertebrat Sulfide (thizosph of Reduc n Reduc Surface	Odor (C1) eres on I ced Iron (tion in Til (C7) demarks)) _iving R (C4) Iled Soil	Wat Sed Sed Drift Dra Oots (C3) Cra Satt Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) i Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water	Water (A1) Inter Table (A2) Inter Table (B2) Inter Table (B3) Inter Table (B3) Inter Table (B3) Inter Table (B4)	ine) nriverine) magery (B7)	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc n Reduc Surface Italiain in R	Odor (C1) eres on led Iron (tion in Til (C7) demarks)) _iving R (C4) Iled Soil	Wat Sed Sed Drift Dra Oots (C3) Cra Satt Sha	er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) i Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S	Water (A1) Inter Table (A2) Inter Table (B2) Inter Table (B3) Inter Table (B4)	ine) nriverine) magery (B7)	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc n Reduc Surface Islain in R Depth (ii	Odor (C1) eres on I ced Iron (tion in Til (C7) demarks) nches):_ nches):_) _iving R (C4) Iled Soil	Wat Sed Sed Driff Dra Oots (C3) Cra Sati Sha FAC	rer Marks (B1) (Riverine) iment Deposits (B2) (Riverine) in Deposits (B3) (Riverine) in age Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Water Table	Water (A1) Iter Table (A2) In (A3) Iarks (B1) (Nonriver In Deposits (B2) (Nonriver Soil Cracks (B6) In Visible on Aerial I Itained Leaves (B9) Vations: er Present? Yeresent? Yeresent?	ine) nriverine) magery (B7)	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc n Reduc Surface Italiain in R	Odor (C1) eres on I ced Iron (tion in Til (C7) demarks) nches):_ nches):_) _iving R (C4) Iled Soil	Wat Sed Sed Driff Dra Oots (C3) Cra Sati Sha FAC	iment Deposits (B2) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) Inage Patterns (B10) Season Water Table (C2) Institution Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Obser Surface Wate Water Table Saturation P (includes cap	Water (A1) Iter Table (A2) In (A3) Iarks (B1) (Nonriver In Deposits (B2) (Nonriver Soil Cracks (B6) In Visible on Aerial I Itained Leaves (B9) Vations: er Present? Yeresent? Yeresent?	ine) nriverine) magery (B7) eseseses	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc on Reduc Surface Idain in R Depth (ii Depth (iii	Odor (C1) eres on I ced Iron (tion in Ti (C7) leemarks) nches): nches):) Living Ro C4) Iled Soil	Wat Sed Sed Driff Dra Oots (C3)	rer Marks (B1) (Riverine) iment Deposits (B2) (Riverine) in Deposits (B3) (Riverine) in age Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundatic Water-S Field Obser Surface Wate Water Table Saturation P (includes cap	Water (A1) Inter Table (A2) In (A3) Iarks (B1) (Nonriver Int Deposits (B2) (Nonriver Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B3) (Nonriver Inter Table (B6) Inter Table (A2) In	ine) nriverine) magery (B7) eseseses	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc on Reduc Surface Idain in R Depth (ii Depth (iii	Odor (C1) eres on I ced Iron (tion in Ti (C7) leemarks) nches): nches):) Living Ro C4) Iled Soil	Wat Sed Sed Driff Dra Oots (C3)	rer Marks (B1) (Riverine) iment Deposits (B2) (Riverine) in Deposits (B3) (Riverine) in age Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Table Saturation P (includes cap Describe Ren None Remarks:	Water (A1) Iter Table (A2) In (A3) Iarks (B1) (Nonriver In Deposits (B2) (Nonriver In Deposits (B3) (Nonriver In Deposits (B6) In Osits (B6) In Visible on Aerial I Itained Leaves (B9) Vations: In Present? Iter Present?	ine) nriverine) magery (B7) es	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp No X No X No X No X nitoring well, aerial	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc on Reduc Surface Islain in R Depth (ii Depth (ii Depth (iii photos,	Odor (C1) eres on I eres on I ced Iron (tion in Ti (C7) demarks) enches): enches): previous) Living R (C4) Illed Soil	Wat Sed Oriff Dra Dra Cra S (C6) Satt Sha FAC Wetland Hydrold	iment Deposits (B2) (Riverine) iment Deposits (B2) (Riverine) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)
Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Table Saturation P (includes cap Describe Ren None Remarks: Located in co	Water (A1) Iter Table (A2) In (A3) Iarks (B1) (Nonriver In Deposits (B2) (Nonriver In Deposits (B3) (Nonriver In Deposits (B6) In Osits (B6) In Visible on Aerial I Itained Leaves (B9) Vations: In Present? Iter Present?	ine) nriverine) magery (B7) es es gauge, mor	Salt Crust Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Other (Exp No X No X No X No X nitoring well, aerial	(B11) It (B12) Vertebrat Sulfide (Ithizosph of Reduc on Reduc Surface Islain in R Depth (ii Depth (ii photos,	Odor (C1) eres on I ced Iron (tion in Ti (C7) demarks) nches): nches): previous c input cc) Living Rec(C4) Illed Soil	Wat Sed Drift Dra Dra Cra S (C6) Satt Sha FAC Wetland Hydrold tions), if available:	rer Marks (B1) (Riverine) iment Deposits (B2) (Riverine) in Deposits (B3) (Riverine) in age Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3) C-Neutral Test (D5)

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-3	8800-4-12)	City/Cou	nty: <u>Haywar</u>	rd, Alameda County	Sampling Date: 9	/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	5
Investigator(s): T. Mahony, Coast Range Biological L	LC	Section, 1	ownship, Ra	ange: <u>S24 T3S R1W, M</u>	lount Diablo Meridian	
Landform (hillside, terrace, etc.): slump		_ocal relief (co	oncave, con	/ex, none): concave	Slope (%): 25
Subregion (LRR): LRR C Lat: 37.662268			Long: -	121.926977	Datum: N	AD 83
Soil Map Unit Name: Millsholm silt loam, 30 to 45 pe	rcent slopes, e	roded		NWI classif	fication: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes X	No (If no, ex	plain in Remarks.)	
Are Vegetation, Soil, or Hydrology	_significantly o	listurbed? A	re "Normal (Circumstances" present?	Yes X No	
Are Vegetation, Soil, or Hydrology_X	_naturally prob	olematic? (I	f needed, ex	plain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site r	nap showin	g samplin	g point lo	cations, transects,	, important featur	es, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	ırea		
	No X	withi	n a Wetland	? Yes	No X	
Wetland Hydrology Present? Yes	No X					
Remarks:	and be called by an element	di este e e e le ce				
Seasonal hydrology naturally problematic. No wetla	na nyarology in	dicators obse	rvea.			
VEGETATION – Use scientific names of	nlante					
VEGETATION - Gae actendine names of	Absolute	Dominant	Indicator			
<u>Tree Stratum</u> (Plot size: 10')	% Cover	Species?	Status	Dominance Test wo	rksheet:	
1.				Number of Dominant	•	(4)
2				Are OBL, FACW, or F		(A)
4.				Total Number of Dom Across All Strata:	inant Species	(B)
		Total Cover		Percent of Dominant	Species That	``
Sapling/Shrub Stratum (Plot size: 5'	_)			Are OBL, FACW, or F	•	(A/B)
1.						
2.				Prevalence Index wo Total % Cover of		by:
4.					$\frac{1}{0} \frac{\text{Multiply}}{\text{x 1} = 0}$	by.
5.				FACW species (0 x 2 = 0	
	:	Total Cover		· ·	0 x 3 = 30	
Herb Stratum (Plot size: 5')	50	V	LIDI	· ——	$x = \frac{100}{25}$	
Avena barbata Trifolium angustifolium	20	Yes Yes	UPL UPL	· —	$\frac{70}{05}$ x 5 = $\frac{350}{480}$	
Bromus hordeaceus	20	Yes	FACU	Prevalence Index	`` /	(5)
4. Festuca perennis	10	No	FAC			
5. <u>Vicia sativa</u>	5	No	FACU	Hydrophytic Vegeta		
6.				Dominance Test		
7. 8.				Prevalence Index Morphological Ad	as ≤3.0° aptations¹ (Provide sur	porting
·	105	Total Cover		l 	s or on a separate she	
Woody Vine Stratum (Plot size: 5')			Problematic Hydr	ophytic Vegetation ¹ (E	xplain)
1.				¹ Indicators of hydric s	oil and wetland hydrolo	gy must
2				be present, unless dis	sturbed or problematic.	
		=Total Cover		Hydrophytic		
% Bare Ground in Herb Stratum 5	Cover of Bioti	c Crust	_	Vegetation Present? Yes	No X	
Remarks:						
Sample point not dominated by hydrophytic vegetat	ion.					

SOIL Sampling Point: 5

Donth	Motrix		Podo	x Featur	^^							
Depth (inches)	Matrix Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	10YR 4/3	100	Color (Illoist)	70	Турс		Loamy/Clayey	loam				
			40VD 4/C			DL /M						
4-16	10YR 3/3	95	10YR 4/6	5	<u>C</u>	PL/M	Loamy/Clayey	clay loam				
			_									
¹ Type: C=Co	oncentration, D=Deplet	ion, RM=	Reduced Matrix, C	CS=Cove	red or C	oated S	and Grains. ² Loca	tion: PL=Pore Lining, M=Matrix.				
	Indicators: (Applicabl							s for Problematic Hydric Soils ³ :				
Histosol	(A1)		Sandy Red	dox (S5)			1 cm Muck (A9) (LRR C)					
	pipedon (A2)		Stripped M		6)		2 cm Muck (A10) (LRR B)					
Black Hi	stic (A3)		Loamy Mu	cky Mine	eral (F1)		Iron-Manganese Masses (F12) (LRR D)					
Hydroge	n Sulfide (A4)		Loamy Gle	eyed Mat	rix (F2)		Reduced Vertic (F18)					
Stratified	Layers (A5) (LRR C)		Depleted N	Лatrix (F	3)		Red Parent Material (F21)					
1 cm Mu	ick (A9) (LRR D)		Redox Dar	rk Surfac	e (F6)		Very Shallow Dark Surface (F22)					
Depleted	d Below Dark Surface (A11)	Depleted D	Dark Sur	face (F7))	Other (Explain in Remarks)					
Thick Da	ark Surface (A12)		Redox Dep	pression	s (F8)							
Sandy M	lucky Mineral (S1)											
Sandy G	leyed Matrix (S4)	³ Indicato	rs of hydrophytic v	egetatio	n and we	etland hy	drology must be prese	nt, unless disturbed or problematic.				
Restrictive I	Layer (if observed):											
Type:			<u></u>									
Depth (ir	nches):						Hydric Soil Present	? Yes No_X				
	ue to topographic posi		-					indicator F8 presumably not getation and wetland hydrology				
HYDROLO												
Wetland Hy	drology Indicators:											
Wetland Hyd	drology Indicators: cators (minimum of one	e is requir					Secondar	y Indicators (minimum of two require				
Wetland Hyd Primary Indic	drology Indicators: cators (minimum of one Water (A1)	e is requir	Salt Crust	(B11)			Secondar Wate	Marks (B1) (Riverine)				
Wetland Hyde Primary India Surface High Wa	drology Indicators: cators (minimum of one Water (A1) tter Table (A2)	e is requir	Salt Crust Biotic Crus	(B11) st (B12)	oo (B12)		<u>Secondar</u> <u> </u>	Marks (B1) (Riverine) nent Deposits (B2) (Riverine)				
Wetland Hyde Primary India Surface High Wa	drology Indicators: cators (minimum of one Water (A1) tter Table (A2) on (A3)		Salt Crust Biotic Crus Aquatic Inv	(B11) st (B12) vertebrat			Secondar Wate Sedir Drift I	m Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine)				
Wetland Hyderimary India Primary India Surface High Wa Saturatio Water M	drology Indicators: cators (minimum of one Water (A1) Iter Table (A2) on (A3) arks (B1) (Nonriverine	e)	Salt Crust Biotic Crus Aquatic Inv	(B11) st (B12) vertebrat Sulfide (Odor (C1)	Secondar Wate Sedir Drift I	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10)				
Wetland Hydelicon Primary India Surface High Wa Saturation Water M Sedimen	drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonri	e) verine)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F	(B11) st (B12) vertebrat Sulfide (Rhizosph	Odor (C1 eres on) Living R		r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) leason Water Table (C2)				
Wetland Hyd Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep	drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonriverine	e) verine)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized R	(B11) st (B12) vertebrat Sulfide (Rhizosph of Reduc	Odor (C1 eres on ced Iron () Living R (C4)	Secondar Wate Sedir Drift I Drain oots (C3)Dry-S Crayf	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) leason Water Table (C2) ish Burrows (C8)				
Wetland Hyden Primary India Surface High Was Saturation Water M Sedimer Drift Dep Surface	drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonri	e) verine) e)	Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R Presence o	(B11) st (B12) vertebrat Sulfide (Rhizosph of Reduc	Odor (C1 eres on ced Iron (tion in Ti) Living R (C4)	Secondar Wate Sedir Drift [Drain oots (C3) Dry-S Crayf	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) leason Water Table (C2)				
Wetland Hydelicon Primary India Surface High Water M Sedimer Drift Dep Surface Inundation	drology Indicators: cators (minimum of one Water (A1) tter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6)	e) verine) e)	Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R Presence o	(B11) st (B12) vertebrate Sulfide (Rhizosph of Reduce n Reduce Surface	Odor (C1 eres on leed Iron (tion in Ti (C7)) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain Dry-S Crayf Is (C6) Satur Shalld	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9)				
Wetland Hydelicon Primary India Surface High Water M Sedimer Drift Dep Surface Inundation	drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Imatained Leaves (B9)	e) verine) e)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Thin Muck	(B11) st (B12) vertebrate Sulfide (Rhizosph of Reduce n Reduce Surface	Odor (C1 eres on leed Iron (tion in Ti (C7)) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain Dry-S Crayf Is (C6) Satur Shalld	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Dation Visible on Aerial Imagery (C9) Dow Aquitard (D3)				
Wetland Hydelian Primary India Surface High Wa Saturation Water M Sedimer Drift Dep Surface Inundation Water-S	drology Indicators: cators (minimum of one Water (A1) ther Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Imatained Leaves (B9) vations:	e) verine) e)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrate Sulfide (Rhizosph of Reduce n Reduce Surface	Odor (C1 eres on led Iron (tion in Ti (C7) demarks)) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain Dry-S Crayf Is (C6) Satur Shalld	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Dation Visible on Aerial Imagery (C9) Dow Aquitard (D3)				
Wetland Hydelian Primary India Surface High Water Mater Surface Inundation Water-S Field Observable	drology Indicators: cators (minimum of one Water (A1) ther Table (A2) on (A3) arks (B1) (Nonriverine the Deposits (B2) (Nonriverine sosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Ima tained Leaves (B9) vations: er Present? Yes	e) verine) e)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrat Sulfide (Rhizosph of Reduc n Reduc Surface blain in R	Odor (C1 eres on led Iron (tion in Ti (C7) demarks)) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain Dry-S Crayf Is (C6) Satur Shalld	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Dation Visible on Aerial Imagery (C9) Dow Aquitard (D3)				
Wetland Hyderimary India Surface High Water M Sedimer Drift Dep Surface Inundation Water-S Field Obser Surface Water	drology Indicators: cators (minimum of one Water (A1) Iter Table (A2) In (A3) Iter Table (B1) (Nonriverine In Deposits (B2) (Nonriverine In Deposits (B3) (Nonriverine In Soil Cracks (B6) In Visible on Aerial Imale Italianed Leaves (B9) In Vations: Iter Present? Iter Yes Iter Present? Iter Yes Iter Yes Iter Indicators: Iter Indi	e) verine) e)	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrat Sulfide (Rhizosph of Reduc n Reduc Surface blain in R	Odor (C1 eres on led Iron (tion in Ti (C7) demarks) nches):_ nches):_) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain Dry-S Crayf Is (C6) Satur Shalld	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Deation Visible on Aerial Imagery (C9) Dow Aquitard (D3) Neutral Test (D5)				
Wetland Hydelian Primary India Surface High Water Mater Mater Mater Drift Dep Surface Inundation Water-S Field Obsert Surface Water Table Saturation Processors	drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes polllary fringe)	e) verine) e) agery (B7	Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebral Sulfide (Rhizosph of Reduce n Reduce Surface blain in R Depth (ii Depth (ii	Odor (C1 eres on led Iron (tion in Ti (C7) leemarks) Inches):nches): _) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain oots (C3) Crayf S (C6) Satur Shalle FAC-	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Deation Visible on Aerial Imagery (C9) Dow Aquitard (D3) Neutral Test (D5)				
Wetland Hyderimary India Surface High Water Mater Mater Mater Mater Mater Surface Inundation Water-S Field Obser Surface Water Table Saturation Pater Mater Capacity Material Materi	drology Indicators: cators (minimum of one Water (A1) ther Table (A2) on (A3) arks (B1) (Nonriverine th Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Ima tained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes	e) verine) e) agery (B7	Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebral Sulfide (Rhizosph of Reduce n Reduce Surface blain in R Depth (ii Depth (ii	Odor (C1 eres on led Iron (tion in Ti (C7) leemarks) Inches):nches): _) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain oots (C3) Crayf S (C6) Satur Shalle FAC-	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Deation Visible on Aerial Imagery (C9) Dow Aquitard (D3) Neutral Test (D5)				
Wetland Hyderimary India Surface High Water Mater Mater Mater Mater Mater Mater Surface Inundation Water-S Field Obser Surface Water Table Saturation Polyincludes cap Describe Ren	drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriverine at Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes polllary fringe)	e) verine) e) agery (B7	Salt Crust Biotic Crus Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebral Sulfide (Rhizosph of Reduce n Reduce Surface blain in R Depth (ii Depth (ii	Odor (C1 eres on led Iron (tion in Ti (C7) leemarks) Inches):nches): _) Living R (C4) illed Soil	Secondar Wate Sedir Drift I Drain oots (C3) Crayf S (C6) Satur Shalle FAC-	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Deation Visible on Aerial Imagery (C9) Dow Aquitard (D3) Neutral Test (D5)				
Wetland Hyderimary India Surface High Water Mater Mater Mater Mater Mater Mater Surface Inundation Water-S Field Obser Surface Water Table Saturation Poincludes cap Describe Renarks:	drology Indicators: cators (minimum of one Water (A1) ther Table (A2) on (A3) arks (B1) (Nonriverine the Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes corded Data (stream ga	e) e) agery (B7	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Thin Muck Other (Exp No X No X No X No X nitoring well, aeria	(B11) st (B12) vertebrat Sulfide (Rhizosph of Reduc n Reduc Surface blain in R Depth (i Depth (i Depth (ii	Odor (C1 eres on led Iron of the Iron of the Iron of the Iron of Iron) Living R (C4) Illed Soil	Secondar Wate Sedir Drift I Drain oots (C3) Crayf Is (C6) Satur Shall FAC- Wetland Hydrolog	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Dation Visible on Aerial Imagery (C9) Dow Aquitard (D3) Neutral Test (D5) The Present? Yes NoX				
Wetland Hyderimary India Surface High Water Mater Mater Mater Mater Mater Mater Surface Inundation Water-S Field Obser Surface Water Table Saturation Poincludes cap Describe Renarks:	drology Indicators: cators (minimum of one Water (A1) ther Table (A2) on (A3) arks (B1) (Nonriverine the Deposits (B2) (Nonriverine cosits (B3) (Nonriverine Soil Cracks (B6) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes corded Data (stream ga	e) e) agery (B7	Salt Crust Biotic Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Thin Muck Other (Exp No X No X No X No X nitoring well, aeria	(B11) st (B12) vertebrat Sulfide (Rhizosph of Reduc n Reduc Surface blain in R Depth (i Depth (i Depth (ii	Odor (C1 eres on led Iron of the Iron of the Iron of the Iron of Iron) Living R (C4) Illed Soil	Secondar Wate Sedir Drift I Drain oots (C3) Crayf Is (C6) Satur Shall FAC- Wetland Hydrolog	r Marks (B1) (Riverine) nent Deposits (B2) (Riverine) Deposits (B3) (Riverine) age Patterns (B10) Deason Water Table (C2) Dish Burrows (C8) Deation Visible on Aerial Imagery (C9) Dow Aquitard (D3) Neutral Test (D5)				

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-3	800-4-12)	City/Cou	nty: <u>Haywar</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	6
Investigator(s): T. Mahony, Coast Range Biological L	LC	Section, 1	rownship, Ra	ange: <u>S24 T3S R1W, M</u>	ount Diablo Meridiar	1
Landform (hillside, terrace, etc.): draw		Local relief (co	oncave, con	/ex, none): concave	Slope	e (%): <u>15</u>
Subregion (LRR): LRR C Lat: 37.661769			Long: <u>-</u>	121.927016	Datum:	NAD 83
Soil Map Unit Name: Millsholm silt loam, 30 to 45 per	rcent slopes, e	roded		NWI classif	ication: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes X	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrology	_significantly o	disturbed? A	re "Normal (Circumstances" present?	Yes X No	
Are Vegetation, Soil, or Hydrology_X	_naturally prob	olematic? (I	f needed, ex	oplain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site n	nap showin	g samplin	g point lo	cations, transects,	important featu	ıres, etc.
Hydrophytic Vegetation Present? Yes	No_X_	Is the	Sampled A	rea		
	No X	withi	n a Wetland	? Yes	No X	
Wetland Hydrology Present? Yes	No X					
Remarks: Seasonal hydrology naturally problematic. No wetlar	nd hydrology in	idicators obse	rved			
Geasonal Hydrology Hatdrally problematic. No wettal	ia riyarology iii	idicators obse	iveu.			
VEGETATION – Use scientific names of	plants.					
	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1				Number of Dominant S Are OBL, FACW, or F	•	0 (A)
3.				Total Number of Domi		(/ ()
4.				Across All Strata:	•	1 (B)
	:	=Total Cover		Percent of Dominant S	•	
Sapling/Shrub Stratum (Plot size: 5'	_)			Are OBL, FACW, or F	AC: 0.0	0% (A/B)
1 2.				Prevalence Index wo	rkshoot:	
3.				Total % Cover of		oly by:
4.				OBL species (0
5				FACW species		0
Harb Chrotium (Diet sine) 51		=Total Cover		FACILITIES 1		5
Herb Stratum (Plot size: 5') 1. Avena barbata	70	Yes	UPL	FACU species 1 UPL species 7		50
Bromus hordeaceus	10	No	FACU			39 (B)
3. Festuca perennis	10	No	FAC	Prevalence Index	= B/A = 4.57	
4. Hordeum marinum	5	No	FAC			
5. Achillea millefolium	1	No	FACU	Hydrophytic Vegetat		
6				Dominance Test i Prevalence Index		
7 8.					aptations ¹ (Provide s	upporting
	96	Total Cover		data in Remark	s or on a separate s	heet)
Woody Vine Stratum (Plot size: 5'	_)			Problematic Hydro	ophytic Vegetation ¹ ((Explain)
1.				¹ Indicators of hydric so		
2		=Total Cover		be present, unless dis	iurbed or problemati	C.
		. 3.0. 00701		Hydrophytic Vegetation		
% Bare Ground in Herb Stratum 5	Cover of Bioti	c Crust		Present? Yes	NoX	
Remarks:						
Sample point not dominated by hydrophytic vegetati	on.					

SOIL Sampling Point: 6

Profile Desc	cription: (Descr	ibe to the depth	needed to doc	ument t	he indica	tor or c	confirm the absence of	of indicators.)			
Depth	Matı	rix	Redo	ox Featu	res						
(inches)	Color (mois	t) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-4	10YR 3/3	100					Loamy/Clayey	loam			
4-16	10YR 3/3	100					Loamy/Clayey	clay loam			
								-			
¹ Type: C=C	oncentration D=	Depletion, RM=R	Peduced Matrix (CS=Cov	ered or Co	nated S	and Grains ² Loca	tion: PL=Pore Lining, M=Matrix.			
		plicable to all LR				outou o		s for Problematic Hydric Soils ³ :			
Histosol		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Sandy Re				1 cm Muck (A9) (LRR C)				
	pipedon (A2)		Stripped N				2 cm Muck (A10) (LRR B)				
·	istic (A3)		Loamy Mu	•	,		Iron-Manganese Masses (F12) (LRR D)				
	en Sulfide (A4)		Loamy Gl	-			Reduced Vertic (F18)				
	d Layers (A5) (LF	RR C)	Depleted	-			Reduced Vertic (F16) Red Parent Material (F21)				
	uck (A9) (LRR D)		Redox Da	-			Very Shallow Dark Surface (F22)				
	d Below Dark Su		Depleted		` '			(Explain in Remarks)			
	ark Surface (A12		Redox De					(Explain in Remarks)			
	//ucky Mineral (S	•	Redox Be	processor	13 (1 0)						
	Gleyed Matrix (S4		s of hydrophytic	vegetatic	n and we	tland hy	drology must be prese	ent, unless disturbed or problematic.			
	Layer (if observ					1	, p,	,			
Type:	Layer (II Observ	eu).									
Depth (ii	nchos):		_				Hydric Soil Present	? Yes No X			
Deptii (ii							Tryunc Son Fresent	? Yes No X			
No hydric so	il indicators obse	rved.									
HYDROLO)GY										
Wetland Hy	drology Indicate	 ors:									
-		of one is require	d: check all that	apply)			Secondar	y Indicators (minimum of two required)			
-	Water (A1)	or one is require	Salt Crust					r Marks (B1) (Riverine)			
	ater Table (A2)		Biotic Cru	. ,			Sediment Deposits (B2) (Riverine)				
	Saturation (A3) Aquatic Invertebrates (B13)					Drift Deposits (B3) (Riverine)					
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)							age Patterns (B10)				
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres on Living								Season Water Table (C2)			
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)						C4)	, ,	ish Burrows (C8)			
·	Soil Cracks (B6)	•	Recent Iro	on Reduc	ction in Til	led Soil		ation Visible on Aerial Imagery (C9)			
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)								ow Aquitard (D3)			
Water-S	tained Leaves (E	39)	Other (Ex	plain in F	Remarks)		FAC-	Neutral Test (D5)			
Field Obser	vations:										
Surface Wat		Yes	No X	Depth (i	inches):						
Water Table		Yes	No X	Depth (i	· -						
Saturation P		Yes	No X	Depth (i	_		Wetland Hydrolog	y Present? Yes No X			
(includes ca	pillary fringe)		-		′ =			<u>—</u>			
		eam gauge, mon	itoring well, aeria	al photos	, previous	inspec	tions), if available:				
None	`			·		•	,.				
Remarks:											
Located in d	raw above epher	meral drainage. F	lowever, no bed	/bank, O	HWM, or	wetland	d hydrology indicators o	bserved.			

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-38	300-4-12)	City/Cou	nty: <u>Haywa</u> ı	rd, Alameda County	Sampling Date: 9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point: 7
Investigator(s): T. Mahony, Coast Range Biological LL	_C	Section,	Гownship, R	ange: S24 T3S R1W, M	ount Diablo Meridian
Landform (hillside, terrace, etc.): ephemeral drainage		 Local relief (c	oncave, conv	/ex, none): concave	Slope (%): 20
Subregion (LRR): LRR C Lat: 37.661806		`		121.926805	Datum: NAD 83
Soil Map Unit Name: Millsholm silt loam, 30 to 45 per	cent slopes, e	roded	_		ication: None
Are climatic / hydrologic conditions on the site typical			Yes X		olain in Remarks.)
Are Vegetation , Soil , or Hydrology		•			Yes X No
Are Vegetation, Soil, or Hydrology_X	_			plain any answers in Re	
					
SUMMARY OF FINDINGS – Attach site m	ap snowin	g sampiin	g point io	cations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes N	lo <u>X</u>	Is the	Sampled A	rea	
	No X	withi	n a Wetland	? Yes	No X
Wetland Hydrology Present? Yes X	lo				
Remarks:				da	OL DA/A
Seasonal hydrology naturally problematic. Located in	i ephemeral d	rainage chani	iel, ~2-feet v	vide, with bed, bank, and	OHWM.
VEGETATION – Use scientific names of	nlante				
VEGETATION - Use scientific fiames of	Absolute	Dominant	Indicator	T	
Tree Stratum (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:
1				Number of Dominant	•
2.				Are OBL, FACW, or F	AC: 0 (A)
3.				Total Number of Domi	•
4		=Total Cover		Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size: 5')	- Total Cover		Percent of Dominant S Are OBL, FACW, or F	•
1.	-′				(, ,
2.				Prevalence Index wo	orksheet:
3.				Total % Cover of	Multiply by:
4				· · ·	x 1 = 0
5		T-1-1-0			x 2 = 0
Herb Stratum (Plot size: 5')		=Total Cover			5 x 3 = 15 1 x 4 = 44
1. Elymus caput-medusae	50	Yes	UPL	UPL species 8	
Carduus pycnocephalus	20	Yes	UPL	· -	O1 (A) 484 (B)
3. Bromus hordeaceus	10	No	FACU	Prevalence Index	
4. Festuca perennis	5	No	FAC		
5. Cynosurus echinatus	5	No	UPL	Hydrophytic Vegetat	ion Indicators:
6. Avena barbata	5	No	UPL	Dominance Test i	
7. Bromus diandrus	5	No	UPL	Prevalence Index	
8. Aira caryophyllea	1	No	FACU	l 	aptations ¹ (Provide supporting
	101	=Total Cover			s or on a separate sheet)
Woody Vine Stratum (Plot size: 5'	_)			Problematic Hydro	ophytic Vegetation ¹ (Explain)
1 2.					oil and wetland hydrology must
۷.	<u> </u>	=Total Cover		·	turbed or problematic.
		. 5.3. 50101		Hydrophytic Vegetation	
% Bare Ground in Herb Stratum5 %	Cover of Bioti	c Crust		Present? Yes	No X
Remarks:					
Sample point not dominated by hydrophytic vegetation	on.				

SOIL Sampling Point: _____7

Profile Desc	ription: (Describ	e to the dept	n needed to doc	ument t	he indica	tor or o	confirm the absence	of indicators.)	
Depth	Matrix	(Redo	ox Featu	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-3	10YR 4/3	100					Loamy/Clayey	loa	m
3-16	10YR 4/3	100		-			Loamy/Clayey	cla	у
				-					
				-					
									_
¹ Type: C=Co	ncentration, D=D	epletion, RM=l	Reduced Matrix,	CS=Cov	ered or C	oated S	Sand Grains. ² Loca	ation: PL=Pore Lininເ	g, M=Matrix.
Hydric Soil I	ndicators: (Appl	icable to all L	RRs, unless oth	erwise n	oted.)		Indicato	rs for Problematic H	ydric Soils³:
Histosol	(A1)		Sandy Re	dox (S5))		1 cm	Muck (A9) (LRR C)	
Histic Ep	ipedon (A2)		Stripped I	Matrix (S	6)		2 cm	Muck (A10) (LRR B)	
Black His	stic (A3)		Loamy M	ucky Min	eral (F1)		Iron-	Manganese Masses (F12) (LRR D)
Hydroge	n Sulfide (A4)		Loamy Gl	eyed Ma	trix (F2)		Redu	uced Vertic (F18)	
Stratified	Layers (A5) (LRI	R C)	Depleted	Matrix (F	3)		Red	Parent Material (F21)	
1 cm Mu	ck (A9) (LRR D)		Redox Da	ırk Surfa	ce (F6)		Very	Shallow Dark Surface	e (F22)
Depleted	Below Dark Surf	ace (A11)	Depleted	Dark Sur	face (F7)		Othe	r (Explain in Remarks	s)
Thick Da	rk Surface (A12)		Redox De	pression	ıs (F8)				
Sandy M	ucky Mineral (S1))							
Sandy G	leyed Matrix (S4)	³ Indicator	s of hydrophytic	vegetatio	n and we	tland hy	ydrology must be prese	ent, unless disturbed	or problematic.
Restrictive L	ayer (if observe	d):							
Type:			_						
Depth (in	ches):		_				Hydric Soil Presen	t? Yes_	No X
Remarks:									
No hydric soi	l indicators obser	ved.							
HADBOLO	CV								
HYDROLO									
_	Irology Indicator								
-	ators (minimum o	of one is require						ry Indicators (minimu	
	Water (A1)		Salt Crust	. ,				er Marks (B1) (Riverin	•
	ter Table (A2)		Biotic Cru		t (D40)			ment Deposits (B2) (F	
Saturatio	` '	ovino)	Aquatic Ir					Deposits (B3) (Riveri	ne)
	arks (B1) (Nonriv t Deposits (B2) (N		Hydrogen Ovidized					nage Patterns (B10) Season Water Table (C2\
	osits (B3) (Nonri		Presence	•		-		fish Burrows (C8)	(02)
	Soil Cracks (B6)	verifie)	Recent Ire		,	,		ration Visible on Aeria	l Imagery (C0)
	on Visible on Aeria	al Imagery (B7)				ileu ooi		low Aquitard (D3)	ir imagery (C9)
	ained Leaves (B9	0 ,	Other (Ex					-Neutral Test (D5)	
Field Observ	,			•			 _	(- 7	
Surface Water		Yes	No X	Depth (i	inches).				
Water Table		Yes	No X	Depth (i	· -				
Saturation Pr		Yes	No X	Depth (i			Wetland Hydrolo	gy Present? Yes	X No
(includes cap					′ –			_	
<u> </u>		am gauge, mor	nitoring well, aeria	al photos	, previous	sinspec	ctions), if available:		
None	`	·	<u> </u>		•	•	,		
Remarks:									
Located in ep	hemeral drainage	e channel, ~2-f	eet wide, with be	d, bank,	OHWM (s	scour, s	ediment deposits). Dra	ains eastbound into ro	adside ditch.

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari S	Santos Ranch F	Road, (APN: 9	946-3800)-4-12)	City/Cou	nty: <u>Haywa</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner:	Geno Tolari						State: CA	Sampling Point:	8
Investigator(s): T. M	ahony, Coast F	Range Biologi	cal LLC		Section,	Township, R	ange: <u>S24 T3S R1W, M</u>	ount Diablo Meridia	an
Landform (hillside, t	errace, etc.): s	hallow basin			Local relief (c	oncave, con	vex, none): concave	Slo	pe (%):1
Subregion (LRR):	LRR C	Lat: 37.662	2840			Long: -	121.927603	Datum:	NAD 83
Soil Map Unit Name			5 percei	nt slopes, e	eroded		NWI classifi	cation: None	-
Are climatic / hydrol	ogic conditions	on the site ty	pical for	this time o	f year?	Yes X	No (If no, exp	olain in Remarks.)	
-	-	-			-		Circumstances" present?		lo
Are Vegetation							xplain any answers in Rer		
		-					cations, transects,	•	tures, etc.
Hydrophytic Vegeta Hydric Soil Presen Wetland Hydrology	t?	Yes X Yes X	No	X		e Sampled A		No_X_	
Remarks: Seasonal hydrolog hydrology indicator		olematic. Loca	ated in b	asin at toe	of slope with h	nydric soil ind	dicators, but strongly upla	nd vegetation and	no wetland
VEGETATION -	- Use scien	tific names	s of pla	ants.					
To a Otrostrono	(DI-4-:	401	`	Absolute	Dominant	Indicator	Danis Tark		
Tree Stratum 1.	(Plot size:	10)	% Cover	Species?	Status	Dominance Test wor		
2.							Number of Dominant S Are OBL, FACW, or FA	•	0 (A)
2							Total Number of Domi		` ′
4.							Across All Strata:		2 (B)
Sapling/Shrub Stra	<u>ıtum</u> (Plo	ot size:5	<u>5'</u>)	_	=Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	0.0% (A/B
2.							Prevalence Index wo	rksheet:	
3.							Total % Cover of:	Muli	tiply by:
4.							OBL species 0	x 1 =	0
5							FACW species 0	x 2 =	0
			,		=Total Cover		FAC species 6		18
Herb Stratum	(Plot size:	5')	50	V	LIDI	FACU species 5		20
 Avena barbata Carduus pycno 				50 30	Yes Yes	UPL UPL	UPL species 90 Column Totals: 10		450 488 (B)
3. Festuca perenr	•			5	No	FAC	Prevalence Index :	``	`
4. Bromus diandru				5	No	UPL	1 Tovalonio maox	4.00	<u></u>
5. Elymus caput-ri				5	No	UPL	Hydrophytic Vegetati	ion Indicators:	
6. Bromus hordea				5	No	FACU	Dominance Test is		
7. Rumex pulcher	•			1	No	FAC	Prevalence Index	is ≤3.0 ¹	
8.							Morphological Ada	•	
			·	101	=Total Cover			s or on a separate	,
Woody Vine Stratu	<u>m</u> (Plo	ot size: 5	<u>5'</u>)				Problematic Hydro	phytic Vegetation ¹	(Explain)
1. 2.							¹ Indicators of hydric so be present, unless dist		
% Bare Ground in	Herb Stratum	2	% Co	over of Biot	=Total Cover		Hydrophytic Vegetation Present? Yes		
Remarks:		-				_	100-	X	
Sample point not d	ominated by hy	ydrophytic veç	getation.						
		_							

SOIL Sampling Point: 8

Profile Desc Depth	ription: (Describe Matrix	to the dept		ıment tl x Featur		ator or o	confirm the absen	ice of indicato	rs.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-3	10YR 4/3	100	Color (molety				Loamy/Clayey		loam	
3-16	10YR 4/3	95	10YR 5/6	5		PL/M	Loamy/Clayey		clay	
3-10	10110 4/3	95	10113/0			F L/IVI	Loamy/Clayey	<u> </u>	Clay	
	1						-			
	ncentration, D=Dep					coated S			Pore Lining, M=N	
-	ndicators: (Applic	able to all L			•				lematic Hydric	Soils ³ :
Histosol			Sandy Red					cm Muck (A9)		
	ipedon (A2)		Stripped M	`	,			cm Muck (A10		
Black His			Loamy Mu	-				_	Masses (F12) (LRR D)
	n Sulfide (A4)	٥,	Loamy Gle					Reduced Vertic		
	Layers (A5) (LRR	G)	Depleted N					Red Parent Mate	, ,	`
	ck (A9) (LRR D)	- (Λ11)	Redox Dar		. ,	`		-	ark Surface (F22)
	Below Dark Surfac rk Surface (A12)	e (ATT)	Depleted D)		Other (Explain in	i Remarks)	
	ucky Mineral (S1)		Redox De	16221011	S (FO)					
	leyed Matrix (S4)	³ Indicato	rs of hydronhytic y	enetatio	n and we	etland hy	/drology must be p	resent unless	disturbed or prob	olematic
	ayer (if observed)		is of flydropflytto v	ogotatio	ii ana wa	I	, arology mast be p	reserre, armess	diotarboa or pro-	nomatio.
Type:	.ayer (ii observeu)	•								
Depth (in	ches).		_				Hydric Soil Pres	sant?	Yes X	No
							Tryanto Con 1 1c.			
Remarks: Located in ba	sin with hydric soil	indicators ol	oserved. However,	no wetl	and hydr	ology or	hydrophytic veget	tation present.		
HYDROLO	GY									
Wetland Hyd	Irology Indicators:	<u> </u>								
_	ators (minimum of o		ed; check all that a	apply)			Seco	ndary Indicator	s (minimum of tv	vo required)
Surface \	Vater (A1)		Salt Crust	(B11)			V	Vater Marks (B	1) (Riverine)	
High Wa	ter Table (A2)		Biotic Crus	t (B12)			<u> </u>	Sediment Depos	sits (B2) (Riverin	ne)
Saturatio	n (A3)		Aquatic Inv	/ertebra	tes (B13))		rift Deposits (B	3) (Riverine)	
Water Ma	arks (B1) (Nonriver	ine)	Hydrogen	Sulfide (Odor (C1)		rainage Patteri	ns (B10)	
	t Deposits (B2) (No	•	Oxidized F			_		ry-Season Wa		
	osits (B3) (Nonrive	rine)	Presence					Crayfish Burrow		
	Soil Cracks (B6)		Recent Iro			illed Soil			le on Aerial Imag	jery (C9)
	n Visible on Aerial	Imagery (B7	· —					Shallow Aquitare		
	ained Leaves (B9)		Other (Exp	iain in F	(Remarks			AC-Neutral Te	st (D5)	
Field Observ										
Surface Water		es			nches):					
Water Table		es			nches): _				.	N V
Saturation Pr		es	No X	Depth (i	nches):_		Wetland Hydr	ology Present	? Yes	No X
(includes cap	illary fringe) orded Data (stream	n dalido ma	nitoring well serie	l nhotos	proviou	e inenee	tions) if available:			
None Nec	orucu Data (Stream	ı yauye, IIIO	imoring well, aefla	PHOTOS	, previou	s mspec	nons), n avallable:			
Remarks:										
	sin at toe of slope v	with no wetla	and hydrology indic	cators of	oserved.					
	•		. 3,							

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-38	300-4-12)	City/Cou	nty: <u>Haywaı</u>	rd, Alameda County	Sampling Date: 9/21/22	
Applicant/Owner: Geno Tolari				State: CA	Sampling Point: 9	
Investigator(s): T. Mahony, Coast Range Biological LL	.C	Section,	Γownship, R	ange: S24 T3S R1W, M	ount Diablo Meridian	
Landform (hillside, terrace, etc.): ephemeral drainage		 Local relief (c	oncave, conv	/ex, none): concave	Slope (%):	10
Subregion (LRR): LRR C Lat: 37.663336			Long: -	121.926950	Datum: NAD 83	
Soil Map Unit Name: Millsholm silt loam, 30 to 45 per	cent slopes, e	roded			ication: None	
Are climatic / hydrologic conditions on the site typical			Yes X		olain in Remarks.)	
Are Vegetation , Soil , or Hydrology		•			Yes X No	
Are Vegetation, Soil, or Hydrology_X	= !			plain any answers in Re		
SUMMARY OF FINDINGS – Attach site m	=				·	to
SOMMAN OF THE INDINGS - Attach site in	ap silowili		g point io	cations, transects,		
, , ,	lo X		Sampled A			
	lo <u>X</u>	withi	n a Wetland	? Yes	No X	
	lo					
Remarks: Seasonal hydrology naturally problematic. Located in	enhemeral d	rainade chant	nel ~2-feet v	vide with hed hank and	OHWM	
deasonal hydrology haturally problematic. Educated in	i epitemerai u	rainage cham	161, *2-1661 V	vide, with bed, bank, and	OTTVVIVI.	
VEGETATION – Use scientific names of	plants.					
	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
Quercus agrifolia	50	Yes	UPL	Number of Dominant	•	• \
2. 3.				Are OBL, FACW, or F		A)
3. 4				Total Number of Domi Across All Strata:	•	В)
	50	=Total Cover		Percent of Dominant S		٥,
Sapling/Shrub Stratum (Plot size: 5')			Are OBL, FACW, or F	•	A/B)
1.	· 					
2				Prevalence Index wo	rksheet:	
3.				Total % Cover of		
4	· 			· · ·	x 1 = 0	
5	· 	=Total Cover		· ·	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Herb Stratum (Plot size: 5')		10101 00101		FACU species		
1. Bromus diandrus	20	Yes	UPL	UPL species 12	26 x 5 = 630	
2. Cynosurus echinatus	20	Yes	UPL	Column Totals: 12	27 (A) 634 (E	B)
3. Avena barbata	15	No	UPL	Prevalence Index	= B/A = 4.99	
4. Carduus pycnocephalus	15	No	UPL			
5. Brachypodium distachyon	5	No	UPL	Hydrophytic Vegetat		
6. Pentagramma triangularis	1	No No	UPL	Dominance Test i		
7. Elymus glaucus	1	<u>No</u>	FACU	Prevalence Index	าร ≤3.0 ์ aptations¹ (Provide supportin	. ~
8	77	=Total Cover		l 	aptations (Provide supportings or on a separate sheet)	g
Woody Vine Stratum (Plot size: 5'	11	- Fotal Cover			ophytic Vegetation ¹ (Explain)	١
	_/			l 		
1 2.	· <u></u>			be present, unless dis	oil and wetland hydrology mu turbed or problematic.	ısı
	· :	=Total Cover		Hydrophytic	·	
				Vegetation		
% Bare Ground in Herb Stratum 20 %	Cover of Bioti	c Crust		Present? Yes	No X	
Remarks:						
Sample point not dominated by hydrophytic vegetation	on.					

SOIL Sampling Point: 9

	-	-				tor or c	onfirm the absence	of indicators.)
Depth	Matri			x Featur		. 2	_	
(inches)	Color (moist)) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10YR 3/3	100					Loamy/Clayey	rocky loam
					. <u></u>			
	· 			. –	_			
	•			· —				
				· ——				-
				. ——			<u> </u>	
				. —				-
				. —				
¹ Type: C=Co	oncentration, D=D	Depletion, RM=R	educed Matrix, (CS=Cov	ered or C	oated S	and Grains. ² Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators: (App	licable to all LR	Rs, unless oth	erwise r	oted.)		Indicator	rs for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Re	dox (S5))		1 cm	Muck (A9) (LRR C)
Histic Ep	oipedon (A2)		Stripped N	√atrix (Տ	6)		2 cm	Muck (A10) (LRR B)
Black His	stic (A3)		Loamy Mu	ucky Min	eral (F1)		Iron-	Manganese Masses (F12) (LRR D)
Hydroge	n Sulfide (A4)		Loamy Gle	eyed Ma	trix (F2)		Redu	uced Vertic (F18)
Stratified	l Layers (A5) (LR	RC)	Depleted I	Matrix (F	3)		Red	Parent Material (F21)
1 cm Mu	ıck (A9) (LRR D)		Redox Da	ırk Surfa	ce (F6)		Very	Shallow Dark Surface (F22)
Depleted	d Below Dark Surf	face (A11)	Depleted I	Dark Sur	face (F7))	Othe	r (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox De	pression	ıs (F8)		_	
Sandy M	lucky Mineral (S1)						
Sandy G	leyed Matrix (S4)) ³ Indicators	of hydrophytic v	vegetatio	n and we	tland hy	drology must be prese	ent, unless disturbed or problematic.
Restrictive I	Layer (if observe	∍d):						
Type:	• .	,						
Depth (in	nches):		_				Hydric Soil Present	t? Yes No X
HYDROLO	GY							
Wetland Hyd	drology Indicato	rs:				-		
Primary Indic	cators (minimum o	of one is require	d; check all that	apply)			Seconda	ry Indicators (minimum of two required)
-	Water (A1)		Salt Crust				Wate	er Marks (B1) (Riverine)
High Wa	iter Table (A2)		Biotic Crus	st (B12)			X Sedi	ment Deposits (B2) (Riverine)
Saturation	on (A3)		Aquatic In	vertebra	tes (B13)		Drift	Deposits (B3) (Riverine)
Water M	arks (B1) (Nonri v	verine)	Hydrogen	Sulfide	Odor (C1))	X Drair	nage Patterns (B10)
Sedimen	nt Deposits (B2) (I	Nonriverine)	Oxidized F			_	oots (C3) Dry-S	Season Water Table (C2)
Drift Dep	oosits (B3) (Nonri	verine)	Presence	of Redu	ced Iron (C4)		fish Burrows (C8)
	Soil Cracks (B6)		Recent Iro			lled Soil	· · · · · · · · · · · · · · · · · · ·	ration Visible on Aerial Imagery (C9)
	on Visible on Aeri	3 , , ,	Thin Muck					low Aquitard (D3)
Water-St	tained Leaves (B)	Other (Exp	plain in F	≀emarks)		FAC-	-Neutral Test (D5)
Field Observ	vations:						T	
Surface Water	er Present?	Yes		Depth (i	nches):			
Water Table		Yes		Depth (i	_			
Saturation Pr		Yes	No X	Depth (i	nches):		Wetland Hydrolog	gy Present? Yes X No
(includes cap							1	
	corded Data (stre	am gauge, moni	toring well, aeria	al photos	, previous	s inspec	tions), if available:	
None								
Remarks:	chomoral drainad	to channel ~2-fe	sat wide with he	d hank		coour e	adimont denocite) Dra	ains eastbound into culvert and then
roadside ditc		e Chamber, 2-10	et wide, with box	J, Darin,	OI IVVIVI (scour, o	ediment deposits). Die	IIIIS Eastbourid lifto outvert and then

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-38	300-4-12)	City/Cou	nty: <u>Haywa</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	10a
Investigator(s): T. Mahony, Coast Range Biological LL	.C	Section, 7	Γownship, R	ange: <u>S24 T3S R1W, M</u>	ount Diablo Meridia	ın
Landform (hillside, terrace, etc.): toe of slope		Local relief (co	oncave, con	vex, none): none	Slop	oe (%): <u>30</u>
Subregion (LRR): LRR C Lat: 37.663395			Long: -	121.926071	Datum:	NAD 83
Soil Map Unit Name: Los Gatos-Los Osos complex, 3	0 to 75 percer	nt slopes, ero	ded, MLRA	15 NWI classifi	cation: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes X	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly of	disturbed? A	Are "Normal (Circumstances" present?	Yes X No	0
Are Vegetation , Soil , or Hydrology X	='			xplain any answers in Rer	<u> </u>	
SUMMARY OF FINDINGS – Attach site m	_				•	ures, etc.
Hydric Soil Present? Wetland Hydrology Present? Yes X N	lo		Sampled A		No	
Remarks: Seasonal hydrology naturally problematic. Located in		d that drains ir	nto roadside	ditch.		
VEGETATION – Use scientific names of	Absolute	Dominant	Indicator	-		
Tree Stratum (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
Salix laevigata 2.	80	Yes	FACW	Number of Dominant S Are OBL, FACW, or FA	•	2 (A)
3. 4.				Total Number of Domin	nant Species	3 (B)
Sapling/Shrub Stratum (Plot size: 5'	80	=Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	6.7% (A/B)
Toxicodendron diversilobum	15	Yes	FACU			
2				Prevalence Index wo		
3.				Total % Cover of:		iply by:
4				OBL species 0		0
5				FACW species 90		180
Harly Observations (Distriction 51)	15 :	=Total Cover		FAC species 0		0
Herb Stratum (Plot size: 5') 1. Juncus phaeocephalus	10	Yes	FACW	FACU species 15 UPL species 0		0
0		168	FACW	Column Totals: 10		240 (B)
3.				Prevalence Index =	`` /	`
4.				l revalence index		<u>-</u>
5.				Hydrophytic Vegetati	on Indicators:	
6.				X Dominance Test is		
7.				X Prevalence Index	is ≤3.0 ¹	
8.				Morphological Ada	•	
	10	=Total Cover		data in Remarks	s or on a separate	sheet)
Woody Vine Stratum (Plot size: 5'	_)			Problematic Hydro	phytic Vegetation ¹	(Explain)
1				¹ Indicators of hydric so be present, unless dist		
		=Total Cover		Hydrophytic Vegetation		
% Bare Ground in Herb Stratum 60 %	Cover of Bioti	c Crust	_		X No	_
Remarks: Sample point dominated by hydrophytic vegetation.						
, ,,,,,,						

SOIL Sampling Point: 10a

	cription: (Describe t	o the depth				tor or o	confirm the absence	ce of indicators.)
Depth	Matrix	0′		k Featur		12	+ .	5 .
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	N 4/	85	10YR 5/6	15	С	PL/M	Loamy/Clayey	clay
							-	_
							-	
	oncentration, D=Depl					oated S		ocation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applica	ble to all LF			oted.)			tors for Problematic Hydric Soils ³ :
Histosol			Sandy Red					cm Muck (A9) (LRR C)
	oipedon (A2)		Stripped M		-			cm Muck (A10) (LRR B)
Black Hi			Loamy Mu					on-Manganese Masses (F12) (LRR D)
	en Sulfide (A4)		X Loamy Gle	yed Mat	rix (F2)		Re	educed Vertic (F18)
	d Layers (A5) (LRR C)	Depleted N					ed Parent Material (F21)
	ıck (A9) (LRR D)		Redox Dar		` '			ery Shallow Dark Surface (F22)
	d Below Dark Surface	(A11)	Depleted D)	Ot	ther (Explain in Remarks)
	ark Surface (A12)		Redox Dep	ression	s (F8)			
	lucky Mineral (S1)	2						
	Gleyed Matrix (S4)	¹Indicators	s of hydrophytic ve	egetatio	n and we	tland hy	/drology must be pre	esent, unless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:			<u> </u>					
Depth (ii	nches):		<u> </u>				Hydric Soil Prese	ent? Yes <u>X</u> No
Hydric soil in	dicators observed.							
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of o	ne is require	d; check all that a	pply)			Secon	dary Indicators (minimum of two required
X Surface	Water (A1)		Salt Crust	(B11)			Wa	ater Marks (B1) (Riverine)
X High Wa	ater Table (A2)		Biotic Crus	t (B12)			Se	ediment Deposits (B2) (Riverine)
X Saturation	on (A3)		Aquatic Inv	ertebrat	tes (B13))	Dr	rift Deposits (B3) (Riverine)
	larks (B1) (Nonriveri		Hydrogen		-			rainage Patterns (B10)
	nt Deposits (B2) (Non		Oxidized R	•		•	` ' —	ry-Season Water Table (C2)
	posits (B3) (Nonriver	ine)	Presence of					rayfish Burrows (C8)
	Soil Cracks (B6)	(5.5)	Recent Iro			lled Soil	· · · · · · · · · · · · · · · · · · ·	aturation Visible on Aerial Imagery (C9)
	on Visible on Aerial Ir	nagery (B7)	Thin Muck		. ,			nallow Aquitard (D3)
_	tained Leaves (B9)		Other (Exp	iain in R	(emarks		<u>X</u> FA	AC-Neutral Test (D5)
Field Obser								
Surface Wat				Depth (ii	· -	1		
Water Table				Depth (ii	_	0		
Saturation P		s <u>X</u>	No	Depth (ii	ncnes):_	0	wetland Hydro	ology Present? Yes X No
(includes cap	_ · · · · · · · · · · · · · · · · · · ·	anuac men	itoring wall social	photos	provious	e inence	tions) if available:	
None	corded Data (stream	yauy e , mon	morning well, aerial	ριτοιος,	previous	s mspec	aonoj, ii avallable:	
Remarks:								
	oe of slope that receiv	es groundw	ater seepage as v	vell as s	urface ri	unoff fro	m adiacent slone D	Discharges directly into concrete roadside
	Santos Ranch Road, v	-						ger and any mile series see seaded

ENG FORM 6116-1, JUL 2018 Arid West – Version 2.0

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-3	800-4-12)	City/Cou	nty: <u>Haywaı</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	10b
Investigator(s): T. Mahony, Coast Range Biological L	LC	Section, 1	Γownship, R	ange: S24 T3S R1W, M	ount Diablo Meridian	
Landform (hillside, terrace, etc.): slope	L	ocal relief (co	oncave, conv	vex, none): convex	Slope	(%): 60
Subregion (LRR): LRR C Lat: 37.663542			Long: -	121.926119	Datum: 1	NAD 83
Soil Map Unit Name: Los Gatos-Los Osos complex,	30 to 75 percen	t slopes, erod	ded, MLRA 1	NWI classif	ication: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes X	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrology	_significantly di	sturbed? A	re "Normal (Circumstances" present?	Yes X No	
Are Vegetation, Soil, or Hydrology_X	naturally prob	lematic? (I	f needed, ex	cplain any answers in Rei	marks.)	
SUMMARY OF FINDINGS – Attach site n	nap showinç	g samplin	g point lo	cations, transects,	important featu	res, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	rea		
	No X		n a Wetland		No X	
Wetland Hydrology Present? Yes	No X					
Remarks:						
Seasonal hydrology naturally problematic. Located of	on slope above	wetland. No	wetland para	ameters met.		
VECETATION Line accomplision names of	nlanta					
VEGETATION – Use scientific names of	Absolute	Dominant	Indicator	1		
<u>Tree Stratum</u> (Plot size:10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1.	_			Number of Dominant S	•	
2.				Are OBL, FACW, or F.	·	(A)
3				Total Number of Domi Across All Strata:	inant Species 5	(B)
		Total Cover		Percent of Dominant S	-	(B)
Sapling/Shrub Stratum (Plot size: 5')			Are OBL, FACW, or F	•	%(A/B)
1. Baccharis pilularis	30	Yes	UPL			
2. Diplacus aurantiacus	30	Yes	FACU	Prevalence Index wo		
Genista monspessulana 4.	20	Yes	UPL	Total % Cover of OBL species		
5.	_			FACW species (
· .	80 =	Total Cover		FAC species (
Herb Stratum (Plot size: 5')				FACU species 3	0 x 4 = 12	0
1. Avena barbata	10	Yes	UPL	UPL species 6		
2. Melica sp.	5	Yes	UPL	Column Totals: 9	· /	5(B)
3. 4.				Prevalence Index	= B/A = <u>4.68</u>	—
5.				Hydrophytic Vegetat	ion Indicators:	
6.				Dominance Test is		
7.				Prevalence Index		
8				l <u>—</u>	aptations ¹ (Provide su	
Was do Vine Otratona (Districts 5	15=	Total Cover			s or on a separate sh ophytic Vegetation ¹ (E	•
Woody Vine Stratum (Plot size: 5'	_)			l 	. , , , ,	• /
1 2.	_			¹ Indicators of hydric so be present, unless dis		
	=	Total Cover		Hydrophytic	· ·	
				Vegetation		
% Bare Ground in Herb Stratum 10 %	Cover of Biotic	Crust		Present? Yes	No <u>X</u>	
Remarks:						
Sample point not dominated by hydrophytic vegetati	OII.					

SOIL Sampling Point: 10b

Depth	Matrix	to tne aep		u ment t i x Featui		itor or c	confirm the absence (of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Ren	narks
0-16	10YR 3/2	100					Loamy/Clayey	loa	am
								-	
		·							
		· —— -							
	-							1	
¹ Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, C	CS=Cov	ered or C	oated S	and Grains. ² Loca	ation: PL=Pore Linir	ng, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all	LRRs, unless othe	erwise r	oted.)		Indicator	s for Problematic	Hydric Soils ³ :
Histosol	(A1)		Sandy Red	dox (S5))		1 cm	Muck (A9) (LRR C)	
Histic Ep	oipedon (A2)		Stripped M	1atrix (S	6)		2 cm	Muck (A10) (LRR E	3)
Black Hi	stic (A3)		Loamy Mu	icky Min	eral (F1)		Iron-l	Manganese Masses	(F12) (LRR D)
Hydroge	en Sulfide (A4)		Loamy Gle	eyed Ma	trix (F2)		Redu	iced Vertic (F18)	
Stratified	d Layers (A5) (LRR 0	C)	Depleted N	Matrix (F	3)		Red	Parent Material (F21	1)
1 cm Mu	ıck (A9) (LRR D)		Redox Da	rk Surfa	ce (F6)		Very	Shallow Dark Surfa	ce (F22)
Depleted	d Below Dark Surface	e (A11)	Depleted [Dark Sur	face (F7))	Othe	r (Explain in Remarl	(s)
Thick Da	ark Surface (A12)		Redox De	pression	ıs (F8)				
Sandy M	lucky Mineral (S1)								
Sandy G	Gleyed Matrix (S4)	³ Indicato	ors of hydrophytic v	egetatio	n and we	tland hy	drology must be prese	ent, unless disturbed	l or problematic.
Restrictive	Layer (if observed):								
Type:									
Depth (ii	nches):						Hydric Soil Present	? Yes	No_X
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary India	cators (minimum of o	ne is requi	red; check all that a	apply)			Seconda	ry Indicators (minimi	um of two required)
Surface	Water (A1)		Salt Crust	(B11)			Wate	r Marks (B1) (River	ine)
High Wa	ater Table (A2)		Biotic Crus	st (B12)			Sedir	ment Deposits (B2)	(Riverine)
Saturation	on (A3)		Aquatic In	vertebra	tes (B13)		Drift	Deposits (B3) (Rive	rine)
Water M	larks (B1) (Nonriver i	ine)	Hydrogen		-			age Patterns (B10)	
	nt Deposits (B2) (No		Oxidized F	•		_	· · · — ·	Season Water Table	(C2)
	oosits (B3) (Nonrive	rine)	Presence		,	,	<u> </u>	fish Burrows (C8)	
	Soil Cracks (B6)		Recent Iro			lled Soil		ation Visible on Aer	ial Imagery (C9)
	on Visible on Aerial I	magery (B	· —		` '			ow Aquitard (D3)	
Water-S	tained Leaves (B9)		Other (Exp	olain in F	Remarks)		FAC-	Neutral Test (D5)	
Field Obser									
Surface Wat			No X		nches):				
Water Table					nches):				
Saturation P		es	No X	Depth (i	nches):		Wetland Hydrolog	gy Present? Yes	No_X
(includes cap				I le - 1		_ lu - ::	Alama) if access to the		
	corded Data (stream	gauge, mo	onitoring well, aeria	ı pnotos	, previous	s inspec	tions), if available:		
None Remarks:									
Located on s	slope above wetland.	No wetlan	d hydrology indicat	ors obse	erved.				
Located on s	slope above wetland.	No wetlan	d hydrology indicat	ors obse	erved.				

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Tolari Santos Ranch Road, (APN: 946-3	800-4-12)	City/Cou	nty: <u>Haywar</u>	rd, Alameda County	Sampling Date:	9/21/22
Applicant/Owner: Geno Tolari				State: CA	Sampling Point:	11
Investigator(s): T. Mahony, Coast Range Biological L	LC	Section, T	ownship, Ra	ange: <u>S24 T3S R1W, M</u>	ount Diablo Meridia	ın
Landform (hillside, terrace, etc.): roadside ditch	l	ocal relief (co	ncave, con	/ex, none): concave	Slop	oe (%): <u>10</u>
Subregion (LRR): LRR C Lat: 37.660885			Long: <u>-</u>	121.927353	Datum:	NAD 83
Soil Map Unit Name: Millsholm silt loam, 30 to 45 pe	rcent slopes, ei	oded		NWI classif	ication: None	
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes X	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrology	_significantly o	listurbed? A	re "Normal (Circumstances" present?	Yes X No	o
Are Vegetation, Soil, or Hydrology_X	_naturally prob	olematic? (I	f needed, ex	oplain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site n	nap showin	g samplin	g point lo	cations, transects,	important feat	tures, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	ırea		
Hydric Soil Present? Yes	No X		n a Wetland		No X	
Wetland Hydrology Present? Yes X	No					
Remarks:		. 0		banka and Ol BAMA and a		
Seasonal hydrology naturally problematic. Located i	n roadside ditc	n, ~3-feet wid	e, with bed,	bank, and OHWM and e	ohemeral hydrology	<i>'</i> .
VEGETATION – Use scientific names of	nlante					
VEGETATION - Use scientific fiames of	Absolute	Dominant	Indicator	T		
Tree Stratum (Plot size: 10')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1				Number of Dominant	•	
2.				Are OBL, FACW, or F		<u>0</u> (A)
4.				Total Number of Dom Across All Strata:	nant Species	1 (B)
		Total Cover		Percent of Dominant S	——Species That	(
Sapling/Shrub Stratum (Plot size: 5'	_)			Are OBL, FACW, or F	•	.0% (A/B)
1.	_					
2.				Prevalence Index wo		inly hy
4.				Total % Cover of OBL species	x 1 =	iply by: 0
5.				· -		20
		Total Cover		FAC species	x 3 =	15
Herb Stratum (Plot size: 5')						40
Avena barbata Grindelia camporum	10	Yes No	UPL FACW	UPL species 6 Column Totals: 8		300 375 (B)
Trichostema lanceolatum	10	No	FACU	Prevalence Index	`` /	``
4. Festuca perennis	5	No	FAC			<u>. </u>
5.	_			Hydrophytic Vegetat	ion Indicators:	
6				Dominance Test i		
7.				Prevalence Index	is ≤3.0 ' aptations¹ (Provide	aupporting
8	 85 =	Total Cover		l —	s or on a separate	
Woody Vine Stratum (Plot size: 5')	Total Gover			ophytic Vegetation ¹	,
1.				¹ Indicators of hydric se		
2.				be present, unless dis		
	=	Total Cover		Hydrophytic		
% Bare Ground in Herb Stratum 20 %	Cover of Biotic	c Cruet		Vegetation Present? Yes	No X	
Remarks:	, Jover or Divili	- Jiust	_	11030111: 165		_
Sample point not dominated by hydrophytic vegetati	on.					

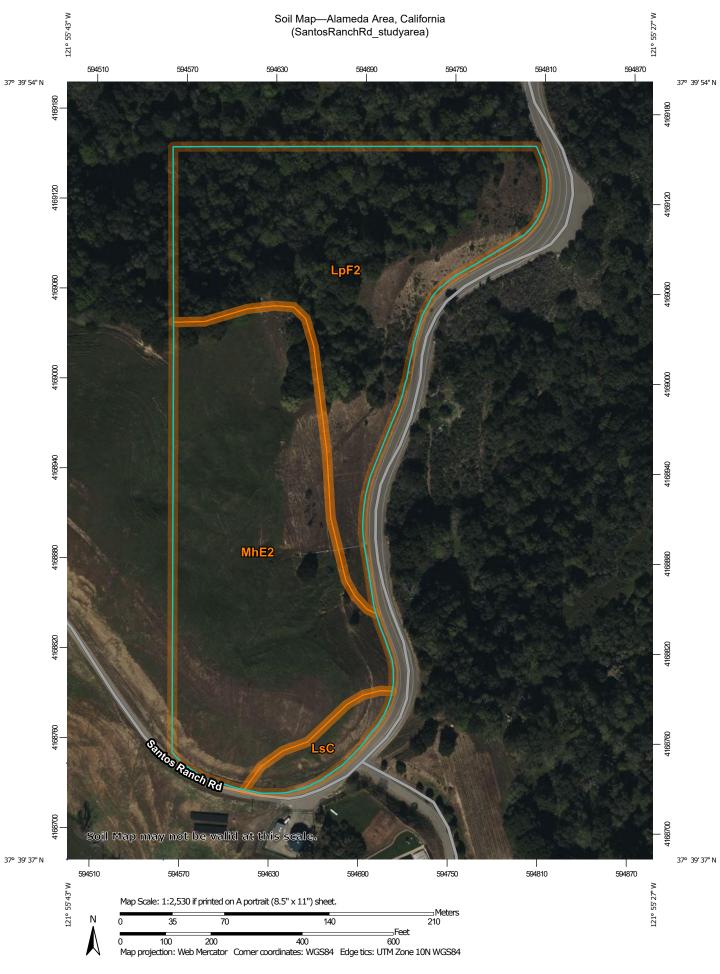
SOIL Sampling Point: 11

Profile Desc Depth	cription: (Describe Matrix	to the dept		ment tr Featur		ator or o	confirm the absence	of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-8	10YR 4/3	100	- ()				Loamy/Clayey	loam with abur		fragments
	.011(4/0	.00					Louiny, Olayoy	ISSUIT WHAT ABUI		49.1101110
		. —— –								
		· —— –								
		. <u> </u>								
		·								
¹Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, C	S=Cove	ered or C	oated S	Sand Grains. ² Loc	ation: PL=Pore Li	ning, M=M	atrix.
Hydric Soil	Indicators: (Application	able to all L	RRs, unless othe	rwise n	oted.)			rs for Problemati		•
Histosol	(A1)		Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR	C)	
Histic Ep	oipedon (A2)		Stripped M	atrix (S6	3)		2 cm	Muck (A10) (LRF	R B)	
Black Hi	stic (A3)		Loamy Mu	cky Mine	eral (F1)		Iron-	Manganese Mass	es (F12) (L	RR D)
Hydroge	n Sulfide (A4)		Loamy Gle	yed Mat	rix (F2)		Redu	uced Vertic (F18)		
Stratified	d Layers (A5) (LRR (C)	Depleted M	latrix (F	3)		Red	Parent Material (F	21)	
1 cm Mu	ıck (A9) (LRR D)		Redox Dar	k Surfac	e (F6)		Very	Shallow Dark Sui	face (F22)	
Depleted	d Below Dark Surfac	e (A11)	Depleted D	ark Sur	face (F7)	Othe	r (Explain in Rem	arks)	
Thick Da	ark Surface (A12)		Redox Dep	ression	s (F8)		_ 			
Sandy M	lucky Mineral (S1)									
Sandy G	Gleyed Matrix (S4)	³ Indicator	rs of hydrophytic ve	egetatio	n and we	etland h	ydrology must be pres	ent, unless disturb	ed or prob	lematic.
Restrictive I	Layer (if observed)	i								
Type:	bedroo	k								
Depth (ir	nches):	8					Hydric Soil Presen	t? Yo	es	No X
HYDROLO	GY									
Wetland Hy	drology Indicators:									
	cators (minimum of c	ne is require						<u>ry Indicators (mini</u>		o required)
	Water (A1)		Salt Crust					er Marks (B1) (Riv		
	iter Table (A2)		Biotic Crus	, ,				ment Deposits (B2	-	e)
Saturation			Aquatic Inv					Deposits (B3) (Ri		
	arks (B1) (Nonriver	•	Hydrogen S					nage Patterns (B1	-	
	nt Deposits (B2) (No posits (B3) (Nonrive		Oxidized R			-	· · · — ·	Season Water Tal	Die (CZ)	
	Soil Cracks (B6)	ille)	Presence of Recent Iron					fish Burrows (C8) ration Visible on <i>P</i>	erial Imag	ery (CQ)
	on Visible on Aerial I	magery (B7				ilica ooi	` '	low Aquitard (D3)	ichai imagi	cry (OO)
	tained Leaves (B9)		Other (Exp		. ,			-Neutral Test (D5)		
Field Obser					,		_			
Surface Wat		es	No X I	Depth (ii	nches):					
Water Table					· -					
Saturation P	resent? Ye	es		Depth (ii			Wetland Hydrolo	gy Present? Yo	es X	No
(includes cap	oillary fringe)				_					
Describe Re	corded Data (stream	gauge, mor	nitoring well, aerial	photos,	previou	s insped	ctions), if available:			
None										
Remarks:		A control of the	Lare to the	NA/R 4 /				at the sales to the sales		4
			bed, bank, and OF า located off the stเ			iment d	eposits) and ephemer	ai nyarology. Drair	is along Sa	antos
					1.					

ENG FORM 6116-1, JUL 2018 Arid West – Version 2.0

SOIL MAP OF THE STUDY AREA





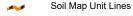
MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons



Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

36 Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill ۵

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot Sandy Spot

Severely Eroded Spot 0

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

â Stony Spot

00 Very Stony Spot

Wet Spot Other

Special Line Features

Water Features

Δ

Streams and Canals

Transportation

Rails ---

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Alameda Area, California Survey Area Data: Version 15, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Mar 9, 2022—Mar 11. 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LpF2	Los Gatos-Los Osos complex, 30 to 75 percent slopes, eroded, MLRA 15	8.0	47.1%
LsC	Los Osos loam, seeped variant, 3 to 15 percent slopes	0.6	3.8%
MhE2	Millsholm silt loam, 30 to 45 percent slopes, eroded	8.3	49.1%
Totals for Area of Interest		17.0	100.0%

PHOTOGRAPHS OF THE STUDY AREA





Appendix C-1. Willow Scrub wetland (WS) at Sample Point 10a.



Appendix C-2. Concrete roadside ditch along Santos Ranch Road, below WS, with culvert inlet downstream in upper portion of photo, looking downstream (north).



Appendix C-3. Upland slope above WS at Sample Point 10b.



Appendix C-4. Ephemeral drainage ED1 at Sample Point 1, looking downstream.



Appendix C-5. Ephemeral drainage ED2 at Sample Point 3, looking downstream.



Appendix C-6. Ephemeral drainage ED3 at Sample Point 2, looking upstream.



Appendix C-7. Ephemeral drainage ED4 at Sample Point 9, looking downstream.



Appendix C-8. Ephemeral drainage ED5 at Sample Point 7, looking downstream.



Appendix C-9. Roadside ditch (RD) at Sample Point 11, looking upstream.



Appendix C-10. Concrete roadside ditch along Santos Ranch Road, located off the study area, looking downstream (north).



Appendix C-11. Sample Point 4 in slump/draw above ED4, looking upslope (west).



Appendix C-12. Sample Point 5 in slump/draw lacking bed, bank, and OHWM and positive indicators of all the three wetland parameters, looking upslope (west).



Appendix C-13. Sample Point 6 in draw upslope of ED5, lacking bed/bank/OHWM as well as positive indicators of all three wetland parameters, looking upslope (west).



Appendix C-14. Sample Point 8 in shallow basin, lacking positive indicators of all three wetland parameters, looking south.

PLANT SPECIES OBSERVED ON THE STUDY AREA AND THEIR WETLAND INDICATOR STATUS



Appendix D. Plant species observed on the study area on April 6, June 6, July 13, and September 21, 2022 and their wetland indicator status.

Scientific Name	Common Name	Wetland Indicator Status (USACE 2020)
Acer macrophyllum	big-leaf maple	FAC
Achillea millefolium	yarrow	FACU
Achyrachaena mollis	blow-wives	FAC
Acmispon americanus var. americanus	Spanish clover	UPL
Acmispon glaber	deerweed	UPL
Acmispon strigosus	strigose trefoil	UPL
Acmispon wrangelianus	California lotus	UPL
Adiantum jordanii	California maidenhair	FAC
Aesculus californica	California buckeye	UPL
Aira caryophyllea*	silver hair grass	FACU
Amsinckia menziesii	fiddleneck	UPL
Anthriscus caucalis*	bur-chervil	UPL
Artemisia californica	California sagebrush	UPL
Asclepias fascicularis	narrow-leaved milkweed	FAC
Avena barbata*	slender wild oat	UPL
Avena fatua*	wild oat	UPL
Baccharis pilularis subsp. consanguinea	coyote brush	UPL
Brachypodium distachyon*	false brome	UPL
Briza minor*	little quaking grass	FAC
Brodiaea elegans	elegant brodiaea	FACU
Bromus diandrus*	ripgut brome	UPL
Bromus hordeaceus*	soft chess	FACU
Bromus madritensis*	Spanish brome	UPL
Bromus rubens*	red brome	UPL
Bromus sitchensis var. carinatus	California brome	UPL
Calandrinia menziesii	redmaids	UPL
Calochortus albus	white globe lily	UPL
Calochortus luteus	yellow mariposa	UPL
Calystegia subacaulis	hill morning glory	UPL
Cardamine californica	milk maids	UPL
Cardamine oligosperma	bitter cress	FAC
Carduus pycnocephalus*	Italian thistle	UPL
Carduus tenuiflorus*	plumeless thistle	UPL
Castilleja attenuata	valley tassels	UPL
Centaurea solstitialis*	yellow star-thistle	UPL
Centromadia fitchii	spikeweed	FACU
Cerastium glomeratum*	mouse-eared chickweed	UPL
Chlorogalum pomeridianum	soap plant	UPL
Clarkia affinis	chaparral clarkia	UPL
Clarkia purpurea var. quadrivulnera	wine cup clarkia	UPL
Claytonia perfoliata subsp. perfoliata	miner's lettuce	FAC
Collinsia heterophylla var. heterophylla	Chinese houses	UPL
Convolvulus arvensis*	field bindweed	UPL
Corethrogyne filaginifolia	common sand aster	UPL
Crepis capillaris*	smooth hawksbeard	FACU

Scientific Name	Common Name	Wetland Indicator Status (USACE 2020)
Croton setiger	turkey-mullein	UPL
Cynoglossum grande	hound's tongue	UPL
Cynosurus echinatus*	hedgehog dogtail	UPL
Dactylis glomerata*	orchard grass	FACU
Daucus pusillus	wild carrot	UPL
Diplacus aurantiacus	sticky monkeyflower	FACU
Dipterostemon capitatus	blue dicks	FACU
Dittrichia graveolens*	stinkwort	UPL
Drymocallis glandulosa subsp. wrangelliana	sticky cinquefoil	FAC
Dryopteris arguta	wood fern	UPL
Elymus caput-medusae*	Medusa head	UPL
Elymus glaucus	blue wildrye	FACU
Elymus multisetus	big squirreltail	UPL
Elymus triticoides	creeping wildrye	FAC
Epilobium brachycarpum	autumn willowherb	FAC
Epilobium canum subsp. canum	California fuchsia	UPL
Eriogonum nudum var. auriculatum	ear-shaped wild buckwheat	UPL
Erodium botrys*	filaree	FACU
Erodium cicutarium*	redstem filaree	UPL
Erodium moschatum*	whitestem filaree	UPL
Eschscholzia californica	California poppy	UPL
Euphorbia peplus*	petty spurge	UPL
Eurybia radulina	roughleaf aster	UPL
Festuca bromoides*	brome fescue	FAC
Festuca microstachys	small fescue	UPL
Festuca myuros*	rattail fescue	FACU
Festuca perennis*	Italian ryegrass	FAC
Foeniculum vulgare*	fennel	UPL
Frangula californica	California coffeeberry	UPL
Galium aparine	goose grass	FACU
Galium porrigens var. porrigens	climbing bedstraw	UPL
Genista monspessulana*	French broom	UPL
Geranium dissectum*	cutleaf geranium	UPL
Geranium molle*	dove's foot geranium	UPL
Grindelia camporum	gum plant	FACW
Hirschfeldia incana*	summer mustard	UPL
Holodiscus discolor	oceanspray	FACU
Hordeum marinum subsp.	Mediterranean barley	FAC
gussoneanum*		
Hordeum murinum subsp. leporinum*	barley	FACU
Hypochaeris glabra*	smooth cat's ear	UPL
Juncus occidentalis	western rush	FACW
Juncus patens	spreading rush	FACW
Juncus phaeocephalus	brown-head rush	FACW
Koeleria macrantha	junegrass	UPL
Lactuca serriola*	prickly lettuce	FACU

Scientific Name	Common Name	Wetland Indicator Status (USACE 2020)
Lagophylla ramosissima	common hareleaf	UPL
Lamarckia aurea*	goldentop	FACU
Lathyrus vestitus	wild pea	UPL
Lepidium nitidum	shining peppergrass	FAC
Lithophragma affine	woodland star	UPL
Logfia gallica*	narrow-leaved cottonrose	UPL
Lupinus albifrons var. albifrons	silver bush lupine	UPL
Lupinus bicolor	miniature lupine	UPL
Lupinus succulentus	arroyo lupine	UPL
Luzula comosa	wood rush	FAC
Lysimachia arvensis*	scarlet pimpernel	FAC
Madia elegans	common madia	UPL
Madia gracilis	slender tarweed	UPL
Marah fabacea	California man-root	UPL
Medicago polymorpha*	bur clover	FACU
Melica californica	California melicgrass	UPL
Melica imperfecta	little California melica	UPL
Micranthes californica	California saxifrage	FACW
Micropus californicus	Q-tips	FACU
Monardella villosa subsp. villosa	coyote mint	UPL
Navarretia pubescens	downy pincushion plant	UPL
Navarretia squarrosa	skunkweed	FACU
Nemophila pedunculata	littlefoot nemophila	FAC
Oemleria cerasiformis	oso berry	FACU
Oxalis pes-caprae*	Bermuda buttercup	UPL
Pellaea andromedifolia	coffee fern	UPL
Pentagramma triangularis	goldback fern	UPL
Perideridia kelloggii	Kellogg's yampah	UPL
Phacelia imbricata var. imbricata	imbricate scorpionweed	UPL
Plagiobothrys nothofulvus	rusty popcornflower	FAC
Plantago erecta	dwarf plantain	UPL
Plectritis ciliosa	long-spurred plectritis	FACU
Poa annua*	annual bluegrass	FAC
Poa secunda	Nevada bluegrass	FACU
Pogogyne serpylloides	thyme-leaf pogogyne	FACW
Polypodium californicum	California polypody	UPL
Pseudognaphalium californicum	California cudweed	UPL
Pseudognaphalium luteoalbum*	annual cudweed	FAC
Pterostegia drymarioides	woodland threadstem	UPL
Quercus agrifolia	coast live oak	UPL
Quercus kelloggii	California black oak	UPL
Quercus lobata	valley oak	FACU
Ranunculus californicus	California buttercup	FACU
Ranunculus hebecarpus	downy buttercup	UPL
Rubus armeniacus*	Himalayan blackberry	FAC
Rumex acetosella*	sheep sorrel	FACU
Rumex pulcher*	fiddle dock	FAC
Rupertia physodes	Rupert's scruf-pea	UPL

Scientific Name	Common Name	Wetland Indicator Status (USACE 2020)
Salix laevigata	red willow	FACW
Salix lasiolepis	arroyo willow	FACW
Sambucus nigra	blue elderberry	FACU
Sanicula bipinnata	poison sanicle	UPL
Sanicula bipinnatifida	purple sanicle	UPL
Sanicula crassicaulis	Pacific snakeroot	UPL
Scandix pecten-veneris*	shepherd's needle	UPL
Scrophularia californica	California figwort	FAC
Senecio vulgaris*	common groundsel	FACU
Sherardia arvensis*	field madder	UPL
Silybum marianum*	milk thistle	UPL
Sisyrinchium bellum	western blue-eyed-grass	FACW
Solidago velutina subsp. californica	California goldenrod	UPL
Sonchus asper subsp. asper*	prickly sow thistle	FAC
Stellaria media*	common chickweed	FACU
Stipa pulchra	purple needlegrass	UPL
Symphoricarpos mollis	creeping snowberry	FACU
Tauschia hartwegii	Hartweg's tauschia	UPL
Thysanocarpus curvipes	lacepod	UPL
Torilis arvensis*	field hedge parsley	UPL
Toxicodendron diversilobum	poison oak	FACU
Toxicoscordion sp.	death camas	
Trichostema lanceolatum	vinegar weed	FACU
Trifolium albopurpureum	rancheria clover	FACU
Trifolium angustifolium*	narrow leaf clover	UPL
Trifolium bifidum var. decipiens	deceptive clover	UPL
Trifolium ciliolatum	foothill clover	UPL
Trifolium dubium*	little hop clover	UPL
Trifolium glomeratum*	clustered clover	UPL
Trifolium hirtum*	rose clover	UPL
Trifolium subterraneum*	subterranean clover	UPL
Trifolium willdenovii	tomcat clover	FACW
Triteleia laxa	Ithuriel's spear	UPL
Umbellularia californica	California bay	FAC
Uropappus lindleyi	Lindley's silverpuffs	UPL
Vicia sativa*	vetch	FACU
Vicia villosa*	hairy vetch	UPL
Wyethia angustifolia	narrowleaf mules ears	FACU
Wyethia glabra	smooth mules ears	UPL
* = non-native species		