LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

INVESTIGATION OF POTENTIAL WATERS OF THE UNITED STATES LA PALOMA-ROBLEDA PATHWAY TOWN OF LOS ALTOS HILLS, CALIFORNIA

Prepared by

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1 INTRODUCTION

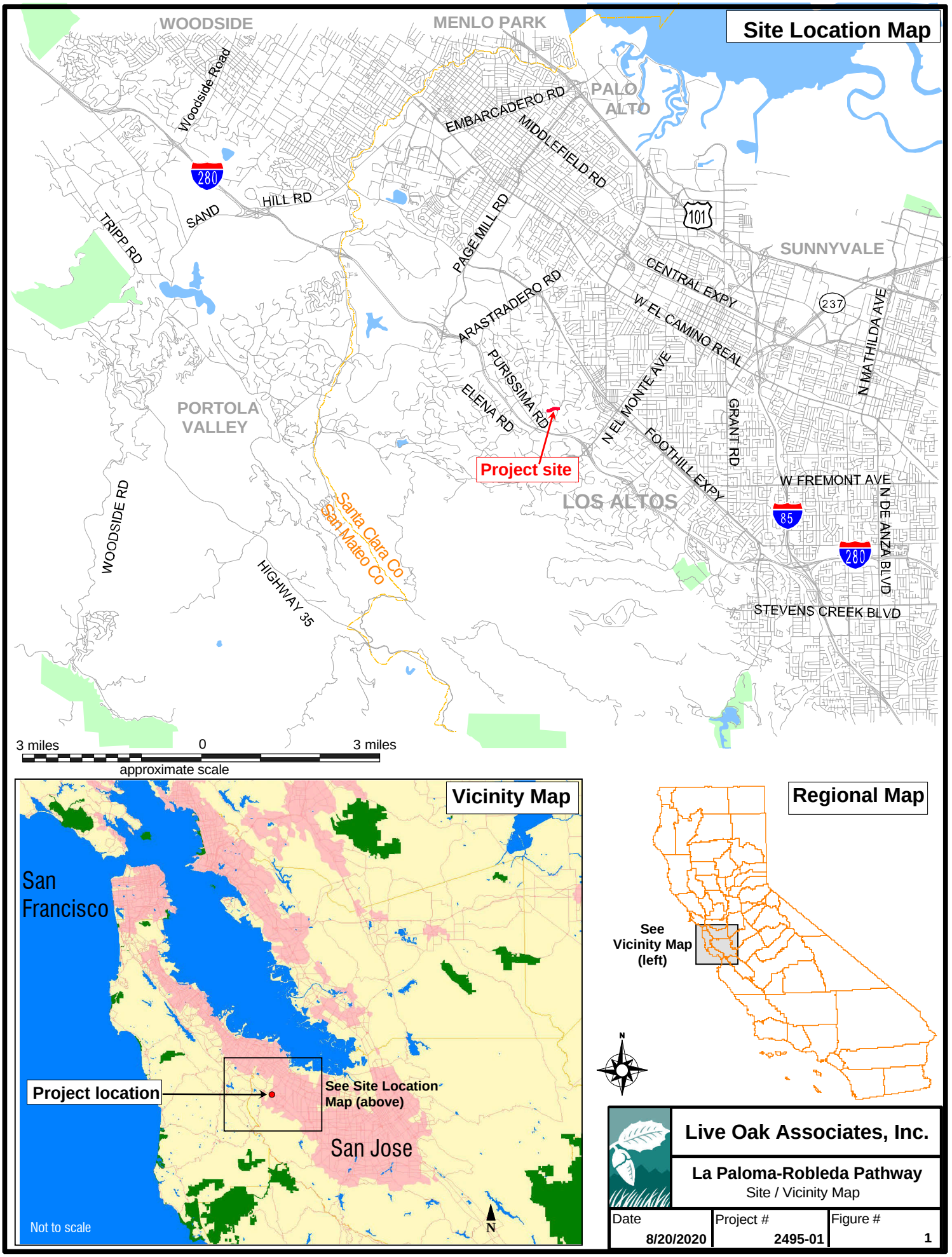
On August 12, 2020, Live Oak Associates, Inc. (LOA) surveyed the location of a proposed off-road pedestrian pathway for potential waters of the United States in the Town of Los Altos Hills, Santa Clara County, California (Figure 1). The proposed three-foot-wide by 960-foot-long path is adjacent to an unnamed, intermittent drainage channel. The path will connect an existing pathway and equestrian easement at La Paloma Road to Robleda Road (hereafter referred to as the "site" or "study area"). The proposed pathway connection on Robleda Road is also adjacent to a small undeveloped property owned by the Purissima Water District (APN 175-36-015).

The site is located within the Mindego Hill 7.5-minute U.S. Geological Survey (USGS) quadrangle in the northwestern half of section 25, township 6 south, and range 3 west (Figure 2). The site is bounded by low density residential development to the north and south, a small area of open land to the west, and Robleda Road to the east. The surrounding land use consists of single-family residences and related major and minor streets.

1.1 REGULATORY DEFINITION OF WATERS OF THE U.S.

The United States Army Corps of Engineers (USACE) regulates the filling or grading of waters of the U.S. under the authority of Section 404 of the Clean Water Act. Drainage channels and adjacent wetlands may be considered "waters of the United States" or "jurisdictional waters" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

The definition of waters of the U.S. has changed several times in recent years. In January 2020, the Environmental Protection Agency (EPA) and USACE jointly issued the Navigable Waters Protection Rule. The new rule was published in the Federal Register on April 21, 2020 and took effect on June 22, 2020.



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La Paloma-Robleda Pathway

Site / Vicinity Map

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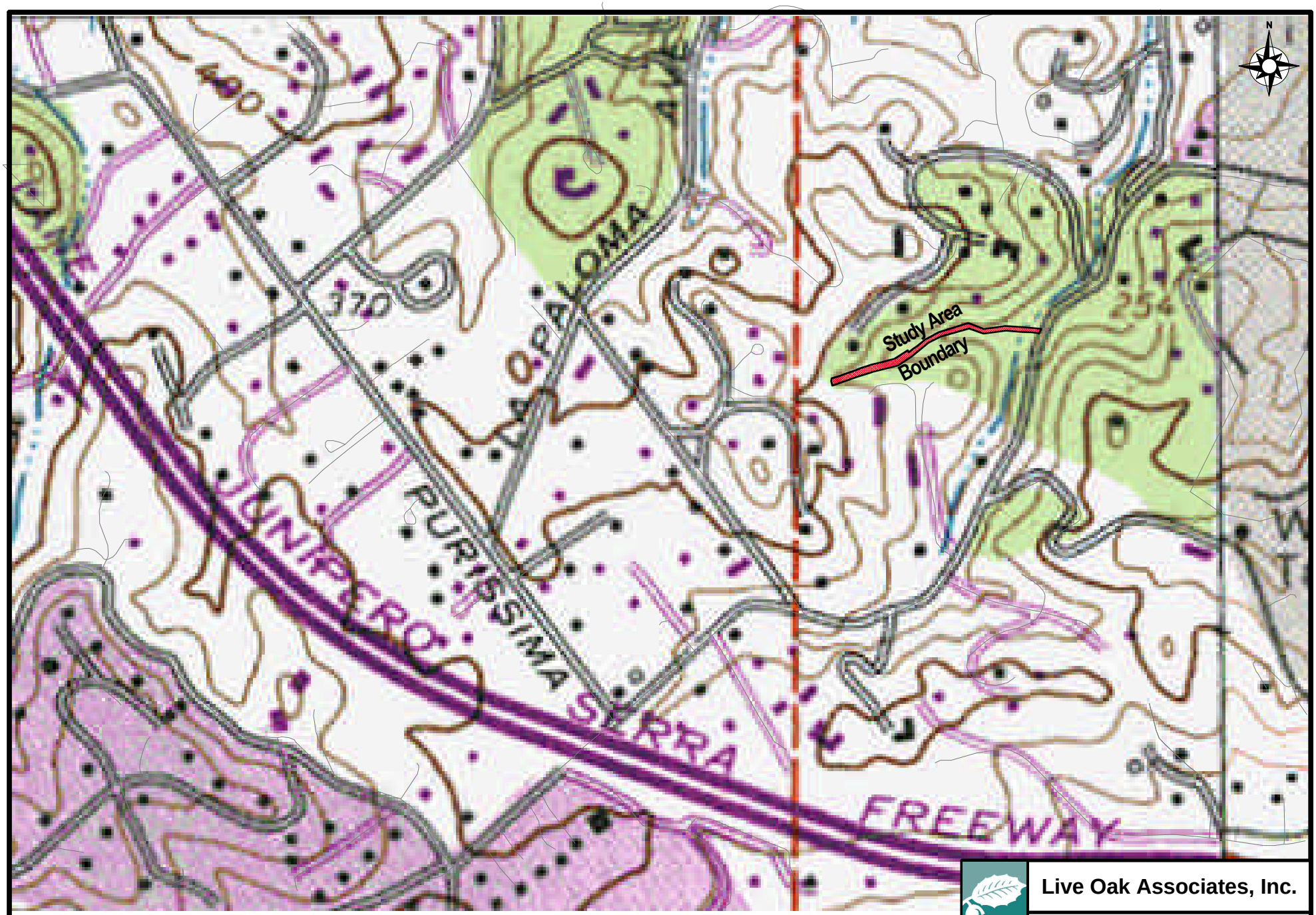

1,000' 0 500' 1,000 feet

approximate scale

From USGS
Mindego Hill 7.5' Quadrangle 1995

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La Paloma-Robleda Pathway
U.S.G.S. Quadrangle

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The Navigable Waters Protection Rule (33 CFR §328.3(a)) defines waters of the U.S. as:

Territorial Seas and Traditional Navigable Waters (TNWs)

- The territorial seas and traditional navigable waters include large rivers and lakes and tidally influenced waterbodies used in interstate or foreign commerce.

Tributaries

- Tributaries include perennial and intermittent rivers and streams that contribute surface flow to traditional navigable waters in a typical year. These naturally occurring surface water channels must flow more often than just after a single precipitation event—that is, tributaries must be perennial or intermittent.
- Tributaries can connect to a traditional navigable water or territorial sea in a typical year either directly or through other "waters of the United States," through channelized non-jurisdictional surface waters, through artificial features (including culverts and spillways), or through natural features (including debris piles and boulder fields).
- Ditches are to be considered tributaries only where they satisfy the flow conditions of the perennial and intermittent tributary definition and either were constructed in or relocate a tributary or were constructed in an adjacent wetland and contribute perennial or intermittent flow to a traditional navigable water in a typical year.

Lakes, Ponds, and Impoundments of Jurisdictional Waters

- Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional where they contribute surface water flow to a traditional navigable water or territorial sea in a typical year either directly or through other waters of the United States, through channelized non-jurisdictional surface waters, through artificial features (including culverts and spillways), or through natural features (including debris piles and boulder fields).
- Lakes, ponds, and impoundments of jurisdictional waters are also jurisdictional where they are flooded by a water of the United States in a typical year, such as certain oxbow lakes that lie along the Mississippi River.

Adjacent Wetlands

- Wetlands that physically touch other jurisdictional waters are "adjacent wetlands."
- Wetlands separated from a water of the United States by only a natural berm, bank or dune are also "adjacent."
- Wetlands inundated by flooding from a water of the United States in a typical year are "adjacent."
- Wetlands that are physically separated from a jurisdictional water by an artificial dike, barrier, or similar artificial structure are "adjacent" so long as that structure allows for a direct hydrologic surface connection between the wetlands and the jurisdictional water in a typical year, such as through a culvert, flood or tide gate, pump, or similar artificial feature.

- An adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetland, as long as the structure allows for a direct hydrologic surface connection through or over that structure in a typical year.

The Navigable Waters Protection Rule also outlines what do not constitute waters of the United States. The following waters/features are not jurisdictional under the rule:

- Waterbodies that are not included in the four categories of waters of the United States listed above.
- Groundwater, including groundwater drained through subsurface drainage systems, such as drains in agricultural lands.
- Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools.
- Diffuse stormwater run-off and directional sheet flow over upland.
- Many farm and roadside ditches.
- Prior converted cropland retains its longstanding exclusion. However, priori converted cropland is defined for the first time in the final rule. The agencies are clarifying that this exclusion will cease to apply when cropland is abandoned (i.e., not used for, or in support of, agricultural purposes in the immediately preceding five years) and has reverted to wetlands.
- Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease.
- Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters.
- Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel.
- Stormwater control features excavated or constructed in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off.
- Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention and infiltration basins and ponds, that are constructed in upland or in non-jurisdictional waters.
- Waste treatment systems have been excluded from the definition of waters of the United States since 1979 and will continue to be excluded under the final rule. Waste treatment systems include all components, including lagoons and treatment ponds (such as settling or cooling ponds), designed to either convey or retain, concentrate, settle, reduce, or remove pollutants, either actively or passively, from wastewater or stormwater prior to discharge (or eliminating any such discharge).

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE under Section 404 of the Clean Water Act.

Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued without a CWA Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

1.2 SUPREME COURT DECISIONS AFFECTING THE DEFINITIONS OF WATERS OF THE UNITED STATES

The reach and extent of Clean Water Act jurisdiction over aquatic features has been the subject of several U.S. Supreme Court decisions, in *United States v. Riverside Bayview Homes* (Riverside), *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC) and *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* (referred together as the Rapanos decision). In general, these decisions address the jurisdictional status of aquatic features that are not hydrologically connected to navigable waters or their tributaries, or have such an insubstantial hydrologic connection that destruction or modification of the aquatic feature would have little effect on downstream waters of the United States.

1.2.1 United States v. Riverside Bayview Homes, Inc. (Riverside)

In Riverside (1985), the Supreme Court unanimously ruled that adjacent wetlands are "inseparably bound up" with the waters that they are adjacent to. Therefore, wetlands, including intrastate wetlands, adjacent to waters of the United States were, themselves, waters of the United States (80 Fed. Reg. 37076, 2015).

1.2.2 SWANCC Decision

In January of 2001, the U.S. Supreme Court ruled in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (the SWANCC decision) that "non-navigable, isolated, intrastate" waters could not be claimed as jurisdictional by the USACE on the basis of their use by migratory birds. Although the Court did not specifically address the meaning of the word "isolated," it upheld the jurisdictional status of "adjacent" wetlands (and other waters), which are by definition wetlands that are "bordering, contiguous, or neighboring" other jurisdictional waters. Therefore, the term "isolated wetland" has implicitly been defined as 'wetlands that are not bordering, contiguous, or neighboring' other jurisdictional waters. This definition does not, however, address the degree of proximity necessary to establish that one wetland (or other water) is "adjacent" to a known jurisdictional water. As established by the Supreme Court in their

Riverside (1985) decision, "wetlands separated from other waters by man-made dikes or barriers, natural river berms, beach dunes, and the like are 'adjacent wetlands.'"

1.2.3 Consolidated Carabell/Rapanos Decision

In June of 2006, the U.S. Supreme Court ruled in the consolidated cases of *June Carabell v. U.S. Army Corps of Engineers* and *John Rapanos v. United States* that wetlands are waters of the United States "if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'" When, in contrast, wetland's effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term 'navigable waters.'

On June 5, 2007, the Environmental Protection Agency (EPA) and the USACE jointly issued guidance in interpreting the Carabell/Rapanos cases as they apply to the extent of federal jurisdiction covered by Section 404 of the Clean Water Act. The agencies revised this guidance memorandum on December 2, 2008. The key points of this guidance are that the EPA and the USACE: 1) will assert jurisdiction over traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent non-navigable tributaries of traditional navigable waters where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months), and wetlands that directly abut such tributaries; 2) will decide jurisdiction over relatively impermanent non-navigable tributaries of navigable waters, wetlands adjacent to such tributaries, and wetlands adjacent to but not directly abutting a relatively permanent non-navigable tributary, based on a fact-specific analysis to determine whether they have a "significant nexus" with a traditional navigable water; and 3) generally will not assert jurisdiction over swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) or ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water. In applying the "significant nexus" standard, the EPA and USACE 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 court rulings and subsequent guidance provided by the EPA and USACE discussed above are germane to the delineation of jurisdictional waters summarized in this report. They are presently the basis for determining the jurisdictional status of drainage features and wetlands of the study area.

All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

1.3 STATE OF CALIFORNIA JURISDICTION OVER AQUATIC FEATURES

The State of California also asserts jurisdiction over drainages and wetlands. The limits of jurisdiction vary slightly from those of the USACE. The California Department of Fish and Wildlife (CDFW) and the Regional Water Quality Control Board (RWQCB) are the two state regulatory agencies responsible for implementing state regulations that identify and protect waters of the state.

According to Section 1602 of the California Fish and Game Code, public and private entities may not substantially divert or obstruct the natural flow of any river, stream, or lake within the state. This section of Fish and Game Code establishes the State's interest in regulating construction activities in the "bed, channel, or bank" of a natural drainage or stream. A "stream" subject to the jurisdiction of the CDFW has been defined as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life" (California Code of Regulations, Title 14).

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board (SWRCB) and nine local RWQCBs have regulatory authority over activities affecting water quality in all surface waters of the State, consisting of rivers, streams, lakes, and wetlands of the State.

Shortly after the U.S. Supreme Court rendered its SWANCC Decision, the SWRCB notified the Regional Boards that isolated waters, including wetlands, were subject to the jurisdiction of the State of California per provisions of the Porter-Cologne Water Quality Control Act. The Regional Boards, therefore, now assert jurisdiction over isolated wetlands disclaimed as jurisdictional by the USACE.

The RWQCB for a given region regulates discharges of fill or pollutants into Waters of the State through the issuance of various permits and orders. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all waters of the State, even those that are not also waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The RWQCB also administers the Construction Storm Water Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, storm water, or other pollutants into a Water of the U.S. may require a NPDES permit.

2 METHODS

On August 12, 2020, LOA wetland ecologist Arren Allegretti and staff ecologist Katrina Krakow surveyed the site for potential jurisdictional waters. The survey was consistent with guidelines found in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008), and *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (USACE 2001).

2.1 AREAS MEETING THE TECHNICAL CRITERIA OF WETLANDS

Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration 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" (Environmental Laboratory 1987). Wetlands are characterized by the presence of hydrophytic vegetation (i.e., an association of plants adapted to saturated soils), hydric soils (i.e., soils which have developed under the anaerobic conditions imposed by soil saturation), and wetland hydrology (i.e., surface inundation or saturated soils). Accordingly, LOA surveyed the site for wetland indicator plants, positive indicators of hydric soils, and wetland hydrology.

LOA established sample points to document current site conditions. The sample locations were assessed for the diagnostic environmental characteristics of wetlands, and the dominant vegetation species, soils, and hydrology conditions were recorded onto USACE-designated data sheets (Appendix A). Vegetation species were identified using the *Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) to the lowest taxonomic level necessary to obtain their wetland indicator status from the U.S. Army Corps of Engineers 2018 National Wetland Plant list (USACE 2018). A list of vascular plant species observed on the site is provided in Appendix B.

Wetland indicator species are designated according to their frequency of occurrence in wetlands:

OBLIGATE (OBL)	Probability to occur in wetland is >99%
FACULTATIVE WETLAND (FACW)	Probability to occur in wetland is >67 to 99%
FACULTATIVE (FAC)	Probability to occur in wetland is 33 to 67%
FACULTATIVE UPLAND (FACU)	Probability to occur in wetland is 1 to <33%.
UPLAND (UPL)	Probability to occur in wetland is <1%

Hydrophytic vegetation is considered present when "inundation or soil saturation is either permanent or of sufficient frequency and duration to exert a controlling influence on the plant species present" (USACE 2008). The presence of hydrophytic vegetation is typically determined using the dominance test. This occurs when a "prevalence" (i.e. more than 50%) of the dominant species across all vegetative strata (i.e., trees, shrubs, herbs, and woody vines) at a given location are composed of obligate (OBL), facultative wetland (FACW), and facultative (FAC) plant species. On sites where the vegetation initially fails the dominance test, but indicators of hydric soil and wetland hydrology are present, a plot-based prevalence index is calculated. The prevalence index is a weighted-average wetland indicator status of all plant species in the sampling plot, and hydrophytic vegetation is considered present when the prevalence index is 3.0 or less.

LOA also examined each sample location for positive indicators of wetland hydrology and hydric soils. Evidence of wetland hydrology consists of primary indicators including, but not limited to, the presence of surface water, saturation, water marks in non-riverine systems, water-stained leaves, and a biotic crust. Secondary indicators of wetland hydrology include, but are not limited to, water marks in riverine systems, drainage patterns, and a dry season water table. Wetland hydrology is considered present when either one or more primary indicators is present, or two or more secondary indicators are present. LOA examined the soil profile at each sample point for indicators of hydric soils, including, but not limited to, low chromas, gleying, mottling, concretions, and sulfidic odors.

2.2 TRADITIONAL NAVIGABLE WATERS AND TRIBUTARY WATERS

Pursuant to USACE regulations (33 CFR §329), navigable waters are those waters that 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. Such waters

are referred to as "traditional navigable waters" in the USACE and EPA guidance regarding the *Rapanos* decision.

Tributary waters are waters that contribute flow to a navigable water, interstate water, or the territorial seas. Tributaries are generally characterized by the presence of the physical indicators of a bed and bank and an ordinary high water mark. Such features may carry a permanent or intermittent flow of water. Perennial streams are those with surface water flowing continuously year-round. Intermittent streams have surface water flowing continuously during certain times of the year and more than in direct response to precipitation (i.e., both precipitation and groundwater provide part of the stream's flow) (33 CFR §328.3).

In the absence of adjacent wetlands, the limit of CWA jurisdiction of traditional navigable waters, rivers, streams, and their tributaries extends to the "ordinary high water" (OHW) mark. The OHW mark refers to "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR §328.3).

The site does not contain any traditional navigable waters. However, potential tributary waters were present on the site in the form of an unnamed intermittent drainage channel. This channel was visually inspected for physical characteristics of the OHW mark to determine the extent of potential jurisdiction. LOA mapped the extent of the ordinary high water at intervals along the channel using the ArcGIS Collector application.

3 RESULTS

3.1 EXISTING CONDITIONS

The site is located along the northern property boundaries of 12933 and 12940 Atherton Court in the Town of Los Altos Hills in Santa Clara County, California. The site is within a riparian corridor, and is adjacent to an unnamed intermittent drainage channel that eventually flows into Adobe Creek, a known water of the U.S. The surrounding land use consists of single-family residences and related major and minor streets. Topographically, the site is moderately sloping or rolling, and its elevation ranges from 382 feet (116 m) National Geodetic Vertical Datum (NGVD) at its highest point to 256 feet (78 m) NGVD at its lowest point. The site's elevation is highest at the northwestern corner of the site and lowest near the eastern section of the site, where the onsite intermittent drainage channel connects to another channel that continues off-site along Robleda Road.

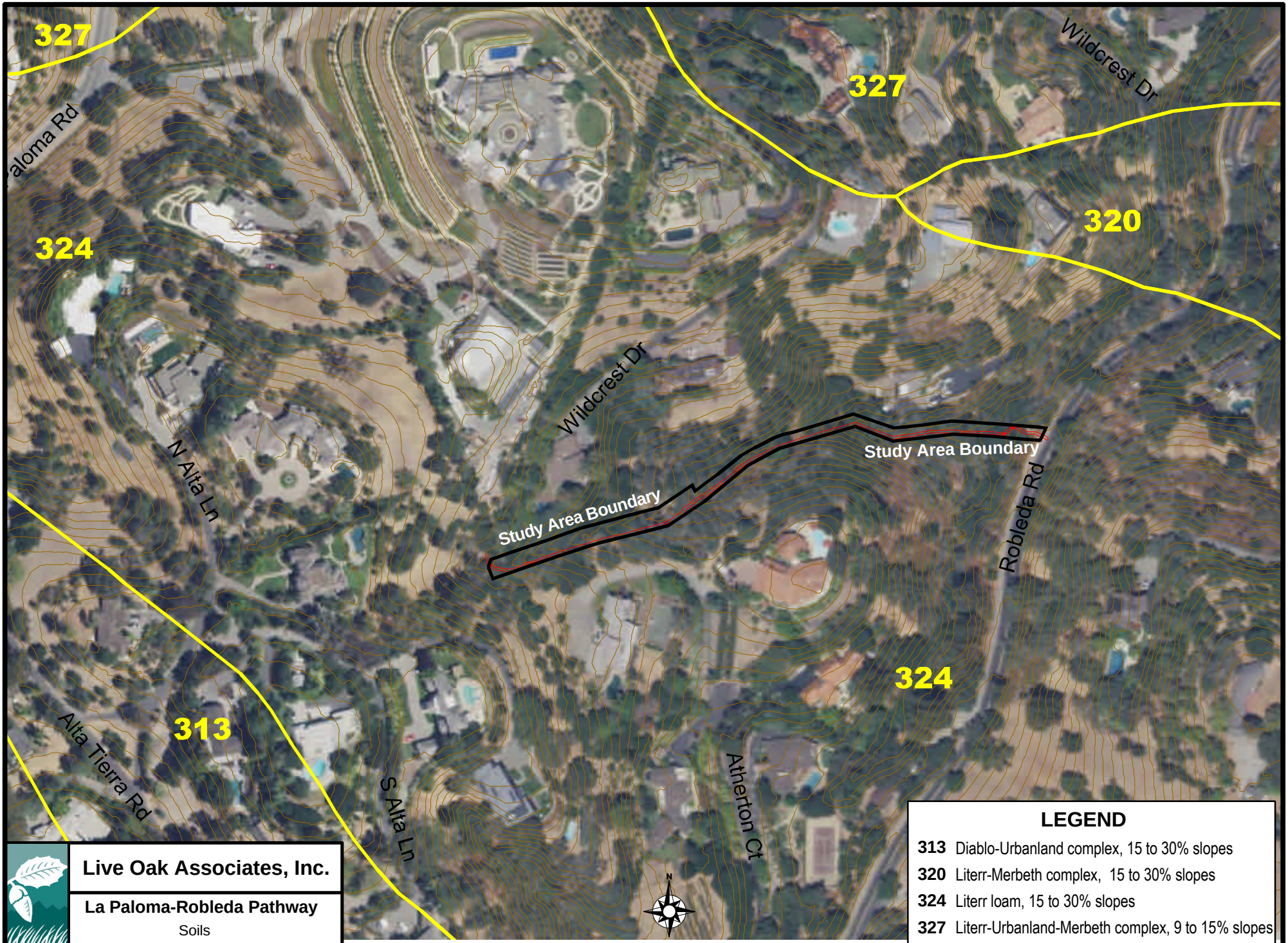
3.1.1 Soils

One soil type, Literr loam, 15 to 30 percent slopes, is present on the site (Figure 3; NRCS 2020). Literr soils consist of alluvium derived from mixed rock sources and are very deep, well drained soils with slow permeability. Drainage refers to the frequency and duration of periods when the soil is saturated with water.

The NRCS does not include Literr loam in the *National and Local Hydric Soils List* (NRCS 2020), although hydric inclusions may occur on the site. Literr loam is also not known to support edaphic conditions such as serpentine or alkaline soils known to support special status plant species adapted to such conditions.

3.1.2 Climate

Santa Clara County experiences a Mediterranean climate with warm, dry summers and cool, wet winters. The average annual daytime temperature in the general vicinity of the site is 69º F. Average annual precipitation in the general vicinity of the site is 15 inches, nearly all of which falls between November and April (WRCC 2019).



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Soils

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LEGEND

- **313** Diablo-Urbanland complex, 15 to 30% slopes
- **320** Literr-Merbeth complex, 15 to 30% slopes
- **324** Literr loam, 15 to 30% slopes
- **327** Literr-Urbanland-Merbeth complex, 9 to 15% slopes

Source:
U.S.D.A. Soil Conservation Service

3.2 POTENTIAL WATERS OF THE UNITED STATES

The only potential water of the U.S. occurring within the study area is the unnamed intermittent drainage channel (Figure 4). The reach of channel occurring onsite is approximately 927 ft in length and has an average width of 4.75 feet at its ordinary high water mark (OHW). The approximate area of the channel occurring below the OHW is 3,231 square feet (0.07 ac). Further details documenting onsite hydrological features using the Cowardin System is provided in the USACE Aquatic Resources Table found in Appendix C (Cowardin et al. 1979).

The onsite intermittent drainage channel is a tributary to Adobe Creek that flows into the San Francisco Bay, a navigable water of the U.S. The intermittent drainage conveys water to an unnamed channel adjacent to Robleda Road. The USGS National Map and Hydrography dataset (Appendix D) identifies the unnamed channel as a tributary to Adobe Creek. The USFWS National Wetlands Inventory (NWI) map does not identify the onsite channel as an in-stream wetland (Appendix E). Photos of the intermittent drainage channel and sample points are provided in Appendix F.

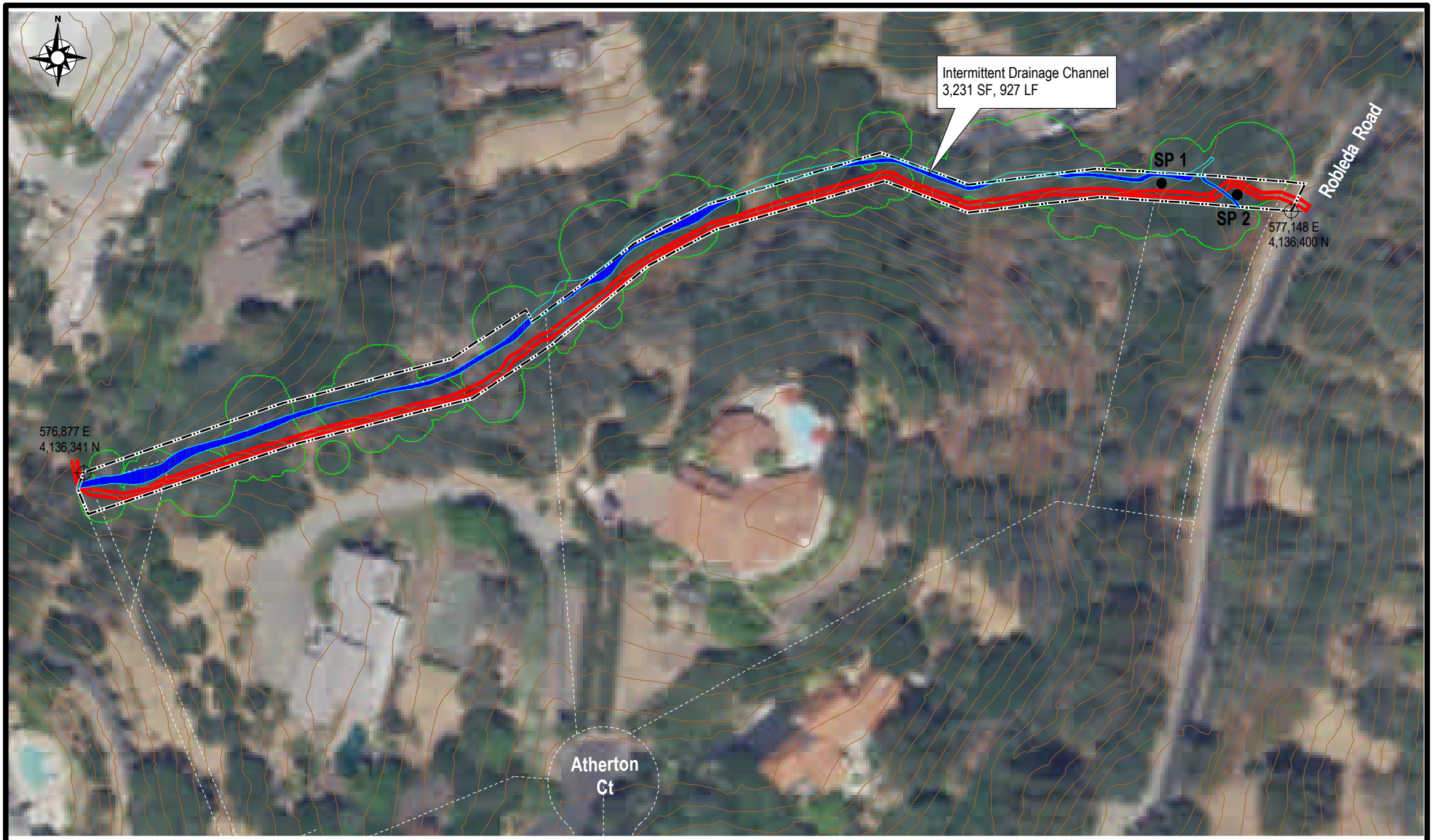
The channel did not meet all of the technical criteria for wetlands within the ordinary high water mark (OHW) on opposing banks as shown in sample point 1. While the channel met the soil and hydrology indicators of a wetland, the channel did not meet the criteria for hydrophytic vegetation. Although some hydrophytic vegetation species occurred in the channel's upper margins, the channel bed was largely devoid of vegetation and hydrophytic vegetation coverage was insufficient to pass the hydrophytic vegetation dominance and prevalence index test. Some of these species, along with their wetland indicator status, included poison oak (*Toxicodendron diversilobum*) (FACU), flat sedge (*Cyperus eragrostis*) (FACW), and several species of rushes (*Juncus* spp.) (FACW).

Soils had a sandy texture and were saturated at the time a soil pit was dug at sample point 1. The soil profile at sample point 1 had a moist Munsell color notation of 10 YR 2/1 in the first inch and Gley 1 2.5/N between 2-12 inches in depth. These soils would be considered a sandy mucky mineral, which is a primary indicator of hydric soils. Primary wetland hydrology indicators present in the channel included surface water and water-stained leaves. The channel also

exhibited secondary wetland hydrology indicators such as drainage patterns, sediment deposits, and water marks.

3.3 UPLAND AREAS

Areas above the OHW level of the intermittent drainage channel were comprised of upland habitats that did not meet any of the definitions of a jurisdictional water of the U.S. (Figure 4; Sample Point 2). The dominant plant species in the understory consisted of poison oak. Dominant species in the overstory consisted of coast live oak (*Quercus agrifolia*) (UPL), California bay (*Umbelluria californica*) (FAC), and buckeye (*Aesculus californicus*) (UPL). Soils had a moist Munsell color notation of 10 YR 3/2 at 0-14 inches in depth with no presence of redoximorphic features nor any other hydric soil indicators. Indicators of wetland hydrology were absent.



LEGEND

- Study Area Boundary (0.54 Acres)
- Proposed New Trail
- SP 1 — Sample Points
- Intermittent Drainage Channel (3,231 SF / 0.07 Acres 927 LF)

200' 0 100' 200 feet

Approximate Scale
1' = 100'

Source:
Engineering plan courtesy of Town of Los Altos Hills Public Works
Topography courtesy of Santa Clara Valley Water District LIDAR survey
Aerial Photograph Courtesy of USDA Aerial Photo Field Office 12/17/2018
Universal Transverse Mercator Coordinate System Zone 10, NAD83 / NAVD 1988

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La Paloma-Robleda Pathway
Potential Waters of the U.S.

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4 DISCUSSION

It is our opinion that the unnamed, intermittent drainage channel meets the regulatory definition of waters of the United States. Based on the Navigable Waters Protection Rule, this channel is subject to CWA jurisdiction as a tributary to Adobe Creek, which is a tributary to a traditional navigable water (San Francisco Bay). The intermittent channel has a defined bed and bank with indicators of OHW.

The USACE has the sole authority to determine the jurisdictional status of waters on any given project site. If the USACE disclaims jurisdiction over the intermittent drainage channel, it may still be subject to regulation by the RWQCB under the Porter-Cologne Water Quality Control Act and by the CDFW under section 1600 of the California Fish and Game Code.

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APPENDIX A: WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: La Paloma-Robleda Pathway City/County: Town of Los Altos Sampling Date: 8-12-20

Applicant/Owner: Town of Los Altos State: CA Sampling Point: 1

Investigator(s): Arren Allegretti and Katrina Krakow Section, Township, Range: S31 T6S R2W

Landform (hillslope, terrace, etc.): Riverine Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): LRR C Lat: 37.371126451 Long: -122.12908384 Datum: WGS 84

Soil Map Unit Name: Literr Loam 15-30% NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

The sample point is within an intermittent drainage channel that eventually joins Adobe Creek, a known water of the U.S.. Stream width ranges between 5-10 feet.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 25m x 5 m)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 25m x 5 m)			
1. Toxicodendron diversilobum	10	Y	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 25m x 5 m)			
1. Carex sp.	<1	N	FACW
2. Cyperus eragrostis	<1	N	FACW
3. Juncus sp. (balticus)	<1	N	FACW
4.			
5.			
6.			
7.			
8.			
	3 = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 80 % Cover of Biotic Crust 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	1
FACW species	3	x 2 =	6
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	13 (A)		46 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

The bed of the drainage channel is largely devoid of vegetation, although some hydrophytic vegetation occurs in the margins of the channel. Despite the presence of some hydrophytic vegetation species, the number and percent cover of hydrophytic vegetation species does not pass the dominance test and the prevalence index test. The channel is within a riparian corridor with a mosaic of upland species in the overstory (Quercus agrifolia) and sparse wetland species in the channel margins and bed. Hydric soils and wetland hydrology indicators are evident in the sample point.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1"	10 YR 2/1	100	NONE				sand	
2-12"	2.5 /N	100	NONE				sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ✓ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ **No** _____

Remarks:

Soil is clearly saturated with water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✓ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 0.5-2

Water Table Present? Yes ✓ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: La Paloma-Robleda Pathway City/County: Town of Los Altos Sampling Date: 8-12-20

Applicant/Owner: Town of Los Altos State: CA Sampling Point: 2

Investigator(s): Arren Allegretti and Katrina Krakow Section, Township, Range: S31 T6S R2W

Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): 15

Subregion (LRR): LRR C Lat: 37.371064 Long: -122.128938 Datum: WGS 84

Soil Map Unit Name: Literr Loam 15-30% NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

The sample point is just upland from sample point 1 occurring in a intermittent drainage channel. In this sample point there were no hydric soil, hydrology, nor wetland vegetation indicators.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 25m x 5 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus agrifolia	25	Y	UPL
2. Aesculus californica	15	N	UPL
3. Umbelluria californica	1	N	FAC
4.			
	41%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 25m x 5 m)			
1. Toxicodendron diversilobum	30	Y	FACU
2.			
3.			
4.			
5.			
	30	= Total Cover	
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	_____	= Total Cover	

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 5

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14"	10 YR 3/2	100	NONE				clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Soil is clearly saturated with water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX B: VASCULAR PLANT SPECIES OF THE STUDY AREA

The plant species listed below were observed on the proposed La Paloma-Robleda path during the field survey conducted by Live Oak Associates on August 12, 2020. The wetland indicator status of each plant as listed in the U.S. Army Corps of Engineers 2018 National Wetland Plant list is shown following its common name (USACE 2018).

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland

APIACEAE – CARROT FAMILY		
*Torilis arvensis**	Field hedge parsley	UPL
ARECACEAE – PALM FAMILY		
Washingtonia sp.	Fan palm	FACW
ASTERACEAE – SUNFLOWER FAMILY		
Baccharis pilularis	Coyote brush	UPL
Delairea odorata	Cape Ivy	FAC
CAPRIFOLIACEAE – HONEYSUCKLE FAMILY		
Sambucus nigra ssp. *caerulea*	Blue elderberry	FAC
Lonicera hispidula	Pink Honeysuckle	FACU
Symphoricarpos albus	Common snowberry	FACU
CYPERACEAE – Sedge Family		
Carex sp.	Sedge	-
Cyperus ergrostis	Taper-tip flat sedge	FACW
DENNSTAEDTIACEAE – BRACKEN FERN FAMILY		
Pteridium aquilinum var. pubescens	Bracken Fern	FACU
ELAEGNACEAE – Oleaster Family		
Elaeagnus angustifolia	Russian Olive	FAC
FAGACEAE – OAK FAMILY		
Quercus agrifolia	Coast live oak	UPL
Quercus lobata	Valley oak	FACU
JUNCACEAE – Rush Family		
Juncus balticus	Baltic rush	FACW
LAMIACEAE– MINT FAMILY		
*Mentha pulegium**	Pennyroyal	OBL
Mentha spicata var. *spicata**	Spearmint	OBL
APOCYNACEAE – Dogbane Family		
*Nerium oleander**	Oleander	UPL

*Vinca major**	Greater periwinkle	UPL
POACEAE - GRASS FAMILY		
*Avena barbata**	Slender wild oats	UPL
*Avena fatua**	Wild oat	UPL
*Bromus diandrus**	Ripgut brome	UPL
*Vulpia bromoides**	Brome fescue	FAC
ROSACEAE – ROSE FAMILY		
Heteromeles arbutifolia	Toyon	UPL
Rosa californica	California rose	FAC
SAPINDACEAE – SOAPBERRY FAMILY		
Aesculus californica	California buckeye	UPL
URTICACEAE – NETTLE FAMILY		
Urtica dioica	Stinging nettle	FAC

* Introduced non-native species

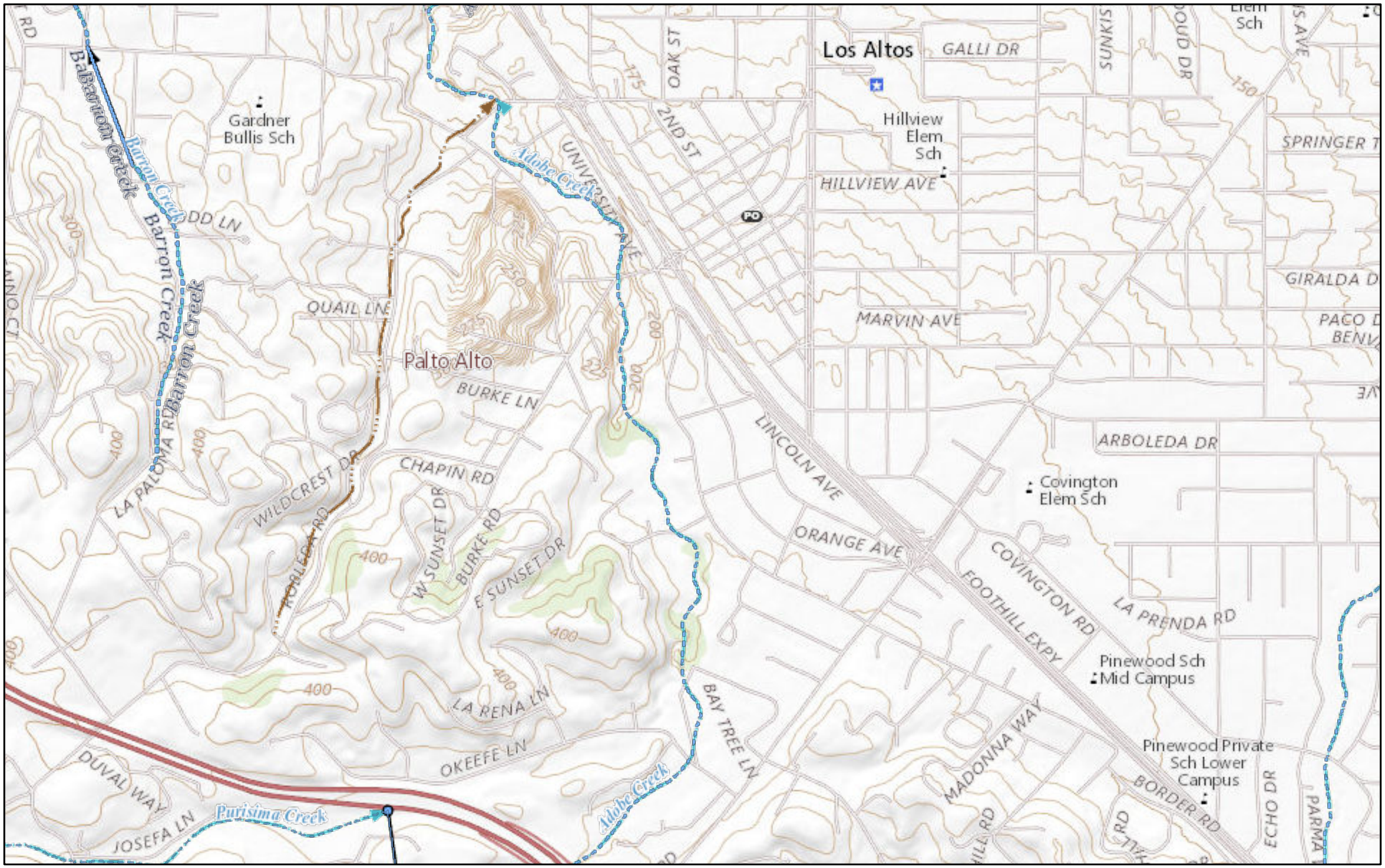
APPENDIX C: AQUATIC RESOURCES TABLE FOR ONSITE INTERMITTENT DRAINAGE CHANNEL

Aquatic Resources Table for the Intermittent Drainage Channel at Atherton Ct., Los Altos, CA.

Waters Name	State	Cowardin Code	HGM Code	Meas. Type	Amt	Units	Waters Type	Latitude	Longitude	Local Water way
Intermittent Drainage Channel	CA	R4	Riverine	Area	927	SQ FT	NRPW	37 22' 14.97	122 07' 50.52	Adobe Creek

APPENDIX D: USGS NATIONAL HYDROGRAPHY MAP AND DATASET

La Paloma- Robleda Pathway



9/15/2020, 4:01:46 PM

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Waterbody - Large Scale
- Estuary
- Ice Mass
- LakePond
- Playa
- Reservoir
- SwampMarsh

Area - Large Scale
- Area of Complex Channels
- Area to be Submerged
- BayInlet
- Bridge
- CanalDitch
- DamWeir
- Flume

USGS The National Map: National Hydrography Dataset. Data refreshed

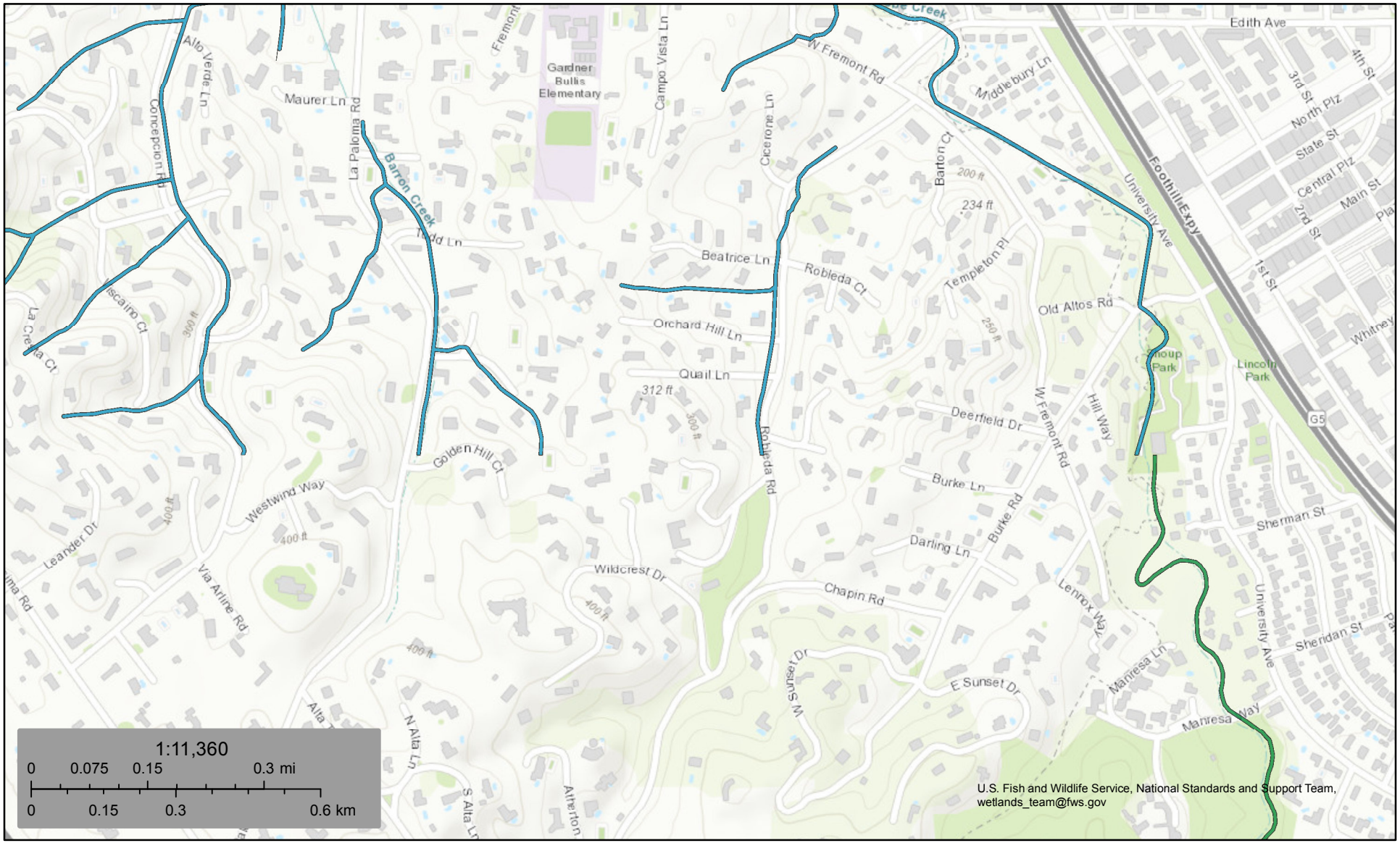
USGS

USGS The National Map: Orthoimagery | Garrity, C.P., Soller, D.R. | USGS National Map 3D Elevation Program (3DEP) | USGS TNM - 3D Elevation Program (3DEP). Data Refreshed Weekly. | USGS The National Map: 3D Elevation Program. Data Refreshed July,

APPENDIX E: USFWS NATIONAL WETLAND INVENTORY MAP

U.S. Fish and Wildlife Service
National Wetlands Inventory

2495- La Paloma-Robleda Native Path



August 13, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX F: SITE PHOTOS

Photo 1: Overview of intermittent drainage channel at its highest point (78 m) by Atherton Court.

Photo 2: Intermittent drainage channel with saturated soils and water pooling in downstream locations near Robleda drive (sample point 1).

Photo 3: Upland areas of the site displaying coast live oak riparian woodland and forest community.

Photo 4: Soils profile at sample point 2 displaying Munsell color notations of 10 YR 3/2 and representing upland areas of the site