APPENDIX G

AQUATIC RESOURCES DELINEATION

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

Aquatic Resources Delineation

Granada Community Park and Recreation Center Project

El Granada, San Mateo County, California

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Executive Summary

Sunset Ecological Solutions (Sunset) conducted an aquatic resources delineation for the Granada Community Park and Recreation Center Project (Project). The 7.29-acre Study Area is comprised of ruderal nonnative grassland, willow thickets, drainages, wetland, and developed areas. The Study Area is located within the property known as the Burnham Strip in El Granada, San Mateo County, California, and is owned by the Granada Community Services District (GCSD). Sunset conducted a survey to identify potentially jurisdictional features subject to regulation from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Waters of the State subject to regulation from the Regional Water Quality Control Board (RWQCB), jurisdictional habitats from California Department of Fish and Wildlife (CDFW) under Sections 1600-1607 of the California Fish and Game Code, and California Coastal Commission (CCC) wetlands under the California Coastal Act (CCA).

Within the Study Area, 0.106 acres of potential waters of the United States were identified and mapped, comprising 0.070 acres of wetlands and 0.036 acres of non-wetland waters. There was a total of 0.106 acres of waters of the state identified, comprised of 0.036 acres of intermittent drainage, 0.015 acres of ephemeral drainage, and 0.070 acres of wetlands. A total of 1.291 acres of CDFW jurisdictional habitats were identified, comprised of 1.24 acres of riparian vegetation, 0.015 of ephemeral drainage and 0.036 acres of intermittent drainage. Elements identified under CCC jurisdiction include the 1.24 acres of riparian vegetation with a 30-foot buffer, 0.070 acres of freshwater wetland with a 100-foot buffer, 0.015 acres of ephemeral drainage and 0.036 acres of intermittent drainage. See Table 1 below for a summary of aquatic resources identified.

Table 1. Summary of Potentially Jurisdictional Features in the Study Area

Jurisdictional Features	**Area (acres)**
Waters of the United States	0.106
Waters of the State	0.121
CDFW Habitat	1.291
CCC Habitat	1.361

Introduction

The 7.29-acre Study Area is located on a collection of parcels (APN's 047262010, 047251100, 047251110) known as the Burnham Strip in El Granada, San Mateo County. This report includes a delineation for areas subject to regulation from the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA, California Department of Fish and Wildlife (CDFW) under Sections 1600-1607 of the California Fish and Game Code (CFGC), and California Coastal Commission (CCC) under California Code of Regulations Title 14.

Purpose

The purpose of the aquatic resources delineation was to identify the extent and location of potentially USACE jurisdictional waters within the proposed work area for the Granada Community Park and Recreation Project (Project). Additionally, the purpose was to determine the extent and distribution of areas subject to the regulation by the RWQCB, CDFW, and CCC.

Study Area

The Study Area is the public Burnham Strip property in El Granada, which is currently owned by the Granada Community Services District (GCSD). Current use of the site includes an informal dirt lot currently used for parking to the south of the property and an operating preschool to the north of the property. It is bounded by California State Route 1 to the south and Obispo Road to the north. The Study Area is located within the San Mateo 7.5-minute USGS quadrangle. See Appendix A, Figure 1 for a project vicinity map.

The Study Area encompasses the GCSD owned portion of the Strip which is proposed to be developed into a community park, with a walking path, community center, and parking. CalTrans right-of-way, which is not a part of the proposed Project, extends approximately 80 feet east from California State Route 1. Within the ruderal grassland, a potential wetland was identified in a slight depression along Obispo Road. An ephemeral drainage flows across the center of the Study Area from the northeast to southwest and has no presence of riparian vegetation. There are two intermittent drainages within the eastern side of the site, one that is partially vegetated and runs straight from northeast to southwest, and another that flows southeast along the property boundary with Obispo Road and turns to flow southwest out of the property. See Appendix A, Figure 3, for a map of the Study Area.

The Burnham Strip was used for agriculture approximately from 1920 to 1950. In the 1970s, the land was redesignated to "provide park facilities for use by local residents", per the Montara-Moss Beach-El Granada Community Plan. Today, the site is currently being used for informal parking, skating, and for a preschool. During the July 2025 site visit, vegetation disturbance from recent mowing was observed in the ruderal grassland, which was especially evident during a preliminary site visit in June 2025. Evidence of mowing within the grassland is further documented in historical aerial imagery of the site, provided in Appendix F.

Soils

Soils within the Study Area consist of a variety of loams and clay loams (NCRS). The majority of the site, including the existing informal parking area, the middle intermittent stream (INT1), and most of the willow thicket and ruderal grassland, is composed of denison clay loam, nearly level (DcA). The northwestern portion of the ruderal grassland is comprised of dension clay loam, nearly level, imperfectly drained (DmB). The rest of the willow thicket in the southeast of the site is composed of denison loam, gently sloping (DdA). A small portion of the northwestern area of the site which overlaps the potential seasonal freshwater wetland is composed of Watsonville loam, sloping, eroded (WmC2), as well as a small portion in the southeast corner of the site along the willow thicket. All soil types are greater than 60 inches in depth. All soil types within the Study Area are not listed as hydric on the National Hydric Soils List (NCRS); however, an unnamed minor component (1 percent of map unit) of the dension clay loam, nearly, level, imperfectly drained is listed as hydric. See Appendix A, Figure 4 for a soils map and Appendix C for a custom soils report for the Study Area.

Table 2. Soils within Study Area

Soils Within Study Area	Area (acres)	Hydric Rating
DcA –Denison clay loam, nearly level	4.21	No
DdA - Dension clay loam, nearly level, imperfectly drained	0.16	No
DmB - Denison loam, gently sloping	2.67	No
WmC2 Watsonville loam, sloping, eroded	0.37	No

Climate and Precipitation Data

The Study Area is located within a coastal Mediterranean climate, characterized by mostly foggy and mild summers and rainy winters. The average precipitation between 1995 through 2025 for the nearest weather station to the Study Area with sufficient historical data, Half Moon Bay, located 2.4 miles southeast, is 27.31 inches. Total precipitation for the last 12 months was 18.52 inches, or 68% of the average. For further information on precipitation records for the Half Moon Bay weather station, see Appendix G, WETS Tables. The USACE Antecedent Precipitation Tool Version 2.0 (APT) indicates that the Study Area is in normal conditions and within a moderate drought (APT 2025). The last measurable rain (>0.1 in) occurred on April 2, 2025 where 0.17 inches of rain was recorded at the El Granada 0.4 WSW weather station, 0.31 miles away. The Study Area was observed to be relatively dry, with water actively flowing through one intermittent drainage (INT2), standing in another (INT1), and not present in the ephemeral drainage. The soil in the potential wetland was moist while soil elsewhere in the site was hard and dry.

National Wetland Inventory

The National Wetland Inventory identifies no features within the boundaries of the Study Area (NWI 2025). However, the Pacific Ocean, which is approximately 190 feet southwest of the Study Area and across Highway 1, is identified as consisting of estuarine and marine deepwater

(M1UBL) as well as estuarine and marine wetland (M2USN and M2USP). See Appendix A, Figure 5 for the extent and location of the mapped features.

Regulatory Background

Waters of the United States Section 404

The USACE regulates "Waters of the United States" (WOTUS) under Section 404 of the CWA. Waters of the United States are defined in the Code of Federal Regulations (CFR) as including the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, such as tributaries, lakes and ponds, impoundments of waters of the U.S., and wetlands (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the USACE Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Unvegetated waters including lakes, rivers, and streams may also be subject to Section 404 jurisdiction and are characterized by an OHWM identified based on field indicators such as the lack of vegetation, sorting of sediments, and other indicators of flowing or standing water. The placement of fill material into WOTUS generally requires a permit from the USACE under Section 404 of the CWA.

The USACE also regulates construction in navigable waterways of the U.S. through Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403). Federal code 33 CFR 322 authorizes the Corps to authorize certain structures or work in or affecting navigable waters of the United States pursuant to section 10 of the Rivers and Harbors Act of 1899. Section 10 requirements apply only to navigable waters themselves; they are not applicable to tributaries and similar aquatic features not capable of supporting interstate commerce.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The State Water Resources Control Board (SWRCB) and nine RWQCBs protect waters within this broad regulatory scope through many different regulatory programs. Waters of the State in the context of a California Environmental Quality Act Biological Resources Evaluation include wetlands and other surface waters protected by the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The SWRCB and RWQCB issue permits for the discharge of fill material into surface waters through the State Water Quality Certification Program, which fulfills requirements of Section 401 of the CWQA and the Porter-Cologne Water Quality Control Act.

CDFW Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code (CDFG). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream," which includes creeks and rivers, is defined in the California Code

of Regulations (CCR) as "a body of water that flows at least periodically or ephemerally through a bed or channel having banks and supports fish or other aquatic life…[including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). "Riparian" is defined as "on, or pertaining to, the banks of a stream." Riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). The edge of riparian vegetation is generally used as the distinction between riparian and upland habitat.

CCC Wetlands

The California Coastal Act of 1976, administered by the CCC, was created to provide long-term protection of California's 1,100-mile coastline for the benefit of future generations. Integral to the Coastal Act are its policies which provide for protection and expansion of public access to the shoreline and recreational opportunities and resources; protection, enhancement and restoration of environmentally sensitive habitats, including intertidal and nearshore waters, wetlands, bays, estuaries, riparian habitat, certain woodlands and grasslands, streams, lakes, and habitat for rare or endangered plants or animals, protection of productive agricultural lands, commercial fisheries and archaeological resources; protection of the scenic beauty of coastal landscapes and seascapes; practical establishment or urban-rural boundaries and directing new housing and other development into areas with adequate services to avoid wasteful urban sprawl and leapfrog development; environmentally sound expansion of existing industrial ports and electricity-generating power plants, as well as for the siting of coastal-dependent industrial uses; and protection against loss of life and property from coastal hazards.

The following are definitions given for specific ecological features that fall within the purview of the California Coastal Act: §30121 defines a wetland as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens"; The County of San Mateo Local Coastal Program Policy 7.14 defines wetlands as:

> *An area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater along streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.*
>
> *In San Mateo County, wetlands typically contain the following plants: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bullrush, narrow-leaf cattail, broadleaf*

cattail, pacific silverweed, salt rush, and bog rush. To qualify, a wetland must contain at least a 50% cover of some combination of these plants unless it is a mudflat.

Survey Methods

To prepare for the aquatic resources delineation, Sunset biologists identified areas within the Study Area that contain aquatic resources that may potentially meet the definition of Waters of the U.S. and/or Navigable Waters, Waters of the State, extent of riparian vegetation, and CCC wetland areas. Background review included using Google Earth Pro for historical aerial imagery (Appendix F), USGS topographic map (Appendix A, Figure 2), USGS National Hydrography Dataset, National Wetlands Inventory (Appendix A, Figure 5), previous environmental reports in the area, and a NCRS Custom Soils Resources Report (Appendix A, Figure 4). Records and photographs from a recent previous site visit conducted by Sunset on 6/3/2025 were also consulted.

On July 9, 2025, Sunset Ecological biologists performed a field investigation to determine:

- The extent and distribution of wetlands and other waters of the U.S. that may be subject to regulation under Section 404 of the CWA.
- The presence or absence of hydrophytic vegetation, hydric soils, and wetland hydrology indicators and to document the location and indicators observed.
- The extent and distribution of waters of the state that may be subject to regulation under the Porter-Cologne Water Quality Control Act.
- The extent and distribution of aquatic and riparian habitat that may be subject to regulation under Sections 1600-1607 of the CDFG.
- The extent and distribution of wetlands according to the CCC.

The field survey was conducted in accordance to the USACE 1987 Wetlands Delineation Manual "Routine Determination Method, On-Site Inspection Necessary." Regional data forms, hydric soils, and hydrology indicators were used from the Western Mountains, Valleys, and Coast Region (Version 2.0) Regional Supplement (USACE 2010).

It was assumed that normal circumstances were present during the time of the field survey. During the field survey, topographical features, waterways, recent disturbances, and vegetation communities were examined to determine sample point locations. At each sample point location, a soil pit was dug to determine hydric soils and wetland hydrology, vegetation around the soil sample point was observed, and hydrological indicators were observed. Sample points, and areas that met or did not meet wetland vegetation, soil, and hydrology were mapped in the field using a RTK GPS unit with sub-meter accuracy after geo-processing.

The methodology described in the USACE Delineation Manual, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) was followed to determine the presence or absence of vegetation, soil, and hydrology indicators.

At each sample point, all plants observed were identified to species to determine the wetland indicator status of the species. Wetland indicators for each identified species were obtained from the Western Mountains, Valleys, and Coast National Wetland Plant List (USACE 2022).

For all waterways that contained a bed and bank within the Study Area, the OHWM and top of bank were marked using the RTK GPS unit. The riparian edge was determined using the edge of riparian shrubs and the dripline of riparian trees within the riparian areas.

Results and Discussion

Based on the background review and field survey, the Study Area contains aquatic resources that are potentially jurisdictional by the USACE, RWQCB, CDFW, and the CCC. See Table 3 below for a summary of all potentially jurisdictional waters.

Table 3. Aquatic Resources in the Study Area

Aquatic Resource Types	Area (acres)
Waters of the United States Total	**0.106**
Intermittent Drainages	0.036
Seasonal Freshwater Wetland	0.070
Waters of the State Total	**0.121**
Intermittent Drainages	0.036
Ephemeral Drainage	0.015
Wetland	0.070
CDFW Potential Jurisdiction Total	**1.291**
Intermittent Drainages	0.036
Ephemeral Drainage	0.015
Riparian Vegetation	1.240
CCC Potential Jurisdiction Total	**1.361**
Intermittent Drainages	0.036
Ephemeral Drainage	0.015
Wetland	0.070
Riparian Corridor	1.240

Biological Communities

Land cover types and biological communities in the Study Area include the hardscaped/developed areas, non-native annual grassland/ruderal, riparian vegetation, a seasonal freshwater wetland, one ephemeral drainage, and two intermittent drainages. Descriptions for each biological community are contained in the following sections and the location of each community is shown in Appendix A, Figure 6. See Table 4 below for the total coverage of each community within the Study Area.

Table 4. Land Cover and Communities with the Study Area

Land Cover Type or Biological Community	Area (acres)
Hardscaped/Developed	1.190
Non-Native Annual Grassland/Ruderal	4.860
Riparian Vegetation	1.240
Seasonal Freshwater Wetland	0.070
Ephemeral Stream/Drainage	0.015
Intermittent Stream/Drainage	0.036

Hardscaped/Developed

Hardscaped areas comprise approximately 1.19 acres within the Study Area. Developed and hardscaped areas are areas with impermeable surface and lack vegetation due to disturbance. These areas include the structures and the dirt lot currently used for parking. Although minor amounts of vegetation may appear, for the most part vegetation that exists consists of only opportunistic non-native species.

Non-Native Annual Grassland/Ruderal

Non-native grassland is the dominant community within the Study Area and comprises approximately 4.86 acres northwest of the developed informal parking area. Through aerial imagery and on-site observations of cut grass and ruts, the grassland is mowed annually. Dominant vegetation includes primarily non-native grasses such as wild oats (*Avena sp.*) and ryegrass (*Festuca perennis*) as well as non-native forbs including bristly ox tongue (*Helminthotheca echioides*) and bird's food trefoil (*Lotus corniculatus*).

Riparian Vegetation

Riparian vegetation comprises approximately 1.24 acres within the southeastern portion of the Study Area. This community is dominated by arroyo willow (*Salix lasiolepis*), and contains other native riparian species such as California blackberry (*Rubus ursinus*) and small-fruited bullrush (*Scripus microcarpus*). There are also non-native species present within this community, including a large blue gum eucalyptus (*Eucalyptus globulus*), English Ivy (*Hedera helix*), and garden nasturtium (*Tropaeolum majus*).

Seasonal Freshwater Wetland

The seasonal freshwater wetland comprises 0.070 acres and is located in the northwestern side of the Study Area, adjacent to Obispo Road and surrounded by the non-native grassland. Similar to the grassland, the wetland exhibits signs of mowing disturbance. The vegetation within the wetland is dominated by obligate wetland species including the three-sided bullrush (*Schoenoplectus pungens*) and silverweed cinquefoil (*Potentilla anserina*). Other species present include a variety of Juncus species *(Juncus sp*.) and velvet grass (*Holcus lanatus*).

Ephemeral Stream/Drainage

The ephemeral drainage comprises 0.015 acres of the Study Area, cutting through the non-native grassland in a straight line from Obispo Road to the culvert leading to the Pacific Ocean. It has minimal presence of annual riparian vegetation. During the July site visit, no flowing nor standing water was observed in the drainage. The drainage is fed by runoff from the unincorporated community of El Granada within the Santa Maria watershed.

Intermittent Stream/Drainage

There are two intermittent drainages that flow through the Study Area, on either side of the informal dirt lot currently used for parking. The intermittent drainage to the northwest of the dirt lot (INT1, See Appendix A Figure 7b) was partially covered by native and non-native riparian vegetation including arroyo willow *(Salix lasiolepis*) and plume acacia (*Albizia lophantha*) as well as herbaceous vegetation including mugwort (*Artemisia douglasiana*) and watercress (*Nasturium officinale*). The intermittent drainage to the southeast of the dirt lot (INT2) is completely covered by the arroyo willow thicket. Both intermittent drainages are fed by the urban runoff from the unincorporated community of El Granada within the Santa Maria watershed and discharge into the Pacific Ocean. During the July site visit, only standing water was present in INT1 and flowing water was present in INT2.

Waters of the United States

RHA Section 10 Waters

The Study Area does not contain any waters that could be subject to Section 10 of the RHA.

Section 404 Waters with OHWM

The Study Area contains approximately 0.036 acres of Section 404 Waters of the U.S., including two intermittent drainages.

A total of 448 linear feet of the intermittent drainages are present in the Study Area, comprised of 142 linear feet of the straight intermittent drainage through the middle of the site (INT1), and 306 linear feet of the winding intermittent drainage in the southeast of the site (INT2). The streams are within the Santa Maria watershed, which is heavily urbanized through the city's streets and includes a culvert leading to the eastern drainage of the site. Both drainages culvert underneath California State Route 1 and discharge into the Pacific Ocean south of the Study Area through box culverts. During Sunset's July site visit, INT2 was actively flowing and INT1 had only standing water. Both intermittent drainages had coverage of riparian vegetation, INT2 having complete vegetative coverage while INT1 is covered for about a third of its length through the Study Area. See Appendix A, Figure 7 for the location and extent of the potential WOTUS.

Section 404 Wetlands

The Study Area contains approximately 0.070 acres of potentially jurisdictional wetlands. The seasonal freshwater wetland was identified directly adjacent to and downslope from Obispo Road in the northwest area of the Study Area. It is surrounded by non-native grassland and bounded by Obispo Road to the north. See Appendix A, Figure 7 for the location and extent of

the potential USACE wetlands and Appendix D for the completed wetland delineation data sheets.

Field Indicators of Hydrophytic Vegetation

The dominant species in the seasonal freshwater wetland observed were silverweed cinquefoil *(Potentilla anserina,* OBL*),* common three-square bulrush (*Schoenoplectus pungens,* OBL), and velvet grass (*Holcus lanatus*, FAC). Other species present with lower dominance were the spreading rush (*Juncus patens*, FACW), brown-headed rush *(Juncus phaeocephalus*, FACW), and rabbit's foot grass (*Polypogon monspeliensis*, FACW).

Field Indicators of Hydric Soils

On site examinations of soils within the seasonal freshwater wetland found the soils to be moist, dark clay loam. The soil color was observed to be between 10YR 3/2 and 10YR 2/1 using the Munsell Soil Color Book (Munsell 2009). However, obvious indicators of hydric soil were not observed in the field. Since indicators for both hydrophytic vegetation and wetland hydrology had been identified, the procedure for identifying problematic hydric soils was followed as per the Western Mountains, Valleys, and Coast Regional Supplement (USACE 2010).

The potential wetland is located in a shallow depression within the ruderal grassland. The depression is downslope from Obispo Road, which may serve as a source of runoff to the wetland. As the wetland is in a shallow depression along the nearly level slope of the grassland, It is likely that water would accumulate and concentrate in the depression.

The soil is determined to be hydric based on the problematic soil situation for dark parent material. The soil consists of Dension clay loam, nearly level (DdA), which is described by the USDA's National Cooperative Soil Survey as having a dark soil color of 10YR 2/1 between 0-34" in depth. During the site visit, it was observed that the soil was the same dark color in both the wetland and adjacent upland areas, despite stark differences in hydrophytic vegetation and wetland hydrology. Additionally, the site's soil is still at least annually mowed as observed by recent ruts and tracks from machinery. The site was historically used for agriculture in the early to mid-1900s, which may have disrupted observable hydric soil indicators. Therefore, is it determined that the soils are problematic due to the dark parent materials and that the soil is therefore considered hydric where the identifiers for wetland hydrology and hydrophytic vegetation are also positive.

Field Indicators of Wetland Hydrology

Secondary indicators for C9 - saturation visible on aerial imagery, D5 - FAC-neutral test, and D2-geomorphic position were identified within the potential wetland. Appendix F is provided with photographs of the aerial imagery from the last decade showing a distantly darker and greener color in vegetation where the wetland is identified in comparison to the surrounding grassland, indicating long term saturation of the area. The FAC-Neutral test was passed, as all dominant species identified were obligate or facilitative wetland species. The geomorphic position of the wetland points was within a shallow depression.

Waters of the State

The Study Area contains approximately 0.121 acres of waters of the State. The waters of the state include waterways and riparian habitat up to the top of the bank. Waters of the state include 0.036 acres of intermittent drainage, 0.015 acres of ephemeral drainage, and 0.070 acres of wetlands. See Appendix A, Figure 7 for the location and extent of waters of the state.

CDFW Streams and Riparian Habitat

The Study Area contains approximately a total of 1.291 acres of stream, lake, and riparian habitat as defined by CDFW. For the purpose of surveying riparian vegetation habitat for CDFW, the extent of riparian habitat was mapped by the dripline of the riparian vegetation surrounding each body of water. CDFW jurisdiction includes 0.036 acres of intermittent stream, 0.015 acres of ephemeral stream, 1.24 acres of riparian habitat, and 0.070 acres of wetland. See Appendix A, Figure 8 for the location and extent of stream and riparian habitat as defined by CDFW.

CCC Streams, Riparian Habitat, and Wetlands

The Study Area contains approximately a total of 1.361 acres of stream, riparian habitat, and wetland as defined by the CCC. The extent of riparian habitat was mapped by the dripline of riparian vegetation surrounding each body of water. CCC Jurisdiction includes the 0.036 acres of intermittent drainage, 0.015 acres of ephemeral stream, 1.24 acres of the riparian habitat, and 0.070 acres of wetland. CCC also has jurisdiction over a 100-foot buffer from the wetland and a 30-foot buffer from the riparian vegetation. See Appendix A, Figure 9 for the location and extent of stream and riparian habitat as defined by the CCC.

The CCC wetland was determined to be the same footprint as the USACE wetland. The areas adjacent to the USACE wetland did not pass indicators for wetland hydrology or hydric soil. It should be noted that during the site visit in July, the vegetation directly outside of the identified potential wetland was dominated by bristly ox tongue *(Helminthotheca echioides*), a facilitative (FAC) wetland species. However, there was also a thick layer of non-native grass litter present where the relatively young and short bristly ox tongue was dominant, and little to no presence of other species ranked FAC, FACW, or OBL. Evidence of mowing, including ruts in the soil and the cut grass litter, indicate that the bristly ox tongue may only be dominant due to the recent disturbance of non-native upland grasses (See Appendix E, Photographs 4, 6, 8). Additionally, in a previous biological report of the site, the areas where bristly ox tongue was the dominant species were classified as “Ruderal/Non-Native Grassland” (Montrose Environmental 2023). Therefore, it was determined that the areas dominated by bristly ox-tounge adjacent to the potential wetland do not pass the hydrophytic vegetation indicator and therefore do not pass any singular wetland indicator and are not included as a CCC wetland.

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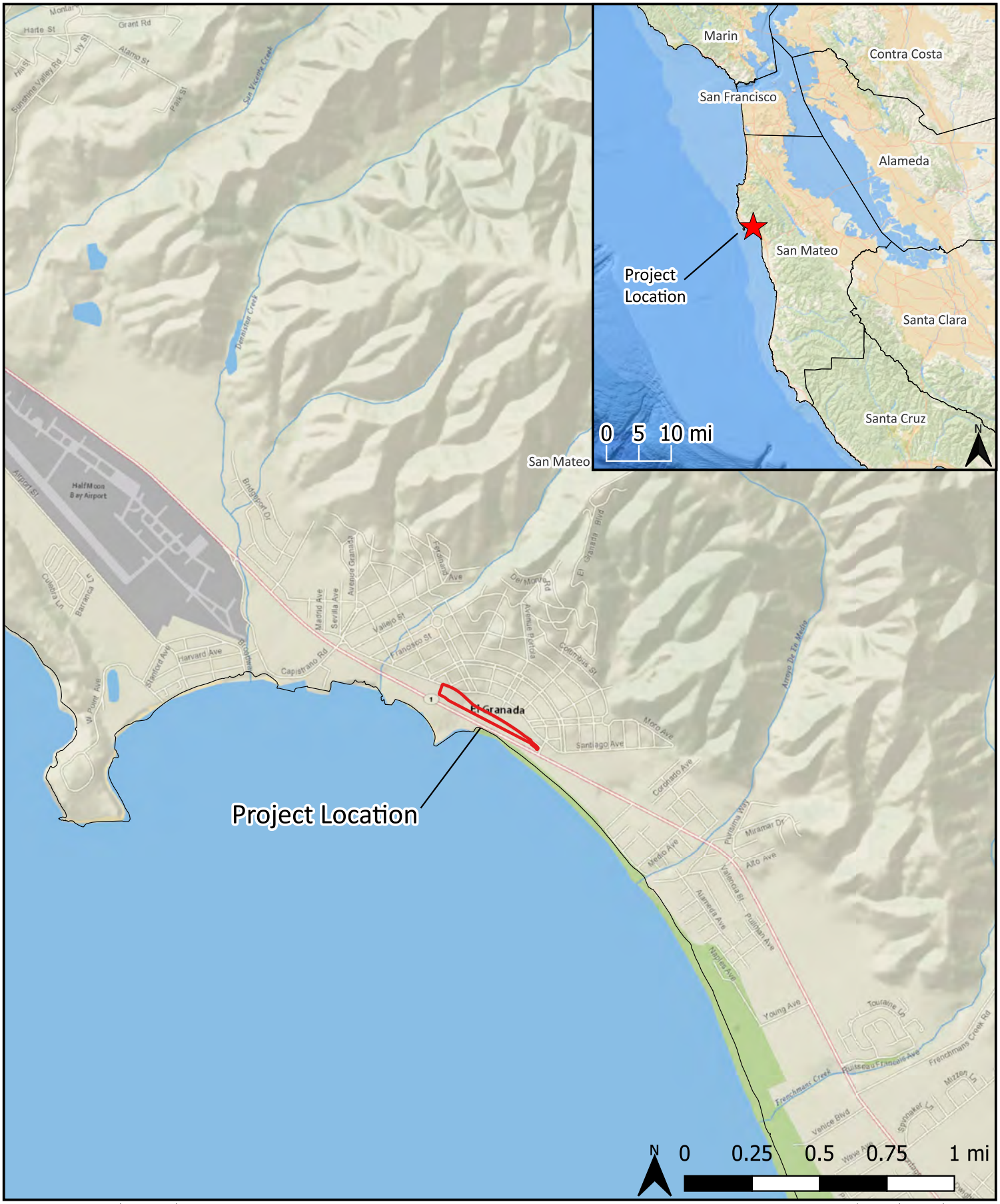
APPENDIX G. NRCS WETS TABLES



Source: Esri National Geographic + Ocean 2025

Prepared By: KChang July 8, 2025

Figure 1. Project Vicinity Map

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

Source: USGS Topographic

Prepared By: KChang July 8, 2025

Figure 2. USGS Topographic Map

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

Source: Esri Satellite 2025

Prepared By: KChang July 8, 2025

Figure 3. Study Area

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

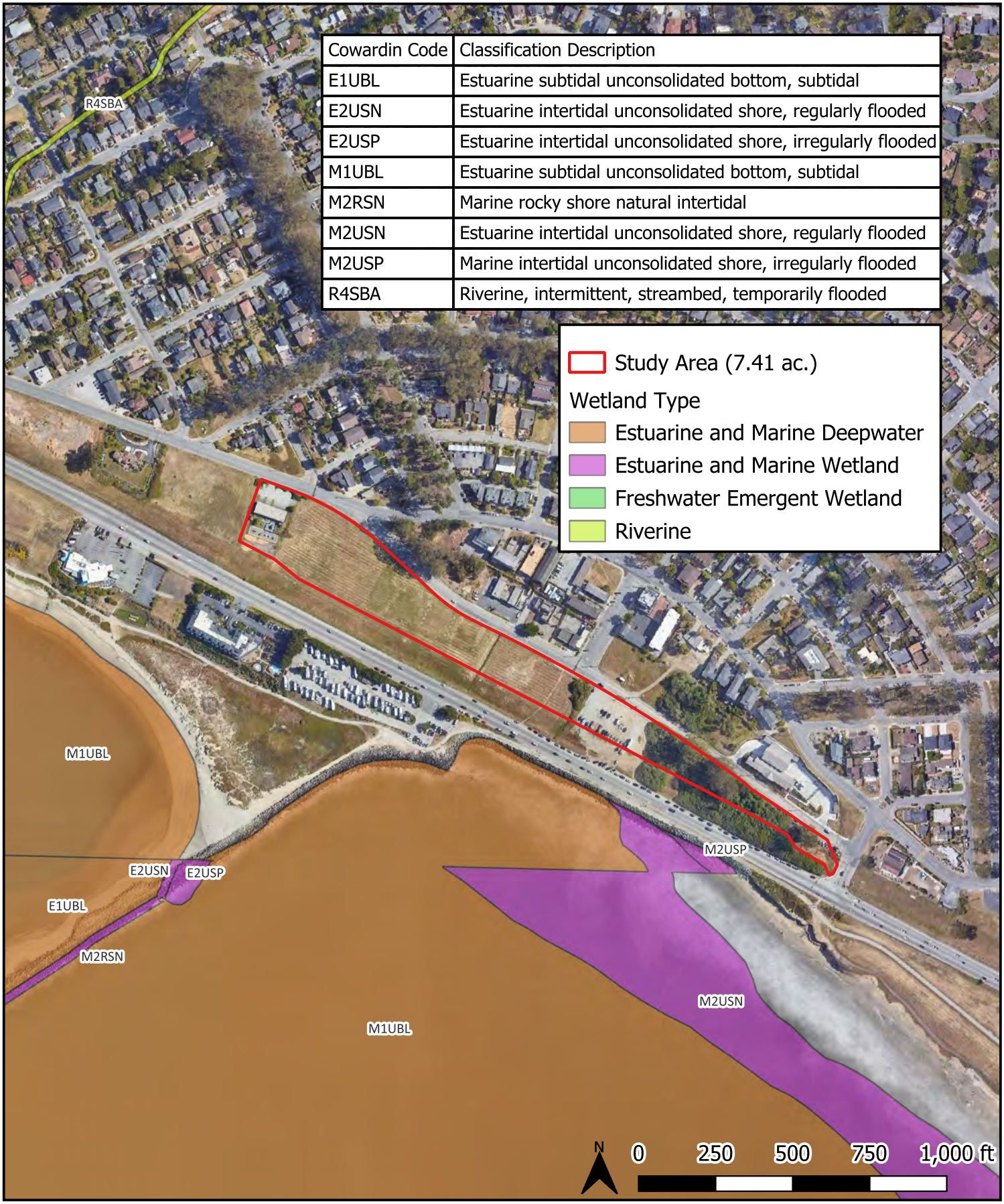
Source: NRCS Soil Survey 2025

Prepared By: KChang July 8, 2025

Figure 4. Soils Map

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE



Cowardin Code	Classification Description
E1UBL	Estuarine subtidal unconsolidated bottom, subtidal
E2USN	Estuarine intertidal unconsolidated shore, regularly flooded
E2USP	Estuarine intertidal unconsolidated shore, irregularly flooded
M1UBL	Estuarine subtidal unconsolidated bottom, subtidal
M2RSN	Marine rocky shore natural intertidal
M2USN	Estuarine intertidal unconsolidated shore, regularly flooded
M2USP	Marine intertidal unconsolidated shore, irregularly flooded
R4SBA	Riverine, intermittent, streambed, temporarily flooded

Source: Esri Satellite 2025, USFWS National Wetlands Inventory

Prepared By: KChang July 8, 2025

Figure 5. USFWS NWI Map

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

Source: Sunset Ecological Solutions 2025

Prepared By: KChang August 7, 2025

Figure 6. Vegetation Communities

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

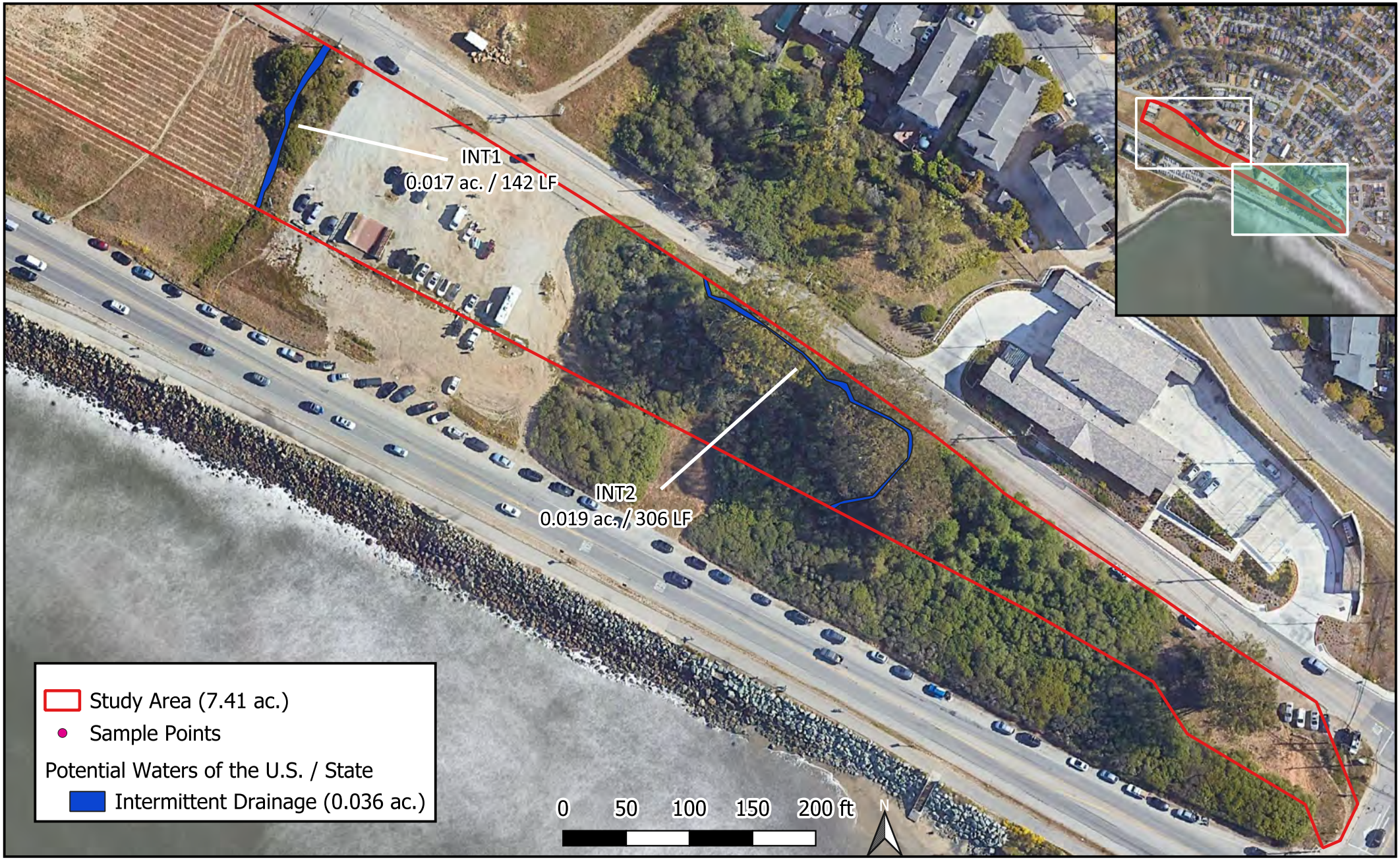
Source: Sunset Ecological Solutions 2025

Prepared By: KChang July 14, 2025

Figure 7a. Potential Waters of the U.S. / Waters of the State

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE



Source: Sunset Ecological Solutions 2025

Prepared By: KChang July 14, 2025

Figure 7b. Potential Waters of the U.S. / State

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

Source: Sunset Ecological Solutions 2025

Prepared By: KChang July 14, 2025

Figure 8. Potential CDFW Jurisdiction

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

Source: Sunset Ecological Solutions 2025

Prepared By: KChang July 17, 2025

Figure 9. Potential CCC Sensitive Habitats

Aquatic Resources Delineation
Granada Community Park and Recreation Center Project
El Granada, San Mateo County, California

SUNSET ECOLOGICAL SOLUTIONS
BIOLOGY, PERMITTING, AND COMPLIANCE

APPENDIX B. PLANT SPECIES OBSERVED

Scientific Name	Common Name	Wetland Rating*
	Plants	
Albizia lophantha	Plume Acacia	NL
Artemisia douglasiana	California Mugwort	FACW
Avena barbata	Wild Oat	NL
Borago offininalis	Common Borage	NL
Briza minor	Little Quaking Grass	FAC
Bromus diandrus	Ripgut Brome	NL
Bromus hordeaceus	Soft Chess	FACU
Carduus pycnocephalus ssp. pycnocephalus	Italian Thistle	NL
Conium maculatum	Poison Hemlock	FAC
Convolvulus arvensis	Common Bindweed	NL
Cortaderia jubata	Pampas Grass	FACU
Cotoneaster lacteus	Cotoneaster	NL
Cyperus eragrostis	Tall Flatsedge	FACW
Delaidea odorata	Cape Ivy	FAC
Ehrharta erecta	Panic Veldtgrass	NL
Epilobium ciliatum	Fringed Willowherb	FACW
Epilobium densiflorum	Dense-Flower Willowherb	FACW
Eschscholzia californica	California Poppy	NL
Eucalyptus globulus	Blue Gum Eucalyptus	NL
Festuca perennis	Ryegrass	NL
Fumaria capreolata	White Ramping Fumitory	NL
Geranium dissectum	Geranium	NL
Glebionis coronaria	Crown Daisy	NL
Hedera helix	English Ivy	FACU
Helminthotheca echioides	Bristly Ox-Tongue	FAC
Hirschfelda incana	Shortpod Mustard	NL
Holcus lanatus	Velvet Grass	FAC
Hordeum murinum	Foxtail Barley	FAC
Hypochaeris radicata	Rough Cat's Ear	FACU
Juncus bufonius	Toad Rush	FACW

Juncus patens	Spreading Rush	FACW
Juncus phaeocephalus	Brown-Headed Rush	FACW
Lotus corniculatus	Bird's Foot Treefoil	FAC
Lysimachia arvensis	Scarlet Pimpernel	FAC
Lythrum hyssopifolia	Hyssop Loosestrife	OBL
Madia sativa	Coast Tarweed	NL
Malva parviflora	Cheeseweed	NL
Medicago polymorpha?	Toothed Bur Clover	FACU
Nasturtium officinale	Watercress	OBL
Oenothera elata ssp. hookeri	Hooker's Evening Primrose	FACW
Persicaria punctata	Smartweed	OBL
Pinus radiata	Monterey Pine	NL
Plantago lanceolata	English Plantain	FACU
Polypogon monspeliensis	Rabbit's Foot Grass	FACW
Potentilla anserina ssp. pacifica	Pacific Silverweed	OBL
Raphanus sativus	Wild Radish	NL
Rubus armeniacus	Himalayan Blackberry	FAC
Rubus ursinus	California Blackberry	FACU
Rumex crispus	Curly Dock	FAC
Rumex transitorius	Pacific Willow Dock	FACW
Salix lasiolepis	Arroyo Willow	FACW
Sambucus racemosa	Red Elderberry	FACU
Scabiosa atropurpurea	Pincushion Flower	NL
Schoenoplectus pungens var. longispicatus	Three -Sided Bullrush	OBL
Schrophularia californica	California Bee Plant	FAC
Scirpus microcarpus	Smallfruit Bullrush	OBL
Sisyrinchium bellum	Western Blue-Eyed Grass	FACW
Stachys bullata	California Hedgenettle	NL
Symphyotrichium chilense	Pacific Aster	FAC
Tropaeolum majus	Garden Nasturtium	UPL

*Wetland ratings are listed for obligate wetland species (OBL), facultative wetland species (FACW), facultative species (FAC), facultative upland species (FACU), upland species (UPL), and species not listed by the national wetland plant list (NL) which are generally considered to be upland species.

APPENDIX C. NRCS CUSTOM SOIL RESOURCE REPORT

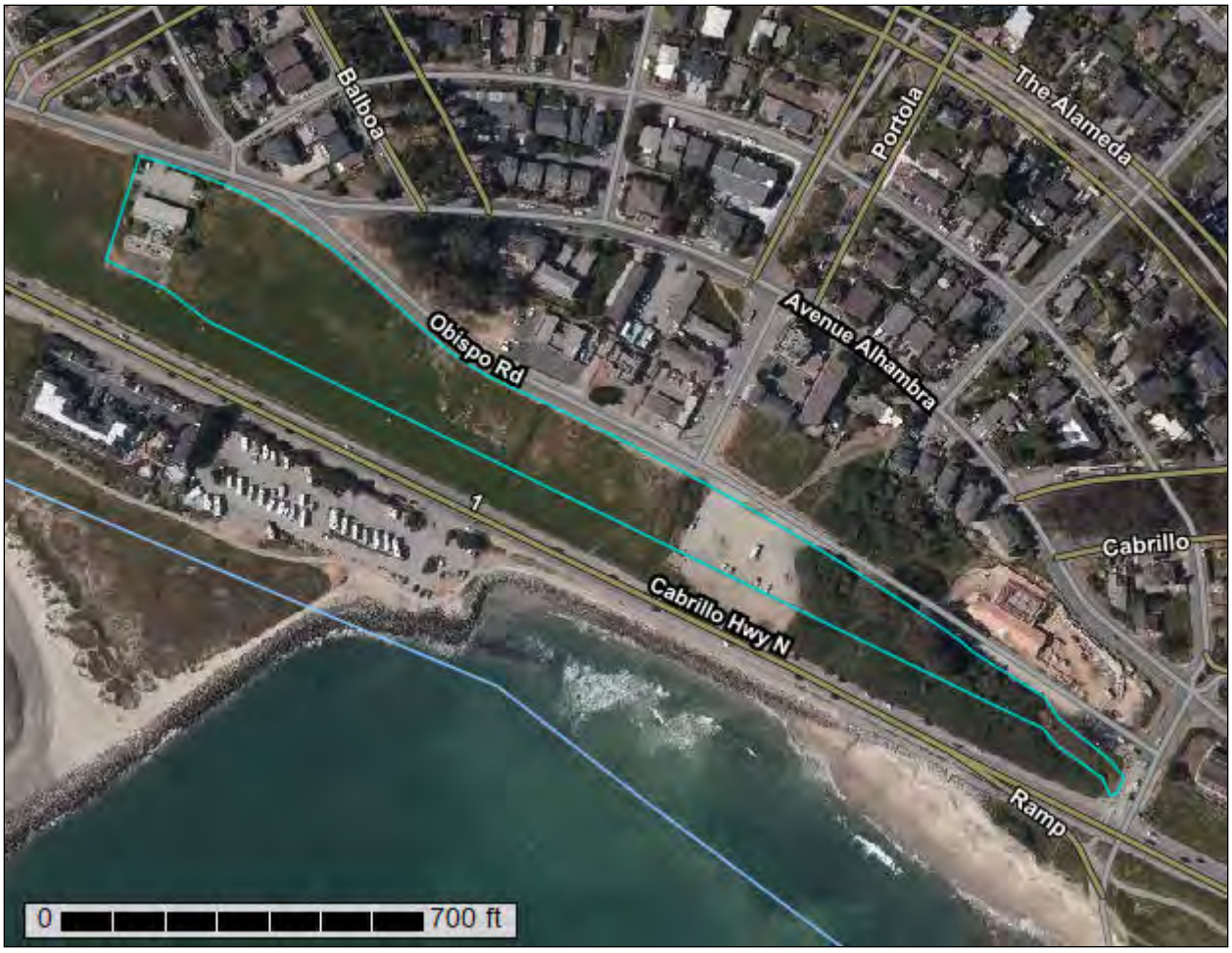
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San Mateo Area, California



July 7, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:3,290 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0, 45, 90, 180, 270

Feet: 0, 150, 300, 600, 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- 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 1:15,000.

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 scale.

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: San Mateo Area, California
Survey Area Data: Version 18, Sep 8, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 29, 2019—Jun 5, 2019

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
DcA	Denison clay loam, nearly level	4.2	57.7%
DdA	Denison clay loam, nearly level, imperfectly drained	0.1	1.9%
DmB	Denison loam, gently sloping	2.7	36.6%
WmC2	Watsonville loam, sloping, eroded	0.3	3.8%
Totals for Area of Interest		**7.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Mateo Area, California

DcA—Denison clay loam, nearly level

Map Unit Setting

National map unit symbol: 2yrdt
Elevation: 10 to 70 feet
Mean annual precipitation: 27 to 29 inches
Mean annual air temperature: 55 to 57 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Denison and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denison

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 10 inches: clay loam
Btss - 10 to 45 inches: clay
C1 - 45 to 61 inches: clay loam
C2 - 61 to 70 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 7.0
Available water supply, 0 to 60 inches: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R014XG912CA - Loamy Terrace
Hydric soil rating: No

Minor Components

Miramar

Percent of map unit: 5 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Farallone

Percent of map unit: 5 percent
Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Elkhorn

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

DdA—Denison clay loam, nearly level, imperfectly drained

Map Unit Setting

National map unit symbol: 2yrfv
Elevation: 10 to 70 feet
Mean annual precipitation: 27 to 29 inches
Mean annual air temperature: 55 to 57 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Denison and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denison

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 10 inches: clay loam
Btss - 10 to 45 inches: clay
C1 - 45 to 61 inches: clay loam
C2 - 61 to 70 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 7.0
Available water supply, 0 to 60 inches: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Ecological site: R014XG912CA - Loamy Terrace
Hydric soil rating: No

Minor Components

Elkhorn

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Farallone

Percent of map unit: 5 percent
Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Miramar

Percent of map unit: 4 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex

Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

DmB—Denison loam, gently sloping

Map Unit Setting

National map unit symbol: 2yrdx
Elevation: 20 to 110 feet
Mean annual precipitation: 29 to 29 inches
Mean annual air temperature: 55 to 57 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Denison and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denison

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 15 inches: loam
Btss - 15 to 45 inches: clay
C1 - 45 to 60 inches: clay loam
C2 - 60 to 70 inches: loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 7.0
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R014XG912CA - Loamy Terrace
Hydric soil rating: No

Minor Components

Farallone

Percent of map unit: 5 percent
Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Elkhorn

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Miramar

Percent of map unit: 5 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

WmC2—Watsonville loam, sloping, eroded

Map Unit Setting

National map unit symbol: 2yrfl
Elevation: 50 to 210 feet
Mean annual precipitation: 28 to 30 inches
Mean annual air temperature: 55 to 57 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Watsonville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Watsonville

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock

Typical profile

A - 0 to 8 inches: loam
E - 8 to 11 inches: loam
Btn1 - 11 to 18 inches: clay
Btn2 - 18 to 36 inches: clay
Btn3 - 36 to 60 inches: sandy clay loam

Properties and qualities

Slope: 5 to 11 percent
Depth to restrictive feature: 10 to 20 inches to abrupt textural change
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.01 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Very slightly saline to slightly saline (2.0 to 6.0 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water supply, 0 to 60 inches: Very low (about 1.9 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: R004BO200CA - Windy Coastal Plains
Hydric soil rating: No

Minor Components

Elkhorn

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tierra

Percent of map unit: 5 percent
Landform: Hills

Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Baywood

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

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APPENDIX D. WETLAND DELINEATION DATA FORMS

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Burnham Strip | City/County: El Granada/ San Mateo County | Sampling Date: 7/9/25

Applicant/Owner: Granada Community Services District | State: CA | Sampling Point: SP1

Investigator(s): Kevin Chang, Gwyn Fritz | Section, Township, Range: T5S R6W

Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): concave | Slope (%): 2%

Subregion (LRR/MLRA): LRR A, MLRA 4B | Lat: 37.50257575 | Long: -122.47237109 | Datum: WGS84

Soil Map Unit Name: DcA | NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil X, 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 X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Potentilla anserina*	45	Yes	OBL
2. *Schoenoplectus pungens*	35	Yes	OBL
3. *Holcus lanatus*	7	No	FAC
4. *Helminthotheca echioides*	5	No	FAC
5. *Polypogon monspeliensis*	3	No	FACW
6. *Festuca perennis*	1	No	FAC
7.			
8.			
9.			
10.			
11.			
	96 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 4

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x1=	80
FACW species	3	x2=	6
FAC species	13	x3=	39
FACU species	0	x4=	0
UPL species	0	x5=	0
Column Totals:	96 (A)		125 (B)

Prevalence Index = B/A = 1.30

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0 [1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ 5 - Wetland Non-Vascular Plants [1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X ____ **No** ____

Remarks:

SOIL

Sampling Point: SP1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-19	10YR 3/2	100					Loamy/Clayey	

[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)
- ___ 1 cm Muck (A9) **(LRR D, G)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR A, E)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- _X_ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** ___

Remarks:
Sandy clay loam, Problematic soils - Dark Parent Materials

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- _X_ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- _X_ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No _X_	Depth (inches): ___
Water Table Present?	Yes ___	No _X_	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No _X_	Depth (inches): ___

Wetland Hydrology Present? **Yes** _X_ **No** ___

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

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Burnham Strip | City/County: El Granada/ San Mateo County | Sampling Date: 7/9/25

Applicant/Owner: Granada Community Services District | State: CA | Sampling Point: SP2

Investigator(s): Kevin Chang, Gwyn Fritz | Section, Township, Range: T5S, R6W

Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): none | Slope (%): 2%

Subregion (LRR/MLRA): LRR A, MLRA 4B | Lat: 37.50257575 | Long: -122.47237109 | Datum: WGS84

Soil Map Unit Name: DcA | NWI classification: None

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

Are Vegetation X , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Helminthotheca echioides*	70	Yes	FAC
2. *Rumex crispus*	5	No	FAC
3. *Potentilla anserina*	1	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	76 =Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 26

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x1= ____
FACW species ____	x 2 = ____
FAC species ____	x3= ____
FACU species ____	x4= ____
UPL species ____	x5= ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 1 3 - Prevalence Index is ≤3.0 4 - Morphological Adaptations1(Provide supporting data in Remarks or on a separate sheet) 1 5 - Wetland Non-Vascular Plants

Problematic Hydrophytic Vegetation1 (Explain)

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

Hydrophytic Vegetation Present? Yes X **No** ____

Remarks:

SOIL

Sampling Point: SP2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc [2]	Texture	Remarks
0-15	10YR 2/1	100					Loamy/Clayey	Shovel to refusal

[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)
- ___ 1 cm Muck (A9) **(LRR D, G)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR A, E)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Burnham Strip | City/County: El Granada/ San Mateo County | Sampling Date: 7/9/25

Applicant/Owner: Granada Community Services District | State: CA | Sampling Point: SP3

Investigator(s): Kevin Chang, Gwyn Fritz | Section, Township, Range: T5S, R6W

Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): concave | Slope (%): 2%

Subregion (LRR/MLRA): LRR A, MLRA 4B | Lat: 37.50253851 | Long: -122.4723067 | Datum: WGS84

Soil Map Unit Name: DcA | NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil X, 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 X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Helminthotheca echioides*	40	Yes	FAC
2. *Potentilla anserina*	15	Yes	OBL
3. *Schoenoplectus pungens*	8	No	OBL
4. *Holcus lanatus*	5	No	FAC
5. *Juncus patens*	3	No	FACW
6. *Anagallis arvensis*	1	No	FAC
7.			
8.			
9.			
10.			
11.			
	72 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 28

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ____	x1=	____
FACW species ____	x 2 =	____
FAC species ____	x3=	____
FACU species ____	x4=	____
UPL species ____	x5=	____
Column Totals: ____ (A)		____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0 [1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ 5 - Wetland Non-Vascular Plants [1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: SP3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc [2]	Texture	Remarks
0-18	10YR 2/1	100					Loamy/Clayey	

[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)
- ___ 1 cm Muck (A9) **(LRR D, G)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR A, E)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- _X_ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** ___

Remarks:
Sandy clay loam, Problematic soils - Dark Parent Materials

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- _X_ Saturation Visible on Aerial Imagery (C9)
- _X_ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No _X_ Depth (inches): ___

Water Table Present? Yes ___ No _X_ Depth (inches): ___

Saturation Present? Yes ___ No _X_ Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _X_ **No** ___

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

Remarks:
Sample point located within lowest part of depression, saturation visible from historic aerial imagery.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Burnham Strip | City/County: El Granada/ San Mateo County | Sampling Date: 7/9/25

Applicant/Owner: Granada Community Services District | State: CA | Sampling Point: SP4

Investigator(s): Kevin Chang, Gwyn Fritz | Section, Township, Range: T5S, R6W

Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): none | Slope (%): 2%

Subregion (LRR/MLRA): LRR A, MLRA 4B | Lat: 37.50263533 | Long: -122.4725569 | Datum: WGS84

Soil Map Unit Name: DcA | NWI classification: None

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

Are Vegetation X , 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 X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Helminthotheca echioides*	30	Yes	FAC
2. *Festuca perennis*	15	Yes	FAC
3. *Avena barbata*	10	No	UPL
4. *Holcus lanatus*	3	No	FAC
5. *Polypogon monspeliensis*	3	No	FACW
6. *Bromus hordeaceus*	3	No	FACU
7. *Briza minor*	1	No	FAC
8. *Potentilla anserina*	1	No	OBL
9.			
10.			
11.			
	66 =Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 26

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x1= ____
FACW species ____	x 2 = ____
FAC species ____	x3= ____
FACU species ____	x4= ____
UPL species ____	x5= ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0 [1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ 5 - Wetland Non-Vascular Plants [1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc [2]	Texture	Remarks
0-15	10YR 2/1	100					Loamy/Clayey	Shovel to refusal

[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)
- ___ 1 cm Muck (A9) **(LRR D, G)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR A, E)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Burnham Strip | City/County: El Granada/ San Mateo County | Sampling Date: 7/9/25

Applicant/Owner: Granada Community Services District | State: CA | Sampling Point: SP5

Investigator(s): Kevin Chang, Gwyn Fritz | Section, Township, Range: T5S R6W

Landform (hillside, terrace, etc.): Terrace above creek | Local relief (concave, convex, none): none | Slope (%): 3%

Subregion (LRR/MLRA): LRR A, MLRA 4B | Lat: 37.50083 | Long: -122.46917 | Datum: WGS84

Soil Map Unit Name: DcA | NWI classification: None

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	100	Yes	FACW
2.			
3.			
4.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Rubus ursinus*			FACU
2. *Raphanus raphanistrum*			UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1=	0
FACW species	100	x2=	200
FAC species	0	x3=	0
FACU species	0	x4=	0
UPL species	0	x5=	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0 [1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants [1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					Loamy/Clayey	Shovel to refusal

[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)
- ___ 1 cm Muck (A9) **(LRR D, G)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR A, E)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Coarse Fragments of lighter color

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

APPENDIX E. PHOTOGRAPHS

Photograph 1. View of the potential seasonal freshwater wetland. Notice the darker shade of green from the presence of *Schoenoplectus punguns*, an obligate wetland species. Photo taken facing west on 7/9/25.

Photograph 2. Second View of the potential wetland. Note the slight concave position of the darker vegetation (*Schoenoplectus pungens*). Photo taken facing northwest on 7/9/25.

Photograph 3. Edge of potential wetland, adjacent to a maintained and barren slope along Obispo Road. Photo taken facing southeast on 7/9/25.

Photograph 4. View of ruderal grassland uplands surrounding the potential wetland. During a site visit in June 2025, clear mowing marks across the grassland and wetland were observed. Photo taken facing southwest on 7/9/25.

Photograph 5. Location of Sample Point 1, located in the potential USACE wetland. Note the abundance of bullrush (*Schenoplectus punguns,* OBL). Photo taken on 7/9/25.

Photograph 6. Location of Sample Point 2, located outside of the potential wetland. Although bristly ox tongue dominated the vegetation, that is likely only due to recent mowing of the ruderal grasses.

Photograph 7. Location of Sample Point 3, located inside of the potential wetland. Photo taken on 7/9/25.

Photograph 8. Location of Sample Point 4, outside of the potential wetland. Note the abundance of dried, trampled, and mowed grass. Photo taken on 7/9/25.

Photograph 9. Location of Sample Point 5, in an upland adjacent to the eastern intermittent drainage underneath the willow thicket.

Photograph 10. View of the non-jurisdictional ephemeral drainage in the ruderal grassland to the western side of the study area. Photo taken facing northeast on 7/9/25.

Photograph 11. View of the intermittent drainage in the middle of the site, adjacent to the existing hardscaped parking lot. Photo taken facing northeast on 7/9/25.

Photograph 12. View of the running intermittent stream underneath dense vegetation, towards the east of the study area. Photo taken on 7/9/25.

APPENDIX F. HISTORICAL AERIAL PHOTOGRAPHY

Photograph 1. Google Earth aerial image of the potential wetland from July 30, 2023. Note the darker area of vegetation, which is likely due to saturation of the area throughout the dry season.

Photograph 2. Google Earth aerial image of the potential wetland from September 30, 2020. Notice the green area around the potential wetland, even through the end of the summer.

Photograph 3. Google Earth aerial image of the potential wetland from July 30, 2020. Note the presence of mowing tracks throughout the grassland and potential wetland.

Photograph 4. Google Earth aerial image of the potential wetland from September 30, 2018.

Photograph 5. Google Earth aerial image of the potential wetland from October 30, 2017. The area of greener vegetation and saturation is present from at least this year onward.

APPENDIX G. NRCS WETS TABLES

Monthly Total Precipitation for HALF MOON BAY, CA

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1995	11.38	0.26	M	2.35	1.54	0.78	0.05	0.05	0.15	0.07	0.30	8.25	M
1996	8.27	7.05	3.34	1.98	2.16	0.13	0.06	0.07	0.20	1.47	2.71	8.83	36.27
1997	9.86	0.29	0.59	0.96	0.44	0.57	0.13	0.77	0.08	0.77	7.84	3.65	25.95
1998	12.13	15.70	2.58	2.73	4.01	0.30	0.18	0.06	0.25	0.99	3.75	2.12	44.80
1999	6.40	7.60	4.82	2.73	0.12	0.46	0.05	0.34	0.21	0.82	2.94	0.93	27.42
2000	7.53	11.27	2.45	3.10	1.72	0.18	0.26	0.19	0.41	3.74	1.30	0.69	32.84
2001	5.75	6.44	1.67	2.19	M	M	0.28	0.39	0.26	0.47	M	M	M
2002	M	M	M	M	M	M	0.18	M	M	M	M	M	M
2003	M	M	M	M	M	M	M	M	M	0.22	2.27	8.81	M
2004	3.33	6.37	1.39	0.31	0.15	0.05	0.34	0.33	0.29	4.60	1.38	8.66	27.20
2005	6.11	5.28	5.52	1.69	2.32	1.31	0.23	0.04	0.15	0.57	1.89	9.94	35.05
2006	4.68	2.64	9.50	5.37	0.50	0.07	0.15	0.00	0.07	0.54	2.38	4.26	M
2007	1.43	6.03	0.91	1.96	0.46	0.10	0.38	0.06	0.27	2.17	1.08	3.72	18.57
2008	8.64	3.62	0.35	0.17	0.11	0.08	0.17	0.23	0.07	0.42	2.66	2.65	19.17
2009	1.17	8.76	2.66	0.41	1.39	0.15	0.21	0.17	0.53	3.05	0.44	2.66	21.60
2010	6.40	3.41	2.33	3.59	2.06	0.49	T	0.28	0.30	1.10	2.95	7.71	30.62
2011	1.47	4.01	6.02	0.64	1.16	2.11	0.30	0.37	0.03	2.26	1.76	0.39	M
2012	2.18	0.89	5.02	2.41	0.15	0.40	0.22	0.10	0.04	2.51	4.26	7.68	M
2013	0.39	0.70	1.34	M	0.24	0.54	0.03	0.26	0.85	M	1.24	0.23	M
2014	0.17	3.36	1.99	1.21	M	0.05	0.06	0.11	0.52	0.94	1.74	10.80	M
2015	0.00	1.16	0.18	0.75	0.11	0.08	0.05	0.08	0.11	0.16	1.70	5.16	M
2016	6.01	1.25	7.24	0.95	0.15	0.07	0.26	0.13	M	4.90	2.11	4.34	M
2017	10.27	7.92	3.61	3.27	0.02	0.24	0.04	0.17	0.24	0.46	3.97	0.16	M
2018	5.91	0.38	4.27	2.69	0.23	0.10	0.06	0.10	0.03	0.11	3.20	1.69	18.77
2019	4.02	7.71	5.12	1.32	2.66	0.15	M	0.25	0.32	0.04	1.62	4.49	M
2020	3.16	T	2.52	1.46	0.68	0.10	0.03	0.30	0.04	0.05	0.71	2.36	11.41
2021	2.88	2.56	1.83	0.06	0.14	0.13	0.20	0.07	0.18	5.29	0.84	11.31	25.49
2022	0.66	0.12	0.86	1.84	0.19	0.36	0.50	0.17	0.45	0.20	1.85	10.54	M
2023	8.55	4.28	8.44	0.40	1.92	0.20	0.14	0.26	0.24	0.34	1.78	4.91	31.46
2024	6.04	5.80	5.95	1.43	1.36	0.10	0.17	0.12	0.14	0.14	4.27	4.74	30.26
2025	0.40	4.31	2.91	0.92	0.33	0.07	0.38	M	M	M	M	M	M
Mean	5.01	4.45	3.41	1.75	0.97	0.33	0.18	0.20	0.24	1.37	2.32	5.06	27.31