# Delineation of Potential Jurisdictional Wetlands and Waters Under Section 404 of the Clean Water Act

## FERRINI PROPERTY, MONTEREY COUNTY CALIFORNIA

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# 1.0 INTRODUCTION

## 1.1 Project Background

The Ferrini Property (Project Area) covers approximately 921 acres and is located to the east of Highway 68, in between the Cities of Salinas and Monterey in Monterey County, California (Figure 1). It is bounded on the south and west by residential development, and on the north and east primarily by agriculture and rangeland with the exception of a small residential development bordering the northeast corner of the property.

On October 17-19, 2006, biologists from WRA Inc. conducted a routine wetland delineation to determine the presence of potential wetlands and "other waters" subject to federal jurisdiction under Section 404 of the Clean Water Act within the Project Area. This report presents the results of this delineation.

## 1.2 Regulatory Background

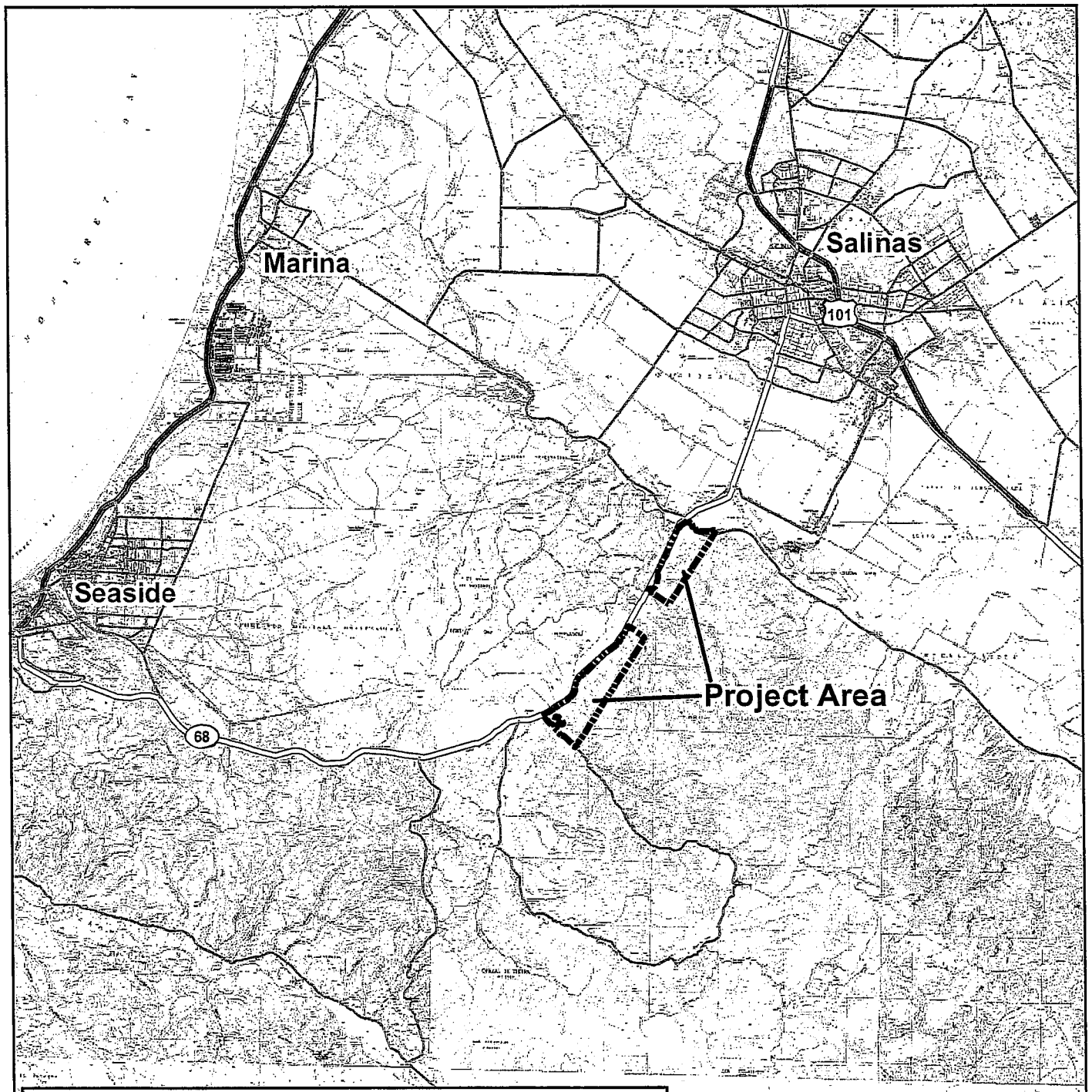
*Section 404 of the Clean Water Act*

Section 404 of the Clean Water Act gives the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) regulatory and permitting authority regarding the discharge of dredged or fill material into "navigable waters of the United States". Section 502(7) of the Clean Water Act defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act. A summary of this definition of "waters of the U.S." in 33 CFR 328.3 includes (1) waters used for interstate and foreign commerce including all waters subject to tides; (2) interstate waters and wetlands; (3) "other waters" such as intrastate lakes, rivers, streams, and wetlands affecting interstate and foreign commerce; (4) impoundments of waters; (5) tributaries of waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for the purpose of determining Corps jurisdiction under the Clean Water Act, "navigable waters" as defined in the Clean Water Act are the same as "waters of the U.S." defined in the Code of Federal Regulations above.

The limits of Corps jurisdiction under Section 404 as given in 33 CFR Section 328.4 are as follows: (a) *Territorial seas:* three nautical miles in a seaward direction from the baseline; (b) *Tidal waters of the U.S.:* high tide line or to the limit of adjacent non-tidal waters; (c) *Non-tidal waters of the U.S.:* ordinary high water mark or to the limit of adjacent wetlands; (d) *Wetlands:* to the limit of the wetland.

Section 328.3 of the Federal Code of Regulations defines wetlands as:

> *"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."*
>
> (EPA, 40 CFR 230.3 and CE, 33 CFR 328.3)




Directions:
From U.S. 101 South take the Main Street ramp to Salinas. Bear right at N Main Street, continue on Salinas Street. Bear left at John Street, and turn right at S Main Street. Continue on Monterey Road. The Project Area is located along East side of HWY 68.

Figure 1. Location Map

N

0 1.25 2.5 5
Miles

Ferrini Property Delineation
Monterey County, CA

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Date: November 2006
Basemap: USGS Topo Quad
Map By: Michael Rochelle
Filepath: I:/Acad2000/16000/16138/gis/Arcmap/Location.mxd

The delineation study determined the presence or absence of wetland indicators used by the Corps in making a jurisdictional determination. The three criteria used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the Corps Manual:

> *"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."*

## 2.0 METHODS

Prior to conducting field surveys, available reference materials were reviewed, including the Soil Survey of Monterey County (USDA, Soil Conservation Service(SCS)/ Natural Resources Conservation Service (NRCS), 1978), a vegetation community assessment prepared by Denise Duffy and Associates Inc. (Duffy 2006), the Spreckels USGS 7.5' quadrangles, and available aerial photographs of the site. A focused evaluation of indicators of wetlands and waters was performed in the Project Area on October 17 to 19, 2006. The methods used in this study to delineate jurisdictional wetlands and waters are based on the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987). The routine method for wetland delineation described in the Corps Manual was used to identify areas potentially subject to Corps Section 404 jurisdiction within the Project Area. A general description of the Project Area, including plant communities present, topology and land use was also generated during the delineation visit. The methods for evaluating the presence of wetlands and other waters of the United States employed during the site visit are described in detail below.

### 2.1 Potential Section 404 Wetlands

Data on vegetation, hydrology, and soils collected at sample points during the delineation site visit were recorded on standard Corps data forms. Once an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using advanced GPS equipment and mapped on an aerial photo. The areas of potential jurisdictional wetlands were measured digitally using ArcGIS software. Indicators described in the Corps Manual that were used to make wetland determinations at each sample point in the Project Area are summarized below.

*Vegetation*

Plant species identified on the project site were assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

| | | |
|---|---|---|
| OBL | Always found in wetlands | >99% frequency |
| FACW(±) | Usually found in wetlands | 67-99% |
| FAC | Equal in wetland or non-wetlands | 34-66% |
| FACU | Usually found in non-wetlands | 1-33% |
| NL | Not listed (upland) | <1% |

Plants with OBL, FACW, and FAC classifications are classified as hydrophytic vegetation in the Corps Manual methodology. The hydrophytic vegetation criterion is met when greater than 50 percent of the dominant plant species have an indicator status of OBL, FACW, and/or FAC. Dominant herbaceous plant species are those having 20 percent or more relative areal cover.

*Hydrology*

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (minimum of 18 consecutive days in the San Francisco Bay Area). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, drift lines, and surface sediment deposits (including algal mats), or indirect indicators (secondary indicators), such as oxidized root channels and the FAC-neutral test. If indirect or secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology. Primary and secondary hydrology indicators were used to determine if areas surrounding each sample point in the Project Area satisfied the Corps hydrology criterion.

*Soils*

The Natural Resource Conservation Service (NRCS) defines a hydric soil as:

> *"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."*
>
> (Federal Register July 13, 1994, US Department of Agriculture, Natural Resource Conservation Service.)

Soils formed over long periods of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils generally have a characteristic low matrix chroma, designated 0, 1, or 2, used to identify them as hydric. Chroma designations are determined by comparing a soil sample with a standard Munsell soil color chart (GretagMacbeth 2000). Soils with a chroma of 0 or 1 are considered hydric; however, some upland forest and grassland soils may also have dark (black), low chroma colors. Soils with a chroma of 2 must also have redoximorphic features (mottles) to be considered hydric. Soil profiles at each sample point in the Project Area were described to include horizon depths, color, redoximorphic features, and texture to determine if the soils satisfy the Corps criteria for hydric soils. The NRCS manual *Field Indicators of Hydric Soils in the United States* (USDA, NRCS, 2002) was also used as a guide for determining hydric soils in the Project Area.

### 2.2 Lakes, Ponds and Streams/ "Other Waters" of the U.S.

Areas that are inundated for sufficient duration and depth to exclude growth of hydrophytic vegetation, such as lakes and ponds, or convey water, such as streams, are also subject to Section 404 jurisdiction. In the Central California Coast, these "other waters" can include intermittent and ephemeral streams, as well as lakes, and rivers. The Project Area was evaluated for the presence of "other waters."

Areas delineated as "other waters" are characterized by an ordinary high water (OHW) mark, defined as:

> *...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*
>
> Federal Register Vol. 51, No. 219,
> Part 328.3 (d). November 13, 1986.

"Other waters" are identified in the field by the presence of a defined river or stream bed, a bank, and evidence of the flow of water, or by the absence of emergent vegetation in ponds or lakes. Corps jurisdiction of waters in non-tidal areas extends to the ordinary high water (OHW) mark. "Other waters" that were found within the Project Area were mapped and are described in the Results section of this report. "Other waters" were either mapped using sub-meter accuracy GPS units, or were mapped based on USGS topographic maps and aerial photograph interpretation; stream widths were noted from field observations.

### 2.3 Areas Exempt from Section 404 Jurisdiction

Some areas that meet the technical criteria for wetlands or waters may not be jurisdictional under the Clean Water Act. Included in this category are some man-induced wetlands, which are areas that have developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities. Examples of man-induced wetlands include, but are not limited to, irrigated wetlands, stock ponds, drainage ditches excavated in uplands, and dredged material disposal areas.

In addition, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* (531 U.S. 159 (2001)). Isolated wetlands and waters are those areas that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.", and do not otherwise exhibit an interstate commerce connection. In the most recent Supreme Court *Rapanos* decision, the Court recommended further restrictions on federal jurisdiction over wetlands and required that a "significant nexus" test be applied to those areas wetlands and "waters" which are not navigable waters. While the Corps and EPA are still in the process of developing guidance on the application of the *Rapanos* decision, it and the SWANCC decision are applicable to this Project Area since many of the wetlands are seeps with no direct connection or significant nexus with navigable waters.

## 3.0 PROJECT AREA DESCRIPTION

The Project Area is approximately 921 acres located east of Highway 68, between the Cities of Salinas and Monterey (Figure 1). Elevations range from approximately 50 to 700 feet NGVD. The site is bisected into a northeast and southwest area by Toro Regional Park. Both areas are historically and currently grazed by livestock.

*Vegetation*

Five major vegetation types are present in the Project Area as described by Duffy (2006) and WRA (2006): coast live oak woodland / savanna, annual grassland, coastal scrub, riparian habitat, and wetlands and waters. The majority of the site is characterized by oak woodland and annual grassland with some areas of scrub present in upper slopes of drainages and south facing slopes.

Coast live oak woodland / savanna is characterized by open to nearly closed canopies of coast live oak (*Quercus agrifolia*) with grass or shrub under stories. Annual grassland areas are dominated by primarily non-native annual grasses including wild oat (*Avena sativa*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian rye-grass (*Lolium multiflorum*), and rattail fescue (*Vulpia myuros*). Coastal scrub communities are dominated by moderate to low-growing evergreen and drought-tolerant herbs and shrubs including California black sage (*Salvia melifera*), coyote brush (*Baccharis pilularis*), sticky monkey flower (*Mimulus aurantiacus*) and California sagebrush (*Artemisia californica*). Riparian habitats at the confluence of El Toro and Harper Creeks in the southwestern portion of the Project Area are dominated by California buckeye (*Aesculus californica*), willow (*Salix* spp.), California blackberry (*Rubus ursinus*), mugwort (*Artemisia douglasiana*), and poison oak (*Toxicodendron diversilobum*). Additional riparian features exist along a number of the ephemeral drainages going across the Project Area from south to north. These features are marginal and support a fringe of mostly buckeye trees lacking a significant riparian species understory in most cases. Wetlands and waters are described in detail below.

*Hydrology*

The principal natural hydrological sources for the Project Area are precipitation, groundwater seeps on hillsides, and surface runoff from adjacent lands. Several east-to-west trending ephemeral drainages convey temporary runoff during storm events from upland areas toward storm drains along Highway 68 that connect with El Toro Creek. Not all ephemeral drainages have observable surface connections to El Toro Creek. Several ephemeral drainages appear to dissipate at the mouth of drainages in flat areas with course textured soils that allow for high rates of infiltration. Some of these drainages and associated wetlands are identified as potentially isolated wetlands and waters (Appendix B, maps1, 2, 3, and 5 of 5). Hillside seeps, occurring on foot and toe-slopes of convex hillsides, are supported by groundwater intersecting at the soil surface.

*Soils*

The Monterey County Soil Survey (USDA 1978) identifies seventeen map units within the Project Area (Figure 2):

- Arnold loamy sand, 15 to 50 percent slopes
- Arnold- San Andreas complex
- Badland
- Chamise shaly loam, 15 to 30, and 30 to 50 percent slopes
- Elder sandy loam, 0 to 2 percent slopes
- Gloria sandy loam, 2 to 9 percent slopes
- Gorgonio sandy loam, 0 to 5 percent slopes
- Psamments and fluvents, occasionally flooded, frequently flooded

- San Andreas fine sandy loam, 30 to 75 percent slopes
- San Benito clay loam, 30 to 50 percent slopes
- Santa Ynez fine sandy loam 2 to 9, 9 to 15, and 15 to 30 percent slopes
- Tujunuga fine sand, 0 to 5 prcent slopes
- Xerorthents, dissected

The Soil Survey descriptions of these mapping units are presented below with indication of whether the soils are classified as hydric or not according to the Hydric Soils List for Monterey County (USDA 1992).

**Arnold loamy sand, 15 to 50 percent slopes** is a moderately steep to steep soil occurring on uplands. The series consists of somewhat excessively drained soils that formed on hills and uplands in old marine sand dunes or in materials weathered from soft sandstone. Common vegetation associated with this map unit includes grasses, forbs, oaks, chamise, manzanita, and eucalyptus stands. Typically, the surface layer is dark brown loamy sand, 8 inches thick. Below the surface layer is a mixed brown to strong brown fine sand underlain by soft sandstone at a depth of 48 inches. This soil is not classified as a hydric soil (USDA 1992).

**Arnold- San Andreas complex** occurs on sparsely vegetated, south-facing hills and escarpments prone to erosion and on densely vegetated north-facing slopes. Arnold (described above) and San Andreas (described below) soils make up approximately 25 percent of the complex each. The remaining composition consists of a soil that has a grayish brown surface layer more than 20 inches thick, a light brownish gray sandy loam, a soil that is less than 20 inches deep to soft sandstone, and areas of rock outcrop or badlands. The soils comprising this complex are not identified as hydric (USDA 1992).

**Badland** consists of gently sloping to very steep, severely eroded areas that are broken into many deeply entrenched drainage channels. Much of this land type is barren, but if vegetation is present, it consists of sparse grasses, brush, and a few scattered scrub oaks. This land type consists mostly of soft sediments that are covered with a thin mantle of relatively unstable soil in places. A portion of this map unit, where it occurs on alluvial flats, is identified as hydric (USDA 1992). Badlands generally occur in the Project Area in uplands along the south-facing banks of ephemeral drainages and do not support wetlands.

**Chamise shaly loam, 15 to 30 percent slopes and 30 to 50 percent slopes** is a well-drained soil that formed on high terraces in alluvium derived from shale. Common vegetation associated with this map unit includes annual grasses and scattered oaks. Typically the surface layer is grayish-brown about 18 inches thick. It is underlain by one inch of pale brown shaly light clay loam. The subsoil is brown and dark brown very shaly clay about 21 inches thick. On slopes 15 to 30 percent, this is a moderately steep soil on high dissected terraces. On slopes 30 to 50 percent, this is a steep soil on old dissected terraces, that has a depth to the substratum of 25 to 40 inches. This soil is not identified as hydric (USDA 1992).

**Elder sandy loam, 0 to 2 percent slopes** is a nearly level soil occurring on alluvial fans and plains. The series consists of well-drained soils formed in alluvium derived from granitic and sedimentary rocks. Common vegetation of this map unit includes annual grasses, forbs, and scattered oaks. Typically, the surface layer is grayish brown sandy loam about 37 inches thick. The underlying material is yellowish brown fine gravelly sandy loam and fine gravelly loamy

coarse sand that extends to a depth of 73 inches or more. This soil is not identified as hydric (USDA 1992).

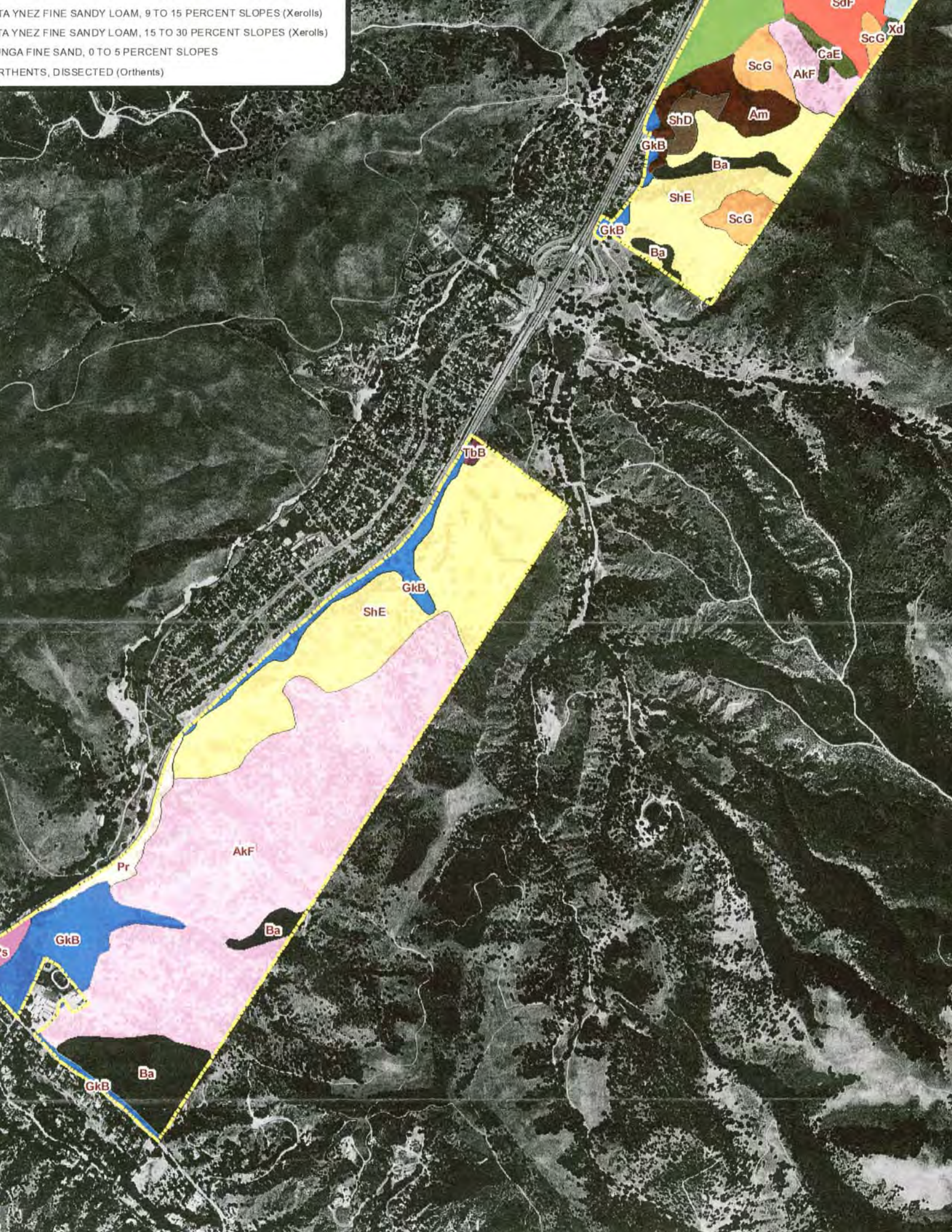
**Gloria sandy loam, 2 to 9 percent slopes** is a gently sloping to moderately sloping soil occurring on fan-like benches and terraces. The series consists of well-drained and moderately well drained soils that formed in granitic alluvium. This map unit tends to support annual grasses and forbs. The surface layer is typically brown sandy loam about 15 inches thick. The subsurface layer is very pale brown sandy loam 1 inch thick. The subsoil is reddish brown and strong brown clay about 7 inches thick. The substratum is a strongly indurated hardpan that extends to a depth of more than 60 inches. This soil is not identified as hydric (USDA 1992).

**Gorgonio sandy loam, 0 to 5 percent slopes** is a level to gently sloping soil occurring on valley floors. The series consists of somewhat excessively drained soils formed in alluvium derived from granitic and schistose rocks. Common vegetation of this map uni includes annual grasses, forbs, and scattered oaks. The surface layer is typically dark grayish brown and grayish brown sandy loam and coarse sandy loam about 22 inches thick. Below this is grayish brown loamy sand about 13 inches thick. The underlying material is brown and pale brown loamy sand that extends to a depth of more than 60 inches. A portion of this map unit, where it occurs in flood plains, is classified as hydric (USDA 1992). This soil supports three wetland features in the southwestern portion of the Project Area.

**Psamments and fluvents, occasionally flooded, frequently flooded** are found in undulating areas of stratified sandy, gravelly, and cobbly sediments on flood plains. Occasionally flooded areas are subject to flooding, scouring, and deposition every 3 to 5 years while frequently flooded areas are flooded annually. These map units tends to support scattered sagebrush, some willows and sycamores, and sparse cover of annual grasses and forbs. A portion of the frequently flooded map unit, where it occurs in flood plains, is identified as hydric (USDA 1992). The portion of El Toro Creek that flows through the southwestern portion of the Project Area is mapped as this soil type.

**San Andreas fine sandy loam, 30 to 75 percent slopes** is a steep to very steep soil occurring on low hills. The series consists of well-drained soils formed in material underlain by weathered sandstone. Typical vegetation of this map unit includes oaks, brush, grasses, and scattered digger pine. The surface layer is grayish brown fine sandy loam about 14 inches thick. The subsoil is light brownish gray, pale brown, and light gray fine sandy loam about 8 inches thick. Light gray and light brownish gray weathered sandstone is at a depth of 22 inches. This soil is not identified as hydric (USDA 1992).

**San Benito clay loam, 30 to 50 percent slopes** is a steep soil occurring on uplands that have a northern exposure. The series consists of well drained soils formed in material underlain by calcareous sandstone and shale. Common vegetation of this map unit includes annual grasses and forbs, scattered oaks, and some shrubs. The surface layer is typically grayish brown clay loam about 15 inches thick and grayish brown calcareous clay loam about 21 inches thick. It is underlain by brown calcareous silt loam about 19 inches thick. Weathered calcareous shale is at a depth of 55 inches. This soil is not identified as hydric (USDA 1992).


TA YNEZ FINE SANDY LOAM, 9 TO 15 PERCENT SLOPES (Xerolls)
TA YNEZ FINE SANDY LOAM, 15 TO 30 PERCENT SLOPES (Xerolls)
NGA FINE SAND, 0 TO 5 PERCENT SLOPES
RTHENTS, DISSECTED (Orthents)
SdF
Xd
ScG
CaE
ScG
AkF
Am
ShD
GkB
Ba
ShE
ScG
GkB
Ba
TbB
GkB
ShE
AkF
Pr
Ba
GkB
Ba
GkB

**Santa Ynez fine sandy loam 2 to 9, 9 to 15, and 15 to 30 percent slopes** are moderately well drained soils formed on terraces in alluvium derived from sandstone and granitic rock. Typical vegetation of this soil series includes annual grasses, forbs, scattered oaks, and brush. The surface layer is typically grayish brown and gray fine sandy loam about 16 inches thick. The subsurface layer is light brownish gray fine sandy loam 2 inches thick. The subsoil is gray and grayish brown clay and clay loam about 25 inches thick. On 2 to 9 percent slopes, the surface layer is typically 20 to 30 inches thick, and on 9 to 15 percent slopes, the surface layer is commonly 16 to 32 inches thick. A portion of this map unit, where it occurs in sloughs, is identified as hydric (USDA 1992). Many wetlands identified in the Project area are found on this soil type including hillside seep wetlands, ephemeral drainages, seasonal wetlands, and one seasonal pond.

**Tujunuga fine sand, 0 to 5 percent slopes** is a level and undulating soil on floodplains and alluvial fans, mainly in small narrow areas along drainageways. The series consists of excessively drained soils that formed in mixed alluvium derived from granitic and sedimentary rocks. Vegetation on this map unit consists of annual grasses, forbs, and a few scattered oaks, willows, and sycamores. Typically, the surface layer is light brownish grey fine sand about 10 inches thick. It is underlain by pale brown and light gray fine sand and sand that extends to a depth of more than 60 inches. A portion of this map unit, where it occurs in floodplains, is identified as hydric (USDA 1992). The only portion of this soil type present in the Project Area supports a seasonal pond.

**Xerorthents, dissected** are steep to extremely steep soils on bluffs along major rivers, on steep escarpments of fans and terraces, and on banks of deeply entrenched streams and gullies that have narrow bottoms. The vegetation consists of sparse annual grasses and forbs, brush, and some scrub oaks and digger pine. These soils consist mostly of unconsolidated or weakly consolidated alluvium that commonly contains pebbles, cobblestones, and stones. Textures are mostly sandy loam or coarse sandy loam and are gravelly or cobbly. This map unit is not identified as hydric (USDA 1992).

## 4.0 RESULTS

Vegetation, soils, and hydrology data collected during the delineation site visit are reported on standard Corps data forms in Appendix A. Potential jurisdictional areas are described in the following sections and shown on the enclosed maps in Appendix B. A table describing all wetlands and waters delineated in the Project Area is included in Appendix C. Photographs of representative sample points are shown in Appendix D.

This report identified all areas that met the 1987 Corps Manual criteria as wetlands or possessed a discernable ordinary high water mark and could be classified as "waters of the United States". However, many of these areas do not have a direct and discernable surface water hydrologic connection to either navigable waters or tributaries to navigable waters. The wetlands are either seeps that do not flow sufficiently to develop either permanent or seasonal surface water connections to downstream "waters" or are drainages that flow into alluvial flats and drain into sandy soils with no continuous surface water connection to downstream "waters". Under both the guidance published on the *SWANCC* decision or the potential "significant nexus" test under the *Rapanos* decision, such areas would not be considered jurisdictional under Section 404 of the Clean Water Act. This report provides the additional information

necessary to make recommendations to the Corps on those areas that are potentially jurisdictional and those which are not.

### 4.1 Potential Section 404 Wetlands

*Seep Wetlands*

Seep wetlands were designated as potentially jurisdictional wetlands when they were located on or at the head of tributaries that have discernable surface water connections to El Toro Creek and its tributaries, either through continuous drainages possessing an ordinary high water mark, drainage ditches, or culverts (see Appendix B, map 3 of 5). Overland flow was considered where such flow may occur during average (2 year) storm events based on the presence of surface water flow indicators such as sediment deposits and/or culverts that collect surface flow and directed it to downstream "waters".

Dominant hydrophytic plant species in the sampled seep wetlands included iris-leaved rush (*Juncus xiphioides*, OBL), Mexican rush (*Juncus mexicanus*, FACW), bermuda grass (*Cynodon dactylon*, FAC), cut-leaf plantian (*Plantago coronopus*, FAC), Hyssop's loosestrife (*Lythrum hyssopifolia*, FACW), Mediterranean barley (*Hordeum marinum*, FAC), and everlasting cudweed (*Gnaphalium luteo-album*, FACW-). Subdominant species included turkey mullein (*Eremocarpus setigerus*, NL), rough cocklebur (*Xanthium stumarium*, FAC+), common sheep sorrel (*Rumex acetosella*, FAC-), white-tipped clover (*Trifolium variegatum*, FACW-), and common knotweed (*Polygonum arenastrum*, FAC).

Wetland hydrology indicators observed in the sampled seep wetlands generally consisted of two or more secondary indicators, including oxidized root channels, satisfaction of the FAC-neutral test, and "other" indicators such as deep hoof prints. Few seep wetlands displayed soil saturation in the upper 12 inches at the wettest part of the feature (although not saturated at the sample point, thus not recorded in the data sheets), and some displayed sediment deposits in the form of algal matting.

The hydric soil indicator observed in the sampled seep wetlands was gleyed or low-chroma colors, some with mottles present. Mottling was observed as oxidation along root channels and iron masses in the soil matrix. Some seep wetlands had coarse textured soils that did not display redoximorphic characteristics due to their lack of iron accumulation in the upper layer.

*Seasonal Wetlands*

The distinction between seep and seasonal wetlands is primarily based upon topographic position, hydrology sources, and hydroperiod. Seasonal wetlands were situated in flat depressional areas or along vegetated ephemeral drainages. Seasonal wetlands have a shorter hydroperiod than seep wetlands, and were supported by a combination of direct precipitation, surface runoff from adjacent uplands, and seasonal fluctuations in the water table. Those which were considered as jurisdictional were on or adjacent to tributaries with a discernable connection to the downstream waters of El Toro Creek (see Appendix B, maps 3, 4, and 5 of 5).

Dominant hydrophytic plant species in the sampled seasonal wetlands included similar species as those of the seep wetlands including iris-leaved rush (OBL), Mexican rush (FACW), bermuda

grass (FAC), cut-leaf plantain (FAC), Mediterranean barley (FAC), and Hyssop's loosestrife (FACW).

Wetland hydrology indicators observed in the sampled seasonal wetlands generally consisted of a combination of primary and secondary indicators. The primary indicators of wetland hydrology observed were sediment deposits, algal mats, and drainage patterns in wetlands (generally observed in the vegetated ephemeral drainages). Secondary indicators observed included oxidized root channels, satisfaction of the FAC-neutral test, and "other" indicators such as depressional topography.

Hydric soil indicators in the sampled seasonal wetlands consisted of primarily gleyed or low-chroma colors. Some sample points also displayed organic streaking in sandy soils, but most points that were sampled in sandy soils were well-drained and showed few to no redoximorphic characteristics. Mottles were observed in some sampled seasonal wetlands while oxidation was observed only along root channels in others.

*Problem Areas*

Some wetlands were identified as problem areas due to a lack of direct, observable evidence of one or more wetland parameters during the October site visit (Appendix A). It is assumed that these parameters were suppressed due to normal or annual seasonal variability. These areas temporarily lacked primary indicators of wetland hydrology during the drier portion of the growing season, such as October, when the site visits were conducted. Common indicators of hydrology included drainage patterns in the form of channels or rills, oxidized rhizospheres, and deep hoofprints in the soil. Additionally, soils tended to be well drained with a high sand content and therefore exhibited marginal hydric features such as a chroma of 2 with few, faint to distinct mottles. Obligate hydrophytes and facultative wetland plant species are likely to be more dominant during the wetter portion of the growing season in these areas, while dominance may shift to annual upland species during drier months. However, the duration of inundation or saturation within these features was assumed to be sufficient to support wetland conditions throughout a majority of the growing season.

*Wetland Boundary Determination*

Wetland boundaries were determined in the field by the predominance of hydrophytic vegetation, namely rushes (*Juncus* spp.), the presence of oxidized rhizospheres and deep hoof prints, and shifts in topography. In a few areas, such as the outer boundaries of seasonal wetlands, indicators of hydric soils were observed both in wetland areas and adjacent upland grassland habitat; low chroma soil color with bright mottles was commonly observed in the upper 12 inches of soil. Additionally, some areas had sandy soil, a soil chroma of 2, and faint redoximorphic features. In these areas, the dominance of hydrophytic vegetation, breaks in topography, and the presence of deep hoofprints, algal matting, and/or oxidized rhizospheres were the field indicators most frequently relied upon to determine whether wetland criteria was met or not.

### 4.2 Lakes, Ponds and Streams/ "Other Waters" of the U.S.

A total of 12,493 linear feet (0.80 acres) of drainages and streams, and 0.35 acres of seasonal ponds were mapped in the Project Area as potentially jurisdictional areas under Section 404 of the Clean Water Act.

Approximately 10,263 linear feet (0.62 acres) of potentially jurisdictional ephemeral drainages are present in the Project Area (see Appendix B, maps 3, 4, and 5 of 5). Ephemeral drainages occur in swales where peak water flow is concentrated during rainfall events. These features exhibit a well-defined drainage channel and a clearly defined OHW mark. The OHW mark was distinguished by physical evidence of shelving, scour, destriuction of terrestrial vegetation, and bed-and-bank development. Ephemeral drainages occur throughout the Project Area generally flowing from east to west. They range from one to four feet in width and from 45 to over 2600 linear feet in length.

Additionally, 2,230 linear feet (0.18 acres) of perennial stream occurs at the confluence of El Toro Creek and Harper Creek in the most south-western portion of the Project Area (see Appendix B, map 5 of 5). This portion of El Toro Creek is perennial in all but the driest of years. No other perennial or permanent hydrologic features can be found in the Project Area, however there is one seasonal pond. This seasonal pond is located directly adjacent to Toro Regional Park and Highway 68 (see Appendix B, map 3 of 5).

### 4.3 Areas Exempt from Section 404 Jurisdiction

Many areas were determined to be exempt from Section 404 under either or both the *SWANCC* and *Rapanos* Supreme Court decisions. These wetlands appear to lack a hydrological connection to navigable "Waters of the U.S.", one of its tributaries, or an adjacent jurisdictional wetland. A hydrological connection was determined to be absent if (1) the wetland was located too far from another jurisdictional feature, and/or (2) the wetland did not have a discernable surface water connection that would allow surface water to be transported from the wetland into a jurisdictional feature. Many of the wetlands identified within the Project Area are separated topographically from "Waters of the U.S." and would not connect to other jurisdictional features in a typical rain year. For example, a seep wetland area in the northern portion of the property is hydrologically isolated as there are no discernable surface water connections between these seeps and the Salinas River (Appendix B, map 1 of 5). The property between River Road and the Project Area is actively farmed and there are no direct hydrologic connections over this property connecting to the Project Area. In addition, several mapped ephemeral drainages end in coarse textured soils that allow for percolation into the groundwater and do not have any apparent surface connection to El Toro Creek thus were designated as potentially non-jurisdictional isolated ephemeral drainages (Appendix B, maps 1, 2, and 3 of 5).

## 5.0 POTENTIAL CORPS OF ENGINEERS JURISDICTION

The Ferrini Property has 44 areas (Appendix C) with wetland indicators ranging in size from 0.002 acres to 0.197 acres. These areas have hydric soils characterized by low-chroma colors and/or redoximorphic characteristics, a predominance of hydrophytic vegetation with FAC, FACW, and OBL-classified plants, and wetland hydrology characterized by drainage patterns, sediment deposits, oxidized root channels, and/or satisfaction of the FAC-neutral test. Twenty-

two of these areas meet the definition of jurisdictional wetlands for Section 404 of the Clean Water Act. Twenty-two of these areas may be isolated and therefore have potential to be considered non-jurisdictional.

In addition to potential jurisdictional wetlands, the Project Area contains approximately 12,493 linear feet (0.80 acres) of potentially jurisdictional drainages and 0.35 acres of potentially jurisdictional ponds. Five ephemeral drainages (5,123 linear feet, 0.21 acres) have potential to be considered isolated waters. A summary of potentially jurisdictional and isolated wetlands and waters is presented in Table 1.

Table 1. Summary of Potentially Jurisdictional Wetlands and Waters in the Project Area.

| **Wetland Type** | **Potential Jurisdictional Area (Acres)** | **Potentially Isolated Area (Acres)** |
|---|---|---|
| Seasonal Wetland | 0.90 | 0.23 |
| Seep Wetland | 0.20 | 2.24 |
| **Total Wetlands:** | 1.10 | 2.46 |
| **Waters Type** | **Potential Jurisdictional Length (Linear Feet/ Acres)** | **Potentially Isolated Area (Linear Feet/ Acres)** |
| Ephemeral Drainage | 10,263 / 0.62 | 5,123 / 0.21 |
| Perennial Stream | 2,230 / 0.18 | 0 |
| Seasonal Pond | NA / 0.35 | 0 |
| **Total Waters:** | 12,493 / 1.15 | 5,123 / 0.21 |

The conclusion of this delineation is based on conditions observed at the time of the field survey conducted on October 17-19, 2006.

## 6.0 REFERENCES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# Appendix A - Corps Delineation Data Forms

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: California |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP1 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus xiphioides | H | OBL | 1. Plantago coronopus | H | FAC |
| 2. Lythrum hyssopifolia | H | FACW | 2. Eremocarpus setigerus | H | NL |
| 3. Cynodon dactylon | H | FAC | 3. | | |
| 4. Hordeum marinum | H | FAC | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Meets wetland vegetation criteria.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : 0 (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☒ Other (Explain In Remarks)

Hydrology Remarks : Deep hoof prints are present. Feature appears to be inundated/saturated for 18 consecutive days.

Plot ID: SP1

## SOILS

Map Unit Name
(Series and Phase) : Arnold loamy sand, 15-50% slopes

Drainage Class: somewhat excessively drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Typic Xeropsamments

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 7.5 YR 3/1 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Soil was too compacted to dig deeper than 6 inches. Observed soil displays chroma of 1, therefore meets the hydric soils criterion.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This seasonally ponded wetland feature appears to be excavated and/or impounded for stock pond construction. The feature extends below the base of the impoundment berm when groundwater is seeping and flowing downslope.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/18/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP2 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Bromus hordeaceus | H | FACU- | 1. | | |
| 2. Aira caryophylla | H | NL | 2. | | |
| 3. Vulpia myuros | H | FACU* | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 0%

Remarks : Sample point is not dominated by hydrohpytic vegetation.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : No indicators of wetland hydrology were observed.

Plot ID: SP2

## SOILS

Map Unit Name
(Series and Phase) : Arnold loamy sand, 15-50% slopes

Drainage Class: somewhat excessively drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Typic Xeropsamments

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 3/2 | none | none | sand |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
Soils show no hydric indicators.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☐ Yes ☒ No

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks : None of the wetland criteria were met, therefore the sample point is in an upland area.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/18/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A , Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP3 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Bromus hordeaceus | H | FACU- | 1. | | |
| 2. Rumex acetosella | H | FAC- | 2. | | |
| 3. Cynodon dactylon | H | FAC | 3. | | |
| 4. Eremocarpus setigerus | H | NL | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 25%

Remarks : Low percentage of dominant hydrophytes indicates that this area does not meet wetland vegetation criterion.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : No indicators of wetland hydrology were observed.

Plot ID: SP3

SOILS

Map Unit Name
(Series and Phase) : Arnold loamy sand, 15-50% slopes

Drainage Class: somewhat excessively drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Typic Xeropsamments

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 3/2 | none | none | loamy sand |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Soil does not display hydric indicators, therefore does not meet the hydric soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☐ Yes ☒ No

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks : Some marginal cover of wetland vegetation is present probably as a result of short period inundation, but inundation apparently does not last long enough to support a hydrophytic plant community. None of the three criteria were met, therefore this sample point is in an upland

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/18/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP4 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus xiphioides | H | OBL | 1. Gnaphalium luteoalbum | H | FACW- |
| 2. Plantago coronopus | H | FAC | 2. Lythrum hyssopifolia | H | FACW |
| 3. Cynodon dactylon | H | FAC | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Sample point is dominated by hydrophytic vegetation.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : This feature is situated in an impounded basin with no apparent outlet.

Plot ID: SP4

## SOILS

Map Unit Name
(Series and Phase) : Arnold loamy sand, 15-50% slopes

Drainage Class: somewhat excessively drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Typic Xeropsamments

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 4/2 | 7.5 YR 4/6 | many / distinct | sand |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☒ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
Soil has many distinct mottles and low chroma, therefore it meets the hydric soils criterion.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : Sample point meets all three wetland criteria.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland, sandy soil* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP5 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus mexicanus | H | FACW | 1. Eremocarpus setigerus | H | NL |
| 2. Cynodon dactylon | H | FAC | 2. Hordeum marinum | H | FAC |
| 3. Planago coronopus | H | FAC | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: Vegetation in feature is patchy with some areas of dense Juncus, and some areas of questionable wetland vegetation status.

## HYDROLOGY

| | |
|---|---|
| ____ Recorded Data<br>☐ Stream, Lake or Tide Gauge<br>☐ Aerial Photographs<br>☐ Other<br>X No Recorded Data Available | Wetland Hydrology Indicators:<br>Primary Indicators:<br>☐ Inundated<br>☐ Saturated in Upper 12 Inches<br>☐ Water Marks<br>☐ Drift Lines<br>☒ Sediment Deposits<br>☐ Drainage patterns In Wetlands |
| Field Observations:<br>Depth of Surface Water: none (in.)<br>Depth to Free Water in Pit: > 16 (in.)<br>Depth To Saturated Soil: > 16 (in.) | Secondary Indicators (2 or more required):<br>☒ Oxidized Root Channels In Upper 12 Inches<br>☐ Water-Stained Leaves<br>☐ Local Soil Survey Data<br>☐ FAC-Neutral test<br>☒ Other (Explain In Remarks) |

Hydrology Remarks: A crust of moss was observed on the soil surface, and soil was slightly moist in upper 4 inches.

Plot ID: SP5

## SOILS

Map Unit Name
(Series and Phase) : Gorgonio sandy loam, 0-5% slopes

Drainage Class: somewhat excessively drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Fluventic Haploxerolls

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-8 | A | 10 YR 3/2 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

No mottles and very few oxidized root channels were observed, however this soil is mapped as a hydric soil. Because this is a well-drained sandy soil, oxidized iron deposits are not expected to be found.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : The boundary of this feature was determined by hydrology and vegetation indicators: areas dominated by Juncus with visible oxidized root channels were considered "in".

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/18/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP6 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Cynodon dactylon | H | FAC | 1. Juncus mexicanus | H | FACW |
| 2. Plantago coronopus | H | FAC | 2. Lythrum hyssopifolia | H | FACW |
| 3. Hordeum marinum | H | FAC | 3. Eremocarpus setigerus | H | NL |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Overall cover approximately 40%, with wetland species subdominant.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : Only one secondary indicator was observed, therefore the sample point does not meet the hydrology criterion.

Plot ID: SPb

## SOILS

Map Unit Name
(Series and Phase) : Gorgonio sandy loam, 0-5% slopes

Drainage Class: somewhat excessively drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Fluventic Haploxerolls

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 3/2 | 7.5 YR 4/6 | few / distinct | sandy clay loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
Soil contains mottles and a matrix chroma of 2, therefore it meets the hydric soils criterion.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : The sample point is dominated by hydrophytic species and the soils show evidence of inundation, therefore, although no hydrology indicators were observed, this sample point is considered to be located in a wetland.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP7 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus mexicanus | H | FACW | 1. Eremocarpus setigerus | H | NL |
| 2. Cynodon dactylon | H | FAC | 2. Lythrum hyssopifolia | H | FACW |
| 3. | | | 3. Hordeum marinum | H | FAC |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: Juncus mexicanus covers approximately 80% of the sample area, thus this sample point meets the wetland vegetation criterion.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☒ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: A crust of moss was observed on the soil surface.

Plot ID: SP7

## SOILS

Map Unit Name
(Series and Phase) : Gorgonio sandy loam, 0-5% slopes

Drainage Class: somewhat excessively drained

Taxonomy (Subgroup) : Fluventic Haploxerolls

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 4/2 | 7.5 YR 4/6 | few / faint | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
Few faint mottles (iron masses) were observed, thus the soil meets the hydric soil criterion.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This sample point meets all three wetland criteria.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/18/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP8 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus mexicanus | H | FACW | 1. Eremocarpus setigerus | H | NL |
| 2. Plantago coronopus | H | FAC | 2. Xanthium strumarium | H | FAC+ |
| 3. Cynodon dactylon | H | FAC | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Juncus mexicanus covers approximately 70% of the sampled area, and this point meets the wetland vegetation criterion.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns in Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☒ Other (Explain In Remarks)

Hydrology Remarks : Deep hoof prints were observed in the feature.

Plot ID: SP8

## SOILS

Map Unit Name (Series and Phase) : Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 3/2 | 7.5 YR 5/6 | few / distinct | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Soil contains mottles with a chroma of 2, therefore it meets the hydric soil criterion.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : Sample point meets all three wetland criteria.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP9 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Cynodon dactylon | H | FAC | 1. Eremocarpus setigerus | H | NL |
| 2. Juncus mexicanus | H | FACW | 2. Xanthium stumarium | H | FAC+ |
| 3. | | | 3. Rumex acetosella | H | FAC- |
| 4. | | | 4. Lythrum hyssopifolia | H | FACW |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Sample point meets wetland vegetation criterion.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☒ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : Few sediment deposits were present on the soil surface, and few oxidized root channels were observed in this sample point.

Plot ID: SP9

## SOILS

Map Unit Name
(Series and Phase) : Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Ultic Palexerolls

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 10 YR 3/2 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☒ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

This soil is primarily alluvial deposition at the mouth of a drainage and may not pond for sufficient duration to develop strong hydric soil characteristics.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : Although no hoof prints and very few redoximorphic features were present in the soil at this sample point, a hydrophytic plant community has developed here, and all three wetland criteria were met. Thus the area is considered a wetland.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP10 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Gnaphalium luteoalbum | H | FACW- | 1. Lythrum hyssopifolia | H | FACW |
| 2. Cynodon dactylon | H | FAC | 2. Eremocarpus setigerus | H | NL |
| 3. Juncus mexicanus | H | FACW | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: Total vegetative cover approximately 80%.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: This feature is on a slope apparently resultant from a groundwater seep.

Plot ID: SP10

## SOILS

Map Unit Name
(Series and Phase) : Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-4 | B | 10 YR 3/2 | 7.5 YR 4/6 | few / distinct | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Soil was too compacted to dig below 4 inches, however low chroma and mottles were observed within the profile, therefore the sample point meets the hydric soil criterion.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This feature is resultant from groundwater seepage on a slope.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland, sandy soil* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP 11 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Lythrum hyssopifolia | H | FACW | 1. Hordeum marinum | H | FAC |
| 2. Juncus bufonius | H | FACW | 2. Eremocarpus setigerus | H | NL |
| 3. | | | 3. Trifollium variegatum | H | FACW- |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: Sample point meets wetland vegetation criterion.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☒ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: A surface crust of moss was observed on the soil surface.

Plot ID: SP 11

SOILS

Map Unit Name
(Series and Phase) : Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-8 | A | 10 YR 4/2 | none | none | sand |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

This soil displays no hydric indicators, and is a shallow alluvial deposit that appears to be well- drained. Due to the sandy texture of this soil, oxidized iron deposits are not expected to be observed. In this case, soils are not a reliable wetland indicator.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☐ Yes ☒ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : Although this sample point has sandy soil with no redoximorphic features, it is situated at the mouth of a drainage and supports a hydrophytic plant community, thus is considered a wetland.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/18/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP12 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus xiphioides | H | OBL | 1. Cynodon dactylon | H | FAC |
| 2. Junucs bufonius | H | FACW | 2. Trifolium willdenovii | H | NL |
| 3. Lythrum hyssopifolia | H | FACW | 3. Hordeum marinum | H | FAC |
| 4. Plantago coronopus | H | FAC | 4. Bromus hordeaceus | H | FACU- |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Overall vegetative cover approximately 90%.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☒ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☒ Other (Explain In Remarks)

Hydrology Remarks : Soil surface has dark algal crusts, deep hoof prints, and visible saturation at the top of the feature.

Plot ID: SP12

SOILS

Map Unit Name
(Series and Phase) : Arnold loamy sand, 15-50% slopes

Drainage Class: somewhat excessively drained

Taxonomy (Subgroup) : Typic Xeropsamments

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-12 | A | 10 YR 3/2 | 5 YR 4/6 | few / distinct | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Redoximorphic features were observed around root channels, and visible soil saturation was present in the upslope portion of the feature.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This feature is a groundwater seep on a slope with surface water visible in areas during the site visit. Boundaries of the feature were determined primarily by predominance of vegetation and hydrology indicators.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP13 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus mexicanus | H | FACW | 1. | | |
| 2. Cynodon dactylon | H | FAC | 2. | | |
| 3. Hordeum marinum | H | FAC | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks :

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☒ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : Crusted algae is present on the soil surface, and bright oxidation is present along root channels.

Plot ID: SP13

## SOILS

Map Unit Name
(Series and Phase) : Gorgonio sandy loam, 0-5% slopes

Drainage Class: somewhat excessively drained

Taxonomy (Subgroup) : Fluventic Haploxerolls

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-8 | A/B | 10 YR 4/2 | 5 YR 4/6 | 30% / prominent | sand |
| | | | 2.5 YR 3/6 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
Two mottle colors were abundant throughout the soil.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This feature is a Juncus patch adjacent to an unvegetated stock pond and may recieve groundwater input from the pond through the sandy soils at the base of berm.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/19/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP14 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Phyla nodiflora | H | FACW | 1. Xanthium strumarium | H | FAC |
| 2. Juncus mexicanus | H | FACW | 2. | | |
| 3. Juncus xiphioides | H | OBL | 3. | | |
| 4. Cynodon dactylon | H | FAC | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Vegetation was heavily grazed and trampled, but still identifiable.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☒ Sediment Deposits
- ☒ Drainage patterns in Wetlands

Secondary Indicators (2 or more required) :
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : This feature is likely inundated for extended periods.

Plot ID: SP14

SOILS

Map Unit Name
(Series and Phase) : Arnold - San Andreas Complex

Drainage Class: somewhat excessively / well drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Typic Xeropsamments / Typic Haploxerolls

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | A/B | 10 YR 3/2 | 7.5 YR 5/6 | many / distinct | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Redoximorphic features were present throughout the matrix and concentrated along root channels.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This feature is a wetland fringe along the outer border of a seasonal, unvegetated stock pond.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/18/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP15 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Cynodon dactylon | H | FAC | 1. | | |
| 2. Bromus hordeaceus | H | FACU- | 2. | | |
| 3. Eremocarpus setigerus | H | NL | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 33%

Remarks : Area is not dominated by wetland plants.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : No wetland hydrology indicators were observed.

Plot ID: SP15

## SOILS

Map Unit Name
(Series and Phase) : Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-8 | A/B | 10 YR 3/2 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

No indicators of hydric soil conditions were observed however the soil is identified as hydric in the Monterey County Soil Survey.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☐ Yes ☒ No

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks : This flat area was investigated for wetland indicators, but was found to lack all three and thus is considered an upland area.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP16 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus xiphioides | H | OBL | 1. Rumex acetosella | H | FAC- |
| 2. Plantago coronopus | H | FAC | 2. Polygonum arenastrum | H | FAC |
| 3. Lythrum hyssopifolia | H | FACW | 3. Gnaphalium luteoalbum | H | FACW- |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: Area is dominated by J. xiphioides.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☒ Other (Explain In Remarks)

Hydrology Remarks: The soil is ponded in hoof prints at the head of this seep.

Plot ID: SP16

## SOILS

Map Unit Name
(Series and Phase) : Chamise shaly loam, 30-50% slopes

Drainage Class: well drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Ultic Palexerolls

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-8 | A/B | 10 YR 3/2 | 5 YR 4/6 | many / distinct | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☒ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
Iron masses present at 8 inches depth.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : This feature is a groundwater seep on a slope. The sample point was taken at the head of the seep which is representative of the entire feature when water levels are higher. The entire feature is dominated by hydrophytic plants and soils show redoximorphic features throughout.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP17 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Lolium multiflorum | H | FAC | 1. Aira carvophylla | H | NL |
| 2. Avena fatua | H | NL | 2. Bromus hordeaceus | H | FACU- |
| 3. | | | 3. Hordeum marinum | H | FAC |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 50%

Remarks: One of the two dominant plants is hydrophytic, therefore the smple point does not meet the hydrophytic vegetation criterion.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: No indicators of wetland hydrology were observed.

Plot ID: SP17

SOILS

Map Unit Name
(Series and Phase) : Chamise shaly loam, 30-50% slopes

Drainage Class: well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | A | 10 YR 2/2 | none | none | loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

No indicators of hydric soils were observed.

WETLAND DETERMINATION

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | ☐ Yes ☒ No | |
| Wetland Hydrology Present? | ☐ Yes ☒ No | |
| Hydric Soil Present ? | ☐ Yes ☒ No | Is this Sampling Point Within a Wetland? ☐ Yes ☒ No |

Remarks : The sample point does not pass any of the three wetland criteria thus is considered to be in an upland area.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP18 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus xiphioides | H | OBL | 1. Rumex acetosella | H | FAC- |
| 2. Hordeum marinum | H | FAC | 2. Lolium multiflorum | H | FAC |
| 3. Juncus phaeocephalus | H | FACW | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: The sampled area is dominated by hydrophytic plants.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: Sample point is in a drainage swale that may be inundated for 18 days.

Plot ID: SP18

SOILS

Map Unit Name (Series and Phase): Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup): Ultic Palexerolls

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-4 | A | 10 YR 2/2 | 5 YR 4/6 | few / faint | loamy sand |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Redoximorphic features present only along root channels and very weakly expressed, however, the presence of mottles with a matrix chroma of 2 suggests that this soil is hydric.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks: This feature is located in a swale that conveys sheet flow and may be a small area of ponding during wet periods.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP19 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Juncus xiphioides | H | OBL | 1. Cynodon dactylon | H | FAC |
| 2. Juncus bufonius | H | FACW | 2. Rumex pulcher | H | FAC+ |
| 3. | | | 3. Eremocarpus setigerus | H | NL |
| 4. | | | 4. Briza minor | H | FACW- |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: The sampled area is dominated by hydrophytic plants.

## HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral test
- ☒ Other (Explain In Remarks)

Hydrology Remarks: Deep hoof prints are present throughout this feature.

Plot ID: SP19

SOILS

Map Unit Name
(Series and Phase) : Gloria sandy loam, 2-9% slopes

Drainage Class: well and moderately well drained

Taxonomy (Subgroup) : Abruptic Durixeralfs

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | B | 2.5 YR 3/1 | 5 YR 4/6 | few / distinct | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

This soil has a low matrix chroma with iron masses along pore linings.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : Area is a wetland.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
## (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterev |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP20 |

VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Bromus hordeaceus | H | FACU- | 1. Nasella pulchra | H | NL |
| 2. Aira caryophylla | H | NL | 2. Lolium multiflorum | H | FAC |
| 3. | | | 3. Linum sp. | H | NL |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 0%

Remarks: Sample point is dominated by upland grasses.

HYDROLOGY

Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: No indicators of wetland hydrology were observed.

Plot ID: SP20

SOILS

Map Unit Name (Series and Phase) : Santa Ynez fine sandy loam, 15-30% slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-10 | A/B | 7.5 YR 3/1 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

No redoximorphic features were observed, however the soil displays a low chroma indicating that it meets the hydric soils criterion. It is also mapped as a hydric soil.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks : This sample point is dominated by upland grasses, and shows no indicators of wetland hydrology. Although its low chroma indicates that the soil is hydric, this sample point is not considered to be in a wetland.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: wetland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? *Seasonal wetland* ☒ Yes ☐ No (if needed explain on reverse.) | Plot ID: SP21 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Cynodon dactylon | H | FAC | 1. Rumex acetosella | H | FAC- |
| 2. Lolium perenne | H | FAC | 2. Bromus hordeaceus | H | FACU- |
| 3. | | | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks: Total cover is approximately 75% of which 80% is Cynodon dactylon.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: This feature is a flat depression fed by a groundwater seep.

Plot ID: SP21

## SOILS

Map Unit Name
(Series and Phase) : San Andreas fine sandy loam, 30-50% slopes

Drainage Class: well drained

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup) : Typic Haploxerolls

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-4 | A/B | 10 YR 4/2 | none | none | silty loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☒ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:
This soil is a very fine sand that shows evidence of hydric soil conditions.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soil Present ? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks : All three wetland criteria are met.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date: 10/19/2006 |
| Applicant/Owner: | County: Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State: CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP22 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Bromus hordeaceus | H | FACU- | 1. Bromus diandrus | H | NL |
| 2. Cynodon dactylon | H | FAC | 2. Aira caryophylla | H | NL |
| 3. | | | 3. Avena fatua | H | NL |
| 4. | | | 4. Hordeum marinum | H | FAC |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 50%

Remarks: Only one of the two dominant species are hydrophytic, therefore the sample point does not meet the wetland vegetation criterion.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: > 16 (in.)

Depth To Saturated Soil: > 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks: No indicators of wetland hydrology were observed.

Plot ID: SP22

## SOILS

Map Unit Name (Series and Phase) : San Andreas fine sandy loam, 30-50% slopes

Drainage Class: well drained

Taxonomy (Subgroup) : Typic Haploxerolls

Field Observations Confirm Mapped Type? ☐ Yes ☐ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-4 | A | 10 YR 4/2 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☐ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

No indicators of hydric soils were observed.

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☐ Yes ☒ No

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks : Although one of the two dominant plant species is hydrophytic, this sample point does not meet the wetland vegetation, soils, or hydrology criteria and thus is considered an upland area.

# DATA FORM
# ROUTINE WETLAND DETERMINATION
# (1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: Ferrini Property | Date : 10/19/2006 |
| Applicant/Owner: | County : Monterey |
| Investigator: W R A, Inc.: Amy Paravano, Julie Rentner | State : CA |
| Do Normal Circumstances exist on the site? ☒ Yes ☐ No | Community ID: upland |
| Is the site significantly disturbed (Atypical Situation)? ☐ Yes ☒ No | Transect ID: |
| Is the area a potential Problem Area? ☐ Yes ☒ No (if needed explain on reverse.) | Plot ID: SP23 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Sub-dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. Plantago coronopus | H | FAC | 1. Hordeum marinum | H | FAC |
| 2. Lolium perenne | H | FAC | 2. Juncus patens | H | FAC |
| 3. Cynodon dactylon | H | FAC | 3. | | |
| 4. | | | 4. | | |
| 5. | | | 5. | | |
| 6. | | | 6. | | |
| 7. | | | 7. | | |
| 8. | | | 8. | | |

Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) 100%

Remarks : Sample point meets wetland vegetation criterion with all dominant and subdominant species having a status of FAC.

## HYDROLOGY

_____ Recorded Data
- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

X No Recorded Data Available

Field Observations :

Depth of Surface Water : none (in.)

Depth to Free Water in Pit : > 16 (in.)

Depth To Saturated Soil : > 16 (in.)

Wetland Hydrology Indicators :

Primary Indicators :
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage patterns In Wetlands

Secondary Indicators (2 or more required) :
- ☐ Oxidized Root Channels In Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral test
- ☐ Other (Explain In Remarks)

Hydrology Remarks : No wetland hydrology indicators were observed.

Plot ID: SP23

SOILS

Map Unit Name
(Series and Phase) : Santa Ynez fine sandy loam, 15-30 % slopes

Drainage Class: moderately well drained

Taxonomy (Subgroup) : Ultic Palexerolls

Field Observations
Confirm Mapped Type? ☐ Yes ☒ No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance / Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 0-6 | A | 10 YR 4/2 | none | none | sandy loam |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators :

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content In Surface Layer In Sandy Soils
- ☐ Organic Streaking In Sandy Soils
- ☒ Listed On Local Hydric Soils List
- ☐ Listed On National Hydric Soils List
- ☐ Other (Explain In Remarks)

Profile Remarks:

Although this soil is mapped as a hydric soil, it displays no hydric soil indicators thus is not a hydric soil.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No

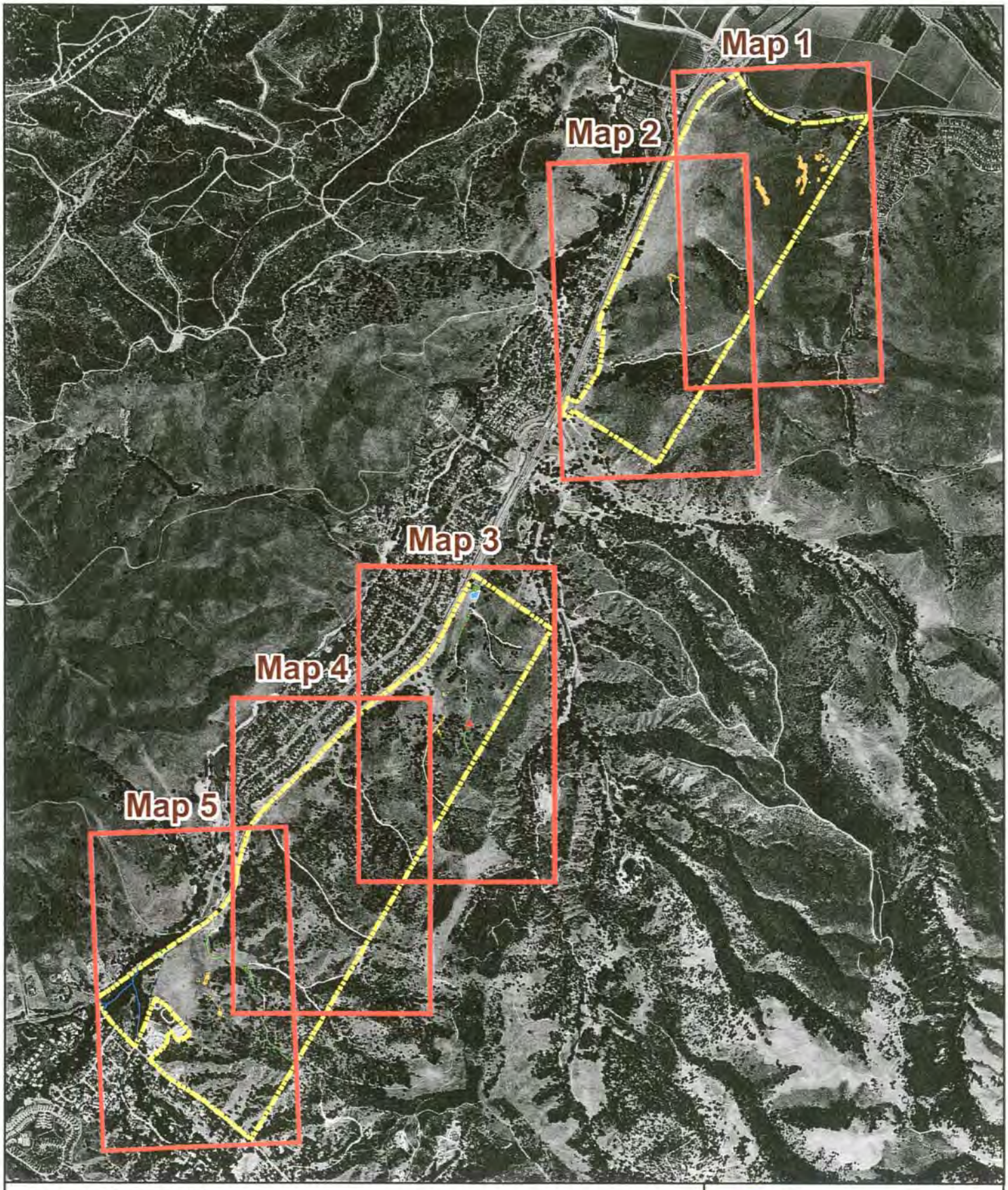
Wetland Hydrology Present? ☐ Yes ☒ No

Hydric Soil Present ? ☐ Yes ☒ No

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks : Although the sample point meets the wetland vegetation criterion, the species dominant are all facultative weedy species that are prevalent throughout the site in wetland and upland areas. The sample point does not meet the wetland soil or hydrology criteria, therefore is located in an upland area.

# Appendix B - Preliminary Determination of Potential Section 404 Jurisdictional Wetlands and Waters at the Ferrini Property




Appendix B. Potential
Section 404 Jurisdiction
Map Index

N

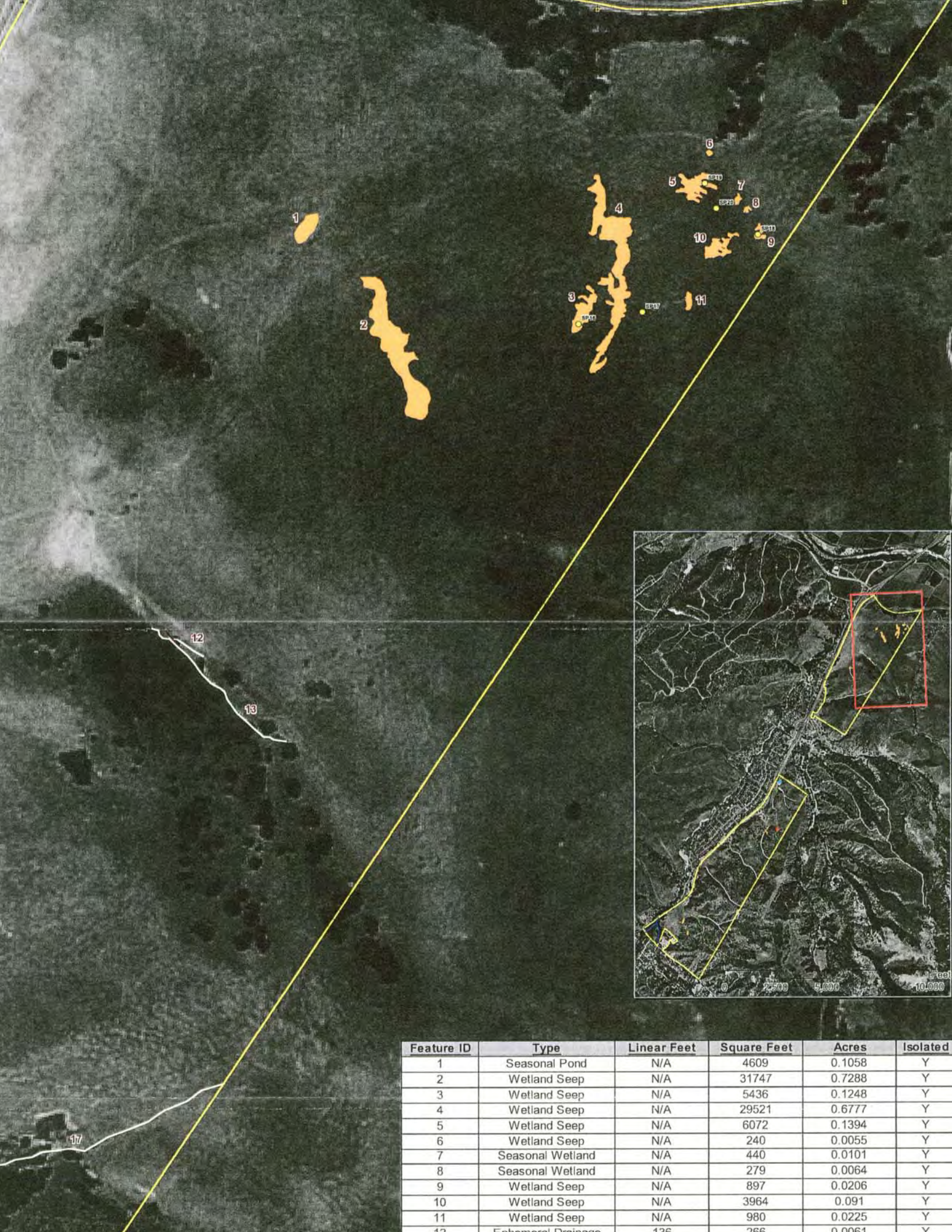
0 0.25 0.5 1
Miles

Ferrini Property Delineation
Monterey County, CA

wra
ENVIRONMENTAL CONSULTANTS

Date: November 2006

Map By: Michael Rochelle
Filepath: I:/Acad2000/16000/16139/gis/Arcmap/DelineationIndex.mxd




| Feature ID | Type | Linear Feet | Square Feet | Acres | Isolated |
|---|---|---|---|---|---|
| 1 | Seasonal Pond | N/A | 4609 | 0.1058 | Y |
| 2 | Wetland Seep | N/A | 31747 | 0.7288 | Y |
| 3 | Wetland Seep | N/A | 5436 | 0.1248 | Y |
| 4 | Wetland Seep | N/A | 29521 | 0.6777 | Y |
| 5 | Wetland Seep | N/A | 6072 | 0.1394 | Y |
| 6 | Wetland Seep | N/A | 240 | 0.0055 | Y |
| 7 | Seasonal Wetland | N/A | 440 | 0.0101 | Y |
| 8 | Seasonal Wetland | N/A | 279 | 0.0064 | Y |
| 9 | Wetland Seep | N/A | 897 | 0.0206 | Y |
| 10 | Wetland Seep | N/A | 3964 | 0.091 | Y |
| 11 | Wetland Seep | N/A | 980 | 0.0225 | Y |
| 12 | Ephemeral Drainage | 136 | 266 | 0.0061 | Y |

| ID | Type | Linear Feet | Square Feet | Acres | Isolated |
|---|---|---|---|---|---|
| | Seasonal Pond | N/A | 4609 | 0.1058 | Y |
| | Wetland Seep | N/A | 31747 | 0.7288 | Y |
| | Wetland Seep | N/A | 5436 | 0.1248 | Y |
| | Wetland Seep | N/A | 29521 | 0.6777 | Y |
| | Wetland Seep | N/A | 6072 | 0.1394 | Y |
| | Wetland Seep | N/A | 240 | 0.0055 | Y |
| | Seasonal Wetland | N/A | 440 | 0.0101 | Y |

| Feature ID | Type | Linear Feet | Square Feet | Acres | Isolated |
|---|---|---|---|---|---|
| 18 | Seasonal Pond | N/A | 15438 | 0.3544 | N |
| 19 | Seasonal Wetland | N/A | 11787 | 0.2706 | N |
| 20 | Ephemeral Drainage | 691 | 1316 | 0.0302 | N |
| 21 | Ephemeral Drainage | 1207 | 3101 | 0.0712 | N |
| 22 | Seasonal Wetland | N/A | 3141 | 0.0721 | N |
| 23 | Wetland Seep | N/A | 950 | 0.0218 | N |
| 24 | Seasonal Wetland | N/A | 1272 | 0.0292 | N |
| 25 | Ephemeral Drainage | 527 | 889 | 0.0204 | N |
| 26 | Seasonal Wetland | N/A | 122 | 0.0028 | N |
| 27 | Ephemeral Drainage | 45 | 78 | 0.0018 | N |
| 28 | Seasonal Wetland | N/A | 109 | 0.0025 | N |
| 29 | Ephemeral Drainage | 47 | 78 | 0.0018 | N |
| 30 | Seasonal Wetland | N/A | 466 | 0.0107 | N |
| 31 | Ephemeral Drainage | 127 | 209 | 0.0048 | N |
| 32 | Wetland Seep | N/A | 331 | 0.0076 | Y |
| 33 | Wetland Seep | N/A | 536 | 0.0123 | Y |
| 34 | Seasonal Wetland | N/A | 327 | 0.0075 | N |
| 35 | Ephemeral Drainage | 52 | 91 | 0.0021 | N |
| 36 | Seasonal Wetland | N/A | 836 | 0.0192 | N |
| 37 | Wetland Seep | N/A | 7649 | 0.1756 | N |
| 38 | Seasonal Wetland | N/A | 1507 | 0.0346 | Y |
| 39 | Wetland Seep | N/A | 2304 | 0.0529 | Y |
| 40 | Wetland Seep | N/A | 83 | 0.0019 | N |
| 41 | Seasonal Wetland | N/A | 3049 | 0.07 | N |
| 42 | Ephemeral Drainage | 1484 | 2509 | 0.0576 | Y |
| 43 | Seasonal Wetland | N/A | 1311 | 0.0301 | N |
| 44 | Ephemeral Drainage | 2000 | 5354 | 0.1229 | N |
| 45 | Seasonal Wetland | N/A | 353 | 0.0081 | N |
| 46 | Seasonal Wetland | N/A | 423 | 0.0097 | N |
| 47 | Seasonal Wetland | N/A | 270 | 0.0062 | N |
| 48 | Ephemeral Drainage | 2699 | 7240 | 0.1662 | N |
| 49 | Seasonal Wetland | N/A | 370 | 0.0085 | N |
| 50 | Seasonal Wetland | N/A | 292 | 0.0067 | N |
| 51 | Seasonal Wetland | N/A | 296 | 0.0068 | N |
| 52 | Seasonal Wetland | N/A | 7240 | 0.1662 | N |
| 53 | Ephemeral Drainage | 90 | 170 | 0.0039 | N |
| 54 | Seasonal Wetland | N/A | 5210 | 0.1196 | N |
| 55 | Ephemeral Drainage | 2532 | 7828 | 0.1797 | N |
| 56 | Ephemeral Drainage | 246 | 497 | 0.0114 | N |
| 57 | Seasonal Wetland | N/A | 2492 | 0.0572 | N |
| 58 | Seasonal Wetland | N/A | 497 | 0.0114 | Y |
| 59 | Wetland Seep | N/A | 8564 | 0.1966 | Y |
| 60 | Wetland Seep | N/A | 1464 | 0.0336 | Y |
| 61 | Seasonal Wetland | N/A | 296 | 0.0068 | Y |
| 62 | Wetland Seep | N/A | 5279 | 0.1212 | Y |
| 63 | Perennial Stream | 2230 | 7897 | 0.1813 | N |

Study Area (921 acres)

Sample Points

Culverts

**Waters**

Perennial Stream (2,230 linear feet, 0.18 acres)

Ephemeral Drainage (10,263 linear feet, 0.62 acres)

Isolated Waters (0.20 acres)

| | | | | | |
|---|---|---|---|---|---|
| 45 | Seasonal Wetland | N/A | 353 | 0.0081 | N |
| 46 | Seasonal Wetland | N/A | 423 | 0.0097 | N |
| 47 | Seasonal Wetland | N/A | 270 | 0.0062 | N |
| 48 | Ephemeral Drainage | 2699 | 7240 | 0.1662 | N |
| 49 | Seasonal Wetland | N/A | 370 | 0.0085 | N |
| 50 | Seasonal Wetland | N/A | 292 | 0.0067 | N |
| 51 | Seasonal Wetland | N/A | 296 | 0.0068 | N |
| 52 | Seasonal Wetland | N/A | 7240 | 0.1662 | N |
| 53 | Ephemeral Drainage | 90 | 170 | 0.0039 | N |
| 54 | Seasonal Wetland | N/A | 5210 | 0.1196 | N |
| 55 | Ephemeral Drainage | 2532 | 7828 | 0.1797 | N |
| 56 | Ephemeral Drainage | 246 | 497 | 0.0114 | N |
| 57 | Seasonal Wetland | N/A | 2492 | 0.0572 | N |
| 58 | Seasonal Wetland | N/A | 497 | 0.0114 | Y |
| 59 | Wetland Seep | N/A | 8564 | 0.1966 | Y |
| 60 | Wetland Seep | N/A | 1464 | 0.0336 | Y |
| 61 | Seasonal Wetland | N/A | 296 | 0.0068 | Y |
| 62 | Wetland Seep | N/A | 5279 | 0.1212 | Y |
| 63 | Perennial Stream | 2230 | 7897 | 0.1813 | N |

| | | | | | |
|---|---|---|---|---|---|
| 46 | Seasonal Wetland | N/A | 423 | 0.0097 | N |
| 47 | Seasonal Wetland | N/A | 270 | 0.0062 | N |
| 48 | Ephemeral Drainage | 2699 | 7240 | 0.1662 | N |
| 49 | Seasonal Wetland | N/A | 370 | 0.0085 | N |
| 50 | Seasonal Wetland | N/A | 292 | 0.0067 | N |
| 51 | Seasonal Wetland | N/A | 296 | 0.0068 | N |
| 52 | Seasonal Wetland | N/A | 7240 | 0.1662 | N |
| 53 | Ephemeral Drainage | 90 | 170 | 0.0039 | N |
| 54 | Seasonal Wetland | N/A | 5210 | 0.1196 | N |
| 55 | Ephemeral Drainage | 2532 | 7828 | 0.1797 | N |
| 56 | Ephemeral Drainage | 246 | 497 | 0.0114 | N |
| 57 | Seasonal Wetland | N/A | 2492 | 0.0572 | N |
| 58 | Seasonal Wetland | N/A | 497 | 0.0114 | Y |
| 59 | Wetland Seep | N/A | 8564 | 0.1966 | Y |
| 60 | Wetland Seep | N/A | 1464 | 0.0336 | Y |
| 61 | Seasonal Wetland | N/A | 296 | 0.0068 | Y |
| 62 | Wetland Seep | N/A | 5279 | 0.1212 | Y |
| 63 | Perennial Stream | 2230 | 7897 | 0.1813 | N |

# Appendix C -
# Summary of Potential Section 404 Jurisdictional Wetlands and Waters

**Appendix C.** Summary of Potential Section 404 Jurisdictional Wetlands and Waters

| Feature ID | Type | Linear Feet | Square Feet | Acres | Isolated? Y/N |
|---|---|---|---|---|---|
| 1 | Seasonal Wetland | N/A | 4609 | 0.1058 | Y |
| 2 | Wetland Seep | N/A | 31747 | 0.7288 | Y |
| 3 | Wetland Seep | N/A | 5436 | 0.1248 | Y |
| 4 | Wetland Seep | N/A | 29521 | 0.6777 | Y |
| 5 | Wetland Seep | N/A | 6072 | 0.1394 | Y |
| 6 | Wetland Seep | N/A | 240 | 0.0055 | Y |
| 7 | Seasonal Wetland | N/A | 440 | 0.0101 | Y |
| 8 | Seasonal Wetland | N/A | 279 | 0.0064 | Y |
| 9 | Wetland Seep | N/A | 897 | 0.0206 | Y |
| 10 | Wetland Seep | N/A | 3964 | 0.091 | Y |
| 11 | Wetland Seep | N/A | 980 | 0.0225 | Y |
| 12 | Ephemeral Drainage | 136 | 266 | 0.0061 | Y |
| 13 | Ephemeral Drainage | 635 | 1172 | 0.0269 | Y |
| 14 | Seasonal Wetland | N/A | 862 | 0.0198 | Y |
| 15 | Seasonal Wetland | N/A | 1494 | 0.0343 | Y |
| 16 | Ephemeral Drainage | 582 | 510 | 0.0117 | Y |
| 17 | Ephemeral Drainage | 2286 | 4465 | 0.1025 | Y |
| 18 | Waters | N/A | 15438 | 0.3544 | N |
| 19 | Seasonal Wetland | N/A | 11787 | 0.2706 | N |
| 20 | Ephemeral Drainage | 691 | 1316 | 0.0302 | N |
| 21 | Ephemeral Drainage | 1207 | 3101 | 0.0712 | N |
| 22 | Seasonal Wetland | N/A | 3141 | 0.0721 | N |
| 23 | Wetland Seep | N/A | 950 | 0.0218 | N |
| 24 | Seasonal Wetland | N/A | 1272 | 0.0292 | N |
| 25 | Ephemeral Drainage | 527 | 889 | 0.0204 | N |
| 26 | Seasonal Wetland | N/A | 122 | 0.0028 | N |
| 27 | Ephemeral Drainage | 45 | 78 | 0.0018 | N |
| 28 | Seasonal Wetland | N/A | 109 | 0.0025 | N |
| 29 | Ephemeral Drainage | 47 | 78 | 0.0018 | N |
| 30 | Seasonal Wetland | N/A | 466 | 0.0107 | N |
| 31 | Ephemeral Drainage | 127 | 209 | 0.0048 | N |
| 32 | Wetland Seep | N/A | 331 | 0.0076 | Y |
| 33 | Wetland Seep | N/A | 536 | 0.0123 | Y |
| 34 | Seasonal Wetland | N/A | 327 | 0.0075 | N |
| 35 | Ephemeral Drainage | 52 | 91 | 0.0021 | N |
| 36 | Seasonal Wetland | N/A | 836 | 0.0192 | N |
| 37 | Wetland Seep | N/A | 7649 | 0.1756 | N |
| 38 | Seasonal Wetland | N/A | 1507 | 0.0346 | Y |
| 39 | Wetland Seep | N/A | 2304 | 0.0529 | Y |
| 40 | Wetland Seep | N/A | 83 | 0.0019 | N |
| 41 | Seasonal Wetland | N/A | 3049 | 0.07 | N |
| 42 | Ephemeral Drainage | 1484 | 2509 | 0.0576 | Y |
| 43 | Seasonal Wetland | N/A | 1311 | 0.0301 | N |
| 44 | Ephemeral Drainage | 2000 | 5354 | 0.1229 | N |
| 45 | Seasonal Wetland | N/A | 353 | 0.0081 | N |
| 46 | Seasonal Wetland | N/A | 423 | 0.0097 | N |

| Feature ID | Type | Linear Feet | Square Feet | Acres | Isolated? Y/N |
|---|---|---|---|---|---|
| 47 | Seasonal Wetland | N/A | 270 | 0.0062 | N |
| 48 | Ephemeral Drainage | 2699 | 7240 | 0.1662 | N |
| 49 | Seasonal Wetland | N/A | 370 | 0.0085 | N |
| 50 | Seasonal Wetland | N/A | 292 | 0.0067 | N |
| 51 | Seasonal Wetland | N/A | 296 | 0.0068 | N |
| 52 | Seasonal Wetland | N/A | 7240 | 0.1662 | N |
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| 54 | Seasonal Wetland | N/A | 5210 | 0.1196 | N |
| 55 | Ephemeral Drainage | 2532 | 7828 | 0.1797 | N |
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| 60 | Wetland Seep | N/A | 1464 | 0.0336 | Y |
| 61 | Seasonal Wetland | N/A | 296 | 0.0068 | Y |
| 62 | Wetland Seep | N/A | 5279 | 0.1212 | Y |
| 63 | Perennial Stream | 2230 | 7897 | 0.1813 | N |

## Appendix D - Representative Photographs of the Ferrini Property

**Top:** Example of a seasonal wetland showing depressional topography.
**Bottom:** Example of a seep wetland showing typical hillside landscape position and surface ponding.

Photographs taken October 18, 2006

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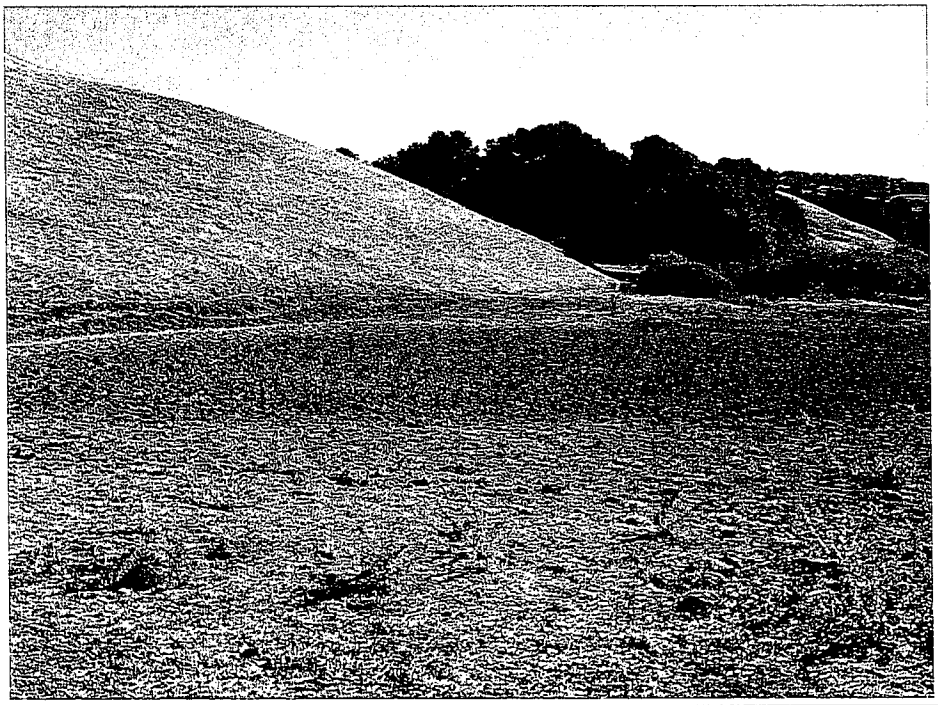

**Top:** Example of an ephemeral drainage showing a well-defined channel.
**Bottom:** Seasonal pond in southwestern portion of the Project Area showing sparse vegetative cover.

Photographs taken October 18, 2006

wra
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March 23, 2007

Luis Osorio, Senior Planner
**Monterey County Resource Management Agency**
**Planning & Building Inspection Department**
168 West Alisal Street, 2nd Floor
Salinas, California 93901

**RE: Ferrini Ranch Subdivision – Peer Review of the Delineation of Potential Jurisdictional Wetlands and Waters Under Section 404 of the Clean Water Act Prepared by WRA Environmental Consultants**

Dear Mr. Osorio:

At your request, I have reviewed the January 2007 WRA Environmental Consultants' Peer Review of the Delineation of Potential Jurisdictional Wetlands and Waters Under Section 404 of the Clean Water Act Prepared by WRA Environmental Consultants on the Ferrini Property located in Monterey County.

The report is well prepared and technically adequate. The report concludes that there are 1.10 acres of jurisdictional wetlands and 12,493 linear feet (1.15 acres) of potential jurisdictional "other waters" on the subject site. The report also concludes that there are an additional 2.46 acres of wetlands and 5,123 linear feet (0.21 acres) of jurisdictional "other waters" on the subject site that are potentially not jurisdictional due to their lack of surface hydrological connectivity to navigable waters. These water features are referred to as "isolated".

The determination of isolation of potential waters of the US is a controversial issue due to recent Circuit and Supreme Court rulings. The Regional and District offices of the U.S. Army Corps of Engineers (Corps) are awaiting joint guidance from Corps Headquarters and the US Environmental Protection Agency on interpreting the Courts' rulings. Until that guidance is issued, determinations of isolation are made on a case by case basis at the District offices. Another complication of the matter lies with the State. The State does take jurisdiction over many "isolated waters" through their authority established in the Porter Cologne Act. Therefore, even if the Corps does not accept jurisdiction, the State will. Based upon these issues, I recommend that we treat all identified wetlands and waters on the project site (potential jurisdictional or potentially isolated) equally as we analyze project impacts and formulate mitigation during the EIR development.

If you have any questions regarding the information contained in this letter, please contact Erika Spencer at 831.644.9174.

Sincerely,

**PACIFIC MUNICIPAL CONSULTANTS**

Joyce Hunting
Senior Biologist