



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

INVESTIGATION OF WATERS OF THE UNITED STATES

CIELO GRANDE RANCH MONTEREY COUNTY, CALIFORNIA

Prepared by:

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Project Number 570-03

EXECUTIVE SUMMARY

Live Oak Associates (LOA), Inc. conducted a field survey for “Waters of the United States” on the approximately 771-acre Cielo Grande Ranch project site. The site is located east of Fanoe Road and west of Iverson Road adjacent to the City of Gonzales, Monterey County, California.

A site survey was conducted on July 24, 2006 for possible Waters of the United States, at which time vegetation, soils and hydrology data were gathered at eight sampling locations. The features delineated on the Cielo Grande Ranch project site have been classified into four categories; isolated non-wetland irrigation ditch, isolated wetland irrigation ditch, isolated non-wetland irrigation pond, isolated wetland irrigation pond.

The majority of the onsite features are artificial irrigation features that flow into irrigation ponds or percolate into the ground prior to flowing off the project site. During the site survey, many of these features were recorded; however, most of them shift depending on agricultural activity of the field. Therefore, these features are clearly believed to be non-jurisdictional. Two features possibly replace the value and function of a historic waterway. These features are potential jurisdictional waters that include approximately 38,040 square feet (0.87 acres), of which approximately 5,264 square feet (0.12 acres) met the three technical criteria of jurisdictional wetlands. These two features include a permanent irrigation ditch that begins at a culvert under Iverson Road along the site’s northern boundary that extends through the center of the project site then offsite under a culvert at Fanoe Road and a second irrigation ditch that extends along Iverson Road at the northwestern boundary of the site and offsite through a culvert into the adjacent property’s irrigation ditch. These two features flow into an offsite, unnamed waterway that also appears to be isolated. Therefore all of the onsite features may be disclaimed as Waters of the United States.

While most, if not, all of the features delineated on the Cielo Grande Ranch project site are believed to be isolated waters according to provisions of Section 404 of the Clean Water Act as recently interpreted in *Solid Waste Agency of Northern Cook County v. Corps of Engineers* (SWANCC, 2001), ultimately, the U.S. Army Corps of Engineers has sole authority to determine the jurisdictional status of waters on any given project site. Regardless of the USACE determination of onsite jurisdiction, some or all of these delineated features would likely to be considered jurisdictional by the Regional Water Quality Control Board (RWQCB) and/or the California Department of Fish and Game (CDFG).

The remainder of the site failed to meet any of the regulatory definitions of Waters of the United States. The non-wetland habitats of the site consisted primarily of active agricultural fields.

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1.0 INTRODUCTION

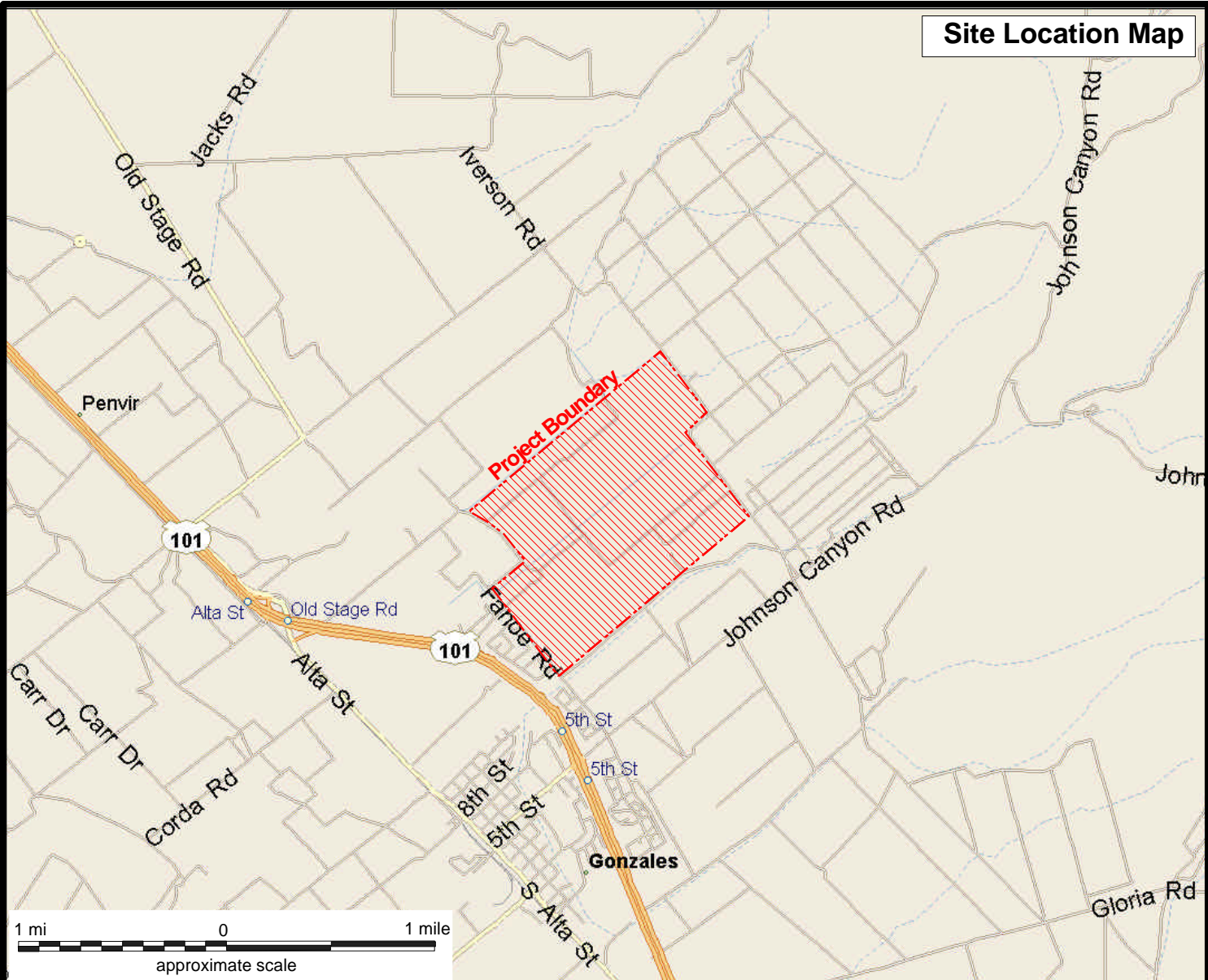
Live Oak Associates, Inc. surveyed the Cielo Grande Ranch Property for potential Waters of the United States, including areas meeting the technical criteria of jurisdictional wetlands. The property is located in southeastern Monterey County, California (Figure 1). The site is bordered to the north and south by agricultural fields, to the west by Iverson Road, and to the east by Fanoe Road and residential housing. Surrounding land uses include single-family residences and agricultural fields. The approximately 771-acre property can be found on the Gonzales U.S.G.S. quadrangle and in Sections 16, 17, 20 and 21 of Township 16 south, Range 5 east (Figure 2).

Waters of the United States include drainage channels (tributary waters), their impoundments, and wetlands (Wetland Training Institute Inc., 1990). Tributary waters include incised channels that connect to other jurisdictional waters. Such channels may carry a permanent, intermittent, or ephemeral flow of water. Jurisdictional wetlands are those wetlands adjacent to other jurisdictional waters. Such wetlands are characterized by the presence of wetland hydrology (i.e. surface inundation or saturated soils), hydric soils (soils which have developed under the anaerobic conditions imposed by soil saturation), and hydrophytic vegetation (an association of plants adapted to water saturated soils).

Drainage channels and adjacent wetlands are within the jurisdiction of the U.S. Army Corps of Engineers (USACE) according to provisions of Section 404 of the Clean Water Act as recently interpreted in *Solid Waste Agency of Northern Cook County v. Corps of Engineers* (SWANCC, 2001). The filling, grading or excavation of jurisdictional waters requires a USACE Section 404 permit.

Even in those cases where the USACE has disclaimed jurisdiction over isolated drainage features on the basis of the SWANCC ruling, two state agencies, the California Department of Fish and Game (CDFG) and the California Regional Water Quality Control Board (RWQCB) may still regulate the placement of fill in such waters.

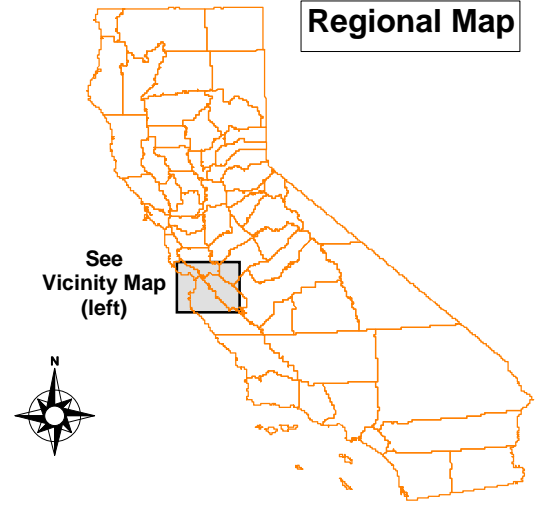
Site Location Map



Vicinity Map

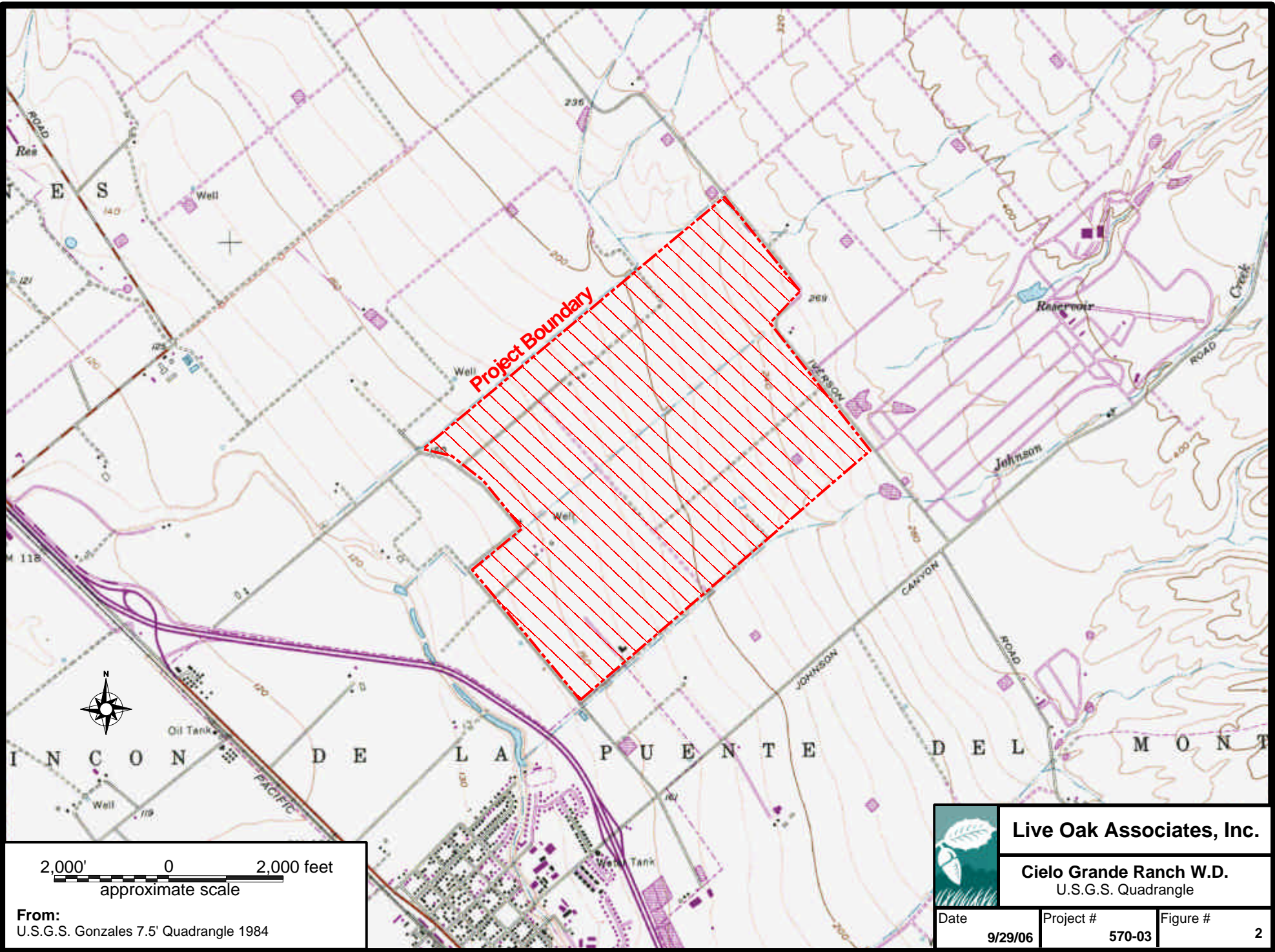


Regional Map



	Live Oak Associates, Inc.	
	Cielo Grande Ranch W.D. Site / Vicinity Map	
Date	Project #	Figure #
9/29/06	570-03	1

Not to scale



Project Boundary

From:
U.S.G.S. Gonzales 7.5' Quadrangle 1984

2,000' 0 2,000 feet
approximate scale

2.0 METHODS

Live Oak Associates, Inc. ecologists Davinna Ohlson and Brian Williams surveyed the Cielo Grande Ranch project site for potential Waters of the United States on July 24, 2006. The survey consisted of driving and walking the entire site, ensuring one hundred percent coverage. Maps used during the survey effort were the USGS topographic map and aerial photographs. Where possible, all potential Waters were surveyed using a GPS unit with sub-meter accuracy. The remaining features were mapped using standard surveying methodology. The survey was generally consistent with guidelines found in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (USACE, 2001).

2.1 TRIBUTARY WATERS

According to the Federal Register, 33 CFR Part 328 (Wetland Training Institute, Inc. 1990) tributary waters include the following:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand-flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above);

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

There are a number of irrigation ditches that flow through portions of the project site. These ditches were inspected for physical characteristics of the OHW in order to determine the extent of potential jurisdiction, as well as the technical criteria of jurisdictional wetlands.

2.2 AREAS MEETING THE TECHNICAL CRITERIA OF JURISDICTIONAL WETLANDS

Wetlands are defined 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 soils conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (Environmental Laboratory, 1987). The diagnostic environmental characteristics of wetlands include hydrophytic vegetation, hydric soils and a hydrology characterized by an aquic or peraquic moisture regime. Accordingly, LOA surveyed the site for wetland indicator plants and positive indicators of hydric soils and wetland hydrology.

LOA surveyed the site for areas meeting the technical criteria of jurisdictional wetlands to identify likely areas of wetland hydrology, soils and vegetation. Eight representative sample locations were selected within the study area and the vegetation, hydrology and soils information for each sample location were collected to document site conditions.

All vegetation, hydrology and soils data collected at the eight sample locations were entered onto standard datasheets patterned after those used by the U.S. Army Corps of Engineers. Each sample location was assigned a number placed in the upper right hand corner of each data sheet. All numbered sample locations have been identified on the map depicting the areas meeting the technical criteria of jurisdictional wetlands. The datasheet for each numbered sampling location can be found in Appendix B of this report.

Plants observed at each sample location were identified to species to the best extent possible using *The Jepson Manual, Higher Plants of California* (Hickman, 1993). The wetland indicator status of each species was obtained from the *1987 Wetland Plant List, California* (Reed, 1988). A list of species for each observation area was then compiled and an assessment of the dominant species

made. It was then determined which observation areas supported wetland vegetation. A comprehensive list of the vascular plants observed on the project site is included in Appendix C.

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

OBLIGATE (OBL)	> 99%
FACULTATIVE WETLAND (FACW)	67% - 99%
FACULTATIVE (FAC)	34% - 66%
FACULTATIVE UPLAND (FACU)	1% - 33%
UPLAND (UPL)	< 1%

Hydrophytic vegetation is considered present when more than 50% of the dominant species at a given location are composed of obligate, facultative wetland and facultative species.

Each sample location was also examined for positive indicators of wetland hydrology and hydric soils. Evidence of wetland hydrology consisted of direct observation of surface inundation or soil saturation, or other primary indicators such as water marks, drift lines, sediment deposits and drainage patterns in wetlands. Secondary indicators of wetland hydrology included oxidized root channels, water-stained leaves, local soil survey data (where available), etc. A soil pit 8 – 12” in depth was dug at all sample locations not already inundated in order to determine the depth to ground water. The soils excavated from each pit were also examined for low chromas, gleying, mottling, concretions, sulfidic odors, and other hydric indicators.

3.0 RESULTS

The Cielo Grande Ranch project site is located on the floor of the Salinas Valley east of Highway 101 and west of the foothills of the Diablo Range, and east of the City of Gonzales. The elevation of the site varies from approximately 150 feet National Geodetic Vertical Datum (NGVD) near the western boundary and slowly sloping to 270 feet NGVD in the eastern boundary.

Four soil series are represented on the site (Figure 3, Table 1). Like most soils of the Salinas Valley, the soils of the project site consist of alluvium derived primarily from granitic and schistose rock (NRCS 1978). This area has been used primarily for agricultural uses although more intense development is becoming common. Of the four soil series that occur on the site, none are considered to be hydric and only one has hydric inclusions. The Placentia sandy loam with 0% to 2% slopes, which is the dominant soil type on the project site, is not overall a hydric soil, but contains hydric inclusions where depressions are present. This means that in areas that were naturally at a lower elevation than the surrounding upland, hydric inclusions could occur. The remaining three soil types of the site are not considered to be hydric.

TABLE 1. SOILS OF THE STUDY AREA (from NRCS 1978).				
Soil Series/Soil	Map Symbol	Parent Material	Surface Permeability	Hydric
CHUALAR SERIES Chualar loam, 2%-5% slopes	CbA	Alluvium of granitic and schistose rock	Moderately slow	No
DANVILLE SERIES Danville sandy clay loam, 0%-2% slopes	DaA	Alluvium of granitic and schistose rock	Slow	No
PLACENTIA SERIES Placentia sandy loam, 0%-2% slopes	PnA	Alluvium of granitic and schistose rock	Very Slow	Hydric inclusions in depressions
PLACENTIA SERIES Placentia sandy loam, 0%-2% slopes	PnC	Alluvium of granitic and schistose rock	Very Slow	No

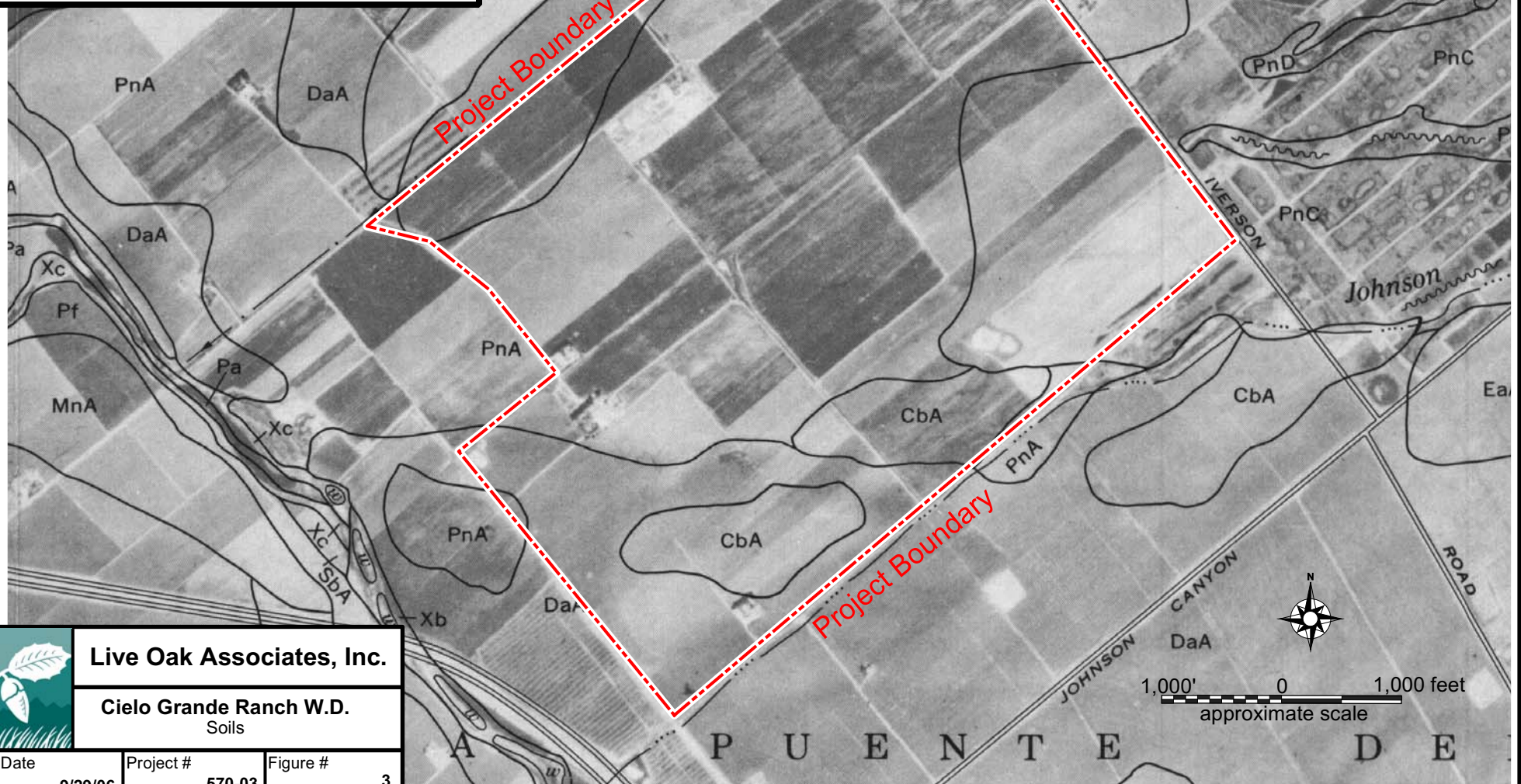
LEGEND

PnC Placentia sandy loam, 2 ot 9%

PnA Placentia sandy loam, 0 ot 2%

DaA Danville sandy clay loam, 0 to 2%

CbA Chualar loam, 0 to 2%



Live Oak Associates, Inc.

Cielo Grande Ranch W.D.
Soils

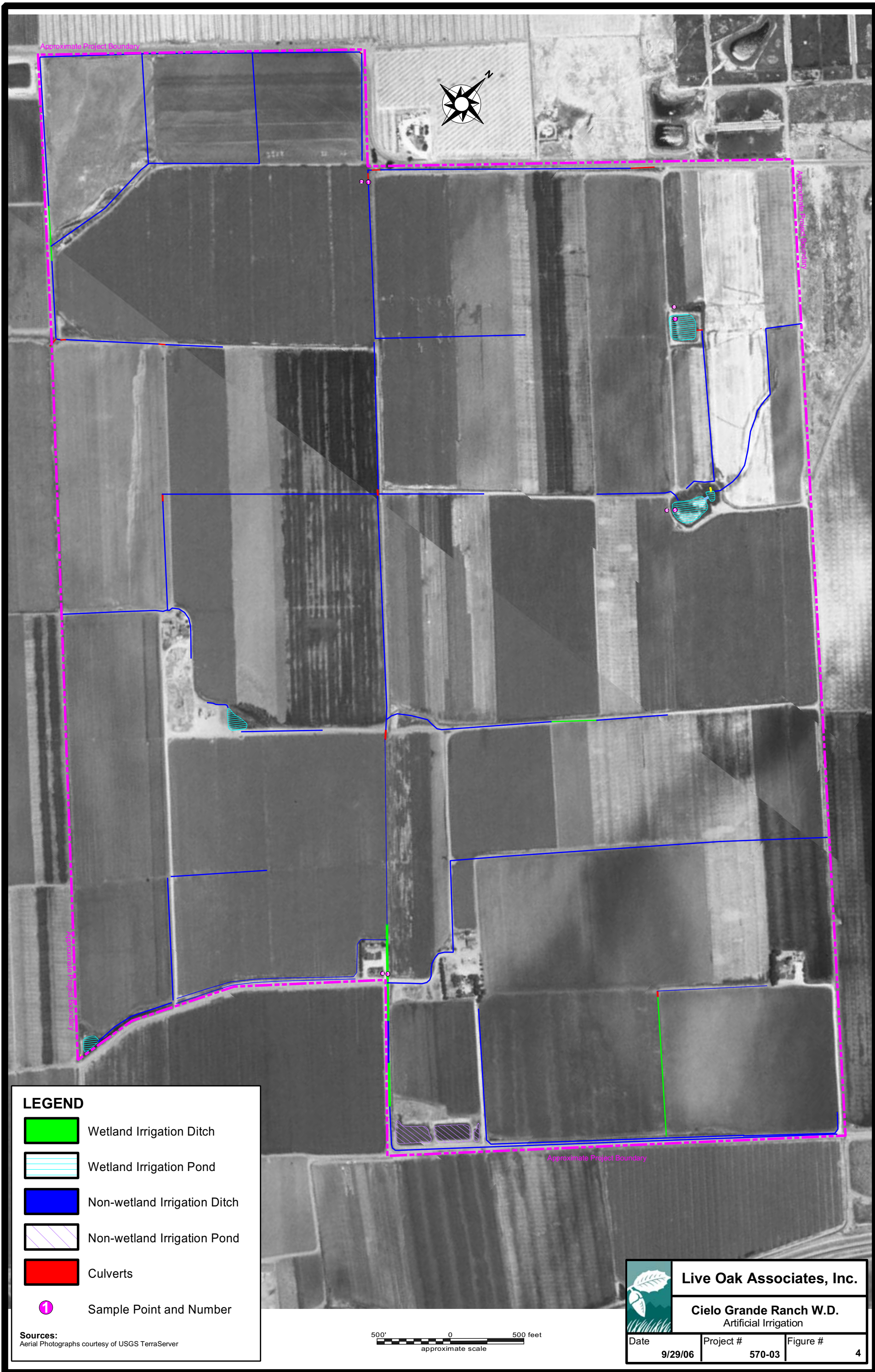
Date	Project #	Figure #	
9/29/06	570-03	3	

3.1 POTENTIAL WATERS OF THE UNITED STATES


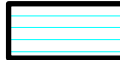




The majority of the onsite features are artificial irrigation features that flow into irrigation ponds or percolate into the ground prior to flowing off the project site. During the site survey, many of these features were recorded; however, most of them shift depending on agricultural activity of the field. Therefore, these features are clearly believed to be isolated (Figure 4).

Two features possibly replace the value and function of a historic waterway. These features are potential jurisdictional waters and include approximately 38,040 square feet (0.87 acres), of which approximately 5,264 square feet (0.12 acres) met the three technical criteria of jurisdictional wetlands (oversized Figure 5 in back of report). The potentially jurisdictional features include a permanent irrigation ditch that begins at a culvert under Iverson Road along the site's northern boundary that extends through the center of the project site then offsite under a culvert at Fanoe road and a second irrigation ditch that extends along Iverson Road at the northwestern boundary of the site and offsite through a culvert into the adjacent property's irrigation ditch. Both of these drainages appear to be fed water from upstream U.S.G.S. blue-line waterways. Additionally, both empty into an unnamed offsite waterway that appears to terminate east of Highway 101, north of the City of Gonzales before reaching the Salinas River. Therefore all of the onsite features may be disclaimed as Waters of the United States.

Eight representative sampling locations were selected within the study area where vegetation, hydrology and soils information were collected to document site conditions. This information was entered onto standard data sheets patterned after those used by the USACE. The data sheet for each numbered sampling location can be found in Appendix B of this report. All numbered sampling locations have been identified on the maps depicting the areas meeting the technical criteria of jurisdictional wetlands (Figures 4 and 5).




LEGEND

-  Wetland Irrigation Ditch
-  Wetland Irrigation Pond
-  Non-wetland Irrigation Ditch
-  Non-wetland Irrigation Pond
-  Culverts
-  Sample Point and Number

Sources:
Aerial Photographs courtesy of USGS TerraServer

500' 0 500 feet
approximate scale

	Live Oak Associates, Inc.		
	Cielo Grande Ranch W.D. Artificial Irrigation		
Date	Project #	Figure #	
9/29/06	570-03	4	

3.1.1 Isolated Wetland Irrigation Pond

There were four isolated wetland irrigation ponds identified on site (Sample Points 5 and 7; Figure 4). These wetland irrigation ponds were fed by numerous irrigation ditches, which line the perimeter of the site's agricultural fields. These wetland irrigation ponds were dominated by barnyard grass (*Echinochloa crus-galli*)(FACW), Mexican lovegrass (*Eragrostis mexicana*)(FAC), common tule (*Scirpus acutus*)(OBL) and tall cyperus (*Cyperus eragrostis*)(FACW). Hydrology indicators present were inundation. The soils at these sample points were assumed to contain aquatic moisture regimes because they were inundated and contained between two and twelve inches of surface water. Hydric soils were met due to inundation.

3.1.2 Isolated Non-Wetland Irrigation Pond

There was a set of three isolated non-wetland irrigation ponds along the western boundary where Fanoe Road takes a 90° turn to the northeast (Figure 4). As with the other ponds, irrigation ditches fed them from other locations of the site. The ponds and surrounding banks were void of vegetation and highly maintained. They were inundated with greater than 12 inches of water at the time of the July 2006 survey. Due to the presence of an aquatic moisture regime, the soils were considered hydric. However, regardless of the presence of wetland hydrology and hydric soils, the vegetation criterion was not met.

3.1.3 Isolated Non-wetland Irrigation Ditch

The majority of the onsite features consist of non-wetland irrigation ditches that line the perimeter of the active agricultural fields (Sample Point 1; Figures 4 and 5). The majority of these ditches are temporary and created when a field is active. Most of these features are manmade and are fed by the farm's extensive, temporary irrigation systems and do not converge with any known Water of the United States. However the two large drainages that flow through the site may replace the functions and values of historic waterways. Dominant vegetation within the sampled drainage consisted of cheese weed (*Malva parviflora*)(UPL) and Mexican lovegrass (*Eragrostis mexicana*)(FAC). Other non-dominant species observed included tall cyperus (*Cyperus eragrostis*)(FACW), rabbitfoot grass (*Polypogon monospliensis*)(FACW+), spiny cocklebur (*Xanthium spinosum*)(FAC+) and hyssop loosetrife (*Lythrum hyssopifolium*)(FACW). Wetland

hydrology and hydric (aquic moisture regime) soils were present at Sample Point 1 because the ditch was inundated; however the vegetation criterion was not met.

3.1.4 Isolated Wetland Irrigation Ditch

There are a number of wetland irrigation ditches present on site (Sample Point 3; Figures 4 and 5). The majority of these ditches are temporary and created when a field is active. Most of these features are manmade and are fed by the farm's extensive, temporary irrigation systems and do not converge with any known Water of the United States. However the two large drainages that flow through the site may replace the functions and values of historic waterways, of which a few reaches met the technical criteria of jurisdictional wetlands. Vegetation within these drainages was dominated by barnyard grass (*Echinochloa crus-galli*)(FACW), rabbitfoot grass (*Polypogon monospermius*)(FACW+) and Mexican lovegrass (*Eragrostis mexicana*)(FAC). The wetland hydrology indicator at this sample point was inundation of one inch of water. Therefore, hydric soils are assumed to be met due to an aquic moisture regime.

3.2 OTHER AREAS OF THE CIELO GRANDE RANCH PROJECT SITE

The upland area surrounding the delineated features has been classified as agricultural land (Sample Points 4, 6, and 8; Figure 4 and 5). Dominant species observed include tomatillo (*Physalis philadelphica var. immaculata*)(UPL) and iceplant (*Carpobrotus edulis*)(NI). Wetland hydrology indicators were absent at all these sample points. The Munsell matrix color of the soil at Sample Point 4 and 8 was 7.5 YR 2.5/2 or 10 YR 3/4, neither of which are considered to be hydric. Sample Point 6, had a Munsell matrix color of 10YR 2/2 and contained few, small red mottles which are indicators of hydric conditions. However, Sample Point 6 was not a wetland because it did not meet the hydrology and vegetation criterion.

4.0 DISCUSSION

In January of 2001 the U.S. Supreme Court ruled in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (the SWANCC decision) that “non-navigable, isolated, intrastate” waters could not be claimed as jurisdictional by the USACE on the basis of their use by migratory birds (Guzy, 2001). Although the Court did not specifically address the meaning of the word “isolated”, it upheld the jurisdictional status of “adjacent” wetlands (and other waters), which are by definition wetlands that are “bordering, contiguous, or neighboring” other jurisdictional waters. Therefore, the term “isolated wetland” has implicitly been defined as ‘wetlands that are not bordering, contiguous, or neighboring’ other jurisdictional waters.

This definition does not, however, address the degree of proximity necessary to establish that one wetland (or other water) is “adjacent” to known jurisdictional waters. As established by the Supreme Court in the *United States v. Riverside Bayview Homes, Inc.* (1985) “Wetlands separated from other waters by man-made dikes or barriers, natural river berms, beach dunes, and the like are ‘adjacent wetlands’” (Guzy, 2001). Other situations are not so clear. This discussion attempts to shed light on the possible jurisdictional status of reaches of Cielo Grande Ranch occurring within the site.

The U.S. Supreme Court decision established that use of isolated waters, as habitat by migratory birds could not be used to establish federal jurisdiction over such waters. According to a memorandum prepared by Gary S. Guzy, General Counsel for the Environmental Protection Agency and Robert M. Andersen, Chief Counsel for the U.S. Army Corps of Engineers (undated), the SWANCC decision limited federal jurisdiction to the following waters (from 33 C.F.R. § 328.3(a)):

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all water which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
4. All impoundments of water otherwise defined as waters of the United States under the definition;
5. Tributaries to waters identified in paragraphs (a)(1)[, (2), and] (4) of this section;
6. The territorial seas;

7. Wetlands adjacent to waters (other than waters which are themselves wetlands) identified in paragraphs (a)(1)[,(2), (4), (5),and] (6) of this section.

Jurisdiction over waters that are isolated, intrastate, and non-navigable may be possible “if their use, degradation, or destruction could affect other waters of the United States, thus establishing a significant nexus between the water in question and other waters of the United States.”

All but two of the onsite features are believed to clearly be non-jurisdictional, isolated features because they are manmade irrigation ditches and ponds functioning and created solely for agricultural purposes. The remaining two features, two permanent irrigation ditches with wetland and non-wetland reaches, continue to flow offsite to an unnamed waterway (Figure 5). However, according to recent aerial photography, this offsite waterway appears to terminate east of Highway 101, north of the City of Gonzales. Historically, this waterway may have emptied into the Salinas River west of Highway 101, but currently, water within this feature does not appear to cross Highway 101. Therefore, all of the onsite features, including the three ditches that flow offsite, may be considered isolated, thereby not classified as Waters of the United States.

While most, if not all of the onsite features appear to be isolated waters, ultimately, the USACE has sole authority to determine the jurisdictional status of waters on any given project site. Even if it were the case that the USACE disclaimed jurisdiction over the onsite features based on their physical isolation from known Waters of the United States, the delineated features would possibly be considered waters of the state of California and subject to regulation by the RWQCB on the basis of provisions contained in the Porter-Cologne Water Quality Act and the State Water Code, and by CDFG under the California Fish and Game Code where a defined bed and bank is evident. Therefore, any project activities resulting in the placement of fill within the delineated features considered jurisdictional by these latter two agencies would likely require a Section 401 Certification/Waiver and Waiver of Waste Discharge Requirements from RWQCB and a Streambed Alteration Agreement from the CDFG.

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APPENDIX A
PHOTOGRAPHS OF THE STUDY AREA



Isolated Wetland Irrigation Ditch (Sample Point 3; July 2006)



Isolated Non-wetland Irrigation Ditch (Sample Point 1; July 2006)



Isolated Wetland Irrigation Pond (Sample Point 6; July 2006)

APPENDIX B
WETLAND DATASHEETS

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Non-wetland irrigation ditch</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u>Malva parviflora</u>	<u>Herb</u>	<u>UPL</u>	9. <u>Cyperus eragrostis</u>	<u>Herb</u>	<u>FACW</u>
2. <u>Eragrostis mexicana</u>	<u>Herb</u>	<u>FAC</u>	10. <u>Polypogon monspeliensis</u>	<u>Herb</u>	<u>FACW+</u>
3. _____	_____	_____	11. <u>Xanthium spinosum</u>	<u>Herb</u>	<u>FAC+</u>
4. _____	_____	_____	12. <u>Lythrum hyssopifolium</u>	<u>Herb</u>	<u>FACW</u>
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>50%</u>					
Remarks: <u>Criterion not met.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>2</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: <u>Meets the hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 0-2%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:	Matrix Color	Mottle Colors	Mottle Abundance/	Texture, Concretions,	
Depth (inches)	Horizon	(Munsell Moist)	(Munsell Moist)	Size/Contrast	Structure, etc.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Soil criterion assumed to be met due to inundation. No pit was dug.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: Two of three criteria were met. Sample point was taken in a non-wetland irrigation ditch.

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>2</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u>Malva parviflora</u>	<u>Herb</u>	<u>UPL</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>0%</u>					
Remarks: <u>Does not meet vegetation criterion.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>>12</u> (in.) Depth to Saturated Soil: <u>>12</u> (in.)	
Remarks: <u>Does not meet the hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 0-2%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:	Matrix Color	Mottle Colors	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
Depth (inches)	Horizon	(Munsell Moist)	(Munsell Moist)	(Munsell Moist)
12	B	7.5 YR 2.5/3	---	Sandy Loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Does not meet soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: Does not meet any criteria for wetlands. Sample point was taken in an upland area adjacent to an irrigation ditch.

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland irrigation ditch</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>3</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u><i>Echinochloa crus-galli</i></u>	Herb	FACW	9. <u><i>Poa annua</i></u>	Herb	FACW-
2. <u><i>Polypogon monospeliensis</i></u>	Herb	FAW+	10. <u><i>Cyperus eragrostis</i></u>	Herb	FACW
3. <u><i>Eragrostis mexicana</i></u>	Herb	FAC	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%					
Remarks: Meets vegetation criterion.					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: Meets hydrology criterion due to inundation.	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 0-2%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:	Matrix Color	Mottle Colors	Mottle Abundance/	Texture, Concretions,	
Depth (inches)	Horizon	(Munsell Moist)	(Munsell Moist)	Size/Contrast	Structure, etc.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: No pit was dug. Soils assumed to be met due to inundation. Meets soil criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Remarks: Meets all criteria of a wetland. Sample point was taken in a wetland irrigation ditch.

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>4</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u><i>Physalis philadelphica</i></u>	<u>Herb</u>	<u>NI</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>0%</u>					
Remarks: <u>Does not meet vegetation criterion.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>>12</u> (in.) Depth to Saturated Soil: <u>>12</u> (in.)	
Remarks: <u>Does not meet hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 0-2%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:	Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
	12	B	7.5 YR 2.5/2	---	---	Sandy Loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Does not meet soils criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: Does not meet wetland criteria. Sample point was taken in an upland area adjacent to an irrigation ditch.

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland irrigation pond</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>5</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u><i>Echinochloa crus-galli</i></u>	<u>Herb</u>	<u>FACW</u>	9. <u><i>Juncus mexicanus</i></u>	<u>Herb</u>	<u>FACW</u>
2. <u><i>Eragrostis mexicana</i></u>	<u>Herb</u>	<u>FAC</u>	10. <u><i>Malva parviflora</i></u>	<u>Herb</u>	<u>UPL</u>
3. _____	_____	_____	11. <u><i>Epilobium ciliatum</i></u>	<u>Herb</u>	<u>FACW</u>
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>100%</u>					
Remarks: <u>Meets vegetation criterion.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>>2</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: <u>Meets hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 2-9%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:	Matrix Color	Mottle Colors	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc,
Depth (inches) Horizon	(Munsell Moist)	(Munsell Moist)		

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: No pit was dug due to inundation. Soil criterion assumed to be met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Remarks: All three criteria were met. Sample point was taken in a wetland irrigation pond.

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>6</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. _____	_____	_____	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>0%</u>					
Remarks: <u>Does not meet vegetation criterion. The ground was void of vegetation.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>>7</u> (in.) Depth to Saturated Soil: <u>>7</u> (in.)	
Remarks: <u>Does not meet hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 2-9%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
<u>7</u>	<u>B</u>	<u>10 YR 2/2</u>	<u>5 YR 5/6</u>	<u>few/small/red</u>	<u>Clay Loam</u>

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Met soil criterion.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Check) Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(Check) Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: <u>One of the three criteria was met. Sample point was taken on the embankment of an irrigation pond.</u>	

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland irrigation pond</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain on reverse.)	Plot ID: <u>7</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u><i>Scirpus acutus</i></u>	<u>Herb</u>	<u>OBL</u>	9. _____	_____	_____
2. <u><i>Cyperus eragrostis</i></u>	<u>Herb</u>	<u>FACW</u>	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>100%</u>					
Remarks: <u>Meets vegetation criterion. Vegetation was sparsely distributed around the pond's perimeter.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>12 +</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: <u>Meets hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 2-9%</u>	Drainage Class:	<u>Well or moderately well drained</u>	
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	Confirm Mapped Type? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Profile Descriptions:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions				
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils				
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils				
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List				
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List				
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)				
Remarks: No pit was dug due to inundation. Soil criterion assumed to be met.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: Wetland criterion met. Sample point was taken in a wetland irrigation pond.	

Approved by HQUSACE 3/92
Forms version 1/02

DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Cielo Grande Ranch</u>	Date: <u>July 24, 2006</u>
Applicant/Owner: <u>Cielo Grande Ranch, LLC</u>	County: <u>Monterey</u>
Investigator: <u>Davinna Ohlson, Brian Williams</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: _____
Is the area a potential Problem Area? (If needed, explain on reverse.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID: <u>8</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Other Plant Species	Stratum	Indicator
1. <u>Carpobrotus edulis</u>	<u>Herb</u>	<u>UPL</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). <u>0%</u>					
Remarks: <u>Does not meet vegetation criterion.</u>					

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>>12</u> (in.) Depth to Saturated Soil: <u>>12</u> (in.)	
Remarks: <u>Does not meet hydrology criterion.</u>	

SOILS

Map Unit Name (Series and Phase):		<u>Placentia Sandy Loam 2-9%</u>	Drainage Class:	<u>Well or moderately well drained</u>
Taxonomy (Subgroup):		<u>Typic Natrixeralfs</u>	Field Observations	
			Confirm Mapped Type?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Profile Descriptions:	Matrix Color	Mottle Colors	Mottle Abundance/	Texture, Concretions,
Depth (inches)	Horizon	(Munsell Moist)	Size/Contrast	Structure, etc,
4	B	10 YR 3/4	---	Sandy Loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: **Does not meet hydric soil criterion.**

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Check)	(Check)
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: **Does not meet wetland criteria. Sample point was taken on an upland bank of an irrigation pond.**

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