

## **Appendix B. Biological Surveys and Analysis**

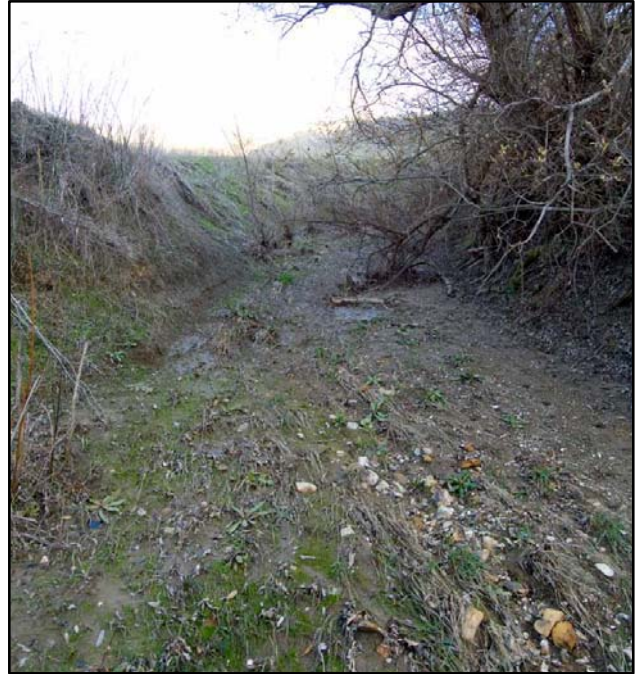
- B.1 Bird and Plant Species Observed on the Project Site
- B.2 Biological Resources Report (February 2006)
- B.3 Results of Winter Bird Surveys (February 8, 2007)
- B.4 Final Winter Season Avian Pre-construction Survey Report
- B.5 Final Avian Spring Migration Pre-construction Survey Report
- B.6 Summary of NEXRAD Analysis
- B.7 Analysis of WSR-88D Data to Assess Nocturnal Bird Migration Over the Lompoc Wind Energy Project
- B.8 Memorandum for the Record (February 11, 2008)
- B.9 Memorandum for the Record (July 16, 2008)

These Appendices are on the CD-ROM located in the front pocket of this document.

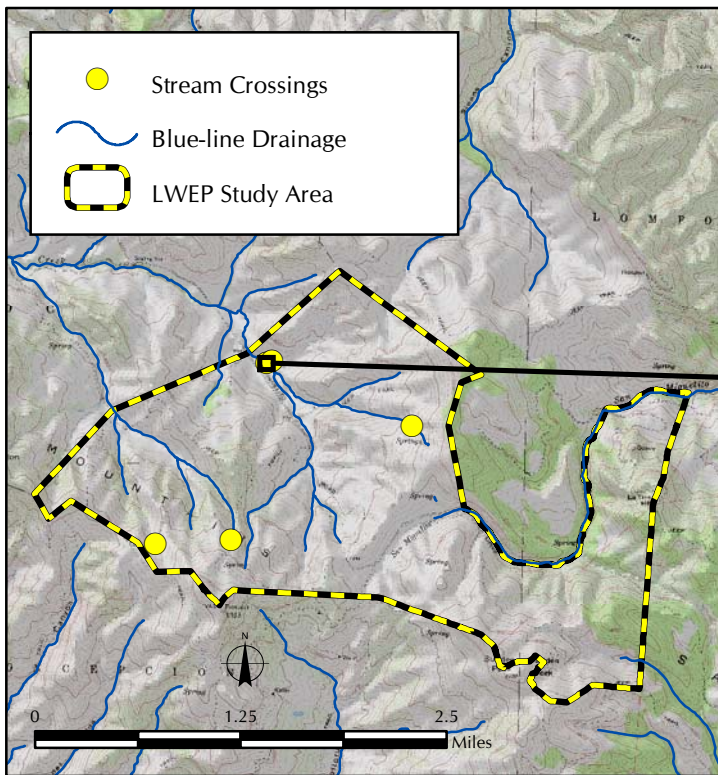




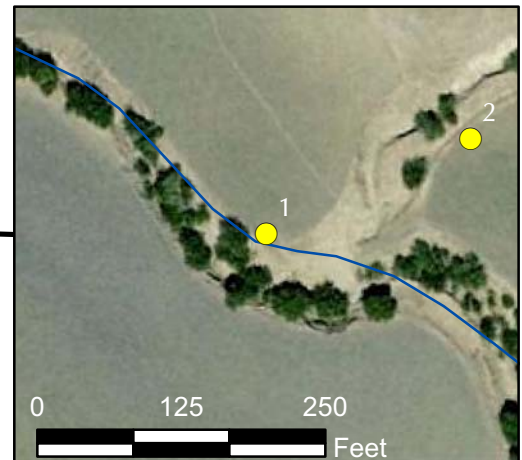
**PHOTO 1**  
Looking North from  
Blue-line Feature Crossing 1



**PHOTO 2**  
Looking South from  
Blue-line Feature Crossing 1



Q:\1537\1537-003\ArcProjects\Stream Crossing\_1.mxd

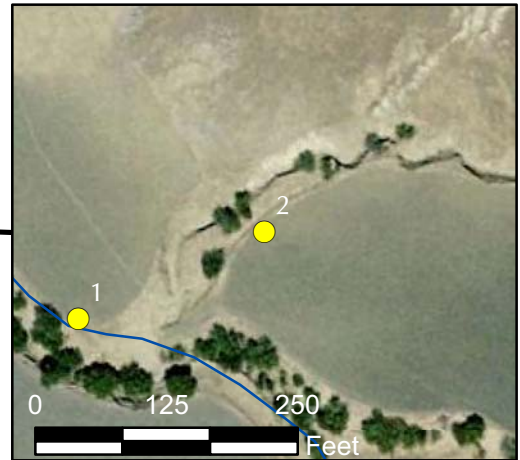
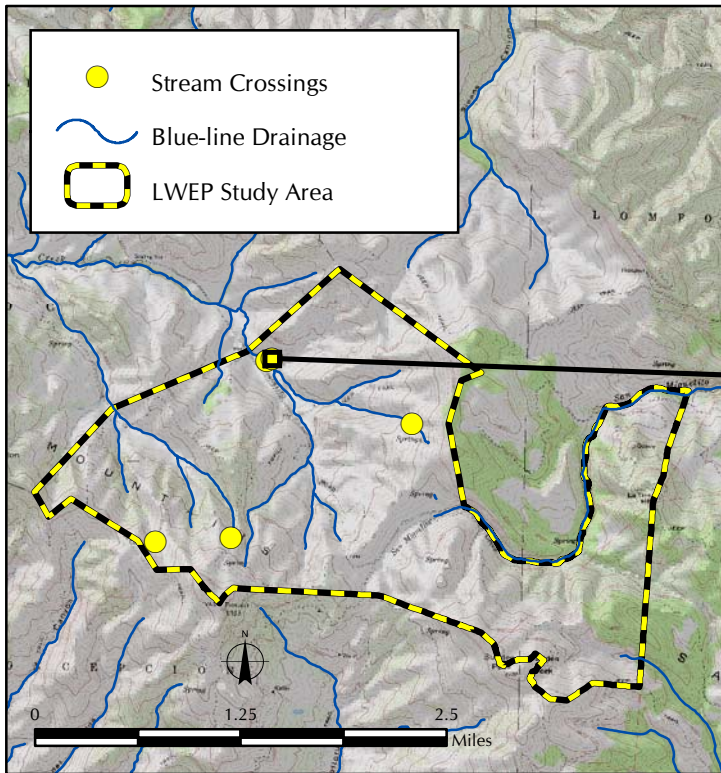




**PHOTO 1**  
Looking North from  
Blue-line Feature Crossing 2



**PHOTO 2**  
Looking South from  
Blue-line Feature Crossing 2

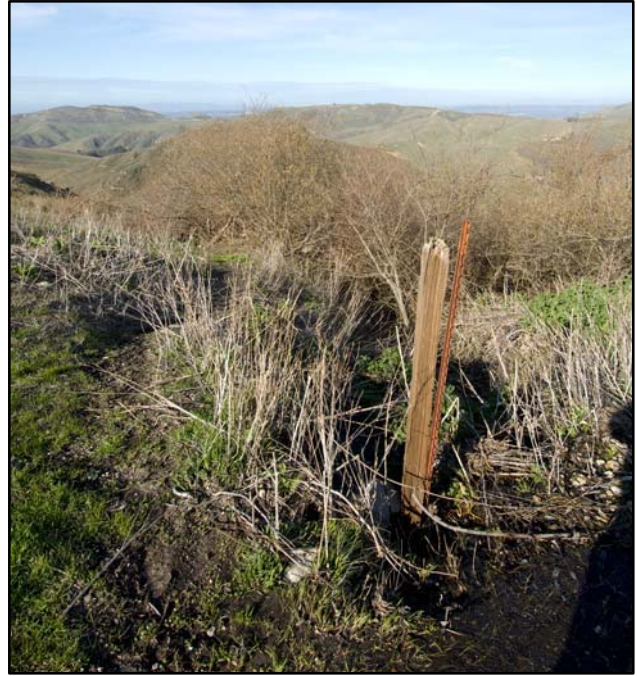


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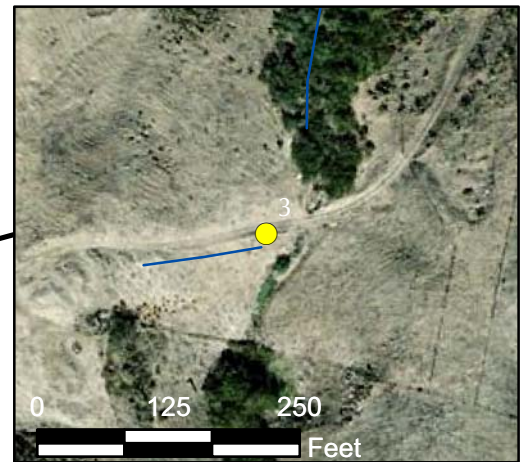
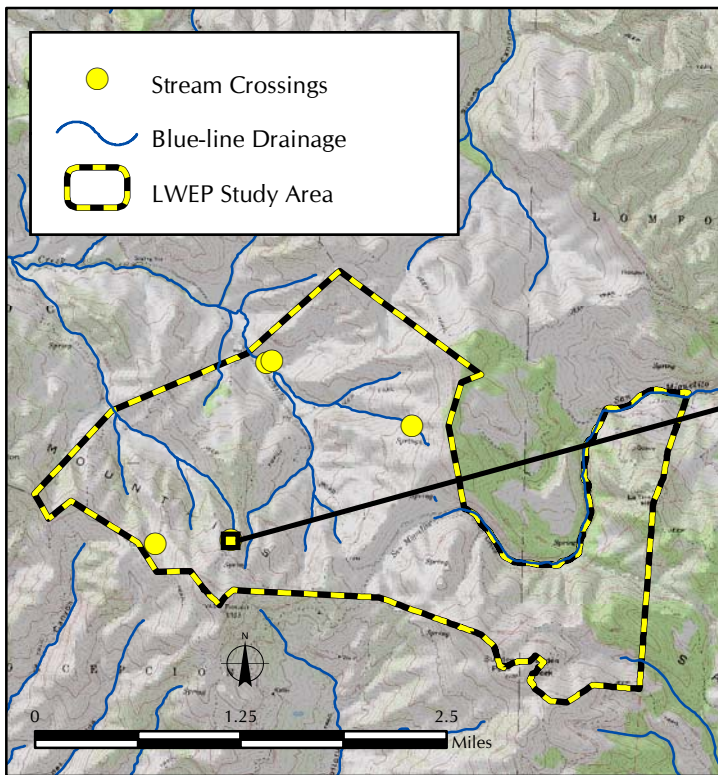




**PHOTO 1**  
Looking East from  
Blue-line Feature Crossing 3



**PHOTO 2**  
Looking West from  
Blue-line Feature Crossing 3

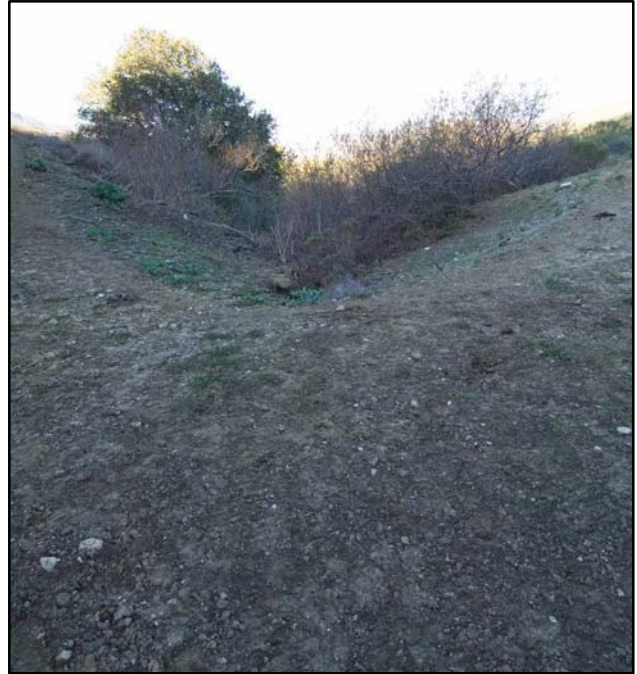


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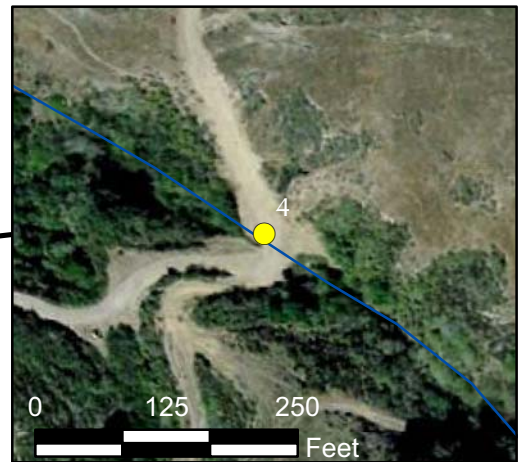
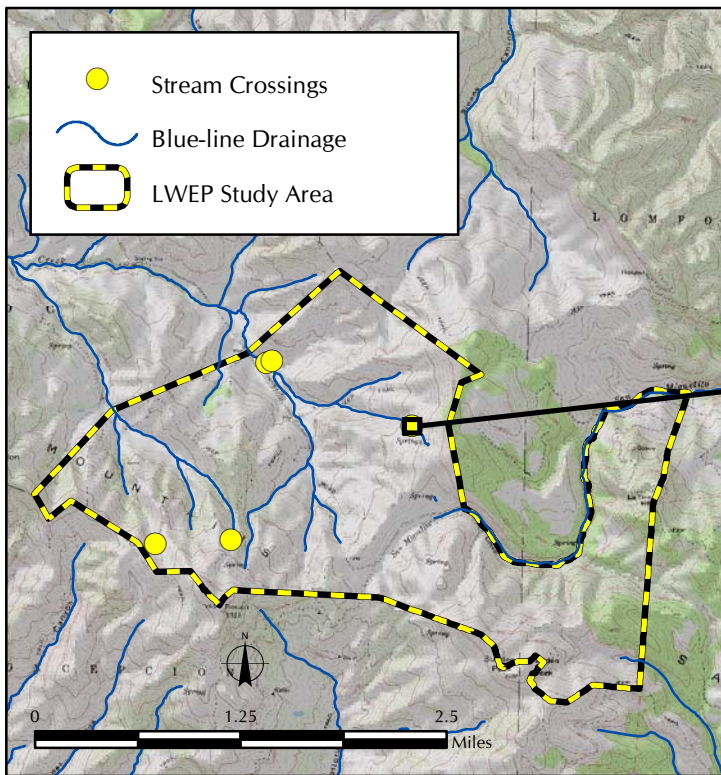




**PHOTO 1**  
Looking East from  
Blue-line Feature Crossing 4



**PHOTO 2**  
Looking West from  
Blue-line Feature Crossing 4

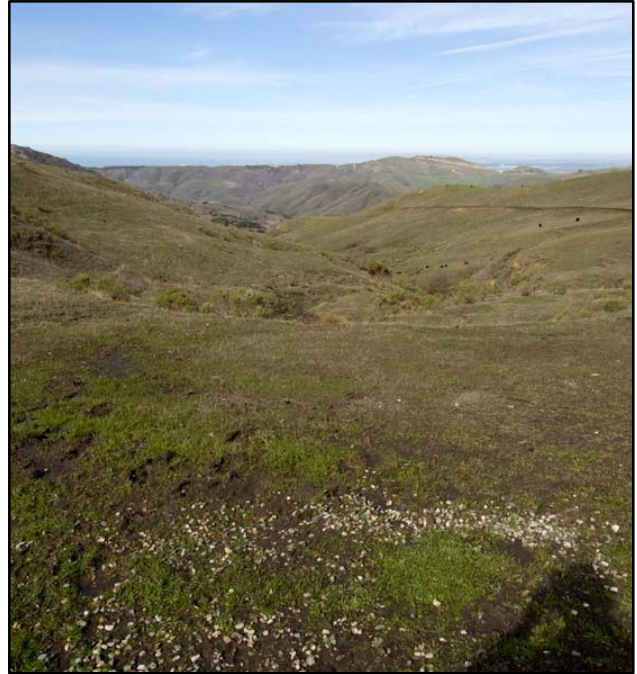


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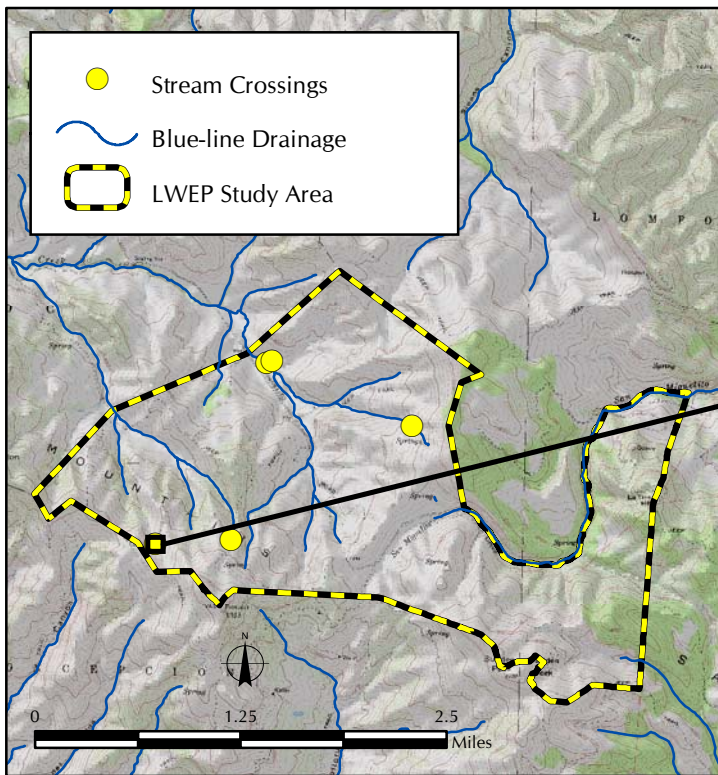




**PHOTO 1**  
Looking East from  
Blue-line Feature Crossing 5

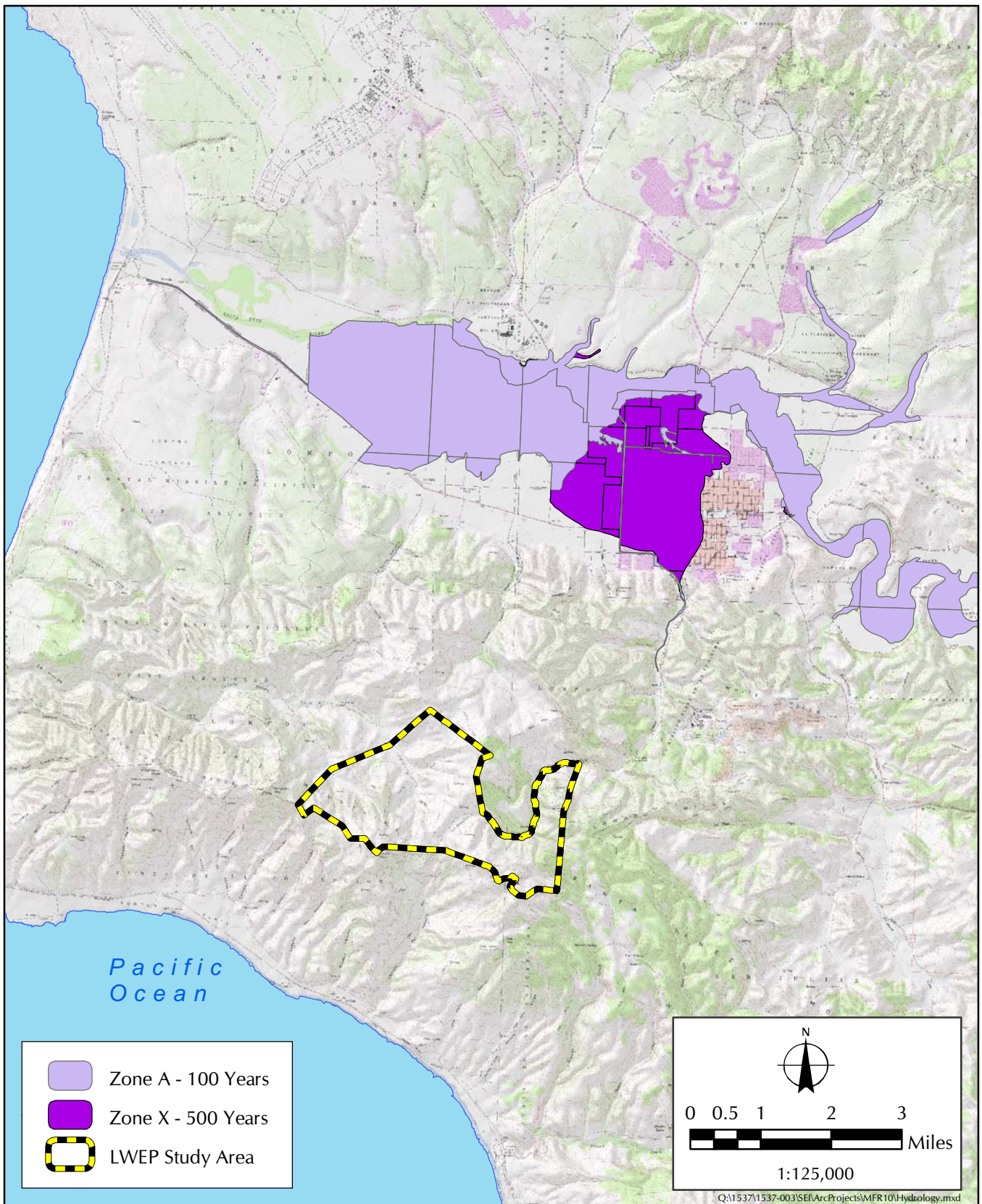


**PHOTO 2**  
Looking West from  
Blue-line Feature Crossing 5



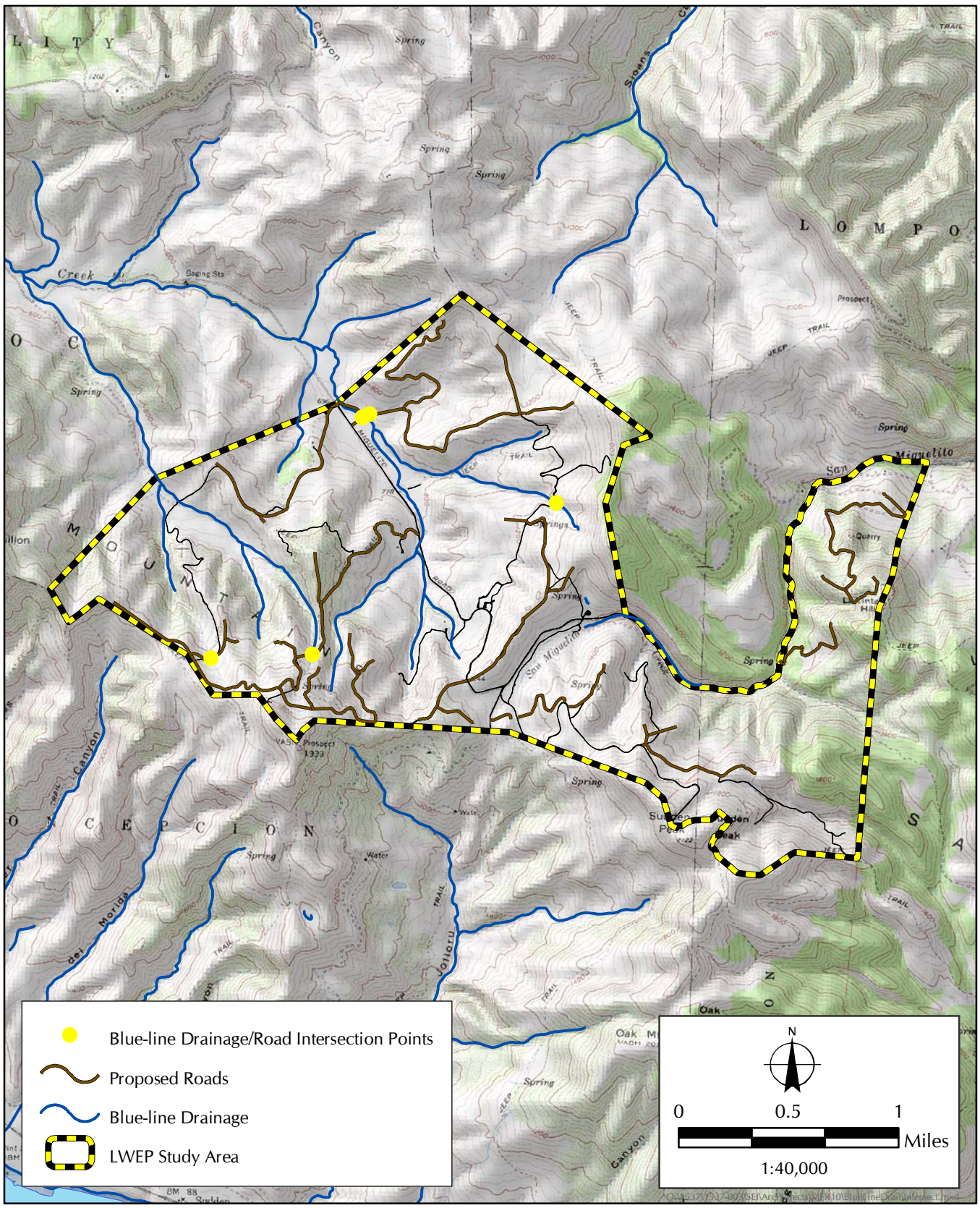
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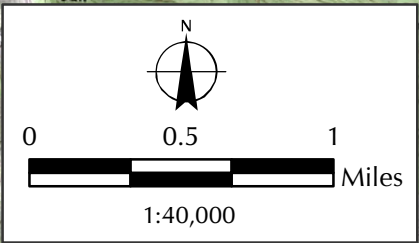


**ATTACHMENT 12**  
Flood Zone of the LWEP Study Area





-  Blue-line Drainage/Road Intersection Points
-  Proposed Roads
-  Blue-line Drainage
-  LWEF Study Area



**APPENDIX A**  
**DESCRIPTION OF AREAS SUBJECT TO**  
**SECTION 404 OF THE CLEAN WATER ACT DATA SHEETS**

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

Project/Site: <u>LWEP Site 1</u> Applicant/Owner: <u>Acciona</u> Investigator: <u>ACK</u>	Date: <u>4/9/08</u> County: <u>S. Barbara</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span> Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span> Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Unknown lily</u>			9. _____		
2. <u>Brass buttons (Crotola)</u>			10. _____		
3. <u>Curly Dock (Rumex crispus)</u>			11. _____		
4. <u>Juncus patens</u>			12. _____		
5. <u>Lycete bush (uncommon)</u>			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: unknown lily dominant in central drainage

**HYDROLOGY**

<p>Recorded Data (Describe in Remarks):</p> <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 <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>N/A 0</u> (in.)</p> <p>Depth to Free Water in Pit: _____ (in.)</p> <p>Depth to Saturated Soil: _____ (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <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 checked="" type="checkbox"/> Drainage Patterns in Wetlands <p>Secondary Indicators (2 or more required):</p> <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)
<p>Remarks: <u>large swale that drains towards road through culvert</u></p>	

**SOILS**

Map Unit Name (Series and Phase): _____		Drainage Class: _____	
Taxonomy (Subgroup): <u>Sandy loam - Mollisol</u>		Field Observations Confirm Mapped Type? Yes No	
<b>Profile Description:</b>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
			Mottle Abundance/ Size/Contrast
			Texture, Concretions, Structure, etc.
<u>See back of Page 2 of Sect. 1600 Data sheets</u>			
Hydric Soil Indicators:			
<input type="checkbox"/> Histosol	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Aquic Moisture Regime
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
		<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Listed on Local Hydric Soils List
		<input type="checkbox"/> Listed on National Hydric Soils List	<input type="checkbox"/> Other (Explain in Remarks)
Remarks:			

**WETLAND DETERMINATION**

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

Approved by HQUSACE 3/92

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

Project/Site: <u>LWER Site 2</u> Applicant/Owner: <u>Acciona</u> Investigator: <u>ACK/JAG</u>	Date: <u>4/18/08 &amp; 4/17/08</u> County: <u>Santa Barbara</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span> Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span> Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Coflea sp. (Brassica sp.)</u>			9. _____		
2. <u>lily</u>			10. _____		
3. <u>Plantago sp.</u>			11. _____		
4. <u>Polygonum</u>			12. _____		
5. <u>Corty Dick</u>			13. _____		
6. <u>Bromus sp.</u>			14. _____		
7. <u>Hypochaeris sp.</u>			15. _____		
8. _____			16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: Inundated for more than 2 weeks during growing season.

**HYDROLOGY**

<input 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	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <u>(lower section)</u> <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> <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: <u>(lower section)</u> Depth of Surface Water: <u>7</u> (in.) Depth to Free Water in Pit: <u>inundated</u> (in.) Depth to Saturated Soil: <u>inundated</u> (in.)	Remarks: <u>Construction to avoid lower section of wetland.</u>

**SOILS**

Map Unit Name (Series and Phase): _____		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? Yes No	
<b>Profile Description:</b>			
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
			Mottle Abundance/ Size/Contrast
			Texture, Concretions, Structure, etc.
<p><i>See back of Sect. 1600 Data sheets</i></p>			
<b>Hydric Soil Indicators:</b>			
<input checked="" type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input checked="" type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input checked="" type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)	
Remarks: <i>Current construction plans will avoid lower section of wetland</i>			

**WETLAND DETERMINATION**

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

Approved by HQUSACE 3/92

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

Project/Site: <u>LWEP site 3</u> Applicant/Owner: <u>Accima</u> Investigator: <u>ACK</u>	Date: <u>4/19/08 &amp; 4/20/08</u> County: <u>Santa Barbara</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span> Is the site significantly disturbed (Atypical Situation)? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span> Is the area a potential Problem Area? <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Arroyo willow</u>			9. _____		
2. <u>Juncus patens</u>			10. _____		
3. <u>lily sp.</u>			11. _____		
4. <u>Blackberry</u>			12. _____		
5. <u>Coyote Bush</u>			13. _____		
6. <u>Plantain</u>			14. _____		
7. <u>Poison Oak</u>			15. _____		
8. <u>non-native grasses</u>			16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: Arroyo willow dominates the riparian zone  
~75% cont.

**HYDROLOGY**

<input 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	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> <input type="checkbox"/> Inundated <input checked="" 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 <b>Secondary Indicators (2 or more required):</b> <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: <table style="margin-left: 20px; border: none;"> <tr> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="padding-right: 10px;">Depth of Surface Water:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">2.0</td> </tr> <tr> <td style="padding-right: 10px;">Depth to Free Water in Pit:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">24.5</td> <td style="text-align: center;">in.</td> </tr> <tr> <td style="padding-right: 10px;">Depth to Saturated Soil:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">6</td> <td style="text-align: center;">in</td> <td style="text-align: center;">soil</td> </tr> </table>		1	2	3	4	Depth of Surface Water:	0	0	0	2.0	Depth to Free Water in Pit:	0	0	24.5	in.	Depth to Saturated Soil:	0	6	in	soil	Remarks:
	1	2	3	4																	
Depth of Surface Water:	0	0	0	2.0																	
Depth to Free Water in Pit:	0	0	24.5	in.																	
Depth to Saturated Soil:	0	6	in	soil																	

**SOILS**

Map Unit Name (Series and Phase): _____		Drainage Class: _____	
Taxonomy (Subgroup): <u>H:stol</u>		Field Observations Confirm Mapped Type? Yes No <u>sandy loam</u>	
<b>Profile Description:</b>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)
			Mottle Abundance/ Size/Contrast
			Texture, Concretions, Structure, etc.
		<u>See back of sheet 2 in secth 1600 Field Data sheet</u>	
<b>Hydric Soil Indicators:</b>			
<input checked="" type="checkbox"/> Histosol <u>in some areas</u>	<input checked="" type="checkbox"/> Concretions		
<input type="checkbox"/> Histic Epipedon	<input checked="" 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 checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List		
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)		
Remarks: <u>Soil is a well mixed sandy loam; apparent slow surface flow during periods of rain. Water appears to originate from a seep spring that is fed by surrounding hillsides. The characteristics of the soils in the hillsides keep water for long periods after rain fall</u>			

**WETLAND DETERMINATION**

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

Approved by HQUSACE 3/92



**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: California County/parish/borough: Santa Barbara County City: Lompoc  
Center coordinates of site (lat/long in degree decimal format): Lat. ° **Pick List**, Long. ° **Pick List**.  
Universal Transverse Mercator: UTM Zone 10 727904/3829286

Name of nearest waterbody: Pacific Ocean

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean

Name of watershed or Hydrologic Unit Code (HUC): 18060013

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.  
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

- Office (Desk) Determination. Date:  
 Field Determination. Date(s):

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.  
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.  
Explain: .

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- TNWs, including territorial seas  
 Wetlands adjacent to TNWs  
 Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs  
 Non-RPWs that flow directly or indirectly into TNWs  
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs  
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs  
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs  
 Impoundments of jurisdictional waters  
 Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or acres.  
Wetlands: 0.188 acres.

**c. Limits (boundaries) of jurisdiction based on: **1987 Delineation Manual****

Elevation of established OHWM (if known): .

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain: .

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW: .

Summarize rationale supporting determination: .

**2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”:

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed size: 375.2 **square miles**

Drainage area: 7552.4 **acres**

Average annual rainfall: 18.50 inches

Average annual snowfall: 0.0 inches

**(ii) Physical Characteristics:**

**(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through **2** tributaries before entering TNW.

Project waters are **2-5** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **2-5** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW<sup>5</sup>: Tributary flows into San Miguelito Creek, which flows into the Santa Ynez River, which then flows into the Pacific Ocean..

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

**Tributary is:**  Natural  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain:

**Tributary properties with respect to top of bank (estimate):**

Average width: 2 feet

Average depth: 1 feet

Average side slopes: **4:1 (or greater)**.

**Primary tributary substrate composition (check all that apply):**

Silts  Sands  Concrete  
 Cobbles  Gravel  Muck  
 Bedrock  Vegetation. Type/% cover:  
 Other. Explain: Sandy Loam with streaking of gleyed hydric soils.

**Tributary condition/stability** [e.g., highly eroding, sloughing banks]. Explain: Highly eroding due to cattle presence.

**Presence of run/riffle/pool complexes.** Explain:

**Tributary geometry:** **Relatively straight**

**Tributary gradient (approximate average slope):** 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **6-10**

Describe flow regime: Area subject to winter rain events.

Other information on duration and volume:

Surface flow is: **Discrete**. Characteristics: The wetland area meanderinly drains into San Miguelito Creek.

Subsurface flow: **No**. Explain findings: 18 inch test pits uncovered no water.

Dye (or other) test performed:

**Tributary has (check all that apply):**

Bed and banks  
 OHWM<sup>6</sup> (check all indicators that apply):  
 clear, natural line impressed on the bank  the presence of litter and debris  
 changes in the character of soil  destruction of terrestrial vegetation  
 shelving  the presence of wrack line  
 vegetation matted down, bent, or absent  sediment sorting  
 leaf litter disturbed or washed away  scour  
 sediment deposition  multiple observed or predicted flow events  
 water staining  abrupt change in plant community  
 other (list):  
 Discontinuous OHWM.<sup>7</sup> Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by:  Mean High Water Mark indicated by:  
 oil or scum line along shore objects  survey to available datum;  
 fine shell or debris deposits (foreshore)  physical markings;  
 physical markings/characteristics  vegetation lines/changes in vegetation types.  
 tidal gauges  
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Entire area is heavily used by cattle and water quality reflects this. Water color is a murky brown..

Identify specific pollutants, if known:

<sup>6</sup>A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup>Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): .
- Wetland fringe. Characteristics: .
- Habitat for:
  - Federally Listed species. Explain findings: .
  - Fish/spawn areas. Explain findings: .
  - Other environmentally-sensitive species. Explain findings: .
  - Aquatic/wildlife diversity. Explain findings: Western Toads and Pacific Treefrogs (tadpoles and adults) were present

further downstream of the impact area.

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.233 acres

Wetland type. Explain: Seasonal.

Wetland quality. Explain: Highly eroded due to cattle presence.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Site experiences winter rain events.

Surface flow is: **Discrete**

Characteristics: Wetland meanderingly drains into San Miguelito Creek.

Subsurface flow: **No**. Explain findings: Soil test pits uncovered no water.

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: The wetland area is a very small channel that forms into a large swale that reforms into an incised channel which then flows into San Miguelito creek (RPW)..

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **2-5** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

4.5 miles from the 500-year floodplain

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water color is a murky brown and water quality reflects the heavy cattle use.

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

Riparian buffer. Characteristics (type, average width): Average width of riparian vegetation is 15 feet.

Vegetation type/percent cover. Explain: Wetland is dominated by Arroyo Willows.

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: Western Toads and Pacific Treefrogs (tadpoles and adults) were present downstream of the impacted wetland area..

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **1**

Approximately ( 0.233 ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
N	0.233		

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: The wetland flows into San Miguelito creek (RPW), which flows into the Santa Ynez river and then into the Pacific Ocean (TNW).

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
  - TNWs: linear feet width (ft), Or, acres.
  - Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
  - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
  - Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
  - Other non-wetland waters: acres.
- Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
  - Other non-wetland waters: acres.
- Identify type(s) of waters: .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
  - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
  - Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: .
- Other factors. Explain: .

<sup>8</sup>See Footnote # 3.

<sup>9</sup>To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup>Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

**Identify water body and summarize rationale supporting determination:**

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.  
Identify type(s) of waters: .
- Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000 Surf, Lompoc, Tranquilon Mtn., Lompoc Hills..
- USDA Natural Resources Conservation Service Soil Survey. Citation: .
- National wetlands inventory map(s). Cite name: Tranquillon Mtn...
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): 0.3 Meter Orthorectified, 2004, Obtained from GlobeXplore, Inc..  
or  Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .


**B. ADDITIONAL COMMENTS TO SUPPORT JD:** Although 3 wetlands were delineated, current construction plans will only impact one of these wetlands, which account for 0.233 acre of waters. These wetlands do eventually drain into the San Miguelito creek which is an RPW. San Miguelito flows into the Santa Ynez River which then flows into the Pacific Ocean. Hence, this wetland is jurisdictional.

**APPENDIX B**  
**DESCRIPTION OF AREAS SUBJECT TO**  
**SECTION 1600 OF THE STATE FISH AND GAME CODE DATA SHEETS**

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**SECTION 1600 FISH AND GAME CODE FIELD ASSESSMENT SHEET**

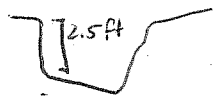
Project Name and Site No. <b>LWEP Site 1</b>		Project No. <b>1537-003</b>	
Date: <b>4/9/08</b>	Time start: <b>1100</b>		
Surveyors: <b>ACK</b>			
<b>Photo data</b>		<b>Weather data</b>	
Photo No.: <b>1-5</b>		Air temperature: <b>59°F</b>	
Taken from (direction): <b>1) W→E, 2) S→N, 3) E→W, 4) N→S</b>		Cloud cover (%): <b>0%</b> <b>Chemtrails present</b>	
Description of photo: <b>5) channel</b>		Precipitation: [ ] yes [X] no	
		Estimated wind speed: <b>5-10% Busty</b>	
<b>Physical Characteristics</b>			
Adjacent land uses (e.g., residential, commercial, open space)			
North: <b>ruderal - cattle grazing</b>		East: " "	
South: " "		West: " "	
Slope %: <b>Southern sloping 2-3%</b>		Soil description: <b>Sandy loam 1042 3/4</b>	
Aspect: <b>Southern</b>			
GPS location: <b>N34°34.406 W120°31.038</b>			
Previous/existing disturbances, both natural and anthropogenic (describe and depict on aerial): <b>Extensive grazing, mixture of native + nonnative grassland</b>			
<b>Evidence of Aquatic or Riparian Resources (take photo and depict on aerial)</b>			
Is there a well-defined stream, bed, bank? [ ] yes (fill out section below) [X] no			
Classify stream as follows: [X] ephemeral [ ] intermittent [ ] perennial			
Presence of aquatic wildlife? [ ] yes [X] no			
Obvious wildlife movement corridor? [ ] yes [X] no			
Width of stream from top of streambed:			
Width of riparian vegetation:			
Cross-section sketch of stream section and vegetation:			
			
<ul style="list-style-type: none"> <li>◦ gentle depression</li> <li>◦ funnels toward upper section</li> </ul>			
Shelving: [ ] yes [X] no		Sediment deposition: [ ] yes [X] no	
Debris lines: [ ] yes [X] no		Presence of defined bed and bank: [ ] yes [X] no	
OHWM: [ ] yes [X] no		Riparian vegetation: [X] yes (note below) [ ] no	
Water marks: [ ] yes [X] no		Flowing or standing water: [ ] yes [X] no	
Notes: <b>contains lily, juncus patches</b>			



<u>Pit #</u>	<u>Horizon/depth</u>	<u>Matrix Color</u>	<u>Mottle Color</u>	<u>M. abundance</u>	<u>texture/consistency</u>
1	0-0.25 A <sub>0</sub> 0.25-18 B	10YR 3/4 5YR 3/2	N/A	N/A	Sandy loam Pedogenesis
2	0-.25 A <sub>0</sub> .25-18 B	10YR 3/4 5YR 3/2	10YR 5/6	C5 1/2	Sandy loam Pedogenesis
3	0-0.25 A <sub>0</sub> .25-18 B	10YR 3/4 5YR 3/2	N/A	-	Sandy loam Pedogenesis
4	0-.25 A <sub>0</sub> .25-18 B	10YR 3/4 5YR 3/2	N/A	-	11
5	0-.25 A <sub>0</sub> .25-18 B	10YR 3/4 5YR 3/2	N/A	-	11
6	0-18 B	10YR 4/2	N/A	-	11

\* No surface or subsurface inundation

**SECTION 1600 FISH AND GAME CODE FIELD ASSESSMENT SHEET**

Project Name and Site No. <i>LLWP Site 2</i>		Project No. <i>1537-003</i>	
Date: <i>4/10/08</i>	Time start: <i>0900</i>		
Surveyors: <i>ACK + JAY</i>			
<b>Photo data</b>		<b>Weather data</b>	
Photo No.:		Air temperature: <i>60°F</i>	
Taken from (direction): <i>upper</i> <i>(S→N 2) E→west 3) N→S</i>   <i>lower</i> <i>(4+5) S→N</i>		Cloud cover (%) <i>30%</i>	
Description of photo:		Precipitation: [ ] yes [X] no	
		Estimated wind speed: <i>5-10 Bury</i>	
<b>Physical Characteristics</b>			
Adjacent land uses (e.g., residential, commercial, open space)			
North: <i>rudral</i>		East:	
South: <i>rudral</i>		West:	
Slope %: <i>0-1 Varying</i>		Soil description:	
Aspect: <i>South sloping</i>		<i>See back</i>	
GPS location: <i>Center N 34°34.511, W 120°50.951</i>			
Previous/existing disturbances, both natural and anthropogenic (describe and depict on aerial): <i>Cattle grazing</i>			
<b>Evidence of Aquatic or Riparian Resources (take photo and depict on aerial)</b>			
Is there a well-defined stream, bed, bank? [X] yes (fill out section below) [ ] no			
Classify stream as follows: [ ] ephemeral [X] intermittent [R] perennial			
Presence of aquatic wildlife? [X] yes [ ] no <i>Toads / Frogs &amp; tadpoles</i>			
Obvious wildlife movement corridor? [ ] yes [X] no			
Width of stream from top of streambed: <i>Upper N/A lower 7 feet Varying Avg. = 7</i>			
Width of riparian vegetation: <i>unknown lily 7 feet * unknown lily may not be riparian - could be facultative</i>			
Cross-section sketch of stream section and vegetation: <i>upper</i> <span style="margin-left: 200px;"><i>lower</i></span>			
<i>gently sloping basin</i>		 <i>incised channel, defined bed/bank</i>	
Shelving: [X] yes [ ] no		Sediment deposition: [X] yes [ ] no	
Debris lines: [ ] yes [X] no		Presence of defined bed and bank: [X] yes [ ] no	
OHWM: [ ] yes [ ] no		Riparian vegetation: # [X] yes (note below) [ ] no	
Water marks: [X] yes [ ] no		Flowing or standing water: [X] yes [ ] no	
Notes: <i>* unknown lily</i>			

*-3 upper  
to lower*



Pit #	Horizontal Depth	Matrix Color	Mottl. Color	Mottl. Abundance	Texture
1 (upper section)	0-18 A	10YR 3/2	5YR 3/3	10%	Sandy loam
2	"	10YR 3/2	5YR 3/3	10%	"
3	"	10YR 3/3	—	—	"
4	"	10YR 4/3	10YR 4/6	15%	"
5	"	10YR 3/2	5YR 3/3	5%	"
6	"	10YR 3/2	5YR 2/3	45%	"
7 (lower section)	saturated 0-18 A	sat. 2.5YR 2.5/1	5YR 3/3	10%	"
8	"	dry 10YR 3/2	5YR 3/3	45%	"
9	"	10YR 3/2	5YR 3/3	10%	"
10	"	10YR 3/2	5YR 3/3	5%	"
11	"	10YR 3/2	5YR 3/3	5%	"
12	"	10YR 3/2	5YR 3/3 = 40% 2.5YR = 5% 2.5/3		"
13	"	10YR 3/3	5YR 3/3	10%	"

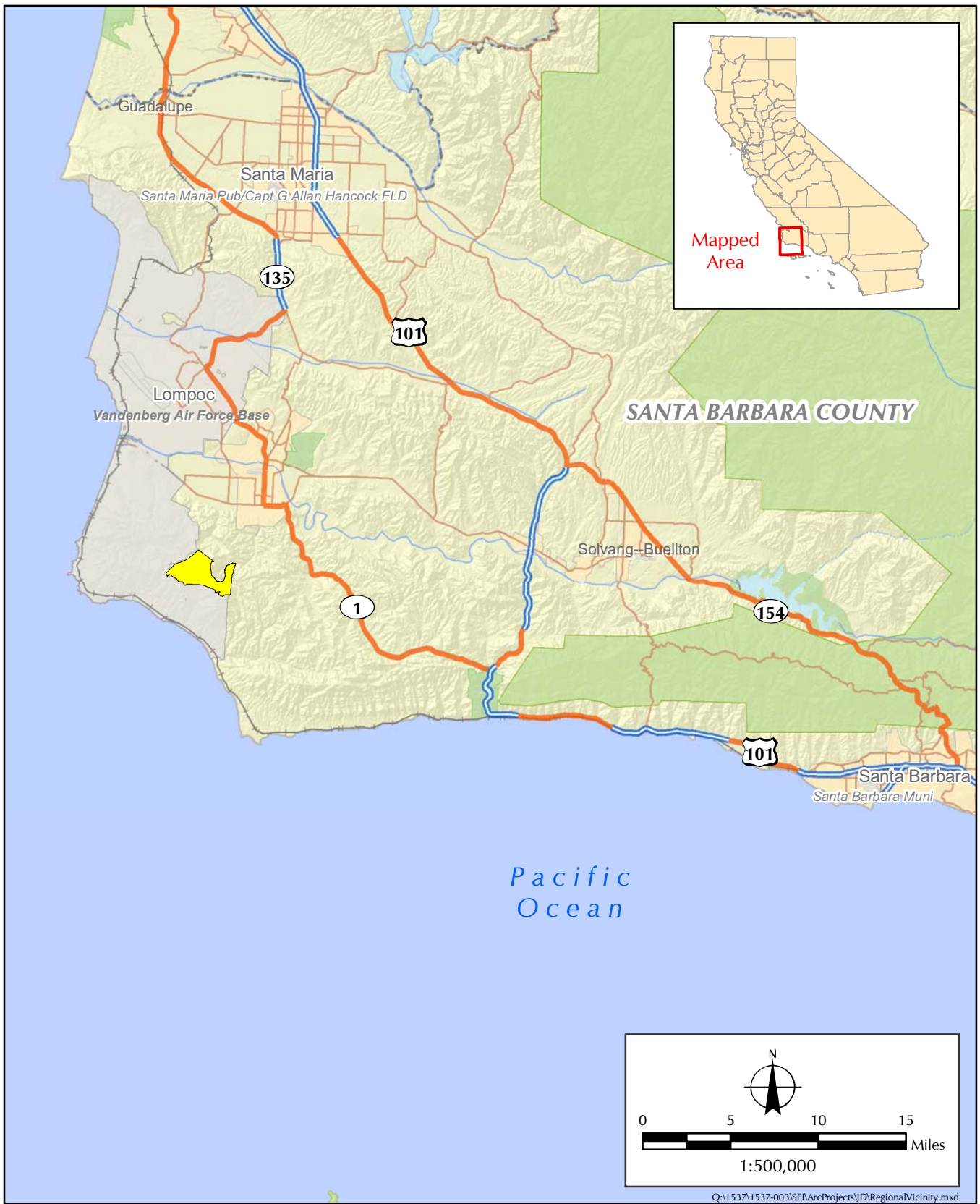
**SECTION 1600 FISH AND GAME CODE FIELD ASSESSMENT SHEET**

Project Name and Site No. <b>LWEP site 3</b>		Project No. <b>1637-003</b>	
Date: <b>4/9/08</b>		Time start: <b>0900</b>	
Surveyors: <b>ACK</b>			
<b>Photo data</b>		<b>Weather data</b>	
Photo No.: <b>1-7</b>		Air temperature: <b>59° F</b>	
Taken from (direction): <b>1) S → N 2) E → W 3) N → S 4) W → E 5) Center</b>		Cloud cover (%): <b>&lt; 5%</b> <b>Chemtrails present</b>	
Description of photo: <b>6) Center 2 7) Center 3</b>		Precipitation: [ ] yes [ ] no	
* transect numbers coincide w/ pit transects		Estimated wind speed: <b>5-10 mph gusty</b>	
<b>Physical Characteristics</b>			
Adjacent land uses (e.g., residential, commercial, open space)			
North: <b>ruderal - cattle grazing</b>		East: <b>" "</b>	
South: <b>ruderal - cattle grazing</b>		West: <b>" "</b>	
Slope %: <b>3-4% varying</b>		Soil description: <b>Sandy loam</b> <b>10 YR 4/3</b>	
Aspect: <b>SE</b>			
GPS location: <b>N 34° 34.452' W 120° 31.106'</b>			
Previous/existing disturbances, both natural and anthropogenic (describe and depict on aerial): <b>High cattle usage; trampling, grazing, urine and excrement, sedimentation, erosion/slight channelization</b> <b>Exotic plants such as non-native grasses, Eucalyptus</b>			
<b>Evidence of Aquatic or Riparian Resources (take photo and depict on aerial)</b>			
Is there a well-defined stream, bed, bank? <input checked="" type="checkbox"/> yes (fill out section below) [ ] no			
Classify stream as follows: <input checked="" type="checkbox"/> ephemeral [ ] intermittent [ ] perennial <b>Subsurface seeping</b>			
Presence of aquatic wildlife? [ ] yes <input checked="" type="checkbox"/> no			
Obvious wildlife movement corridor? [ ] yes <input checked="" type="checkbox"/> no <b>* only for cattle</b>			
Width of stream from top of streambed: 0m) <b>n/a</b> 20m) <b>n/a</b> 40m) <b>n/a</b> 60m) <b>14 inches</b> <b>n/a = no water present on surface</b>			
Width of riparian vegetation: 0m) <b>25 ft</b> 20m) <b>17 ft</b> 40m) <b>10 ft</b> 60m) <b><del>10 ft</del> n/a</b> <b>n/a = no vegetation present</b>			
Cross-section sketch of stream section and vegetation:			
Shelving: [ ] yes <input checked="" type="checkbox"/> no		Sediment deposition: [ ] yes <input checked="" type="checkbox"/> no	
Debris lines: [ ] yes <input checked="" type="checkbox"/> no		Presence of defined bed and bank: <input checked="" type="checkbox"/> yes [ ] no	
OHWM: [ ] yes <input checked="" type="checkbox"/> no		Riparian vegetation: <input checked="" type="checkbox"/> yes (note below) [ ] no	
Water marks: [ ] yes <input checked="" type="checkbox"/> no		Flowing or standing water: <input checked="" type="checkbox"/> yes [ ] no	
Notes: <b>Riparian Vegetation: Arroyo willow, blackberry, poison oak, junco patterns</b> <b>Coyote brush, plantago, unknown lily</b>			





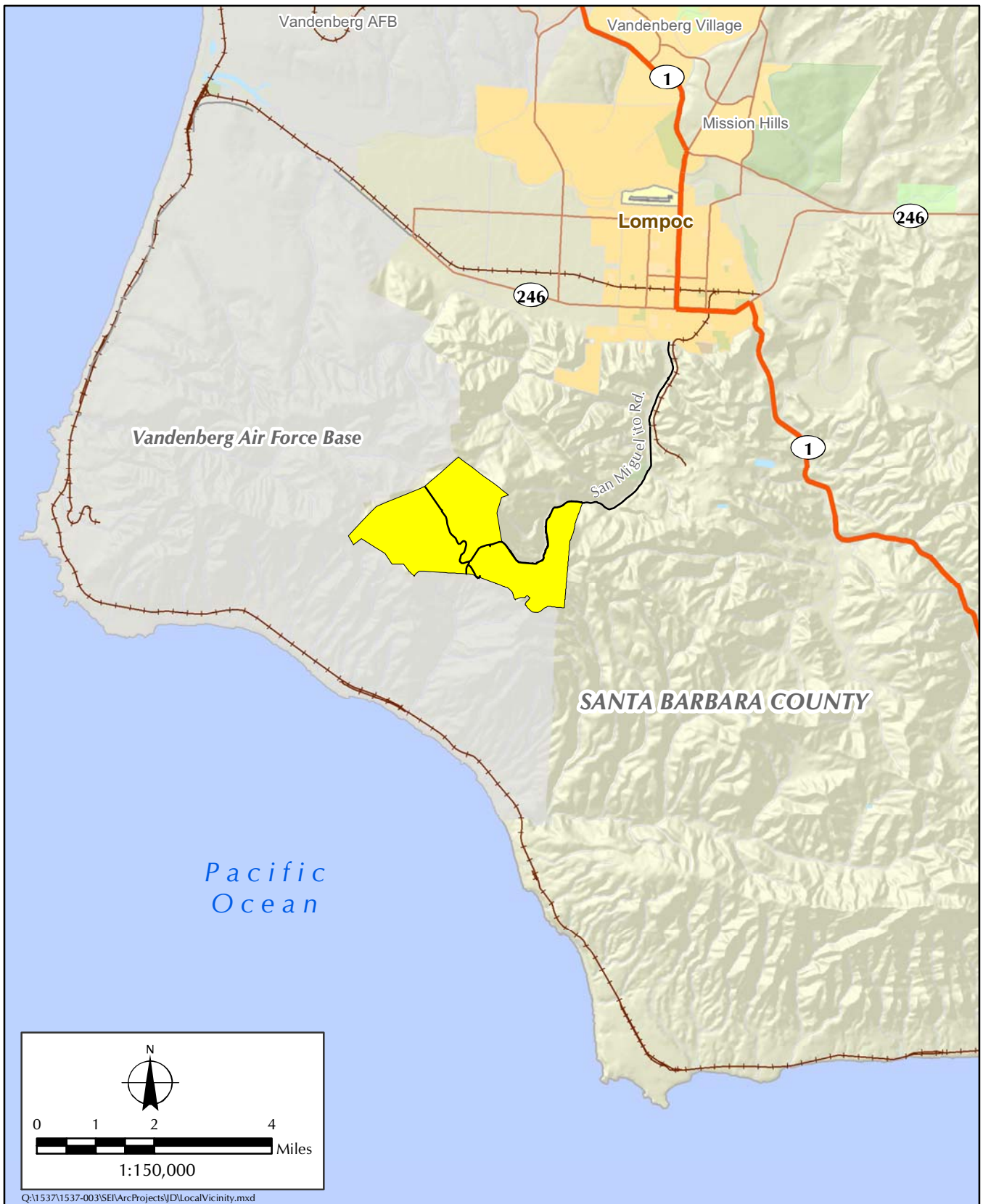
<u>Pit #</u>	<u>Horizon/Depth</u>	<u>Matrix Color</u>	<u>Mottle color</u>	<u>Mottle abundance</u>	<u>Texture</u>
1 (0m)	0-18 B	2.5Y 3/1	-	-	Sandy loam Cohesion thru high moisture
2 (20m)	0-.5 A <sub>0</sub> 15-18 B	10YR 3/4	-	-	moist in lower portion of pit Sandy loam
3 (40m)	0-1.0 A <sub>0</sub> 1.0-18 B	2.5YR 3/1	-	-	Sandy loam
4 (60m)	0-18 B	10YR 3/2	-	-	11 (1.5 ft to dry soil)



 LWEF Property

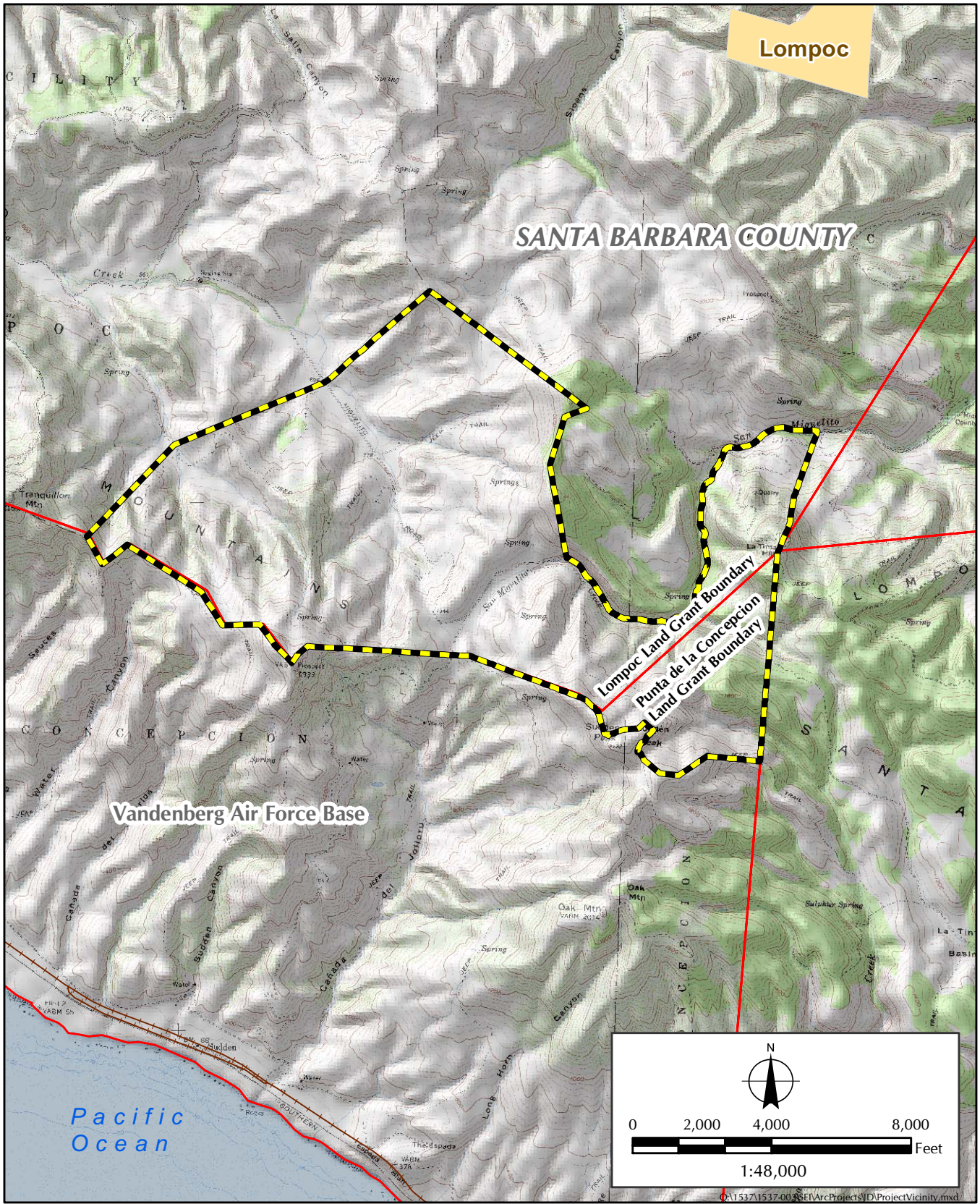
**ATTACHMENT 1**  
Regional Vicinity Map

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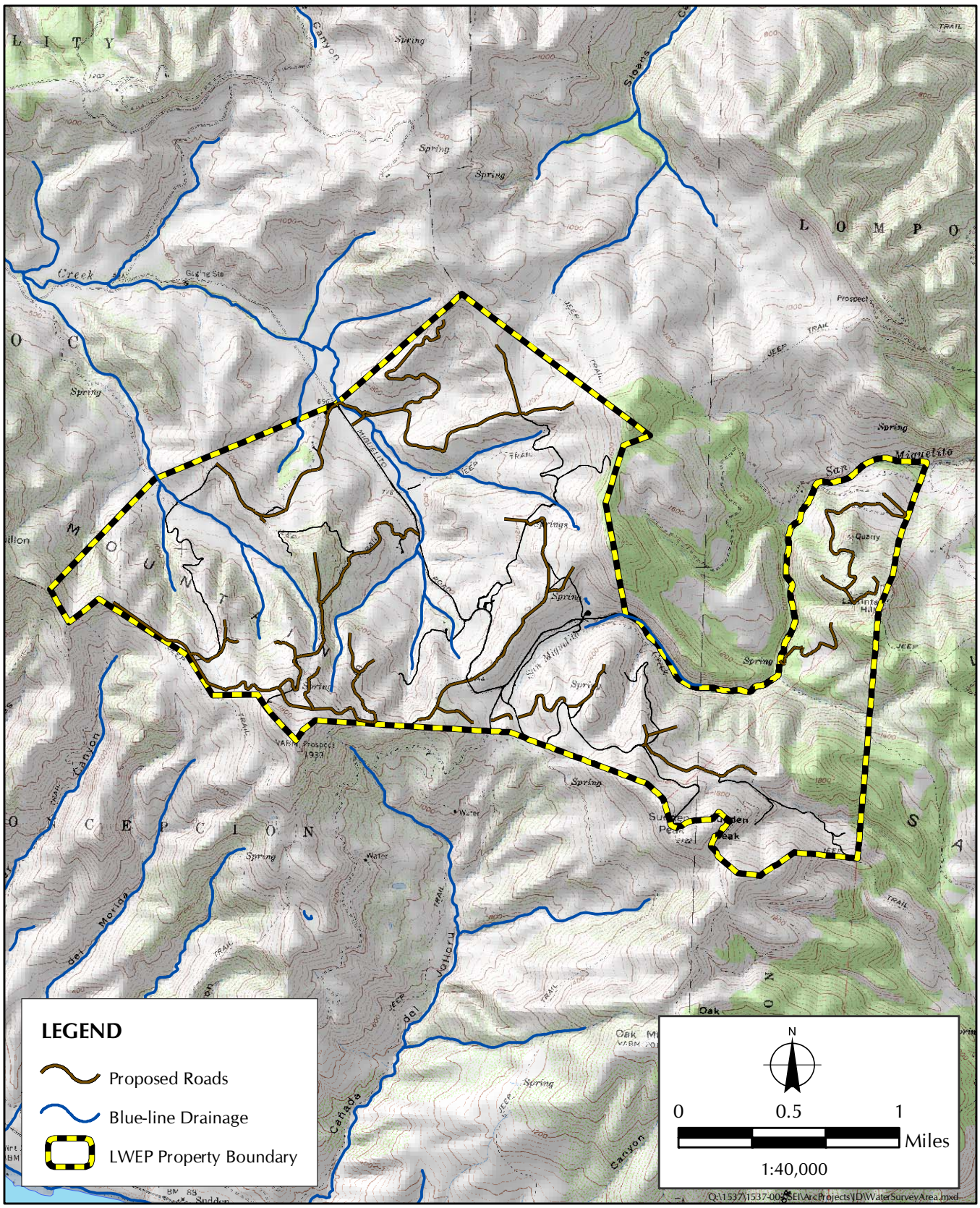
 LWEP Property

**ATTACHMENT 2**  
Local Vicinity Map



LWE Property Boundary


**ATTACHMENT 3**  
Project Site Map



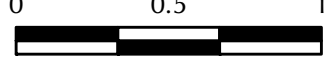
**LEGEND**

-  Proposed Roads
-  Blue-line Drainage
-  LWEP Property Boundary

N



0      0.5      1

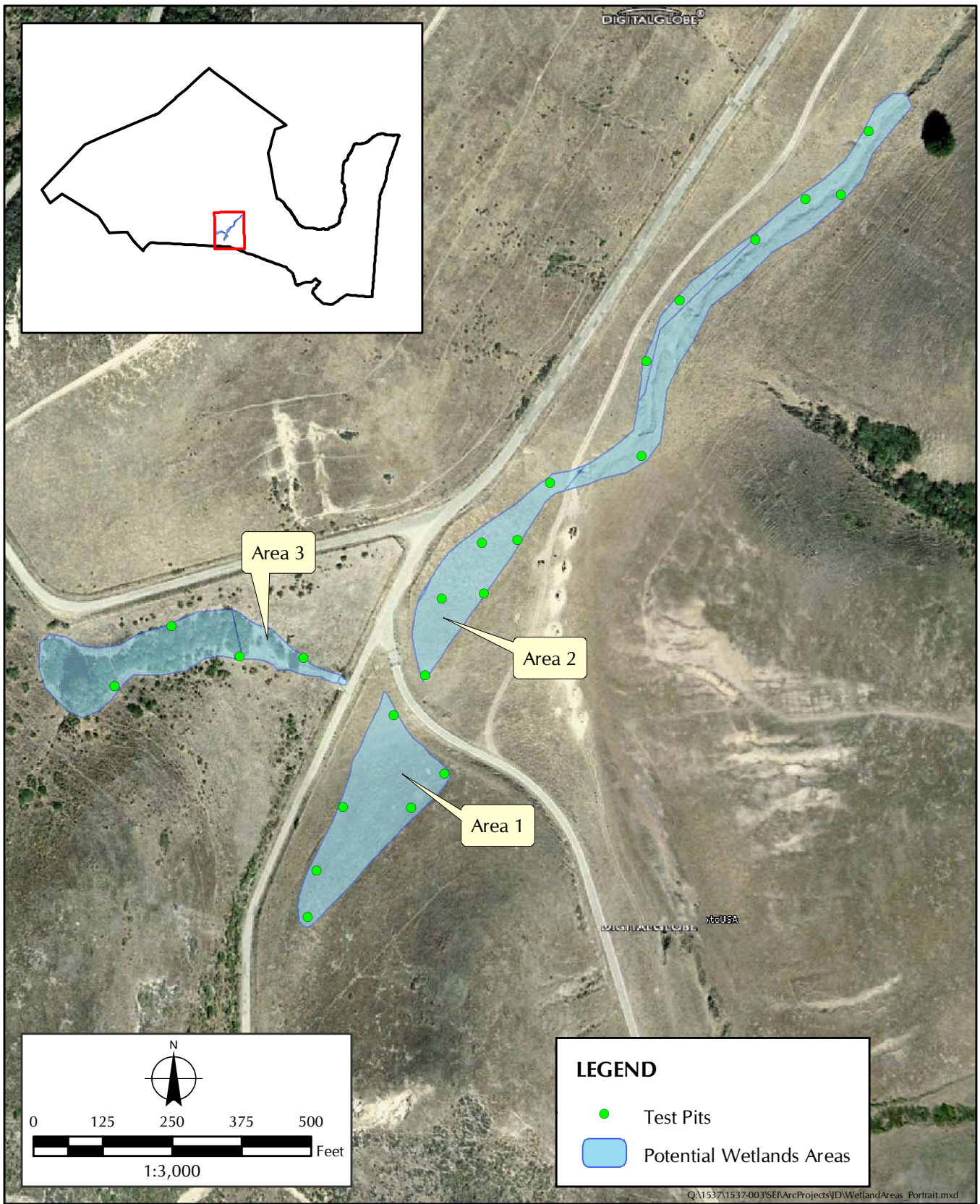


Miles

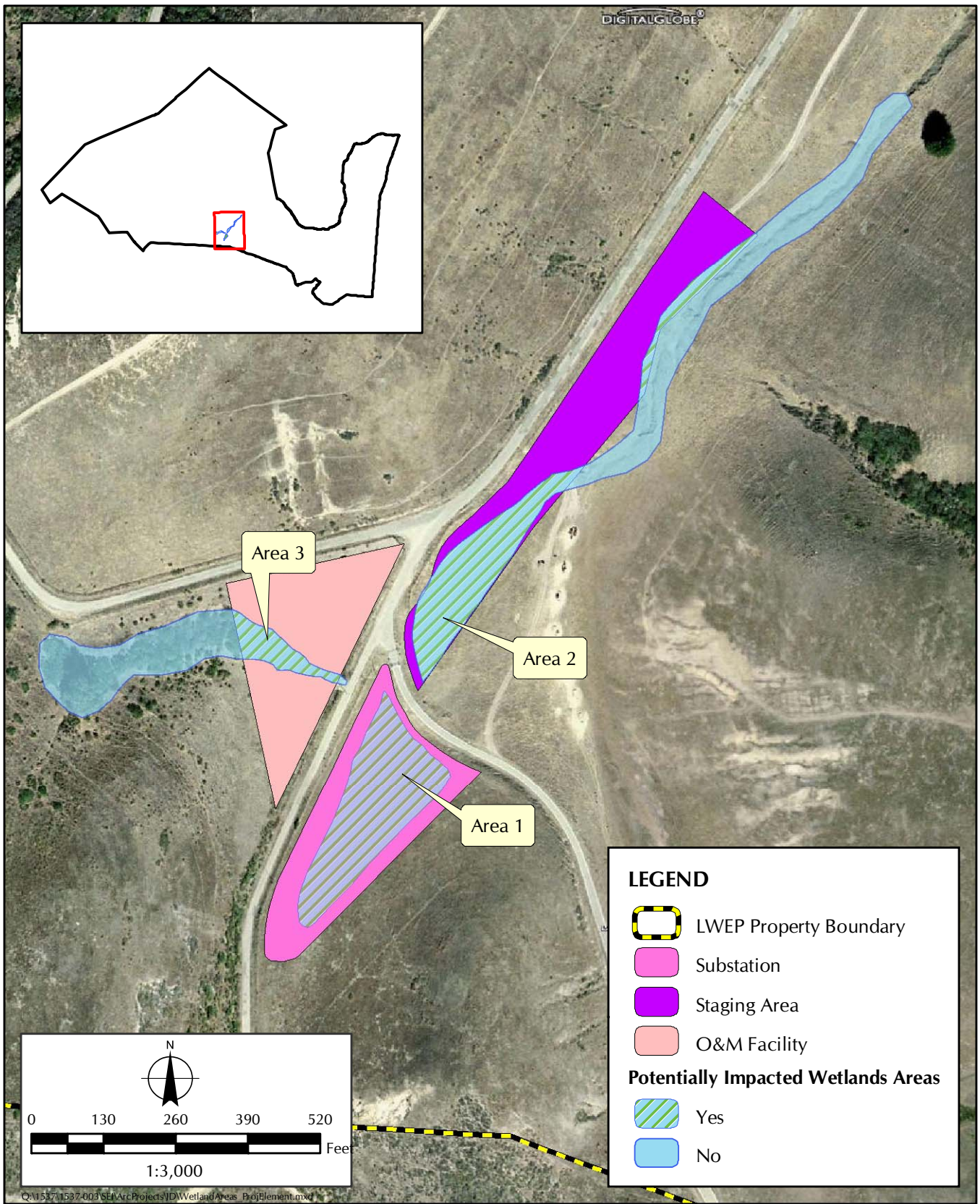
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**ATTACHMENT 5**  
Potential Wetlands Survey Area



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**ATTACHMENT 6**  
Potential Wetlands Areas with Project Elements



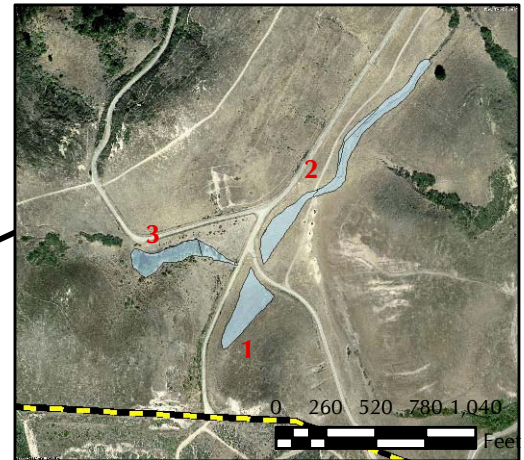
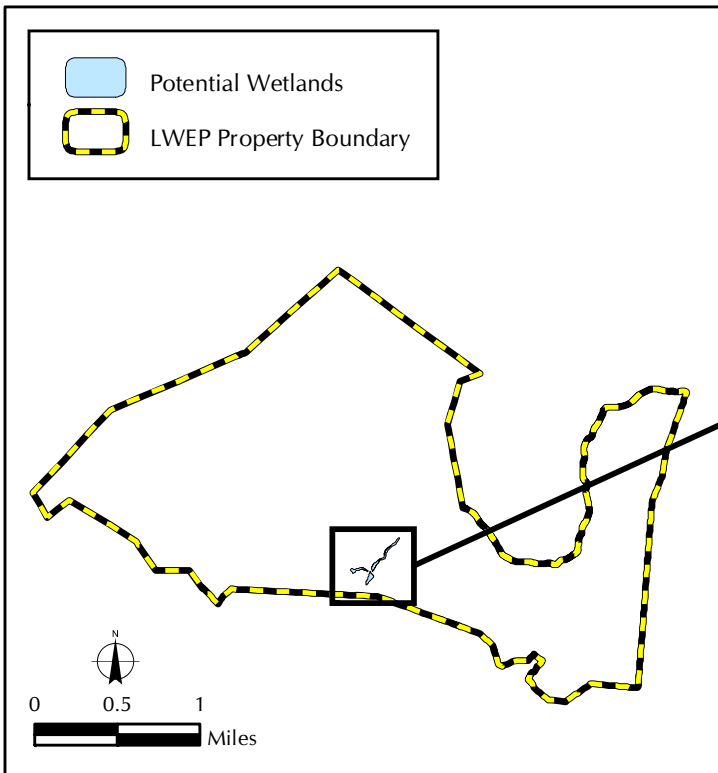
**PHOTO 1**

Looking Northeast from  
Wetlands Area 1



**PHOTO 2**

Looking Southwest from  
Wetlands Area 1



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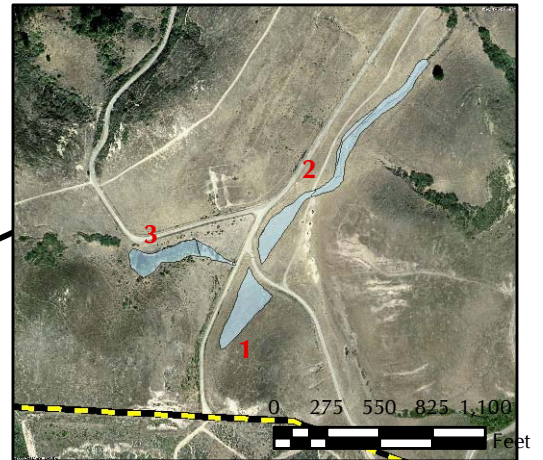
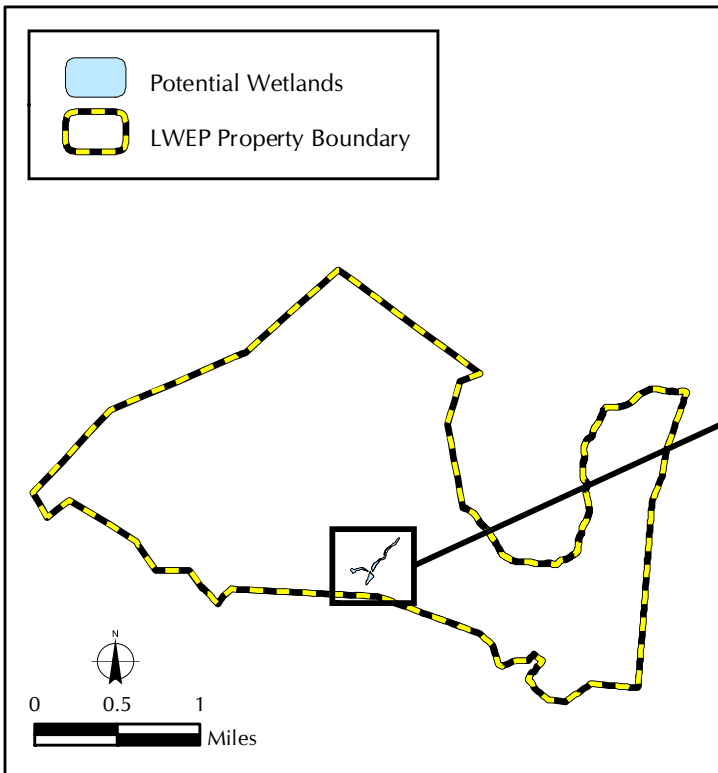
**PHOTO 1**

Looking Northeast from  
Wetlands Area 2



**PHOTO 2**

Looking Northeast into lower channel from  
Wetlands Area 2



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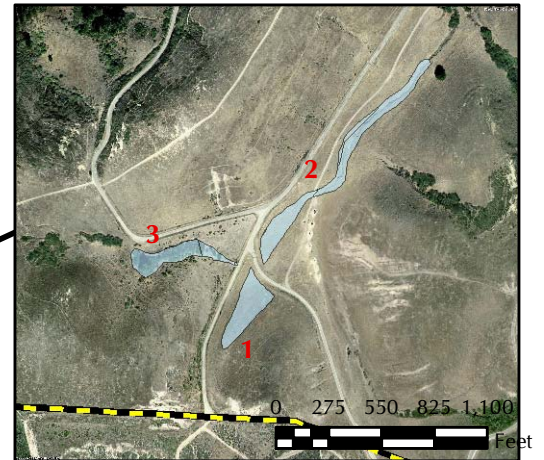
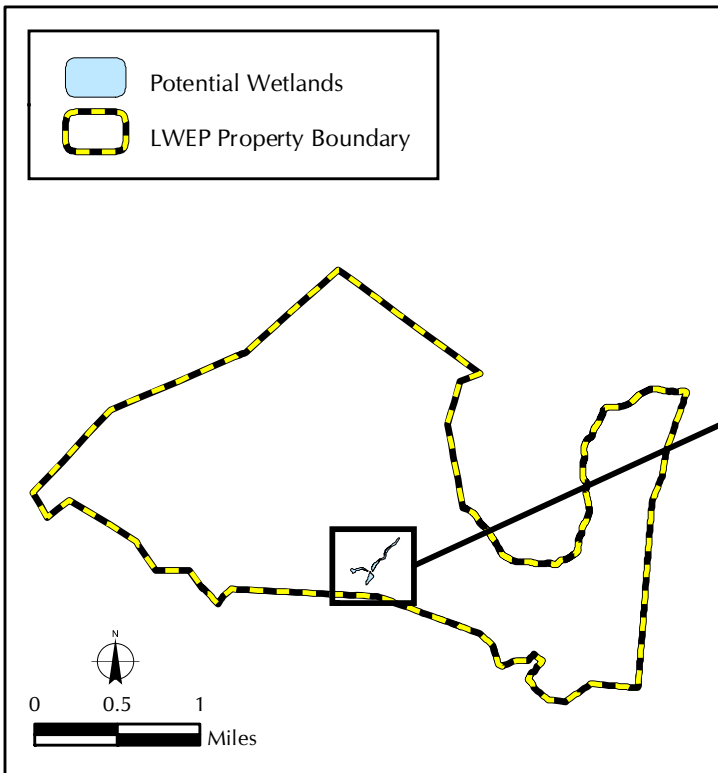




**PHOTO 1**  
Looking Southwest from  
Wetlands Area 3

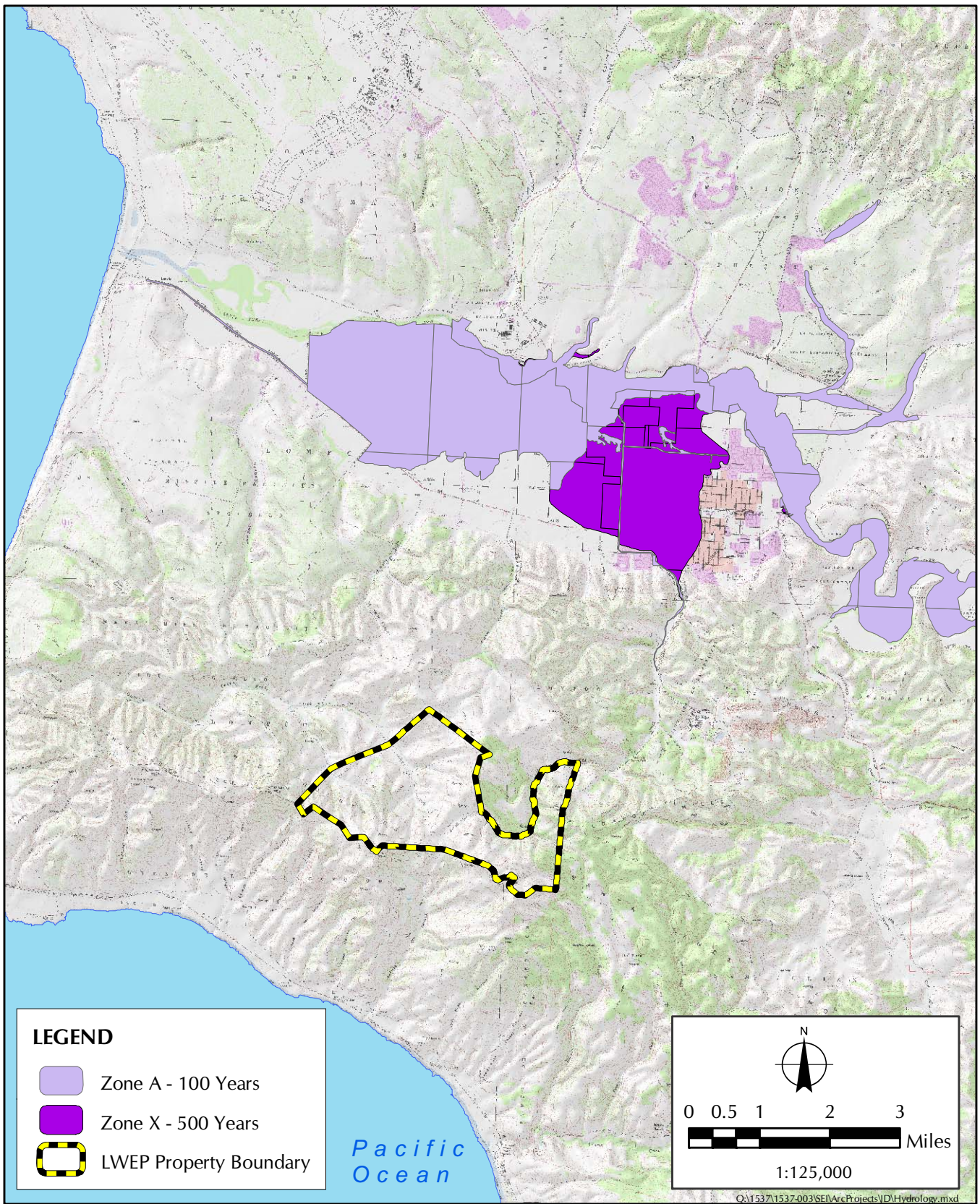


**PHOTO 2**  
Looking West from  
Wetlands Area 3



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**ATTACHMENT 10**  
Flood Zones in Relation to the LWEP Property