

**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): February 25, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, UC Merced and Campus Community, SPK-1999-00203

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **California** County/parish/borough: **Merced** City: **Merced**
Center coordinates of site (lat/long in degree decimal format): Lat. **37.362709°**, Long. **-120.426182°**
Universal Transverse Mercator: **10 727936.2 4138218.2**

Name of nearest waterbody: **Cottonwood Creek**

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

Name of watershed or Hydrologic Unit Code (HUC): **Middle San Joaquin-Lower Chowchilla, 18040001**

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: **February 24, 2016**

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 no** "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):¹

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters² (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, wide, and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **The review area includes two features that are remnant golf course water hazards converted into storm water detention basins and ornamental ponds. The North Basin is an approximately 3.83-acre perennial feature with a fountain to increase the aesthetics and aerate the water. Ground water is pumped into this feature from a well in order to maintain the water level for aesthetic purposes. The South Basin is an approximately 0.76-acre seasonal feature, evaporating excess storm water. Both features support a wetland fringe while the North Basin supports more of a marsh habitat due to perennial water.**

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

² 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).

³ Supporting documentation is presented in Section III.F.

Both features are self contained and due not connect to, or spill water into surrounding land or adjacent aquatic resources.

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 waterbody⁴ 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: **Pick List**
- Drainage area: **Pick List**
- Average annual rainfall: inches
- Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through **Pick List** tributaries before entering TNW.

- Project waters are **Pick List** river miles from TNW.
- Project waters are **Pick List** river miles from RPW.
- Project waters are **Pick List** aerial (straight) miles from TNW.
- Project waters are **Pick List** aerial (straight) miles from RPW.
- Project waters cross or serve as state boundaries. Explain:

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

Identify flow route to TNW⁵:
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: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|------------------------------------------|----------------------------------------------------|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

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

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

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

(iii) Chemical Characteristics:

⁵ 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.

⁶A 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.

⁷Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain:
Identify specific pollutants, if known:

(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:

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: acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
- Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** 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:
Identify specific pollutants, if known:

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

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

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

Approximately acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

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:

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, wide, 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 wide.
- Other non-wetland waters: acres.
Identify type(s) of waters:

3. Non-RPWs⁸ 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, wide.
 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.⁹

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):¹⁰

- 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:

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, wide.
 Other non-wetland waters: acres.
Identify type(s) of waters:
 Wetlands: acres.

⁸See Footnote # 3.

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

¹⁰ 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.

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, _____ wide.
- Lakes/ponds: **4.59** 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, _____ wide.
- 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: **UC Merced Campus Stormwater Detention Basins, dated February 4, 2016, prepared by the UC Merced**
- 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: **1:24K; CA-MERCED**
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: _____ (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): _____
or Other (Name & Date): _____
- Previous determination(s). File no. and date of response letter: **These waters were identified in the December 18, 2000, delineation for this project (SPK-1999-203), but were not mapped as waters of the U.S.**
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify):

B. **ADDITIONAL COMMENTS TO SUPPORT JD:**

The review area is limited to two features that are remnant golf course water hazards converted into storm water detention basins and ornamental ponds. The North Basin is an approximately 3.83-acre perennial feature with a fountain to increase the aesthetics and aerate the water. Ground water is pumped into this feature from a well in order to maintain the water level for aesthetic purposes. The South Basin is an approximately 0.76-acre seasonal feature, evaporating excess storm water.

Both features support a wetland fringe while the North Basin supports more of a marsh habitat due to perennial water. Both features are self contained and due not connect to, or spill water into surrounding land or adjacent aquatic resources. The December 18, 2000, jurisdictional determination for this site identified these features as golf course water hazards and did not map them as potential waters of the U.S.

UNIVERSITY OF CALIFORNIA, MERCED

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PHYSICAL AND ENVIRONMENTAL PLANNING
PHIL WOODS
5200 NORTH LAKE ROAD
MERCED, CALIFORNIA 95343
(209) 349-2561

February 5, 2016

Mr. Mike Jewell
U.S. Army Corps of Engineers
Sacramento District, Regulatory Division
1325 J Street, Room 1350
Sacramento, CA 95814



Subject: UC Merced Campus Storm Water Detention Basins

Dear Mr. Jewell:

The purpose of this letter is to provide a follow up to our meeting from January 28th on the subject of storm water detention basins located on the UC Merced campus. The University indicated at the meeting that two storm water detention basins might potentially be modified or reconfigured as part of 2020 Project development in order to address hydrology, topography, and water conservation considerations. The storm water detention basins include both the North and South basins (see Attachment A). The North basin encompasses approximately 3.83 acres and South basin is approximately 0.76 acres. The University is requesting written confirmation from the U.S. Army Corps of Engineers (Corps) that the existing storm water detention basins are not jurisdictional wetlands. The following sections provide additional background information that supports this determination.

1991 Wetland Delineation

A golf course was previously located in the northern portion of the UC Merced campus. In September 1991, H.T. Harvey & Associates prepared the first jurisdictional wetland delineation for the golf course site. In October 1991, the wetland delineation was verified by the Corps. The Merced Hills Golf Course was built on this location and opened in 1995. The Merced Hills Golf Course included an 18-hole course, clubhouse and associated support facilities. The subject storm water basins were originally developed as a "water hazard" feature for the Merced Hills Golf Course.

2000 Wetland Delineation

In December 2000, a wetland delineation was prepared for UC Merced in connection with development of the campus. On December 15th, 2000, a letter (see Attachment B) with the delineation was sent to the Corps and on December 18th the Corp verified the delineation (see Attachment C).

The Biological Assessment for the UC Merced campus also included an evaluation of the water hazard features. The Biological Assessment concluded that the water hazard features were not considered suitable breeding habitat for California Tiger Salamander (CTS) because of the developed condition (i.e., golf course) of surrounding lands, permanence of water bodies, potential effects of pesticide and fertilizer runoff, and potential for the presence of competing and predatory species (nonnative fish and bullfrog).

In 2002, an Environmental Impact Report (EIR) was prepared for UC Merced's Long Range Development Plan for campus development. The EIR included an evaluation of the water hazard features and determined there was no presence of CTS. The EIR indicated that CTS were not detected in focused surveys on the former golf course site and that the campus impacts would not "result in the direct loss or adverse modification of wetlands or other waters of the U.S. that fall under the jurisdiction of the Corps or Regional Water Quality Control Board (RWQCB)." It was determined that the water hazard basins were not considered jurisdictional waters.

UC Merced campus development was initiated in 2002 and included demolition of the golf course clubhouse, infrastructure improvements and mass grading. The water hazard features were modified to provide storm water detention for campus development. The two basins receive storm water runoff from the campus at the present time. The North Basin is aerated and groundwater is pumped into the basin to maintain water quality and minimize the potential for eutrophication.

Request for Corp's Confirmation

Since the two stormwater detention basins (or "water hazards") which were within original golf course and footprint also are contained within the 2020 Project boundaries (see attached map), we believe that these two basins continue to fall outside the Corps' jurisdictional wetlands, consistent with the Corps' prior wetland delineation verifications from 1991 and 2000. The University would like to request that the Corps review the information concerning these stormwater detention basins and confirm that they are not jurisdictional wetlands.

Thank you



Phil Woods

Director of Physical and Environmental Planning
UC Merced

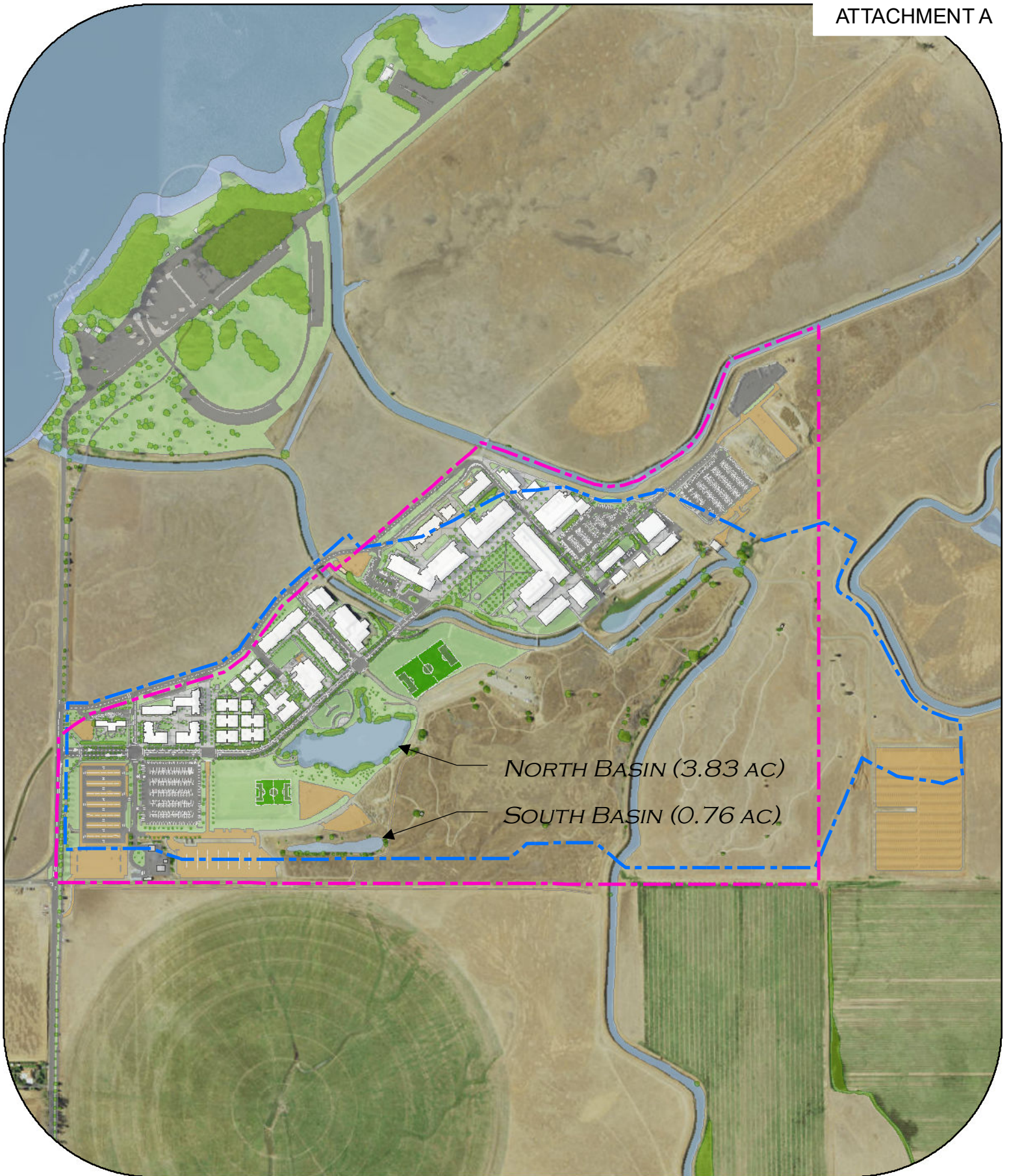
ATTACHMENTS:

- Attachment A: UC Merced Site Map Showing Location of Storm Water Detention Basins
- Attachment B: EIP Letter to Army Corp, dated December 15, 2000
- Attachment C: Army Corp Letter, dated December 18, 2000

February 5, 2016
UC Merced Campus Storm Water Detention Basins
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cc:

Kathleen Dadey, U.S. Army Corps of Engineers
Zachary Simmons, U.S. Army Corps of Engineers
Ken Sanchez, U.S. Fish and Wildlife Service
Thomas Leeman, U.S. Fish and Wildlife Service
Josh Emery, U.S. Fish and Wildlife Service
Gerald Hatler, California Department of Fish and Wildlife
Craig Bailey, California Department of Fish and Wildlife
Elizabeth Goldman, United States Environmental Protection Agency
Lonnie Wass, Central Valley Regional Water Quality Control Board
Matthew Scroggins, Central Valley Regional Water Quality Control Board
Debra Mahnke, Central Valley Regional Water Quality Control Board
Abigail Rider, University of California, Merced



NORTH BASIN (3.83 AC)

SOUTH BASIN (0.76 AC)



NORTH

NOT TO SCALE

Date: 2/4/2016

UC MERCED CAMPUS STORMWATER DETENTION BASINS

University of California, Merced
Office of Planning & Budget



Geospatial Analytics &
Cartographic Services

--- 2000 EIP WETLAND DELINEATION BOUNDARY

--- 2020 PROJECT BOUNDARY



December 15, 2000

Mr. Tom Coe
United States Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento CA 95814-2922
ATTN: Regulatory Branch

SUBJECT: Merced Hills Community Golf Course Wetland Delineation

Dear Tom:

EIP Associates has revised the delineation of waters of the United States of the Merced Hills Community Golf Course submitted December 12, 2000. These revisions were based on observations during a site visit with Nancy Haley of your office and Rob Leidy of the United States Environmental Protection Agency on December 14, 2000 and a subsequent meeting with Nancy and Kathy Norton on December 15, 2000. I have included the revised maps (Sheets 1-5) of tributary waters of the United States and areas meeting the technical criteria of jurisdictional wetland and I have also attached revised tables to reflect these changes.

We look forward to finalizing this delineation and hope we can hear from you soon. Please contact me at (916) 325-4800 with any questions or comments. Thank you for your assistance

Sincerely,

A handwritten signature in black ink, appearing to read "Joyce Hunting", is written over the typed name.

Joyce Hunting
Director, Wetland Studies and Permitting Services

Attachments:

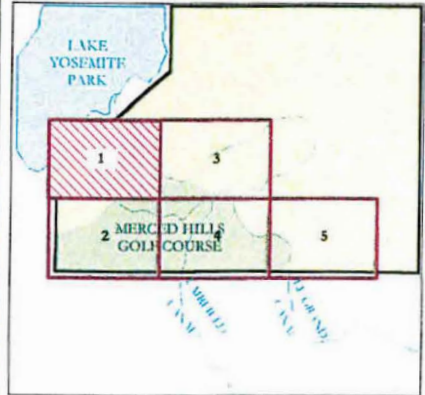
cc: Brian Boxer, EIP Associates
Robert Smith, Merced County
Chris Adams, UC Merced

MERCED HILLS GOLF COURSE DELINEATION OF "WATERS OF THE UNITED STATES" SHEET 1

Merced County, California

-  Merced Hills Golf Course Study Area
- Waters of the United States**
-  Marsh
-  Seasonal Wetland
-  Swale
-  Vernal Pool
-  Vernal Pool/Swale
-  Data Point

Sheet Index

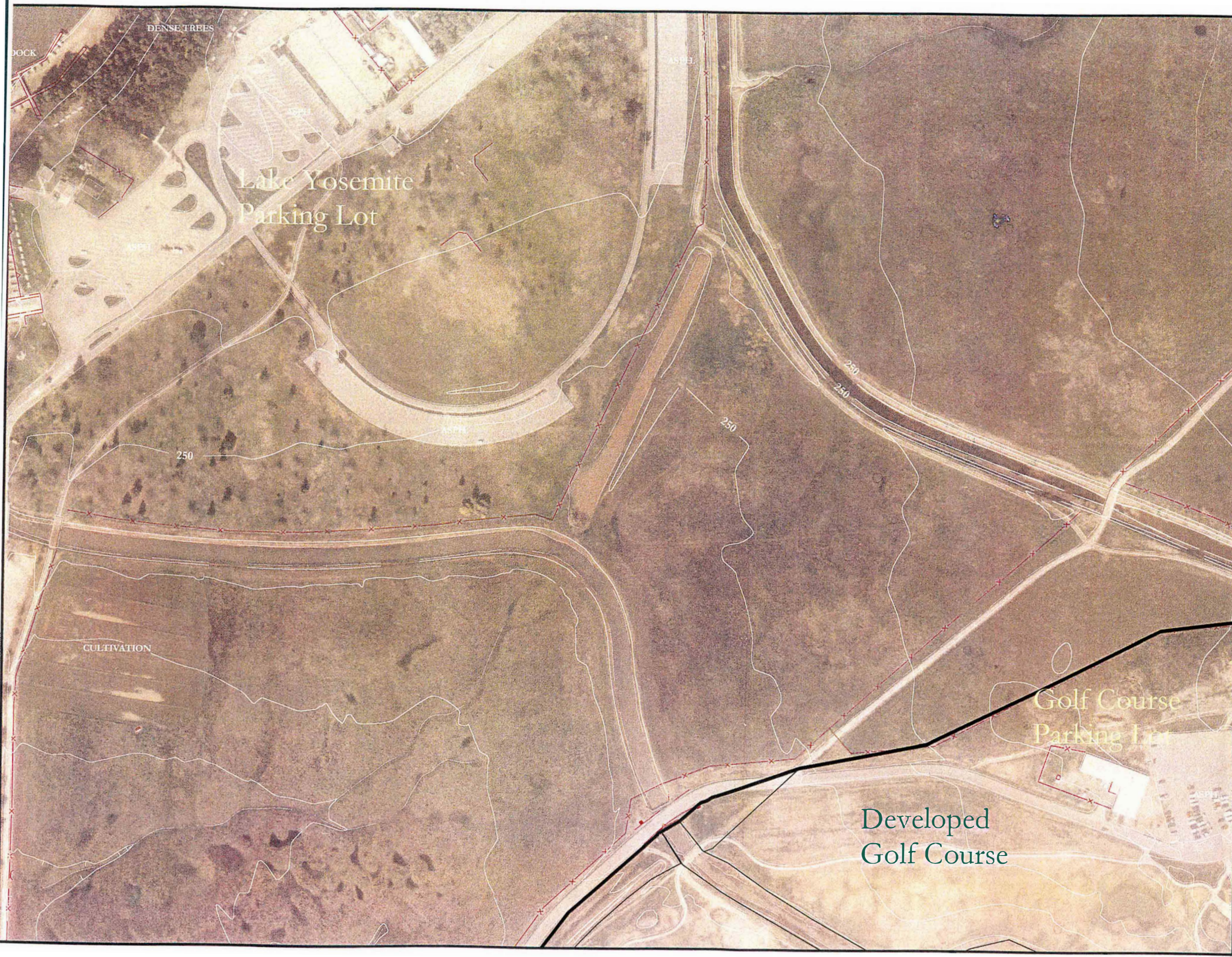


GIS Data Projection: CA State Plane, N AD 83, Units Feet



Source: Radman Aerial Surveys, Orthophotography and Topographic Base, February 24, 1999; and EIP Associates, GIS Data Collection (11/21/29, & 12/6/00), Digitized Wetlands Data, and GIS Program, December 7, 2000.

PROJECT NUMBER: 10161-12-1
 Requested by: EP Created by: MGH Date: 12/8/00
 Revised 12/15/00



MERCED HILLS GOLF COURSE DELINEATION OF "WATERS OF THE UNITED STATES" SHEET 2

Merced County, California

-  Merced Hills Golf Course Study Area
- Waters of the United States**
-  Marsh
-  Seasonal Wetland
-  Swale
-  Vernal Pool
-  Vernal Pool/Swale
-  Data Point

Sheet Index



GIS Data Projection: CA State Plane, NAD 83, Units Feet



Source: Radman Aerial Surveys, Orthophotography and Topographic Base, February 24, 1999; and EIP Associates, GPS Data Collection (11/21,29, & 12/6/00), Digitized Wetlands Data, and GIS Program, December 7, 2000.

PROJECT NUMBER: 10161-12-1
 Requested by: EP Created by: MGH Date: 12/8/00
 Revised 12/15/00








C:\GIS\Projects_10\AJC\Merced\255\1\EDPA_161\AI\T6_wetland_wat_hazards_analysis.mxd

**MERCED HILLS
GOLF COURSE
DELINEATION
OF "WATERS OF THE
UNITED STATES"
SHEET 3**

Merced County, California

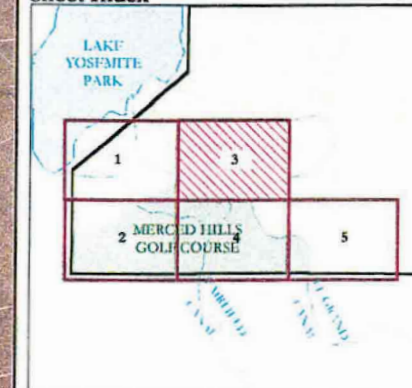
 Merced Hills Golf Course Study Area

Waters of the United States

-  Marsh
-  Seasonal Wetland
-  Swale
-  Vernal Pool
-  Vernal Pool/Swale

 Data Point

Sheet Index



GIS Data Projection: CA State Plane, NAD 83, Units Feet.



Source: Radman Aerial Surveys, Orthophotography and Topographic Base, February 24, 1999; and EIP Associates, GPS Data Collection (11/21,29, & 12/6/00), Digitized Wetlands Data, and GIS Program, December 7, 2000.

PROJECT NUMBER: 10161-12-I
Requested by: EP Created by: MGH Date: 12/8/00
Revised 12/15/00

EIP
ENGINEERING & INTERPRETING

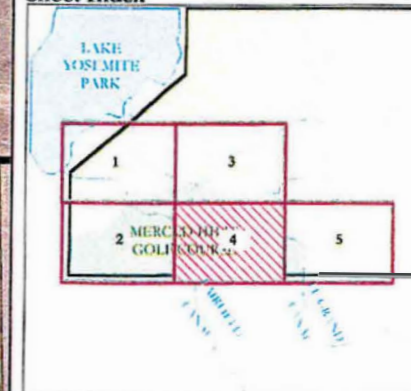


**MERCED HILLS GOLF COURSE
DELINEATION
OF "WATERS OF THE
UNITED STATES"
SHEET 4**

Merced County, California

-  Merced Hills Golf Course Study Area
- Waters of the United States**
-  Marsh
-  Seasonal Wetland
-  Swale
-  Vernal Pool
-  Vernal Pool/Swale
-  Data Point

Sheet Index



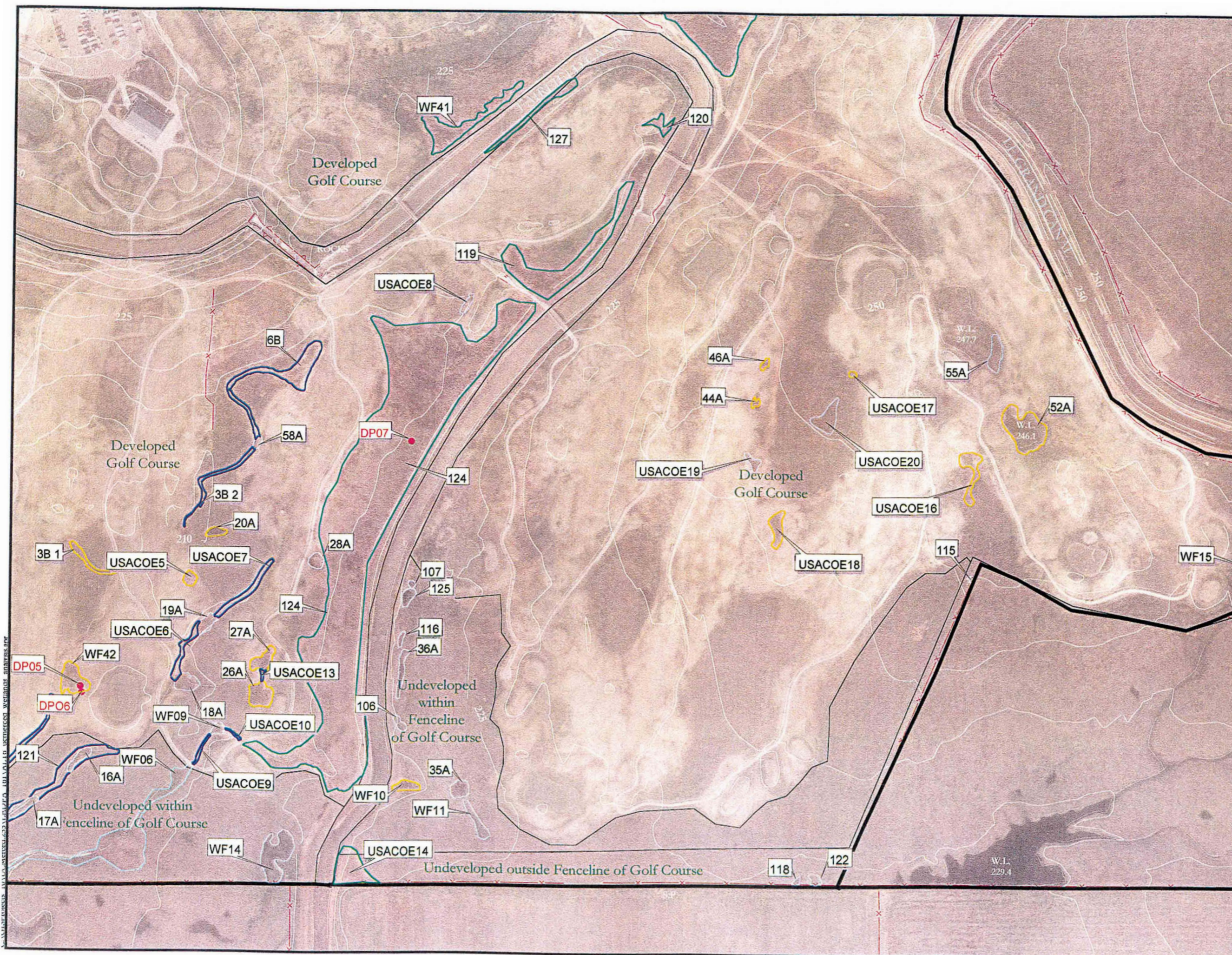
GIS Data Projection: CA State Plane, NAD 83, Uruts Feet



Source: Radman Aerial Surveys, Orthophotography and Topographic Base, February 24, 1999; and EIP Associates, GPS Data Collection (11/21/29, & 12/6/00), Digitized Wetlands Data, and GIS Program, December 7, 2000.

PROJECT NUMBER: 10161-12-1
Requested by: EP Created by: MGH Date: 12/8/00
Revised 12/15/00

EIP

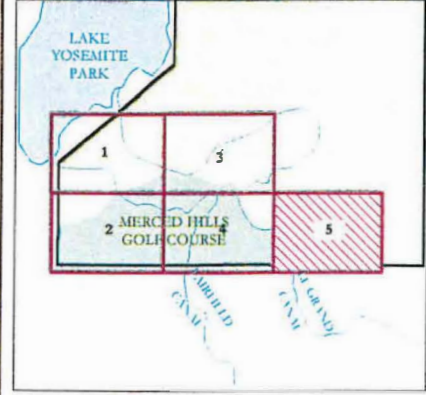


**MERCED HILLS
GOLF COURSE
DELINEATION
OF "WATERS OF THE
UNITED STATES"
SHEET 5**

Merced County, California

-  Merced Hills Golf Course Study Area
- Waters of the United States**
-  Marsh
-  Seasonal Wetland
-  Swale
-  Vernal Pool
-  Vernal Pool/Swale
-  Data Point

Sheet Index

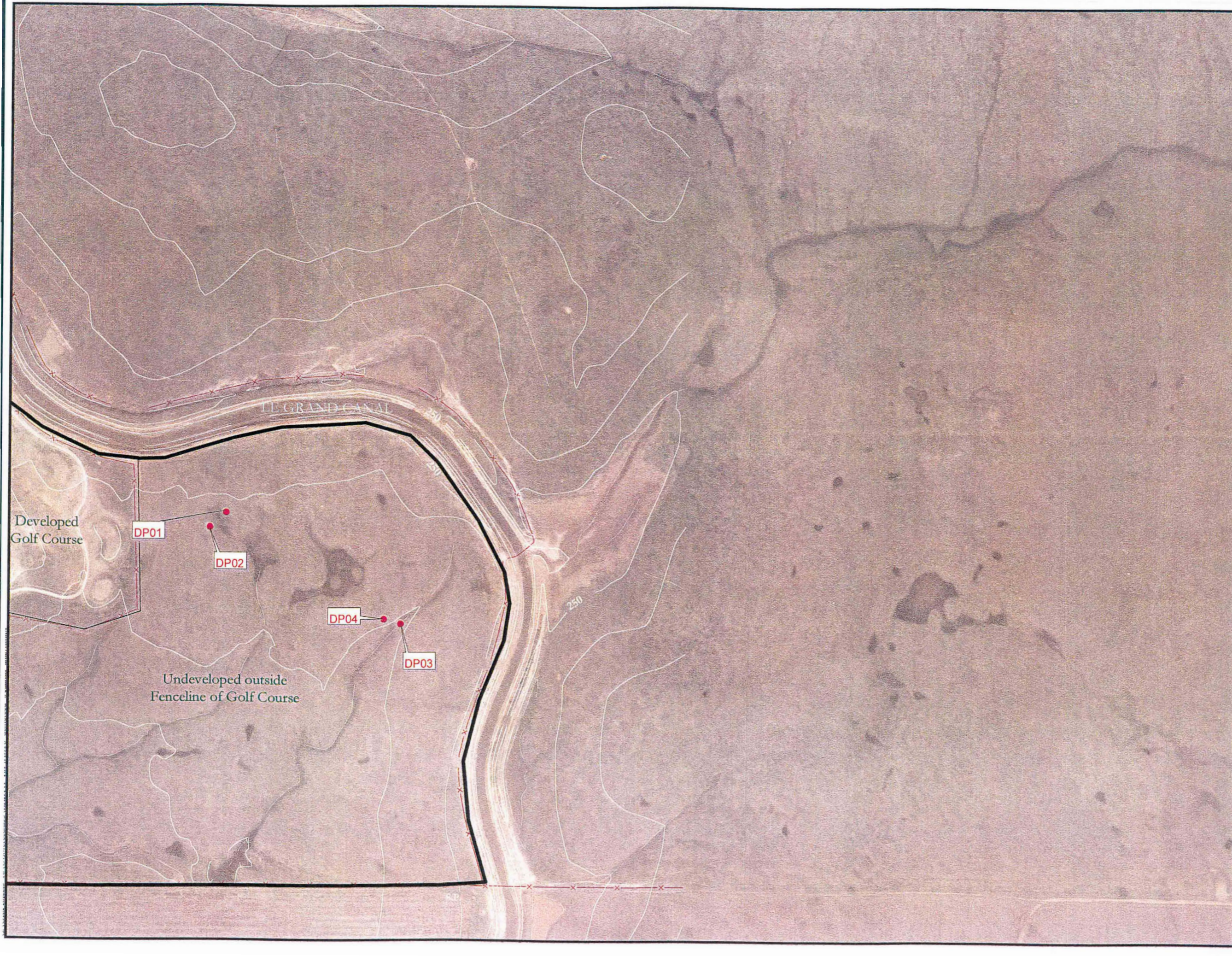


GIS Data Projection: CA State Plane, NAD 83, Units Feet.



Source: Radman Aerial Surveys, Orthophotography and Topographic Base, February 24, 1999; and EIP Associates, GPS Data Collection (11/21, 29, & 12/6/00), Digitized Wetlands Data, and GIS Program, December 7, 2000.

PROJECT NUMBER: 10161-12-1
Requested by: EP Created by: MGH Date: 12/8/00
Revised 12/15/00



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95614-2922
December 18, 2000

Regulatory Branch (199900203) (199101014)

Joyce Hunting
EIP Associates
1200 Second Street, Suite 200
Sacramento, California 95814

Dear Ms. Hunting:

This letter concerns the delineation of waters of the United States, including wetlands, you have provided for the Merced Hills Community Golf Course. This property is located in Section 34, Township 6 South, Range 14 East, M.D.B. & M., Merced County, California.

We have reviewed and verified the December 8, 2000, revised December 15, 2000, Merced Hills Golf Course Delineation of "Waters of the United States", sheets 1-5, submitted with your letter dated December 15, 2000. The site contains approximately 7.47 acres of waters of the United States, including wetlands, within the surveyed area. Our jurisdiction in this area is under Section 404 of the Clean Water Act. A Department of the Army permit is required prior to discharging dredged or fill materials into waters of the United States. Accordingly, a permit will be required prior to filling any of the waters present on the property. The type of permit required will depend on the type and amount of waters which would be lost or adversely modified by fill activities. Conversely, no permit is required for work in areas not identified as waters of the United States.

This verification is valid for five years from the date of this letter unless new information warrants revision of the determination before the expiration date. Please refer to identification number 199101014 in any correspondence concerning this project. If you have any questions, please write to Kevin Roukey, Room 1480 at the letterhead address, or telephone (916)557-5260.

Sincerely,

Tom Coe
Chief, Central California/Nevada
Section

Copies Furnished:

Karen Miller, Chief, Endangered Species Division, U.S. Fish and Wildlife Service, 2800
Cottage Way, Suite W2605, Sacramento, California 95825
Karen Schwinn, Region IX, Wetlands Section (WTR-8), Water Management Division, 75
Hawthorne Street, San Francisco, California 94105