# 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.

SEC A.	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): March 27, 2008
B.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento, Creekview Corporate Centre, 200300766
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: 1591 Creekside Drive State: California County/parish/borough: Sacramento City: Folsom Center coordinates of site (lat/long in degree decimal format): Lat. 38.6701242° N, Long. 121.1486061° W.  Universal Transverse Mercator: Name of nearest waterbody: Humbug Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: American River Name of watershed or Hydrologic Unit Code (HUC): 18020111  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): July 19, 2007 and November 21, 2007
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew 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.
The	re 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):  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>b.</b> Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 12.5 linear feet: 25 width (ft) and/or 0.007 acres. Wetlands: 0.10 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):
	<ul> <li>Non-regulated waters/wetlands (check if applicable):<sup>3</sup></li> <li>Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional Explain:</li> </ul>

<sup>&</sup>lt;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.

2.	Wetland adjacent to TNW
	Summarize rationale supporting determination: .
1.	TNW Identify 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 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.

## Characteristics of non-TNWs that flow directly or indirectly into TNW

## (i) General Area Conditions: Watershed size: 299 square miles Drainage area: 5.75 square miles Average annual rainfall: 22.45 inches Average annual snowfall: 0 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 2-5 river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 1-2 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 TNW5: Humbug Creek flows through the City of Folsom, merging with Willow Creek, and continuing directly into the American River at Lake Natoma.

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

<sup>&</sup>lt;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: At least second order.
(b)	General Tributary Characteristics (check all that apply):  Tributary is:
	Tributary properties with respect to top of bank (estimate):  Average width: 15 feet  Average depth: 3 feet  Average side slopes: 3:1.
	Primary tributary substrate composition (check all that apply):  Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Riparian and wetland veg/80% Other. Explain:
flows through Creek.	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The tributary is in good condition and a preserved greenbelt.  Presence of run/riffle/pool complexes. Explain: There are a few run/riffle/pool complexes within this reach of Humbug
	Tributary geometry: Meandering Tributary gradient (approximate average slope): 3-5 %
(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Flow is perennial, option not given on pick list. Other information on duration and volume: Humbug Creek has PERENNIAL flow.
	Surface flow is: <b>Discrete.</b> Characteristics: Flow is perennial within a defined bed and bank.
	Subsurface flow: Yes. Explain findings: Humbug Creek passes through spoil tailings from dredge mining. This cobble rous and allows for subsurface flows. Adjacent wetlands that do not have a surface connection stay inundated throughout recharge from the creek.  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 changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list):  Discontinuous OHWM. 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:
	mical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Water color is clear and slows within large semi-impounded areas. These impounded areas have

<sup>&</sup>lt;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.

marshes/wetland fringes and open water that is generally covered by an algal layer resulting in a shading of the creek bed. There are a large cumulative impacts on this reach of the creek from multiple past projects encroaching on adjacent and abutting wetlands.

Identify specific pollutants, if known: Possible urban pollutants due to contribution from storm drains and surface runoff.

woods (Populi W (Castor canade	regical Characteristics. Channel supports (check all that apply):  Riparian corridor. Characteristics (type, average width): Valley oak (Quercus lobata), willow (Salix sp.) and cotton as sp.) along with heavy blackberry (Rubus sp.) and other riparian scrub species. Average width is approximately 50 feet. Wetland fringe. Characteristics: Multiple marshes along the creek supporting great blue herons (Ardea herodias), beaver ensis) and other species.  Habitat for:  ☐ Federally Listed species. Explain findings: Valley Elderberry Longhorn Beetle (Democerus californicus dimorphus), ed frog (Rana aurora draytonii), western yellow-billed cuckoo (Coccyzus americanus occidentalis.  ☐ Fish/spawn areas. Explain findings:  ☐ Other environmentally-sensitive species. Explain findings: Western pond turtle.  ☐ Aquatic/wildlife diversity. Explain findings: This reach includes vernal pools that contain federally listed vernal pool
	chinecta lynchi) and vernal pool tadpole shrimp (Lepidurus packardi).
2. Characte	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(a)	sical Characteristics:  General Wetland Characteristics:  Properties:  Wetland size:0.10 acres  Wetland type. Explain: Depressional seasonal wetlands within mining dredge tailings.  Wetland quality. Explain: The wetlands support a large riparian habitat with multiple wetland herb and tree species. r wetlands is perennial, receiving water from the creek year-round.  Project wetlands cross or serve as state boundaries. Explain: No.
(b)	General Flow Relationship with Non-TNW: Flow is: Perennial flow. Explain: Subsurface flow brings water to and from the wetlands.
eliminated by	Surface flow is: Not present  Characteristics: Topography and past aerials indicate that there was a possible surface connection but has been placement of fill dirt between the wetlands and the creek.
	Subsurface flow: Yes. Explain findings: One wetland remains inundated with crystal clear water year-round during dry gh, 2006-07 received less than 60% of normal precipitation and experienced record setting 100+ temperatures in June, the nundated in late July.  Dye (or other) test performed:
Observed sign These trees may wetlands also	Wetland Adjacency Determination with Non-TNW:  □ Directly abutting □ Not directly abutting □ Discrete wetland hydrologic connection. Explain: Soils are made of large cobbles and are relatively porous. s of a subsurface connection due to the presence of crystal clear water within the wetland in late July. □ Ecological connection. Explain: The wetlands support large riparian trees with a DBH of greater then 36 inches. as serve as nesting habitat for bird multiple bird species utilizing the large adjacent perennial marsh. These riparian serve as habitat along the Humbug/Willow Creek riparian corridor. □ Separated by berm/barrier. Explain: Wetlands are separated from Humbug Creek by the previously mentioned
dredge tailings	
(d)	Proximity (Relationship) to TNW Project wetlands are 2-5 river miles from TNW. Project waters are 1-2 aerial (straight) miles from TNW. Flow is from: Wetland to/from navigable waters. Estimate approximate location of wetland as within the Pick List floodplain.
Char	mical Characteristics: cacterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water is crystal clear. tify specific pollutants, if known: May contain similar pollutants to those described for the creek.
⊠ riparian scrub <u>⊠</u>	ogical Characteristics. Wetland supports (check all that apply):  Riparian buffer. Characteristics (type, average width): Valley oak, willow, and cotton woods species along with other species. Average width of about 40 feet.  Vegetation type/percent cover. Explain: Riparian and seasonal wetland species / 60-80% cover.  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: 3
	Approximately (0.10) 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)
No	0.033	No	0.062
No	0.005		

Summarize overall biological, chemical and physical functions being performed: Adjacent wetlands found in the dredge tailings along Humbug Creek provide habitat as well as hydrologic connection through subsurface flows. The wetlands add habitat to the riparian corridor, providing cover and refuge sites for species that travel along this corridor. They also serve as nesting sites for avian species that use the marsh habitat along the creek reach. These wetlands are hydrologically connected through porous soils that allow water to fill and maintain the wetlands throughout most or all of the year. One wetland was still inundated during mid July after a low rain year of less than 60% of normal, followed by record temperatures in June reaching more than 100 degrees Fahrenheit. These wetlands are within a reach that has large cumulative impacts from multiple projects that have encoached on the creek. This wetland type is now rare as adjacent wetlands have been removed by past development projects in the area. All that remains along this reach are some of the larger abutting wetlands along with wetland fringes and partially impounded marshes. A review of past aerial photography shows a possible overland flow connection prior to recent soil manipulation that has left berms encircling the wetlands.

#### 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: Adjacent wetlands found in the dredge tailings along Humbug Creek provide habitat as well as hydrologic connection through subsurface flows. The wetlands add habitat to the riparian corridor, providing cover and refuge sites for species that travel along this corridor. They also serve as nesting sites for avian species that use the marsh habitat along the creek reach. These wetlands are hydrologically connected through porous soils that allow water to fill and maintain the wetlands throughout most or all of the year. One wetland was still inundated during mid July after a low rain year of less than 60% of normal, followed by record temperatures in June reaching more than 100 degrees Fahrenheit. These wetlands are within a reach that has large cumulative impacts from multiple projects that have encoached on the creek. This wetland type is now rare as adjacent wetlands have been removed by past development projects in the area. All that remains along this reach are some of the larger abutting

wetlands along with wetland fringes and partially impounded marshes. A review of past aerial photography shows a possible overland flow connection prior to recent soil manipulation that has left berms encircling the wetlands.

# 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.	<ul> <li>RPWs that flow directly or indirectly into TNWs.</li> <li>☑ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Visual observation of Humbug Creek shows that it has perennial flows.</li> <li>☑ 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:</li> </ul>
	Provide estimates for jurisdictional waters in the review area (check all that apply):  Tributary waters: 12.5 linear feet 25 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: 12.5 linear feet 25 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 jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: <b>0.10</b> 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>

<sup>&</sup>lt;sup>8</sup>See Footnote # 3.

	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).
Е.	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 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.
CE.	CTION IV: DATA SOURCES.
	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: Foothill Associates June 1, 2004 and June 6, 2007.  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:

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.

$\boxtimes$	U.S. Geological Survey Hydrologic Atlas:http://water.usgs.gov/GIS/huc_name.html#Region18.
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
$\boxtimes$	U.S. Geological Survey map(s). Cite scale & quad name:7.5', Folsom.
$\boxtimes$	USDA Natural Resources Conservation Service Soil Survey. Citation: Soil series 245 Xerorthents, dredge tailings, 2 to 50 percent
slop	pes, Soil Survey of Sacramento County, California, page 120.
	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)
$\boxtimes$	Photographs: Aerial (Name & Date):DOQQ by Geoimagery June 23, 2001; 1989 false color infrared photo SA-6-41;
Ter	raserver aerial image taken January 1, 2007.
	or ☑ Other (Name & Date):Photos taken by Zachary Simmons on 7/19/2007.
	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:** The study reach flows 4.8 river miles with an elevation change of 139 feet, beginning at Mormon Island Wetlands (Latitude 38° 41' 55.0" North, Longitude 121° 6' 43.5" West, elevation 380 feet), and ending at the confluence with Willow Creek (Latitude 38° 39' 38.2" North, Longitude 121° 9' 29.4" West, elevation 241 feet).