

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): March 5, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, Creekside Development Project, SPK-2005-00063

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **California** County/parish/borough: **Butte County** City: **Chico**
Center coordinates of site (lat/long in degree decimal format): Lat. **39.7424619058564°**, Long. **-121.794807758118°**
Universal Transverse Mercator: **10 603261.69 4399868.04**

Name of nearest waterbody: **Dead Horse Slough**

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

Name of watershed or Hydrologic Unit Code (HUC): **Butte Creek, 18020158**

- 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: **March 5, 2018**
 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):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: **1.60 acres.**

Wetlands: **2.0 acres.**

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

Elevation of established OHWM (if known): **245' above mean sea level**

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:

SECTION III: CWA ANALYSIS

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.

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: **30,085 acres**

Drainage area: **3,404 acres**

Average annual rainfall: **26 inches**

Average annual snowfall: **0 inches**

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **1** tributaries before entering TNW.

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

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

Project waters are **1 (or less)** 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: **0.50 mile from the site, Dead Horse Slough flows into Little Chico Creek.**

Dead Horse Slough has been re-routed and channelized to connect to Little Chico Creek at the junction of State Route 32 and Humboldt Road and as a result; the lower 1.5 miles of Dead Horse Slough was abandoned and is now replaced by commercial and residential development.

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

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.

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

- Tributary is: Natural
 Artificial (man-made). Explain: **OW02 (ephemeral stream)(NRPW) is a man-made channel that transports surface and sub-surface flows from adjacent wetlands and sheet flows from uplands/wetlands located on an adjacent property to the south.**
 Manipulated (man-altered). Explain:

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

Average width: **33** feet
Average depth: **10** feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Silts | <input checked="" type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input checked="" type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input checked="" type="checkbox"/> Vegetation. Type/% cover: Riparian & Scrub Shrub/70-80% | |
| <input type="checkbox"/> Other. Explain: | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **stable due to upstream California Park Lake and dam.**

Presence of run/riffle/pool complexes. Explain: **None**

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): **1-2 %**

(c) Flow:

Tributary provides for: **Seasonal flow**

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

Describe flow regime: **Dead Horse Slough flows approximately 6-9 months/year**

Other information on duration and volume:

Surface flow is: **Discrete and confined**. Characteristics: **Flows fully within banks.**

Subsurface flow: **Unknown**. Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply):

- | | |
|--|---|
| <input checked="" type="checkbox"/> Bed and banks | |
| <input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input checked="" type="checkbox"/> clear, natural line impressed on the bank | <input checked="" type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input checked="" type="checkbox"/> destruction of terrestrial vegetation |
| <input checked="" type="checkbox"/> shelving | <input checked="" 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 checked="" 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:**

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: **Clear with very slight green/brown discoloration from stagnant conditions.** Identify specific pollutants, if known: **Likely to represent typical urban and landscape water runoff pollutants; including, petroleum byproducts and common herbicides/pesticides.**

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

- Riparian corridor. Characteristics (type, average width): **Channel supports directly abutting riparian wetland vegetation; including, Salix sp., Quercus sp., and Rubus sp.**
- Wetland fringe. Characteristics: **Channel supports fringe wetland mosaic vegetation.**
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings: **Chinook salmon, Essential Fish Habitat (historic)**
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings: **Aquatic insects, invertebrates, and fish.**

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: **1.01** acres

Wetland type. Explain: **Depressional**

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow.** Explain:

Surface flow is: **Overland sheet flow**

Characteristics: **restrictive layer (hardpan) approx. 5-10 inches below the surface.**

Subsurface flow: **Yes.** Explain findings: **based on permeability of the soils, subsurface flow connections between the wetland complex and Dead Horse Slough typically occur on a seasonal basis from November to April.**

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: **spoils from excavating OW02 were piled up, alongside the eastern side of the channel, and have formed a physical barrier or berm.**

(d) Proximity (Relationship) to TNW

Project wetlands are **1 (or less)** river miles from TNW.

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

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

Estimate approximate location of wetland as within the **50 - 100-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 is clear. The wetland complex serves as a localized catchment area for the fallow fields and roadside stormwater runoff; therefore, chemical characteristics are likely comprised of petroleum byproducts and common herbicides/pesticides**

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: **50-70% cover, supports endemic vernal pool plant species**

Habitat for:

Federally Listed species. Explain findings: **Suitable habitat for Federally-listed as endangered Butte County meadowfoam and vernal pool tadpole shrimp, and the Federally-listed as threatened vernal pool fairy shrimp.**

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: **macroinvertebrates and crustaceans**

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

All wetland(s) being considered in the cumulative analysis: **30 (or more)**

Approximately **1.01** acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

(See table; attachment 1)

Summarize overall biological, chemical and physical functions being performed: **water quality filtration, water retention, flood storage, primary productivity/organics contribution, and invertebrate/wildlife habitat.**

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: **OW02, in combination with its adjacent wetlands, have a significant nexus to Little Chico Creek based on their close proximity and more than speculative chemical, physical, and biological connections to the TNW. OW02 and its adjacent wetlands have to ability carry pollutants and flood waters directly into Dead Horse Slough, which results in a transfer of nutrients and organic carbon that support downstream food webs within Little Chico Creek. Due to their close proximity, and siting within the 100 year floodplain, they have the capacity to capture and clean storm water before entering Dead Horse Slough. OW02 and its adjacent wetlands also provide habitat and lifecycle support functions such as breeding, feeding, and sheltering for invertebrates, crustaceans, and other endemic species native to California.**
- 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 to OW01 have a significant nexus to Little Chico Creek, based on their close proximity and more than speculative chemical, physical, and biological connections to the TNW. The adjacent wetlands have to ability carry pollutants and flood waters directly into Dead Horse Slough, which results in a transfer of nutrients and organic carbon that support downstream food webs within Little Chico Creek. Due to their close proximity, and siting within the 100 year floodplain, they have the**

capacity to capture and clean storm water before entering Dead Horse Slough. The adjacent wetlands also provide habitat and lifecycle support functions such as breeding, feeding, and sheltering for invertebrates, crustaceans, and other endemic species native to California.

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: **OW01 (Dead Horse Slough) (RPW) is an intermittent stream, as shown on USGS 7.5' quadrangle maps.**

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

- Tributary waters: **1,982** linear feet **33** wide.
 Other non-wetland waters: **1.53** acres.
Identify type(s) of waters: Riverine

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: **496** linear feet, **2** wide.
 Other non-wetland waters: **0.02** acres.

Identify type(s) of waters: **OW02 (ephemeral drainage) (NRPW) is a man-made channel that transports surface and sub-surface water flows into Dead Horse Slough. Overland sheet flows and sub-surface flows originate from adjacent wetlands to the east and a mixture of uplands/wetlands to the south. Flows from the adjacent property to the south enter the NRPW from a culvert under Highway 32 and flow directly into Dead Horse Slough.**

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: **Dead Horse Slough flows 6-9 months/year and is an intermittent stream, as shown on USGS 7.5' quadrangle maps.**

Provide acreage estimates for jurisdictional wetlands in the review area: **1.01** 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: **1.01** 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: **1.01** acres.

⁸See Footnote # 3.

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.

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: 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: **September 25, 2017, Creekside Townhouses Project, Draft Delineation of Waters of the U.S., Exhibit A, prepared by Gallaway Enterprises (attachment 2).**
- 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:

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.

- 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; Chico**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **February 2014, Custom Soil Resources Report for Butte Area, California, Parts of Butte and Plumas Counties, Creekside Townhomes, prepared by NRCS**
- National wetlands inventory map(s). Cite name: **USFWS, Version 2.0**
- State/Local wetland inventory map(s):
- FEMA/FIRM maps: **FIRM panel, dated January 6, 2001 (attachment 3).**
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **Google Earth Pro aerial photography dated August 26, 2005, March 8, 2008, April 14, 2015, April 20, 2016, and May 18, 2017. ESRI, ArcGIS 10.5.1**
or Other (Name & Date): **Ground photographs taken by Gallaway Enterprises June & July 2014, provided in their September 2017 delineation report.**
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): **California Department of Water Resources, Central Valley Floodplain Evaluation and Delineation Program (CVFED) LiDAR, March 2008 (attachment 4).**

B. ADDITIONAL COMMENTS TO SUPPORT JD: The applicant's delineation report, dated September 2017, prepared by Gallaway Enterprises, states that precipitation is the only hydrological input that supports the wetlands on the site and that all of the aquatic features on the site have a direct hydrologic connection, either via surface or sub-surface flows, to Dead Horse Slough.

Creekside Townhomes
Aquatic Features List

(attachment 1)

Feature	Cowardin	HGM	Area	Abuts?
WF01	PUB4	DEPRESS	0.1371 ACRE	No
WF02	PUB4	DEPRESS	0.0008 ACRE	No
WF03	PUB4	DEPRESS	0.0122 ACRE	No
WF04	PUB4	DEPRESS	0.011 ACRE	No
WF05	PUB4	DEPRESS	0.0041 ACRE	No
WF06	PUB4	DEPRESS	0.0062 ACRE	No
WF07	PUB4	DEPRESS	0.0034 ACRE	No
WF08	PUB4	DEPRESS	0.0171 ACRE	No
WF09	PUB4	DEPRESS	0.0095 ACRE	No
WF10	PUB4	DEPRESS	0.0045 ACRE	No
WF11	PUB4	DEPRESS	0.0176 ACRE	No
WF12	PUB4	DEPRESS	0.0023 ACRE	No
WF13	PUB4	DEPRESS	0.0009 ACRE	No
WF14	PUB4	DEPRESS	0.0032 ACRE	No
WF15	PUB4	DEPRESS	0.0002 ACRE	No
WF16	PUB4	DEPRESS	0.0001 ACRE	No
WF17	PUB4	DEPRESS	0.0318 ACRE	No
WF18	PUB4	DEPRESS	0.002 ACRE	No
WF19	PUB4	DEPRESS	0.0016 ACRE	No
WF20	PUB4	DEPRESS	0.0096 ACRE	No
WF21	PUB4	DEPRESS	0.0186 ACRE	No
WF22	PUB4	DEPRESS	0.0029 ACRE	No
WF23	PUB4	DEPRESS	0.0019 ACRE	No
WF24	PUB4	DEPRESS	0.007 ACRE	No
WF25	PUB4	DEPRESS	0.0182 ACRE	No
WF26	PUB4	DEPRESS	0.0048 ACRE	No
WF27	PUB4	DEPRESS	0.0131 ACRE	No
WF28	PUB4	DEPRESS	0.0234 ACRE	No
WF29	PUB4	DEPRESS	0.0002 ACRE	No
WF30	PUB4	DEPRESS	0.0043 ACRE	No
WF31	PUB4	DEPRESS	0.0045 ACRE	No
WF32	PUB4	DEPRESS	0.0006 ACRE	No
WF33	PUB4	DEPRESS	0.0026 ACRE	No
WF34	PUB4	DEPRESS	0.0006 ACRE	No
WF35	PUB4	DEPRESS	0.0003 ACRE	No
WF36	PUB4	DEPRESS	0.0004 ACRE	No
WF37	PUB4	DEPRESS	0.0113 ACRE	No
WF38	PUB4	DEPRESS	0.0258 ACRE	No
WF39	PUB4	DEPRESS	0.0008 ACRE	No
WF40	PUB4	DEPRESS	0.0435 ACRE	No
WF41	PUB4	DEPRESS	0.0002 ACRE	No
WF42	PUB4	DEPRESS	0.002 ACRE	No
WF43	PUB4	DEPRESS	0.0069 ACRE	No
WF45	PUB4	DEPRESS	0.0081 ACRE	No
WF46	PUB4	DEPRESS	0.0011 ACRE	No
WF47	PUB4	DEPRESS	0.0518 ACRE	No

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WF48	PUB4	DEPRESS	0.0059 ACRE	No
WF49	PUB4	DEPRESS	0.0588 ACRE	No
WF50	PUB4	DEPRESS	0.0082 ACRE	No
WF51	PUB4	DEPRESS	0.0078 ACRE	No
WF52	PUB4	DEPRESS	0.0145 ACRE	No
WF53	PUB4	DEPRESS	0.025 ACRE	No
WF54	PUB4	DEPRESS	0.0031 ACRE	No
WF55	PUB4	DEPRESS	0.0002 ACRE	No
WF56	PUB4	DEPRESS	0.0006 ACRE	No
WF57	PUB4	DEPRESS	0.0003 ACRE	No
WF58	PUB4	DEPRESS	0.0072 ACRE	No
WF59	PUB4	DEPRESS	0.0649 ACRE	No
WF60	PUB4	DEPRESS	0.0238 ACRE	No
WF61	PUB4	DEPRESS	0.0243 ACRE	No
WF62	PUB4	DEPRESS	0.0007 ACRE	No
WF63	PUB4	DEPRESS	0.0163 ACRE	No
WF64	PUB4	DEPRESS	0.0412 ACRE	No
WF65	PUB4	DEPRESS	0.0069 ACRE	No
WF66	PUB4	DEPRESS	0.0015 ACRE	No
WF67	PUB4	DEPRESS	0.0078 ACRE	No
WF68	PUB4	DEPRESS	0.0032 ACRE	No
WF69	PUB4	DEPRESS	0.0007 ACRE	No
WF70	PUB4	DEPRESS	0.0039 ACRE	No
WF71	PUB4	DEPRESS	0.0013 ACRE	No
WF72	PUB4	DEPRESS	0.0186 ACRE	No
WF73	PUB4	DEPRESS	0.0003 ACRE	No
WF74	PUB4	DEPRESS	0.0007 ACRE	No
WF75	PUB4	DEPRESS	0.0006 ACRE	No
WF76	PUB4	DEPRESS	0.0062 ACRE	No
WF77	PUB4	DEPRESS	0.0024 ACRE	No
WF78	PUB4	DEPRESS	0.0116 ACRE	No
WF79	PUB4	DEPRESS	0.0009 ACRE	No
WF80	PUB4	DEPRESS	0.0033 ACRE	No
WF81	PUB4	DEPRESS	0.0005 ACRE	No
WF82	PUB4	DEPRESS	0.0005 ACRE	No
WF83	PUB4	DEPRESS	0.0027 ACRE	No
WF84	PUB4	DEPRESS	0.0009 ACRE	No
WF85	PUB4	DEPRESS	0.0061 ACRE	No
WF86	PUB4	DEPRESS	0.0006 ACRE	No
WF87	PUB4	DEPRESS	0.0023 ACRE	No
WF88	PUB4	DEPRESS	0.0086 ACRE	No
WF90	PUB4	DEPRESS	0.014 ACRE	No
WF91	PUB4	DEPRESS	0.0038 ACRE	No
WF92	PUB4	DEPRESS	0.0298 ACRE	No
WF93	PUB4	DEPRESS	0.0024 ACRE	No
WF94	PUB4	DEPRESS	0.0018 ACRE	No
WF95	PUB4	DEPRESS	0.002 ACRE	No

Creekside Townhomes

Aquatic Features List

WF96	PUB4	DEPRESS	0.0042 ACRE	No
WF97	PUB4	DEPRESS	0.0021 ACRE	No
WF98	PUB4	DEPRESS	0.0093 ACRE	No
WF99	PUB4	DEPRESS	0.0117 ACRE	No

1.01 Vernal pool/swale

WF100	RP1SS6	RIVERINE	0.5597 ACRE	Yes
WF101	RP1SS6	RIVERINE	0.024 ACRE	Yes
WF102	RP1SS6	RIVERINE	0.178 ACRE	Yes
WF103	RP1SS6	RIVERINE	0.1552 ACRE	Yes
WF104	RP1SS6	RIVERINE	0.0893 ACRE	Yes

1.01 Riparain wetland

OW01	R4SB3	RIVERINE	1.53 ACRE
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1.53 Perennial Stream

OW02	R4SB3	RIVERINE	0.02 ACRE
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0.02 Ephemeral Stream



(attachment 4)

