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 8, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: San Francisco District, Hawthorne Mill Development Project, SPN-2005-299100

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **California** County/parish/borough: **Solano** City: **Fairfield**
Center coordinates of site (lat/long in degree decimal format): Lat. **38.2850°**, Long. **-121.9813°**
Universal Transverse Mercator: **10S 589093 4237928**
Name of nearest waterbody: **McCoy Creek**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Suisun Channel**
Name of watershed or Hydrologic Unit Code (HUC): **Laurel Creek-Frontal Suisun Bay, 180500010108**
☒ 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: **9 FEB 16**
☒ Field Determination. Date(s): **27 JAN 16**

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 waters[2] (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 **0.135** acres.
      Wetlands: **14.689** acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

[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.

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

1. **TNW**
   Identify TNW:

   Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

If the waterbody[4] 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: **23,452 acres**
   Drainage area: **2,600 acres**
   Average annual rainfall: **23.46** inches
   Average annual snowfall: **0.1** 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 **2-5** aerial (straight) miles from TNW.
   Project waters are **1 (or less)** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain:

   Identify flow route to TNW[5]: **McCoy Creek is a relatively permanent tributary to Hill Slough. McCoy Creek flows through the Study Area and then west approximately 500 feet from the Study Area to an impoundement locally refered to as Strasberger Basin, then from that impoundment south into a second impoundment locally refered to as McCoy Basin. From McCoy Basin, McCoy Creek flows**

[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.

south and west approximately 2 miles to a point where McCoy Creek has been straightened and channelized just north of Pintail Drive. At this point the U.S. Fish and Wildlife Service's National Wetland Inventory Maps characterize McCoy Creek as E2EM1N (Estuarine intertidal persistent emergent wetland, regularly flooded). From this point McCoy Creek (or unnamed channels that intercepted McCoy Creek) flow approximately 2 miles through the Suisun Marsh Wetlands to Hill Slough. Hill Slough then flows 2.2 miles west to Suisun Channel (also known as Suisun Slough). Suisun Channel is listed on the Sacramento District's website as a Navigable Water of the U.S. under the Rivers and Harbors Act. Hill Slough is tidal at its confluence with Suisun Slough, at Deadman Island. Tides range from approximately 1 foot above mean sea level to approximately 6 feet above mean sea level at this point. Based on this tidal fluctuation at Deadman Island and the NWI maps of the area, the portions of Hill Slough and McCoy Creek (and the unnamed channels that intercept McCoy Creek) below Pintail Drive for at least the portions that transport flow from the Study Area are subject to the ebb and flow of the tide and are therefore waters of the United States persuant to 33 CFR 328.3(a)(1). In accordance with the December 2, 2008, guidance titled "Clean Water Act Jurisdiciton Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carbell v. United States", Hill Slough and the tidal portions of McCoy Creek (downstream of the confluence near Pintail Drive) are "Traditional Navigable Waters."

Tributary stream order, if known:

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

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain: **McCoy Creek is in its natural state through the Study Area but has been altered up stream of the study area and downstream of the study area.**

Tributary properties with respect to top of bank (estimate):
Average width: **10** feet
Average depth: **2-3** feet
Average side slopes: **3:1 .**

Primary tributary substrate composition (check all that apply):
- ☒ Silts
- ☒ Sands
- ☐ Concrete
- ☐ Cobbles
- ☒ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover:
- ☐ Other. Explain: **Bottom is largely silty but with sand and gravel point-bar formations**

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **incised, degrading**
Presence of run/riffle/pool complexes. Explain:
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): **0.3** % 22.6 feet of elevation change over 6,544 feet from Cement Hill Road to the first impoundment west of the Study Area.

(c) Flow:
Tributary provides for: **Perennial**
Estimate average number of flow events in review area/year: **11-20**
Describe flow regime: **Water present year round**
Other information on duration and volume:

Surface flow is: **Discrete and confined.** Characteristics:

Subsurface flow: **Yes**. Explain findings: **High salinities and alkaline conditions documented in the Draft EIR/EIS are attributed to groundwater discharges from the Guinda formation along the eastern slopes of Cement Hill.**
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☒ Bed and banks
- ☒ OHWM[6] (check all indicators that apply):
  - ☒ clear, natural line impressed on the bank
  - ☐ the presence of litter and debris

[6]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.

☐ 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):
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☒ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☒ abrupt change in plant community

☐ Discontinuous OHWM.[7] 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:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: **Relatively clear to somewhat turbid**

Identify specific pollutants, if known: **McCoy Creek was not sampled by the state, however its receiving waters were. As a tributary water of Suisun Marsh Wetlands and Hill Slough the State considers it impaired for the same reasons as those waters unless future sampling indicates otherwise. Suisun Marsh Wetlands are listed as impaired for mercury, nutrients, organic enrichement/low dissolved oxygen, salinity/total disolved solids/chorides. Hill Slough is listed as impaired for mercury. Suisun Slough is listed as impaired for diazinon. Suisun Bay is listed as impaired for chlordane, DDT, diazinon, dieldrin, dioxin compounds, furan compounds, invasive species, mercury, nickel, PCBs, polybrominated diphenyl ethers, and selenium.**

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

☐ Riparian corridor. Characteristics (type, average width):
☒ Wetland fringe. Characteristics: **Within the Study Area a mosaic of vernal pool and swale complex, seasonal wetlands, alkali wetlands abut McCoy Creek.**
☒ Habitat for:
☒ Federally Listed species. Explain findings: **The Draft EIR/EIS covering the Study Area indicates that Branchinecta lynchi (federally listed as threatened) is present. Trifolium amoenum, Lasthenia conjugens, both federally listed as endangered are listed as presumed extant within or near the Study Area (California Natural Diversity Database).**
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☒ Aquatic/wildlife diversity. Explain findings: **McCoy Creek and the wetland complex to which it belongs along with other similarly situated waters within this watershed provide habitat, food and life support for a diverse number of native plant and animal species, including invertebrates, birds, mammals, and downstream fish, some of which are federally listed threatened and/or endangered and/or commercially important.**

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: **14.689** acres

Wetland type. Explain: **Seasonal wetlands, alkaline wetlands, vernal pool and swale complex**

Wetland quality. Explain: **Morphological and landscape setting suggests that many of the wetlands within the Study Area comprised a vernal pool complex. This is corroborated by the descrption in the Draft EIR/EIS. While we observed heavy clay soils within the soil pits on 27 JAN 16, the surface of these clay components within the soil was irregular. Linear signatures within the aerial imagery running both north south and east and west appear in the oldest aerial imagery reviewed for this determination (2005) and persist into the newest images from 2015 indicating that at some point prior to 2005 soil disturbance occured, likely from tillage. Degradation associated with agricultural activities is documented by the Draft EIR/EIS.**

[7] Ibid.

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain:

Surface flow is**: Discrete and confined**
Characteristics:

Subsurface flow: **Yes**. Explain findings: **High salinities and alkaline conditions documented in the Draft EIR/EIS are attributed to groundwater discharges from the Guinda formation along the eastern slopes of Cement Hill.**
☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: **Discrete surface water connections discernable on LiDAR and aerial photography, with the exception of 2005299100.W-1003 (0.002 acre), which due to its location surrounded by the rest of the complex, lack of topographic relief and documented restrictive soils we have determined to be part of this complex.**
☒ Ecological connection. Explain: **Besides having a discrete hydrologic connection, aquatic resources in this landscape context are connected to each other through transport of organic carbon and nutrients downstream as well as movement of organisms in between the aquatic resources, between these aquatic resources and the receiving streams and between aquatic resources and the surrounding upland areas**
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are **2-5** river miles from TNW.
Project waters are **2-5** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(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 quality affected by nearby residential commercial and industrial uses as well as agricultural uses of the site (Draft EIR/EIS)**
Identify specific pollutants, if known: **hydrocarbons, metals, pesticides, bacteria, trash, high nutrient content and dissolved solids (Draft EIR/EIS)**

(iii) Biological Characteristics. Wetland supports (check all that apply):
☒ Riparian buffer. Characteristics (type, average width): **these wetlands form a buffer of approximately 200 feet on the north side of McCoy Creek**
☒ Vegetation type/percent cover. Explain: **typical of palustrine emergent wetlands in this area given the disturbance described above.**
☒ Habitat for:
☒ Federally Listed species. Explain findings: **The Draft EIR/EIS covering the Study Area indicates that Branchinecta lynchi (federally listed as thretened) is present. Trifolium amoenum, Lasthenia conjugens, both federally listed as endangered are listed as presumed extant within or near the Study Area (California Natural Diversity Database).**
☐ Fish/spawn areas. Explain findings:
☒ Other environmentally-sensitive species. Explain findings: **Habitat for vernal pool and alkaline wetland endemic species of plants and animals which are increasingly rare as habitat loss occurs in this region.**
☒ Aquatic/wildlife diversity. Explain findings: **McCoy Creek and the wetland complex to which it belongs along with other similarly situated waters within this watershed provide habitat, food and life support for a diverse number of native plant and animal species, including invertebrates, birds, mammals, and downstream fish, some of which are federally listed threatened and/or endangered and/or commercially important.**

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **30 (or more)**
Approximately **14.689** 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)

See attached table.

Summarize overall biological, chemical and physical functions being performed: **These wetlands perform several functions important to the biological, chemical and physical integrity of McCoy Creek and Suisun Marsh Channel and Bay. This nexus is neither speculative nor insubstantial. These wetlands, along with other similarly situated wetlands in the watershed, store precipitation and slowly deliver this water to McCoy Creek thereby attenuating storm flows and maintaining base flow in McCoy Creek. By attenuating storm flows these waters reduce the risk of flooding downstream and by slowly delivering this stored water to downstream waters, maintain the base flow needed to maintain the physical integrity of McCoy Creek as well as for downstream for fish and other wildlife. As a source of fresh water these wetlands, and other similarly situated wetlands within the McCoy Creek watershed, serve to balance and dilute salt water from Suisun Bay preventing hypersalinity that would occur through evaporation and concentration of salts. These wetlands, along with other similarly situated wetlands in the watershed, perform a critical denitrification function which removes nitrogen from the system. Nitrogen and phosphorous are the two nutrients responsible for eutrophication of California waterways and dissolved oxygen impairment. Suisun Marsh Wetlands are listed as impaired for nutrients and dissolved oxygen. Several studies have documented wetlands abilities to remove pesticides from waters (Budd et al 2009 Efficacy of Constructed Wetlands in Pesticide Removal from Tailwaters in Central Valley, California; Blankenberg et al 2006 Pesticide retention in two small constructed wetlands: treating non-point source pollution from agriculture runoff; Moore et al 2001 Mitigation of metolachlor-associated agricultural runoff using constructed wetlands in Mississippi, USA; etc.). Hill Slough, Suisun Slough and Suisun Bay are all impaired by pesticides.**

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: **While the complex itself abuts McCoy Creek there are several discrete depressions within this complex which do not directly abut McCoy Creek. While we believe that wetland complexes should be treated as one ecological unit for purposes of jurisdiction, for the sake of documentation and out of an abundance of caution, we also consider them here and find that they do have a significant nexus to the TNW. These wetlands are indicated by an "N" in the attached "B.3 Table - Characterization of all wetlands adjacent to tributary." McCoy Creek, in combination with its adjacent wetlands, have the capacity to carry pollutants or flood waters to the TNW and to reduce the amount of pollutants or floodwaters reaching the TNW. McCoy Creek, in combination with its adjacent wetlands, have the capacity to transfer nutrients and organic carbon that support downtream foodwebs. McCoy Creek, in combination with its adjacent wetlands, have other relationships to the physical, chemical or biological integrity of the TNW.**

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet, 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: **Water is present year round as documented in the Draft EIR/EIS and in aerial photography reviewed for this determination**
   - ☒ 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: **0.135 acres** linear feet **10** wide.
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters:

3. **Non-RPWs[8] 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 marked as "Y" Directly Abutting in "B.3 Table -Characterization of all wetlands adjacent to tributary were observed both in the field and via aerial imagery to abut McCoy Creek. As discussed above we believe that the remaining wetlands (those indicated as "N" the above referenced table) while not physically directly abutting McCoy Creek are part of one wetland complex and should be treated as a single ecological unit which as a whole does physically abut McCoy Creek. In the interest of full documentation we have evaluated these discrete mapped polygons as not directly abutting and find that they have a significant nexus to McCoy Creek and are therefore jurisdictional under Section 404 of the CWA regardless of whether you view them in context of a directly abutting complex or as separate wetlands with a significant nexus to McCoy Creek.**

     - ☐ 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: **11.93** acres.

[8]See Footnote # 3.

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: **2.76** 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.

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):

[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.*

☐ 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:
☒ 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: **Agent prepared datasheets during the Corps site visit. Corps staff reviewed those datasheets and verified that they represented the Corps observations.**
☐ 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-ELMIRA**
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: **27 January 2016 USDA-NRCS Custom Soils Report**
☐ National wetlands inventory map(s). Cite name:
☐ State/Local wetland inventory map(s):
☒ FEMA/FIRM maps: **06095C0286E (map unavailable from FEMA, online GIS shows Study Area outside 1% event and coroborated by findings in 2014 Draft EIR/EIS)**
☒ 100-year Floodplain Elevation is: **42.55 feet** (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): **2005 NAIP, 2009 NAIP, 2010 NAIP, 2012 NAIP, 7 August 2014 Worldview Sensor 01, 26 December 2014 Worldview Sensor 03, 29 January 2015 Worldview Sensor 02, 18 April 2015 Woldview Sensor 03, 29 April 2015 Global Eye, 13 May 2015 Global Eye.**
  or ☐ Other (Name & Date):
☒ Previous determination(s). File no. and date of response letter: **SPN-2005-299100 verified 22 JAN 2008**
☐ Applicable/supporting case law:
☒ Applicable/supporting scientific literature: **cited above**
☒ Other information (please specify): **Department of Water Resources LiDAR data. USDA WETs Climate Data and Daily Climate Data. 28 May 2014. Recirculated Draft EIR and EIS. City of Fairfield and US Army Corps of Engineers (Joint CEQA-NEPA document)**

B. ADDITIONAL COMMENTS TO SUPPORT JD:

The San Francisco District verified a delineation on 22 January 2008. The study area for the 2008 verified delineation covers some of the study area for this determination, there is an approximately 30 acre area (the western most 30 acres of the Study Area subject here) that was not a part of the 2008 verification. In the applicant's 27 May 2015 request for verification, the applicant also requests reconsideration of the 2008 verification on the grounds that the 2008 verification reflected extremely wet weather. The Corps reviewed this request and found that the antecedent precipitation leading up to field data collected in support of the 2008 verification was in fact wetter than the range of normal and warranted further review. The 27 January 2016 field evaluation was during the wet season, when the antecedent precipitation was within the range of normal. Following the field evaluation the agent revised their maps and produced additional sample points which they sent to the Corps on 4 and 5 February 2016. In reviewing these maps we found two small discrepancies; areas which the Corps had observed wetlands but that were still not mapped as wetland. These were very minor and were corrected in the maps produced by the Corps and attached to the verification letter. In this jurisdictional determination I have chosen to treat wetlands that are part of a complex which abuts an RPW but that do not themselves directly abut the RPW seperately. This should not be construed as the Corps policy but rather an evaluation of the most conservative possible interpretation for the sake of documentation. In this case the result is that these areas are federally jurisdictional both if considered as a complex directly abutting an RPW or when considered as adjacent wetlands with a significant nexus to the traditional navigable water.