

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): June 13, 2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, SR132 West Expressway Project, Stanislaus County - Caltrans, SPK-2010-01481

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **California** County/parish/borough: **Stanislaus** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **37.645432159847°**, Long. **-121.055946333248°**
Universal Transverse Mercator: **10 671509.66 4168253.71**

Name of nearest waterbody:

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

Name of watershed or Hydrologic Unit Code (HUC): **Middle San Joaquin-Lower Merced- Lower Stanislaus, California, 18040002**

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: **June 13, 2011**

Field Determination. Date(s): **January 31, 2011**

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: linear feet, wide, and/or **0.09** acres.

Wetlands: **0.005** 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:

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.

Seasonal Wetland 1x and Seasonal Wetland 2x meet the three-parameter test for wetlands; however, they occur in a depression that collects water from a flood irrigation system. They are isolated and lack a hydrologic connection to waters of the United States. They are not adjacent to a traditional navigable water or a non-navigable tributary of a traditional navigable water.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

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

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

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

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

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: **1850 square miles**

Drainage area: **Pick List**

Average annual rainfall: **14 to 18 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 **5-10** river miles from TNW.

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

Project waters are **5-10** aerial (straight) miles from TNW.

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

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

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

Explain: **The San Joaquin River area water quality has been degraded as a result of agricultural runoff/discharge as well as contributions from dairies, feed lots, municipalities and other sources.**

Identify specific pollutants, if known: **Major pollutants include DDT, Group A Pesticides, mercury, chlorpyrifos, Diazinon, and Boron.**

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

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

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: **0.005** acres

Wetland type. Explain: **Palustrine emergent marsh, non-persistent**

Wetland quality. Explain: **This is a small, poor quality wetland occurring in very thin soils over concrete where water is supplied by sheet flow from the surrounding road and residential paved areas. Hydrology is sustained in dry months by seepage from the abutting canal during high flow periods.**

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: **The wetland will receive water from the canal only during high flow events, but it drains directly into the canal while inundated through a drainage inlet.**

Surface flow is: **Overland sheetflow**

Characteristics:

Subsurface flow: **No**. Explain findings:

- Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

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

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.

Project waters are **5-10** 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: **The water in this wetland is clear, but it is filled with garbage, and receives pollutants that are washed into the sheet flow coming from the surrounding road and nearby residences.**

Identify specific pollutants, if known: **In this area, major pollutants include DDT, Group A Pesticides, mercury, chlorpyrifos, Diazinon, and Boron.**

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: **Carex sp. 30%, Lemmma minor 20%, Typha latifolia 1%, Ammannia coccinea 10%, Populus fremonti 1%.**
- 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: 1
Approximately 0.005 acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Seasonal Wetland 4x	Y	0.005		

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
 TNWs: linear feet, wide, Or acres.
 Wetlands adjacent to TNWs: acres.
2. RPWs that flow directly or indirectly into TNWs.
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **The evidence indicating that the tributary is perennial is 10 years of aerial photography taken in various seasons showing the canal carrying water year-round.**

- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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

- Tributary waters: linear feet wide.
 Other non-wetland waters: **0.09** acres.

Identify type(s) of waters: **Riverine (Concrete lined irrigation canal)**

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

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

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

- Tributary waters: linear feet, wide.
 Other non-wetland waters: acres.

Identify type(s) of waters:

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **When the canal is at full capacity, water seeps upward to the ground surface, which provides hydrology to support hydrophytic vegetation.**
- 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: **0.005** acres.

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

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

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

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

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

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

7. Impoundments of jurisdictional waters.⁹

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

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

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

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

⁸See Footnote # 3.

⁹To 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.

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: **Wetland 1x and Wetland 2x**
- 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: **Isolated 0.65** acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **1:24K; CA-SALIDA**
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date):
 - or Other (Name & Date): **Google Earth images dated 13-Jun-2010, 5-Jun-2009, 29-Aug-2006, 30-Mar-2006, 10-Feb-2006, 30-Dec-2005, 30-Jul-2004, 19-Oct-2002, 30-Mar-2002, and 11-Sep-1998**
- 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:

Jurisdictional Features:
Canal (RPW)

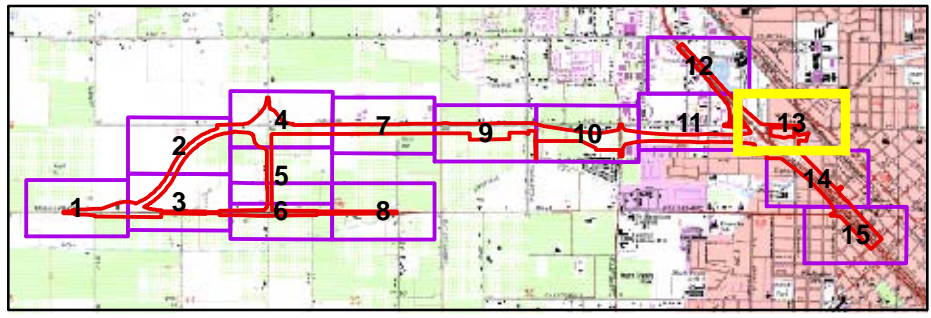
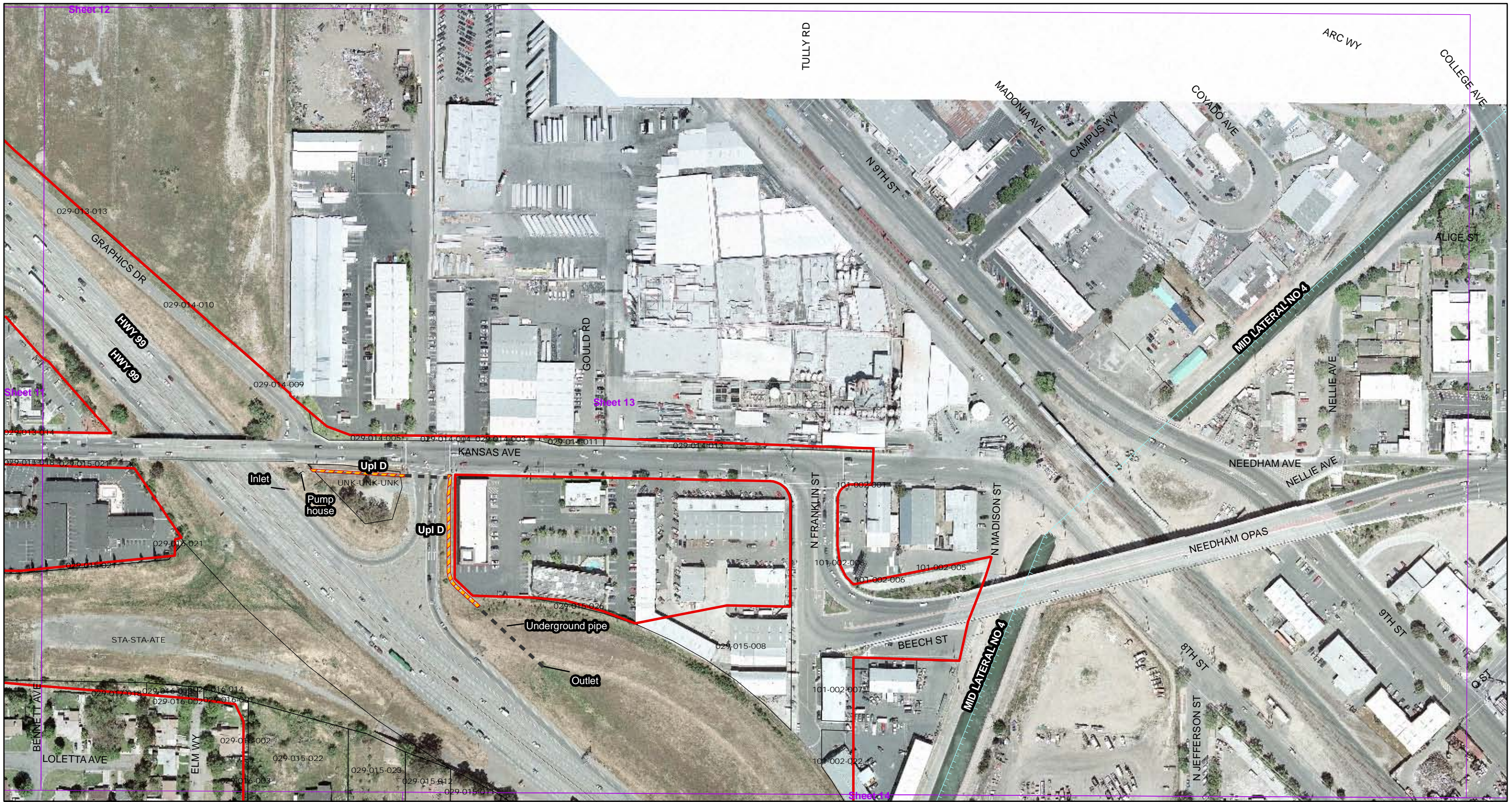
Seasonal Wetland 4x (RPWW)

Non-Jurisdictional Features:








Seasonal Wetland 1x (ISOL)

Seasonal Wetland 2x (ISOL)

Amended State Route 132
Wetland Delineation Report
Maps



Features Identified in the BSA

-  Canal
-  Seasonal Wetland Feature
-  Upland Ditch
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)

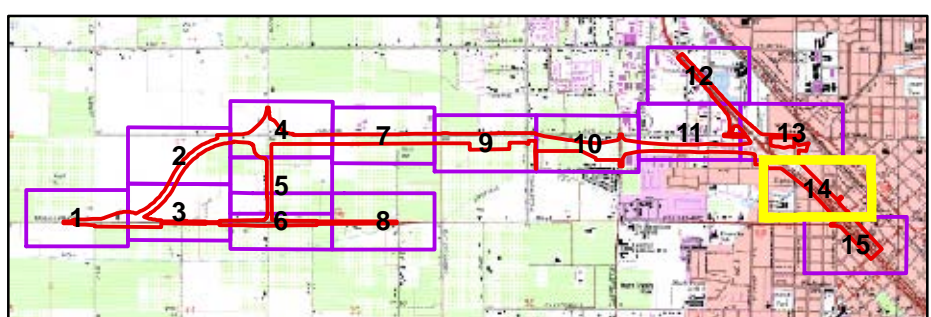


Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.09	0.04	3,920
4X	Seasonal Wetland	0.005	0.002	218
Upl D	Upland Ditch	0.08	0.03	3,569








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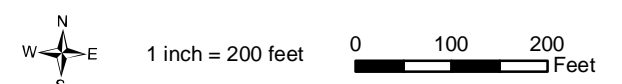
**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 13

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phill Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11, 6/21/11



Features Identified in the BSA

-  Canal
-  Seasonal Wetland Feature
-  Upland Ditch
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.09	0.04	3,920
4X	Seasonal Wetland	0.005	0.002	218
Upl D	Upland Ditch	0.08	0.03	3,569

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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 14

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phill Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11, 6/21/11

Original State Route 132
Wetland Delineation Report
Maps



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)









Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218

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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area
Sheet 1**

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/5/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



- Features Identified in the BSA**
-  Seasonal Wetland Feature
 -  Canal
 -  Data Points
 -  Canal (Stanislaus Co data)
 -  APN's located within the BSA
 -  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area
Sheet 2**

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Defers - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)









Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218

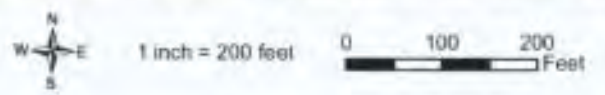
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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area
Sheet 3**

Project: SR 132 West Expressway
 Delineators: Misha Segun, Phil Paters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



- Features Identified in the BSA**
-  Seasonal Wetland Feature
 -  Canal
 -  Data Points
 -  Canal (Stanislaus Co data)
 -  APN's located within the BSA
 -  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







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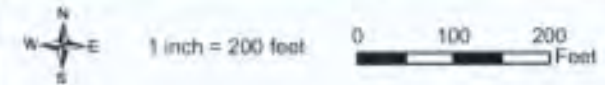
**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 4

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Delers - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3	WUS Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







Corps Verification Stamp Here.

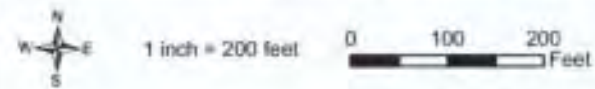
**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 5

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 6

Project: SR 132 West Expressway
 Delinators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/8/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3	WUS Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







Corps Verification Stamp Here.

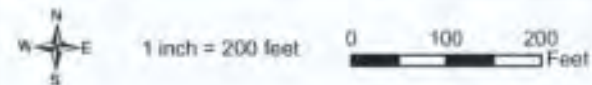
**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 7

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)









Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218

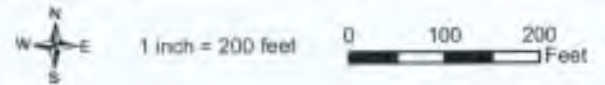
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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area
Sheet 8**

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



- Features Identified in the BSA**
-  Seasonal Wetland Feature
 -  Canal
 -  Data Points
 -  Canal (Stanislaus Co data)
 -  APN's located within the BSA
 -  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







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**Appendix C.
Wetland and Water Features
Identified in the Biological
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Sheet 9

Project: 5R 132 West Expressway
 Delineators: Misha Segun, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218

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**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**

Sheet 10

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







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**Appendix C.
Wetland and Water Features
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Sheet 11

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Defers - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







Corps Verification Stamp Here.

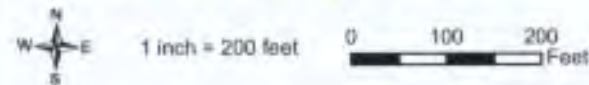
**Appendix C.
Wetland and Water Features
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Sheet 12

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Defers - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218

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**Appendix C.
Wetland and Water Features
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Sheet 13**







Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



SHERMAN AVE



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



1 inch = 200 feet



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218







Corps Verification Stamp Here.

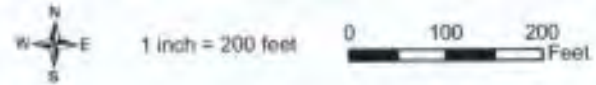
**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area
Sheet 14**

Project: SR 132 West Expressway
 Delineators: Misha Seguin, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11



Features Identified in the BSA

-  Seasonal Wetland Feature
-  Canal
-  Data Points
-  Canal (Stanislaus Co data)
-  APN's located within the BSA
-  Biological Study Area (08/31/10)



Label	Feature	Acres	Hectares	sq ft
1X	Seasonal Wetland	0.17	0.07	7,405
2X	Seasonal Wetland	0.48	0.20	20,909
3 WUS	Canal	0.62	0.25	27,007
4X	Seasonal Wetland	0.005	0.002	218

Corps Verification Stamp Here.

**Appendix C.
Wetland and Water Features
Identified in the Biological
Study Area**
Sheet 15

Project: SR 132 West Expressway
 Delineators: Misha Segun, Phil Peters
 Contact Info: Jacobs (510) 457-0027
 Field Survey Dates: 4/22/10, 8/12/10, 10/6/10
 Field Verification: 1/31/11 (Jason Deters - Corps)
 Additional Survey Dates: 2/9/11, 3/29/11
 Map Revised: 5/3/11