California High Speed Train Project –
Merced to Fresno Permitting Phase 1

Clean Water Act Section 401 Water
Quality Certification

Attachment A

Signatory Requirements

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SIGNATORY REQUIREMENTS

All Documents Submitted In Compliance With This Order Shall Meet The Following Signatory Requirements:

1. All applications, reports, or information submitted to the State Water Resources Control Board (State Water Board) must be signed and certified as follows:

   (a) For a corporation, by a responsible corporate officer of at least the level of vice- president.
   (b) For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
   (c) For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

2. A duly authorized representative of a person designated in Items 1.a through 1.c above may sign documents if:

   (a) The authorization is made in writing by a person described in Items 1.a through 1.c above.
   (b) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
   (c) The written authorization is submitted to the State Water Board Executive Director.

3. Any person signing a document under this section shall make the following certification:

   "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

California High Speed Train Project

Merced to Fresno Permitting Phase 1

and

Fresno to Bakersfield CP1c

Amended Clean Water Act Section 401 Water Quality Certification

Attachment B

Project Information

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Project Identifiers	
WDID No:	SB13001IN
Reg. Meas. ID:	391375
Place ID:	
Party ID:	
USACOE No:	SPK-2009-01483
Other File No:	

PROJECT INFORMATION

Details

Application Received Date:	May 17, 2013; **CP1c Amendment request June 9, 2015**
Application Completed Date:	June 17, 2013; **CP1c Amendment complete June 9, 2015**
Additional Info Completed Date:	**June 9, 2015**
Applicant:	California High-Speed Rail Authority c/o Mark McLoughlin
Applicant Representative(s):	**Karen Shaffer – Gibson and Skordal**
Project Title:	California High-Speed Train (HST Project), Merced to Fresno Section, Permitting Phase 1 (PP1) **and Fresno to Bakersfield CP1c**
Regulating Water Board:	SB – State Water Board
Type of Project:	Railroads

Project Description:

Applicant proposes construction of a 24 mile section of the California High Speed Rail System, between Madera and Fresno. The proposed project is Permitting Phase 1 (PP1). **Amended certification of June, 2015 adds 5 mi of rail line from the southern end of PP1. The CP1c section continues south from the Fresno station vicinity to East American Avenue.**

Location

City:	vicinity of Madera and Fresno
County:	Madera and Fresno Counties
Cross Streets:	No street address is associated with PP1. The project is located between Avenue 17 in Madera, CA and State Route 41 in Fresno, CA, **then south to E. American Ave for CP1c.**
Section, Township, Range:	
Zip code:	
Directions:	PP1 northern end: County Road Avenue 17, 3.2 miles west of State Highway 99, at the terminus at the BNSF railroad. PP1 southern end: The proposed Fresno Station, centered on Mariposa Street and bordered by Fresno Street on the north, Tulare Street on the south, H Street on the east, and G Street on the west. **Southern end of CP1c at East American Avenue.**
Latitude(s) and Longitude(s):	Merced County; Latitude 36°59'43.56"N, Longitude 120°2'34.34"W to Fresno County; Latitude 36°43'25.66"N, Longitude 119°47'3.50"W. **Southern terminus of CP1c is approx. 36°39'N and -119°43'W**

Public Notice

Water Board Public Notice: Information regarding this project was noticed on the State Water Board's website from May 17, 2013 to date of issuance of certification. __X__ One comment was received. _____ No Comments were received. _____ Comments were responded to in writing.

Fees

Application Fee Provided: A certification fee of $945.00 was submitted on 7/1/2013 as required by 23 CCR § 3833b(2)(A) and by 23 CCR § 2200(e). An additional fee of $50914.00 (IF APPLICABLE) to offset additional design impacts was received on 8/8/2013 as required by 23 CCR § 3833b(2)(A) and by 23 CCR § 2200(e). (Total certification fee was calculated as: $40,849.00. The base fee of $945.00, was received by the Division of Water Quality (DWQ) July 1, 2013. A dredge and fill fee of $50,914.00 was received by DWQ on August 8, 2013. The State Water Board will issue a refund for any overpayment after issuance of the certification.)
An additional fee of $1,097 was provided on March 21, 2014 with an original application for certification of CP1c.

Hydrologic Information

Receiving Water(s):	See Table 8a, Waterbodies in the PP1 Study Area, of the Section 401 Water Quality Certification Application Supplemental Information.
Hydrologic Unit(s):	San Joaquin Valley Floor Hydrologic Unit (545) and South Valley Floor Hydrologic Unit (551).
Water Body Type(s):	Vernal pools, seasonal wetland, natural watercourses, constructed watercourses, constructed basins and open waters.

Designated Beneficial Use(s)

X	AGR		COMM		FRSH	X	MIGR	X	RARE	X	SPWN		
	AQUA		CUL	X	GWR	X	MUN	*X*	REC-1	X	WARM		
	ASBS		EST	X	IND		NAV	X	REC-2		WET		
	BIOL		FISH		LWRM		POW		SAL	X	WILD		
X	COLD		FLD		MAR		PRO		SHELL		WQE		

Candidate, Sensitive, or Special Status Species

Listed species present or potentially present in PP1 include San Joaquin kit fox, the central California tiger salamander, conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, Colusa grass, San Joaquin Valley Orcutt grass, hairy Orcutt grass, Greene's tuctoria, and succulent owl's clover (see USFWS BO provided with Other Requisite Material that accompanies the 401 application package). Also see Section 7, Threatened and Endangered Species, of the Section 401 Water Quality Certification Application Supplemental Information.

Other Permits/Licenses/Agreements/Plans

Federal (Type and Permit/License Number):

-->U.S. Army Corps of Engineers (Corps) Section 404 Individual Permit Application, Permitting Phase 1, U.S. Army Corps of Engineers File No. SPK-2009-01483.
-->Corps Section 408 Determination.
-->U.S. Fish and Wildlife Service (USFWS) Biological Opinion.

State (Type and Permit/License/Agreement Number):

- CDFW Master Streambed Alteration Agreement (MSAA) for PP1 pursuant to Section 1602 of the California Fish and Game Code. (Notification requesting an MSAA has been submitted to CDFW.
- State Water Board NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [Order No. 2009-0009-DWQ; as amended by 2010-0014-DWQ and 2012-0006- DWQ; NPDES No. CAS000002 (2009)] (CGP).
- CDFW Incidental Take Permit (ITP) pursuant to Section 2081 of the California Fish and Game Code. (ITP application has been submitted to CDFW.)

- CVFPB Encroachment Permits. (These permits will be obtained by the Design/Build (D/B) contractor during design/construction of the HST Project.)
- State Water Board Water Quality Order No. 2003-003-DWQ, Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality (General WDRs). (If necessary, this permit will be obtained by the D/B contractor during design/construction of the HST Project.)
- RWQCB - Central Valley Region, Order No. R5-2008-0081, Waste Discharge Requirements for Dewatering and Other Low Threat Discharges to Surface Waters. (This permit will be obtained by the D/B contractor during design/construction of the HST Project.)
- Caltrans Encroachment Permits. (These permits will be obtained by the D/B contractor during design/construction of the HST Project.)

Other County, City, etc. (Type and Permit/License Number):

See Table 4.1, Other Authorizations, of the Section 401 Water Quality Certification Application Supplemental Information.

Any Required Documents or Plan Submittals (SWPPP, Mitigation & Monitoring, etc.)

Submittal of SWPPP not required for Certification. Documentation of enrollment under the CGP is required. The D/B contractor will prepare the project SWPPP

NEPA and/or CEQA Compliance	
Document type:	EIR/EIS
Lead Agency:	HSRA
Date completed:	Merced – Fresno Notice of Determination filed May 4, 2012 Fresno – Bakersfield NOD filed May 8, 2014.
State Clearinghouse Number:	Merced – Fresno, No. 2005101104 Fresno – Bakersfield, No. 2009091126

IMPACTS

Describe Potential Water Quality Impacts:

Primary impacts include: Direct impacts due to fill of wetlands by the rail bed; alteration of flow caused by stream crossings; potential polluted runoff from the rail lines and facilities; indirect impacts due to operation and maintenance of the rail lines and associated facilities. See Section 5, Water body Impact, of the Section 401 Water Quality Certification Application Supplemental Information.

Final Project Impacts (Fill)*

Water Body Type	Permanent			Temporary		
	Acres**	Linear Feet	Cubic Yards	Acres**	Linear Feet	Cubic Yards
Lake						
Ocean						
Riparian						
Streambed						
Vernal Pool						
Wetland						

* Include all three measurements (acres, linear feet and cubic yards) for all federal and non-federal waterbody types.
** Provide acres to three decimal places (e.g., 0.006).

Final Project Impacts (Dredge*/Excavation)**						
Water Body Type	**Permanent**			**Temporary**		
	Acres***	Linear Feet	Cubic Yards	Acres***	Linear Feet	Cubic Yards
Lake						
Ocean						
Riparian						
Streambed	**2.301**	**7890**		**0.100**	**735**	
Vernal Pool						
Wetland	**0.361**					

* For projects that will occur annually please provide the total volume to be dredged for the entire certification period (typically 5 years).
** Include all three measurements (acres, linear feet and cubic yards) for all federal and non-federal waterbody types.
*** Provide acres to three decimal places (e.g., 0.006).
#Linear feet includes impacts to constructed channels (irrigation ditches). Wetland impacts do not include 2.811 ac of permanent, 2.590 ac. of temporary impacts to stormwater detention basins, and 0.831 ac. of effects to "open waters;" i.e. features with uncertain jurisdictional interest which were reported by HSRA and included in the certification for the sake of consistency with HSRA's reporting.

Impact Comparison*								
	Fill* **				**Dredge**			
	Permanent		Temporary		Permanent		Temporary	
	Initial	Final	Initial	Final	Initial	Final	Initial	Final
*Impacts (Acres)***	8.345	7.507	2.476	2.476	N/A	N/A	N/A	N/A

* Include impacts to both federal and non-federal waters.
** Provide acres to three decimal places (e.g., 0.006).
***** NA for CP1c; comparison is for M-F PP1 only.**

MITIGATION

Describe Avoidance and Minimization for Impacts to Waters:

See Section 11.1, Avoidance and Minimization, of the Section 401 Water Quality Certification Application Supplemental Information.

Describe Compensatory Mitigation for Impacts to Waters (temporary and permanent):

A permittee responsible mitigation plan (PRMP) calls for off-site preservation, enhancement and restoration of wetlands, stream channels and vernal pools within the watersheds where the project is proposed. See Section 6, Compensatory Mitigation, of the Section 401 Water Quality Certification Application Supplemental Information.

Compensatory Mitigation (Proponent Provided)

Water Body Type	Acres Established		Acres Restored		Acres Enhanced		Acres Preserved	
	Temp.*	Perm.	Temp.*	Perm.	Temp.*	Perm.	Temp.*	Perm.
Lake								
Ocean								
Riparian			0.390	2.200				
Streambed			2.086	0.000				
Vernal Pool				**8.353*****				12.030
Wetland								

* Report as mitigation for temporary impacts at a 1:1 ratio any required conditions to restore the site (e.g., re-vegetating or re-contouring). Temporary impacts are being mitigated at the project site.
** This preservation is for compliance with the federal Endangered Species act and not for waters of the U.S./waters of the state. ** Impacts to seasonal wetland in CP1c = 0.01 ac.
*** Mitigation by vernal pool restoration at 3:1 ratio brings the restoration sum to 8.353 ac.

Compensatory Mitigation (Mitigation Bank)

Water Body Type	Acres Established	Acres Restored	Acres Enhanced	Acres Preserved
Lake				
Ocean				
Riparian				
Streambed				
Vernal Pool				
Wetland				

Compensatory Mitigation (In-Lieu)

Water Body Type	Acres Established	Acres Restored	Acres Enhanced	Acres Preserved
Lake				
Ocean				
Riparian				
Streambed				
Vernal Pool				
Wetland				

Proponent Provided Mitigation Information (If Applicable)*		
	Site 1	**Site 2**
Mitigation Site Location(s):	**See Below**	
Mitigation Site Lat/Long(s)		
Name of Watershed & Hydrologic Unit:		
Mitigation Site City and County:		
*If more than two sites, please provide additional information in the additional information table located at the end of this form.		

Mitigation Bank Information (If Applicable)*		
	Bank 1	**Bank 2**
Mitigation Bank Name:	**NA**	
Name of Mitigation Bank Operator:		
Address of Mitigation Bank Office:		
Mitigation Bank Location(s):		
Mitigation Bank Lat/Long(s)		
Name of Watershed & Hydrologic Unit:		
Mitigation Bank City and County:		
Mitigation purchase amount ($):		
*If more than two sites, please provide additional information in the additional information table located at the end of this form.		

In-Lieu Mitigation Information (If Applicable)*		
	Program 1	**Program 2**
Name of approved in-lieu fee mitigation sponsor:		
Address of In-lieu mitigation sponsor:		
Description of in-lieu mitigation arrangements:		
In-lieu mitigation location:		
In-lieu mitigation Lat/Long(s):		
In-lieu mitigation City and County:		
Name of Watershed & Hydrologic Unit		
*If more than two sites, please provide additional information in the additional information table located at the end of this form.		

Additional Mitigation Information (Proponent, Bank, or In-Lieu)		
	Site 1	**Site 2**
Mitigation Site Name:	Lazy K	
Name of Mitigation Site Operator:	John Vollmar / Vollmar Natural Lands Consulting	
Address of Mitigation Site Office:	1720 Solano Ave Berkeley, CA 94707	
Mitigation Site Location(s):	The Lazy K mitigation site is located at the northwestern edge of Madera County and the southern edge of Merced County, approximately 5 miles east of the City of Chowchilla, 15 miles north of the City of Madera, and 5 miles south of Le Grand in Merced County.	

Mitigation Site Lat/Long(s)	The approximate center of the site is latitude 37°9'48.31"N, longitude 120°9' 10.10" W.	
Name of Watershed & Hydrologic Unit:	The site is located in the Chowchilla River watershed of the Middle San Joaquin-Lower Chowchilla River hydrologic unit, within the San Joaquin River Basin hydrologic unit.	
Mitigation Site City and County:	Madera and Merced Counties	
Mitigation purchase amount ($):	Not yet available.	

California High Speed Train Project – Merced to Fresno Permitting Phase 1

Clean Water Act Section 401 Water Quality Certification

Attachment C

Project Area Maps

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PROJECT AREA MAP 1 OF 4

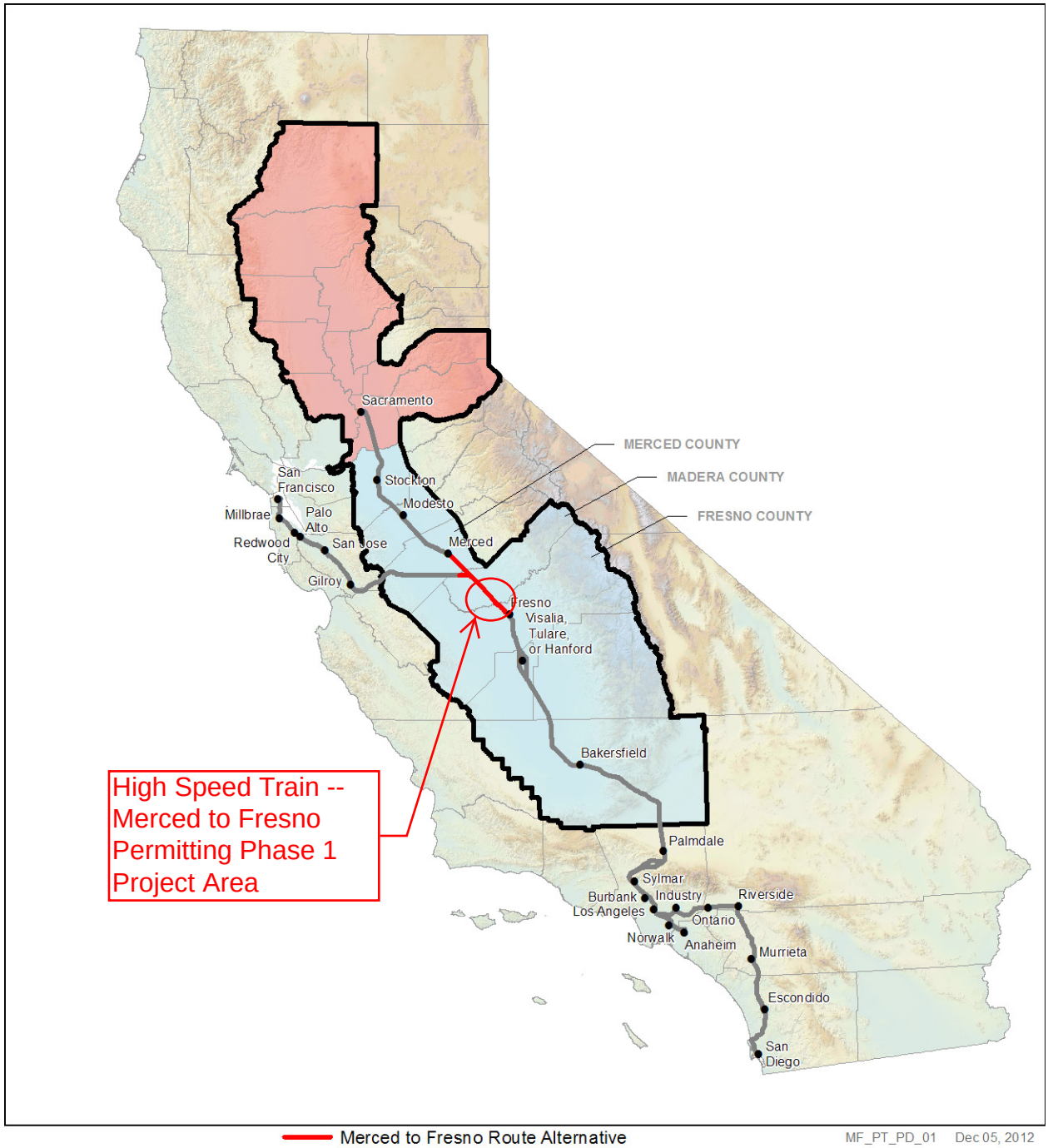
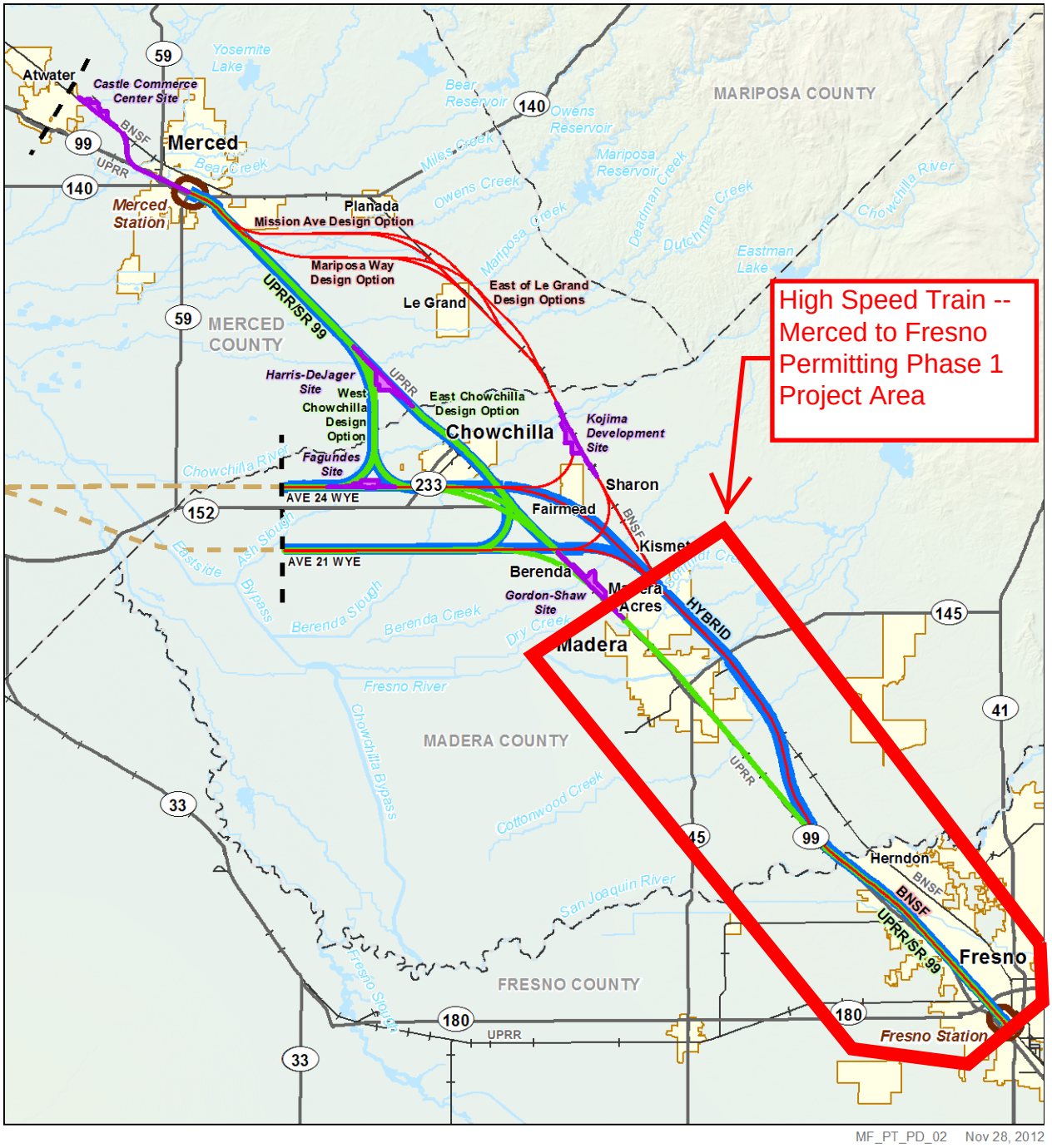


Figure 1-1
California HST System

PROJECT AREA MAP 2 OF 4



MF_PT_PD_02 Nov 28, 2012

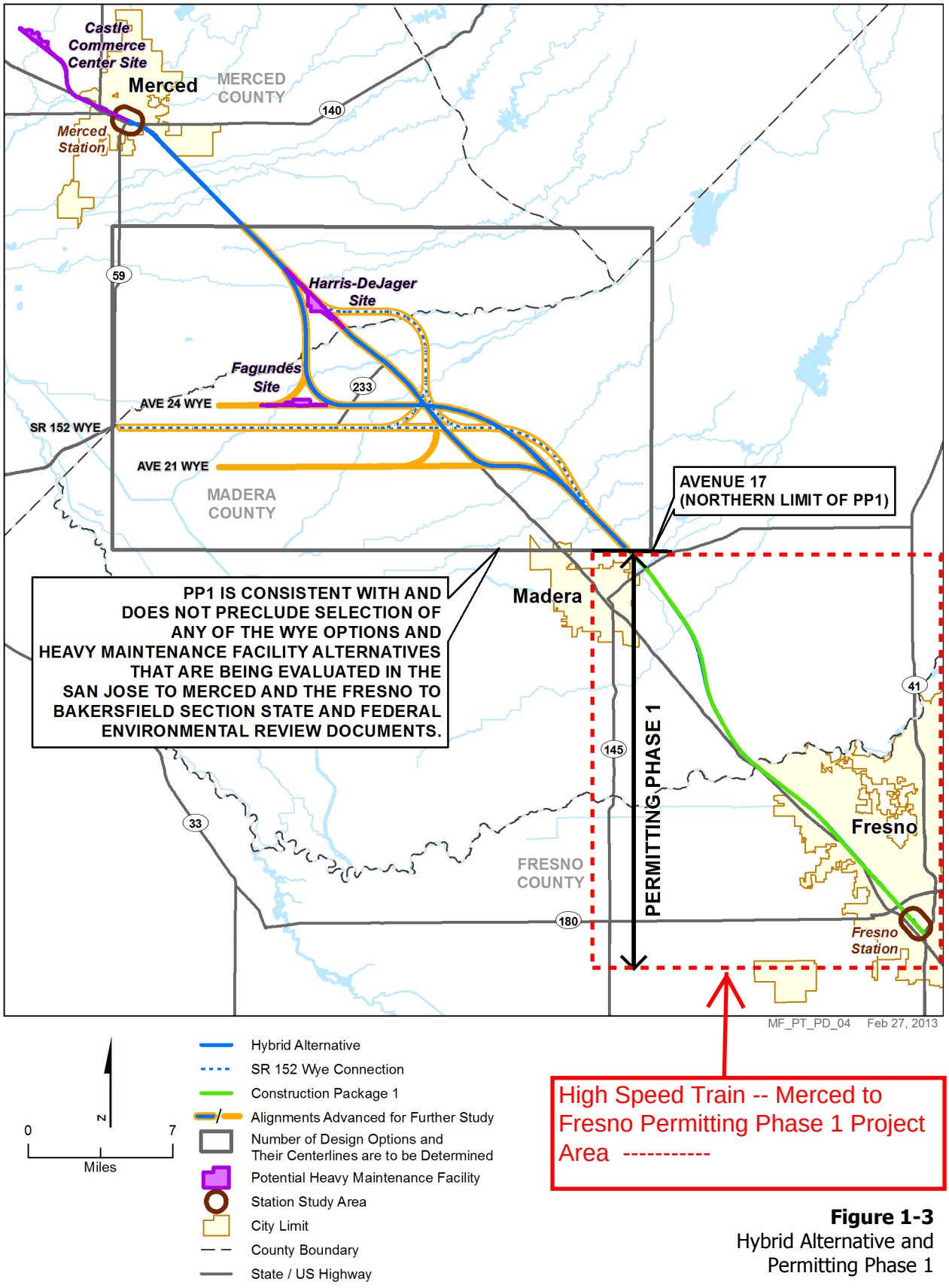
N

0 7.5
Miles

- BNSF Alternative
- UPRR/SR 99 Alternative
- Hybrid Alternative
- Project Limit
- Connection to Other Section
- Station Study Area
- Potential Heavy Maintenance Facility
- City Limit
- County Boundary
- Railroad
- State / US Highway

Figure 1-2
Alternatives Considered in
Merced to Fresno Section EIR/EIS

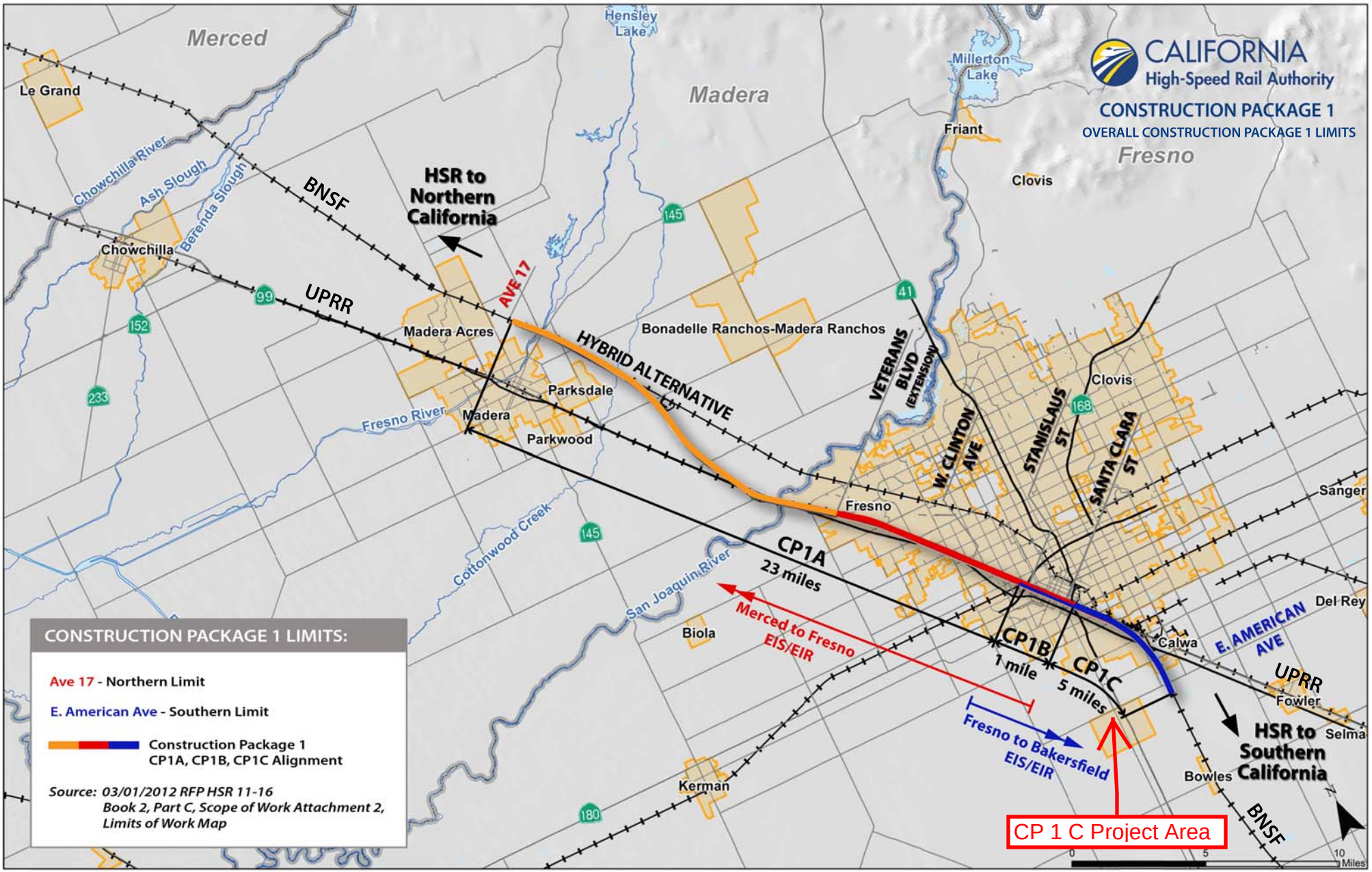
PROJECT AREA MAP 3 OF 4



High Speed Train -- Merced to Fresno Permitting Phase 1 Project Area ----------

Figure 1-3
Hybrid Alternative and Permitting Phase 1

MAP 4 OF 4 - CP1C PROJECT AREA



DATE: AUGUST 2013

California High Speed Train Project – Merced to Fresno Permitting Phase 1

Clean Water Act Section 401 Water Quality Certification

Attachment D

Certification Deviation Procedures

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Introduction

These procedures are put into place to preclude the need for certification amendments for minor changes in the Project routing or location. Often minor changes or modifications in project activities are required by the permittee following start of construction. These deviations may potentially increase or decrease impacts to waters of the state. In such cases, a Certification Deviation, as defined in Additional Condition 9, may be requested by the High Speed Rail Authority (HSRA) as set forth below:

Process Steps

Who may apply: The HSRA or its designated representative for this Certification.

How to apply: By letter or email to the 401 staff designated as the contact for this Certification.

Certification Deviation Request: The HSRA or its agent will request verification from State Water Board staff that the project change qualifies as a Certification Deviation, as opposed to requiring an amendment to the Certification. The request should:

1. Describe the Project change or modification:
    a. Proposed activity description and purpose;
    b. Why the proposed activity is considered minor in terms of impacts to waters of the state;
    c. How the Project activity is currently addressed in the Certification; and,
    d. Why a Certification Deviation is necessary for the Project.
2. Describe location (latitude/longitude coordinates), the date(s) it will occur, as well as associated impact information (i.e., temporary or permanent, federal or non-federal jurisdiction, water body name/type, estimated impact area, etc.) and minimization measures to be implemented.
3. Provide a map that includes the activity boundaries with photos of the site.
4. Provide verification of any mitigation needed according to the Certification conditions.
5. Provide verification from the CEQA Lead Agency that the proposed changes or modifications do not trigger the need for a subsequent Negative Declaration or EIR, or a supplemental EIR. (Cal. Code Regs., tit. 14, §§ 15162 & 15163.)

Action by State Water Board on Request: State Water Board staff will make a determination on the Certification Deviation request within 5 working days from receipt of a complete request and notify the HSRA or its agent via email of the staff determination. Whether or not a Certification Deviation request is complete is at the discretion of State Water Board staff.

Post-Construction Certification Deviation Reporting:

1. Within 30 calendar days of completing the approved Certification Deviation activity, the HSRA or its agent will provide a post-construction activity report that includes the following information:
    a. Activity description and purpose;
    b. Activity location, start date, and completion date;

c. Erosion control and pollution prevention measures applied;

d. Impacts to water body types if applicable;

e. Mitigation plan if applicable; and,

f. Map of activity location and boundaries; post-construction photos.

Action by State Water Board on Post-Construction Activity Report: State Water Board staff will review the post-construction Certification Deviation Report within 10 working days from receipt of a complete report. State Water Board staff will determine, in consultation with the HSRA and other regulatory agencies, if applicable, whether additional mitigation will be required. If additional mitigation is required, State Water Board staff will inform the HSRA within the 10-day review period. Whether or not a post-construction activity report is complete is at the discretion of State Water Board staff.

Annual Summary Deviation Report:

1. By January 31 of each year until the Project terminates construction activities, the HSRA or its agent will provide an Annual Summary Deviation Report that will include the following information in an excel spreadsheet (or similar format) for all Certification Deviation activities conducted for the previous calendar year (i.e., January 1 through December 31):

    a. Site name(s);

    b. Date(s) of Certification Deviation approval;

    c. Location(s) of authorized activities;

    d. Impact area(s) by water body type prior to activity (for fill/discharge or excavation/dredge: acres, linear feet, and cubic yards) as originally authorized in the Certification;

    e. Actual impact area(s) by water body type (for fill/discharge or excavation/dredge: acres, linear feet, and cubic yards) due to Certification Deviation activity(ies);

    f. The net change in impact area by water body type(s) (for fill/discharge or excavation/dredge: acres, linear feet, and cubic yards). An explanation will be required for any negative values; and,

    g. Mitigation to be provided (approved mitigation ratio and amount).

Action by State Water Board on Annual Certification Deviation Report: Following termination of Project construction, the State Water Board will amend the Certification to reflect all approved Certification Deviations and the amended Certification will serve as a record of actual Project activities.

ECM: 1090352

California High Speed Train Project – Merced to Fresno Permitting Phase 1

Clean Water Act Section 401 Water Quality Certification

Attachment E

Mitigation Ratios

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Compensatory Mitigation Ratios for California High Speed Train Permitting Phase 1								
			Watershed		401 Impacts			Site I.D. numbers
	401 IMPACT TYPE	CORPS IMPACT TYPE	USGS "8 digit" HUC[1]	Basin Plan HUC[1]	Acres of Impact	Acres of Mitigation	Mitigation Ratio[2]	
"Streams"	Natural Watercourse	Riverine High CRAM (Bridge)	18040001 18040007	545	0.020	0.027	1.35:1	11790
	Natural Watercourse	Riverine Mid CRAM (Bridge)	180400011 8040007	545	0.012	0.016	1.35:1	11795, 11800
	Constructed Watercourse	Canal/Ditch	18040001 18040007	545	0.741	0.741	1:1	161, 163, 168, 169, 175, 7156, 7951, 9298
"Wetlands"	Constructed Watercourse	Canal/Ditch	18030009	551.3	1.020	1.020	1:1	156, 8214, 9314, 9341, 9342, 9344, 9936
	Vernal Pool Wetlands	Vernal Pool High CRAM	18040001 18040007	545	1.282	3.167	2.47:1	5151, 5154, 11299
	Seasonal Wetland	Seasonal Wetland	18040001 18040007	545	0.351	0.807	2.3	7332
	Constructed Basin[3]	Basin	18040001 18040007	545	0.097	0.097	1:1	7330
	Constructed Basin	Basin	18030009	551.3	2.656	2.656	1:1	3567, 3571, 8103, 8176, 8181, 8916, 8917, 9345, 9953, 10958
	TOTAL IMPACTS AND ACREAGE PROPOSED FOR COMPENSATORY MITIGATION				**6.179**	**8.531**		

Mitigation amounts and ratios in this table were developed by the applicant in consultation with the Corps and State Water Board. These final mitigation ratios are listed in Table 4-2 of the PRMP.

Note 1) Hydrologic Unit Code.

Note 2) These mitigation ratios were developed with the Corps using the Corps' Mitigation Ratio Standard Operating Procedure. Additionally, impacts to non-wetland riparian habitat will be mitigated at a 2:1 ratio. The 1.1 acre of impact to non-wetland riparian habitat associated with San Joaquin River and Cottonwood Creek will result in 2.2 acres of mitigation.

Note 3) This category of waters, "Constructed Basins" or "Basins," affects constructed depressional features designed and maintained for specific management purposes; i.e., storm water detention or irrigation runoff detention, storage or treatment. Impacts due to fill of these waters will typically be mitigated by reconstruction of the basin in areas adjacent to or near the original location. When rebuilding the basin is not feasible or not requested by the affected landowner, the applicant has agreed to provide additional vernal pool establishment at a reduced ratio. Staff has determined that off-site compensation above that proposed here is un-necessary. HSRA will document landowner preferences leading to decisions to compensate or replace the affected features.

California High Speed Train Project – Merced to Fresno Permitting Phase 1

Clean Water Act Section 401 Water Quality Certification

Attachment F

Financial Assurances

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Financial Assurances for Implementation and Maintenance of Mitigation.

To reasonably assure implementation of the approved Permittee Responsible Mitigation Plan (PRMP) for the California High Speed Rail Project Merced to Fresno Section Permitting Phase 1 (PP1) as required by this Certification, the California High Speed Rail Authority (CHSRA) shall provide to the State Water Resources Control Board (State Water Board) for approval a form of financial assurance no later than the earlier to occur of: (a) impacts to jurisdictional resources; or (b) six months after the issuance of this Certification. The financial assurance instrument(s) shall set forth written documentation that:

1. CHSRA has proper legal authority to spend an appropriate amount of mitigation funding necessary to implement and maintain the mitigation as required by the PRMP and this Certification.
2. CHSRA has approved the expenditure of that amount of mitigation funding necessary for implementing and maintain the mitigation required by the PRMP and this Certification.
3. CHSRA has entered into a covenant or is otherwise obligated to spend that amount of mitigation funding necessary for implementing and maintaining the mitigation required by the PRMP and this Certification. At the election of the State Water Board, prior to submission of the financial assurance instrument(s) to the State Water Board for review, the State Water Board may specify that the document creating CHSRA's covenant or obligation shall include a provision that names the State Water Board as a third party beneficiary entitled to act, in the sole discretion of the State Water Board, to enforce CHSRA's covenant or obligation to expend the mitigation funding necessary for implementing and maintaining the mitigation required by the PRMP and this Certification.
4. The term and contingency measures of the financial assurance instrument(s) shall be sufficient to assure that the financial assurances shall not expire prior to completion of the mitigation and satisfaction of mitigation performance standards pursuant to the PRMP and this Certification.

Long-Term Management Financial Assurances.

To reasonably assure long-term management and protection of the compensatory mitigation areas conserved in perpetuity by a dedicated conservation easement pursuant to the PRMP and this Certification, CHSRA shall provide the following documentation to the State Water Board for approval no later than the earlier of: (a) impacts to jurisdictional resources; or (b) six months after the issuance of this Certification:

1. A Property Analysis Record ("PAR") that determines an appropriate endowment value for purposes of funding long-term management and protection of the compensatory mitigation sites in perpetuity as required by the PRMP; and
2. Appropriate financial assurance instrument(s), which shall set forth written documentation that CHSRA has provided endowment or future annuity principle sufficient to fund the long-term management of the compensatory mitigation sites satisfying the following conditions:
    a. The endowment shall provide the sum determined pursuant to the PAR to be sufficient to fund long term management and protection of the compensatory mitigation sites;

b. The endowment shall be provided by CHSRA to an entity qualified to receive the endowment under California Government Code Section 65968; and

c. The endowment holder shall be obligated to hold, manage and expend the endowment in perpetuity for long term management and protection of the compensatory mitigation sites as specified in the PRMP.

California High Speed Train Project – Merced to Fresno Permitting Phase 1

and

Fresno to Bakersfield CP1c

Second Amendment of Clean Water Act Section 401 Water Quality Certification

Attachment G

CEQA Findings of Fact and Statement of Overriding Considerations

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State Water Resources Control Board
CEQA Findings of Fact and Statement of Overriding Considerations for the California High Speed Rail Authority's
High Speed Train – Merced to Fresno Permitting Phase 1 and Fresno to Bakersfield CP1c Project

A. INTRODUCTION

Pursuant to CEQA, these Findings of Fact and Statement of Overriding Considerations (Findings) support the issuance of this Certification based on the Project Final Environmental Impact Reports (FEIR/FEIS), and other supplemental documentation, including, the Project Mitigation Monitoring and Reporting Plans (MMRP) and applications for Certification with attachments. (Cal. Code Regs., tit. 14, §§ 15091 & 15096, subd. (h).) In preparation of the Findings, the State Water Board has utilized the Project FEIR/FEISs, as well as the Final Program Environmental Impact Report/Environmental Impact Statement for the Proposed California High Speed Train System (Program EIR) and other relevant material in the State Water Board's administrative record (Cal. Code Regs., tit. 14, § 15096, subd. (f)).

CEQA Finding Requirement

Prior to approving or carrying out a project for which an EIR has been certified which identifies one or more significant environmental effects, all public agencies must make one or more written findings for each of those significant impacts, accompanied by a brief explanation of the rationale for each finding. (Pub. Resources Code, § 21081, subd. (a); Cal. Code Regs., tit. 14, §§ 15091, subd. (a) & § 15082, subd. (b)(2)) This requirement applies to the lead agency and responsible agencies under CEQA (Pub. Resources Code, § 21081; Cal. Code Regs., tit. 14, §§ 15091, subd. (a) & § 15096, subd. (h)). As specified in the CEQA Guidelines, the possible findings are:

> (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment;
>
> (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or
>
> (3) Economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

The State Water Board is a responsible agency under CEQA for purposes of approving the Certification for Project activities. To that end, these Findings provide the specific reasons supporting the State Water Board's decisions under CEQA as they relate to the issuance of the Project Certification. The Findings are supported by substantial evidence in the State Water Board's administrative record (Cal. Code Regs., tit. 14, § 15091 subd. (b).).

As a responsible agency, the State Water Board's CEQA obligations are more limited than those of the lead agency. (Cal. Code Regs., tit. 14, § 15096, subd. (g)(1).) The State Water

Board, in particular, is "responsible for considering only the effects of those activities involved in [the] project which it is required by law to carry out or approve." (Pub. Resources Code, § 21002.1, subd. (d).) Thus, while the State Water Board must "consider the environmental effects" of the Project as disclosed in the environmental documents described above, the State Water Board "has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve." (Cal. Code Regs., tit. 14, § 15096, subds. (f), (g)(1).)

B. INCORPORATION BY REFERENCE

For the Merced to Fresno section of the Project, all ~~**All**~~ project impacts and mitigation measures, including those discussed below, are analyzed in greater detail in the Project Final EIR (**M-F** FEIR/FEIS), which is incorporated herein by reference. The M-F FEIR/FEIS is available at: http://www.hsr.ca.gov/Programs/Environmental_Planning/final_merced_fresno.html

Project mitigation measures and reporting responsibilities **for PP1 are summarized in Table A, Section 1 below and are found in** ~~**are also summarized in**~~ the Project Mitigation Monitoring and Reporting Plan (MMRP). See section F below.

For the Fresno to Bakersfield CP1c section of the Project, all project impacts and mitigation measures, including those discussed below, are analyzed in greater detail in the Project Final EIR (F-B FEIR/FEIS), which is incorporated herein by reference. The F-B FEIR/FEIS is available at: http://www.hsr.ca.gov/Programs/Environmental_Planning/final_fresno_bakersfield.html

Project mitigation measures and reporting responsibilities are also summarized in Table A, Section 2 and are found in the Project MMRP. See section F below.
The Program EIR, which includes analyses of broad statewide HST impacts and serves as a first tier document for the M-F FEIR/FEIS and the F-B FEIR/FEIS, is available at: http://www.hsr.ca.gov/docs/programs/eir-eis/brdmtg1105_item7_8mitigation.pdf

Also incorporated by reference into these Findings is High Speed Rail Authority's (HSRA) application**s** for Certification with all attachments, which include detailed project maps, a detailed project description, copies of information provided to other resource agencies, compensatory mitigation ratio-setting methodologies, and other supporting information.

C. ENVIRONMENTAL REVIEW:

On May 3, 2012, the HSRA, as lead agency, certified a FEIR/FEIS (State Clearinghouse (SCH) No. 2009091125) for the *California High Speed Train, Merced to Fresno Section* in accordance with CEQA (Resolution # HSRA 12-19).

The HSRA Board of Directors, as the lead agency, subsequently certified the Final FEIR/FEIS for the Fresno to Bakersfield section of the HST, including CP1c, and issued a Notice of Determination in accordance with CEQA on May 8, 2014. In doing so, the HSRA Board adopted CEQA findings of fact, a corresponding statement of overriding

considerations, and a Mitigation Monitoring and Reporting Program (Resolution #HSRA 14-10).

As directed by CEQA, the State Water Board has been deemed to have waived any objection to the adequacy of the M-F FEIR/FEIS and the F-B FEIR/FEIS. Both FEIRs are conclusively presumed to comply with CEQA for purposes of use by the State Water Board (Pub. Resources Code, § 21167.3, subd. (b); Cal. Code Regs., tit. 14, §§ 15096, subd. (e)(2) & § 15231). Based on the administrative record, the State Water Board finds that no Subsequent EIR or Supplement to the FEIR/FEIS is necessary per the requirements of CEQA (Cal. Code Regs., tit. 14, §§ 15162 & § 15163).

Prior to reaching a decision on the issuance of Certification for the project, the State Water Board has considered the environmental effects of the project as shown in the M-F FEIR/FEIS and the F-B FEIR/FEIS, as well as the Program EIR (Cal. Code Regs., tit. 14, § 15096, subd. (f)). Both FEIRs specify mitigation measures for identified impacts, and include a Mitigation, Monitoring and Reporting Plan (MMRP) to document the mitigation measures and how they are to be implemented. The Findings specified below are provided for each of those significant project impacts identified in the FEIRs that are subject to the State Water Board's jurisdiction. Part D addresses potentially significant impacts which cannot be avoided or substantially lessened to a less than significant level. Part E addresses potentially significant impacts which can be avoided or lessened to a less-than-significant level.

Impacts discussed below are identified as "M-F" for impacts disclosed in the Merced to Fresno FIER, and "F-B" for impacts disclosed in the Fresno to Bakersfield FEIR/FEIS.

Note that categorization and description of impacts varies between the two environmental documents, but the types of impacts that may affect resources that are protected under the State Water Board's authorities are similar in nature, as are the mitigation measures proposed.

D. GENERAL FINDINGS ON SIGNIFICANT AND UNAVOIDABLE IMPACTS ASSOCIATED WITH THE MERCED TO FRESNO PP1 SECTION OF THE PROJECT WHICH CANNOT BE AVOIDED OR SUBSTANTIALLY LESSENED TO A LESS-THAN-SIGNIFICANT LEVEL.

M-F PK IMPACT #4: Restricted Use at Camp Pashayan (City of Fresno). Construction of the Project would displace park users during construction for two to four years. The **M-F** FEIR/FEIS states that although mitigation is available to minimize the impact, there remains a residual significant impact that is unavoidable; no feasible mitigation is available to avoid or substantially lessen the impact to a less than significant level.

Findings:
Changes or alterations have been required in, or incorporated into, the Project, which minimizes the significant environmental effect as identified in the final EIR.

Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures to reduce this impact to a less-than-significant level.

The remaining unavoidable and irreversible impacts of the project are acceptable in light of economic, legal, social, technological, and other considerations set forth herein because the benefits of the project (as described in Section H) outweigh any significant and unavoidable or irreversible environmental impact of the project

Rationale: Although the area of the park that would be affected does not include recreational facilities for activities that require the use of equipment or designated facilities, courses, or fields, the area that would be affected is an area that can currently be actively used and would be completely closed to visitor use for a period of approximately 2 to 4 years while construction take place in the vicinity of the park. Preventing the use of an established or planned park, recreation, or open space is considered a significant impact under CEQA. The construction activities located at the southern end of Camp Pashayan and the duration of the construction activities would restrict the recreational use of this area for safety purposes, including some water based recreational uses, and therefore would be a significant impact under CEQA.

Two beneficial uses of water associated with recreation are designated in Central Valley Regional Water Quality Control Board's Basin Plan for the San Joaquin River which flows through Camp Pashayan. These are "Water Contact Recreation (REC-1) for activities which involve body contact with water, and "Non-Contact Recreation" (REC-2) for activities involving proximity to water, but where there is generally no body contact with water. These beneficial uses would be unavoidably subject to Project impacts that cannot be mitigated; i.e., temporary loss of some recreational uses of Camp Pashayan (within the San Joaquin River Ecological Reserve). Construction of the Project would displace park users during construction for two to four years.

The proposed mitigation measure compensating for staging in park property (PK-MM #1) would reduce, the impact, but not to a level that is less than significant. No additional feasible or practicable mitigation measures or Certification conditions would further reduce this impact. A statement of overriding considerations for this impact is presented in Section H below.

M-F CUMULATIVE IMPACTS: Wetlands. The M-F FEIR/FEIS reports that cumulative effects to wetlands are significant and unavoidable, and that these impacts cannot be mitigated to a less than significant level. The M-F EIR states:

> *Wetlands may be affected by the project and other foreseeable projects. Potential wetland losses would be small relative to the quantity of existing wetland habitat in the study area but would contribute to the net loss of wetland habitat within the California Central Valley. Avoidance, minimization, and mitigation measures would minimize impacts on wetlands. Nevertheless, cumulative impacts would likely have substantial intensity under NEPA and be cumulatively considerable under CEQA* (FEIR/FEIS, Sec. 3.19.3.6).

The HSRA's CEQA Findings of Fact and Statement of Overriding Considerations (May 2012) (CEQA Findings of Fact) state:

> *Wetlands may be affected by the project and other foreseeable projects. Potential wetland losses would be small relative to the quantity of existing wetland habitat in the study area but would contribute to the net loss of*

> *wetland habitat within the California Central Valley. Avoidance, minimization, and mitigation measures would minimize impacts on wetlands, but would be cumulatively considerable under CEQA* (section 4.4, p. 4-2).

And in section 7, Statement of Overriding Considerations:

> *The overall amount of land that would be converted to urban and transportation uses under the cumulative condition and buildout of the HST System, would result in cumulatively considerable impacts on wetlands.*

The M-F FEIR/FEIS also states that "The HST Project would implement biological resources [including wetlands] mitigation measures provided in Section 3.7.7. No additional mitigation is needed to address the project's contribution to cumulative biological impacts. Biological impacts resulting from projects proposed by others would be mitigated in accordance with the requirements under permits obtained for those projects, as necessary."

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which minimizes the significant environmental effect as identified in the final EIR/EIS.

Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures to reduce this impact to a less-than-significant level.

The remaining unavoidable and irreversible impacts of the project are acceptable in light of economic, legal, social, technological, and other considerations set forth herein because the benefits of the project (as described in Section H below) outweigh any significant and unavoidable or irreversible environmental impact of the project.

Rationale:

Various mitigation measures are proposed in the M-F FEIR/FEIS to mitigate Project impacts to waters of the state, including wetlands. Mitigation measures incorporated into the project requiring compensatory mitigation for loss of jurisdictional waters, when implemented along with the conditions of this Certification, are adequate to minimize these cumulative impacts, but not to a level that is less than significant. No feasible mitigation measures are available to reduce this cumulative impact to a less-than-significant level. A statement of overriding considerations for this impact is presented in section H below.

Note that the F-B FEIR/FEIS identified no significant and unavoidable impacts for resources under the Water Boards' authorities for CP1c. Impacts to resources under the Water Boards' authorities are minimal for CP1c due to the highly developed urban and suburban setting of that portion of the project area.

E. SIGNIFICANT IMPACTS THAT ARE AVOIDED OR SUBSTANTIALLY LESSENED TO A LESS THAN SIGNIFICANT LEVEL BY MITIGATION MEASURES INCORPORATED INTO, OR REQUIRED AS A CONDITION OF APPROVAL OF, THE PROJECT FOR THE MERCED TO FRESNO SECTION AND FOR THE FRESNO TO BAKERSFIELD SECTION APPLICABLE TO CP1c

M-F BIO IMPACT #1. Introduction of Noxious Weeds. The **M-F** FEIR/FEIS concludes that ground disturbance associated with grading and construction Project may result in introduction of noxious weeds, or invasive or non-native plant species ("weeds"). In addition, movement of personnel, equipment and materials can spread weed propagules. According to the M-F FEIR/FEIS, introduction of weeds is a significant impact under CEQA. Weed dispersal or establishment in any part of the Project area would potentially affect watershed function and lead to colonization by weed populations in waters of the state.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR/FEIS.

Rationale: Mitigation measures **M-F** Bio-MM#4 and 5 for noxious weeds, to address this impact. These measures require implementation of various BMPs that are widely accepted as the feasible and effective for weed control and management,
These measures are consistent with good construction management and ecological restoration practice and are likely to result in eventual restoration of sites disturbed by Project activity. As concluded in the **M-F** FEIR/FEIS, implementation of the approach specified in Bio-MM#4 and 5, are adequate to reduce impacts due to noxious weed dispersal and colonization to a less than significant level.

These mitigation measures, as presented in the **M-F MMRP**, are incorporated by reference in the Certification.

M-F BIO IMPACT #2. Construction of the Project would disturb Great Valley mixed riparian forest and other riparian habitat. The M-F FEIR/FEIS concludes that riparian communities would be impacted by the Project, including over 39 acres of Great Valley mixed riparian forest, Central Coast arroyo willow riparian forest, Great Valley riparian scrub, and Great Valley oak riparian forest. Riparian forests and habitats support water quality and the beneficial uses of waters of the state. According to the M-F FEIR/FEIS, disturbance of these areas, even temporarily, significantly affect a wide range of aquatic resource functions and beneficial uses such as rare species (RARE).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS and MMRP describe six mitigation measures which would reduce the level of this impact: Bio-MM-#4, 5, 6, 8 10 and 15 (described in Section H, Table A). These measures constitute common and accepted avoidance and minimization measures, and will provide for adequate restoration of unavoidable temporary impacts to aquatic resources when implemented. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 5, 6, 8, 10, and 15 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #4. Construction of the Project would disturb suitable habitat that has potential to support vernal pool branchiopods. The M-F FEIR/FEIS concludes that

construction of the Project would affect potentially suitable habitat for vernal pool branchiopods including the federally listed vernal pool fairy shrimp, vernal pool tadpole shrimp, and Conservancy fairy shrimp. Activities causing impacts to these habitats would be in violation of water quality standards in that the designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)). The Project would directly impact up to 15.7 acres and indirectly impact up to 11.57 acres of potentially suitable habitat for these and other vernal pool branchiopods. According to the M-F FEIR/FEIS, impacts to vernal pool communities that provide potential habitat for vernal pool branchiopods are a significant impact under CEQA.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#3, 4, 5, 6, 7, 8 and 10, Bio-MM#20 requires a seasonal work restriction that would help to avoid and minimize impacts to vernal pool branchiopods and Mitigation Bio-MM#12 provides for work stoppage if Project Biologists or Biological Monitors determine that take of protected vernal pool branchiopods could occur. Bio-MM#45 also requires monitoring of construction activities within jurisdictional waters. These measures are consistent with good construction management and ecological restoration practice and are adequate for the timely restoration of sites disturbed by Project activity, when implemented along with the conditions of this Certification. As concluded in the FEIR/FEIS, implementation of the approach specified in Bio-MM#3, 4, 5, 6, 7, 8, 10, 12, 20, and 45 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #5. Construction of the Project would disturb suitable habitat that has potential to support the valley elderberry longhorn beetle. The M-F FEIR/FEIS concludes that the Project would impact populations of Mexican elderberry shrubs, specifically along the San Joaquin River area. The Project would also affect habitat communities that potentially contain elderberry shrubs. Populations of the valley elderberry longhorn beetle are protected under the federal Endangered Species Act, and the loss of elderberry shrubs could impair the survival of self-sustaining populations. Consequently, the M-F FEIR/FEIS concludes that the potential impact on suitable habitat for valley elderberry longhorn beetles is significant under CEQA. Because these habitats are typically associated with riparian areas, activities causing impacts to those habitats would be in violation of water quality standards in that the designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#3, 4, 5, 6, 7, 8 and 10, 12, 13 and 14 (as previously described), and conditions of this Certification, Bio-MM#11 will require entrapment protection measures and Bio-MM#22 will require adherence to the *Conservation Guidelines for the Valley Elderberry Longhorn Beatle* (USFWS 1999a) and will require various avoidance measures around individual elderberry plants. These measures are consistent with good construction management and ecological restoration practice and are likely to result in timely restoration of sites disturbed by Project activity, when implemented along with the conditions of this Certification. As concluded in the FEIR/FEIS, implementation of the approach specified in Bio-MM#3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, and 22 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #6. Construction of the Project would disturb California tiger salamander (CTS) habitat. The M-F FEIR/FEIS concludes that project construction would potentially disturb suitable breeding and upland habitat for California tiger salamanders. All suitable vernal pool and other seasonal wetland habitat with associated upland areas are assumed to be occupied by California tiger salamanders. According to the M-F FEIR/FEIS, the potential impact on suitable habitat for California tiger salamanders would be significant under CEQA. Activities causing impacts to these habitats would be in violation of water quality standards in that the designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#3, 4, 5, 6, 7, 8, 10, 12, 13,14, 20, 44, and 45 (as previously described), and conditions of this Certification, species specific measures are also required. Bio-MM#9 prohibits the use of monofilament netting in erosion control materials. Bio-MM#11 requires entrapment prevention. Bio-MM#23 specifies translocation requirements for CTS found in areas where construction activity is about to start. Bio-MM#24 requires erection of amphibian exclusion fencing around work areas. These measures are consistent with good construction management and ecological restoration practice and are likely to result in timely restoration of sites disturbed by Project activity, when implemented along with the conditions of this Certification. As concluded in the FEIR/FEIS, implementation of the approach specified in Bio-MM#3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 20, 24, 40, and 45 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #7. Construction of the Project would disturb western spadefoot toad habitat. The M-F FEIR/FEIS concludes that project construction would potentially disturb suitable breeding habitat for western spadefoot toads. The loss of suitable breeding habitat could impair the survival of self-sustaining populations. According to the M-F FEIR/FEIS, the potential impact on suitable habitat for western spadefoot toads would be significant under CEQA. Activities causing impacts to these habitats would be in violation of water quality standards in that the designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 21, 22, 24, and 45, , Bio-MM#25 requires emergence and larval surveys for western spadefoot toads. These measures, along with the conditions of this Certification, are adequate to reduce this impact to aquatic resources to a less than significant level.

The HSRA's findings for this impact have a typographical error, referencing Bio-MM#46, which requires installation of "free-ranging mammal-proof fencing." According to discussions with HSRA (and as evidenced in HSRA's MMRP), installation of amphibian exclusion fencing, as would be required under Bio-MM#24 is intended as mitigation for Project impacts to spadefoot toad.

These measures, as shown in the MMRP, are generally consistent with good construction management and ecological restoration practice and are likely to result in protection of western spadefoot toads and their aquatic habitats. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 21, 22, 24, 25, and 45 are adequate to reduce impacts to a less than significant level.These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #8. Construction of the Project would disturb habitat that supports the western pond turtle. The M-F FEIR/FEIS concludes that project construction would disturb suitable habitat for populations of western pond turtles. According to the M-F FEIR/FEIS, the potential impact on suitable habitat for western pond turtles would be significant under CEQA. To the extent that habitats for western pond turtles are typically associated aquatic and riparian habitats, impacts to those habitats would be in violation of water quality standards in that a designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#3, 5, 6, 7, 8, 9, 10, 12, 13, 14,15, 44, and 45 (described above), and the conditions of this Certification, Bio-MM#26, 27 and 28 require implementation of species-specific measures including western pond turtle surveys, monitoring, avoidance and relocation measures. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 44, and 45 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #16. Construction of the Project would temporarily convert special-status plant communities (e.g., Great Valley mixed riparian forest, coastal and valley freshwater marsh, vernal pools). The M-F FEIR/FEIS concludes that project construction would temporarily impact up to 4.07 acres of Great Valley mixed riparian forest, up to 0.22 acre

of other riparian vegetation communities, and 1.64 acres of Freemont Cottonwood forested wetlands. According to the M-F FEIR/FEIS, impacts to these special-status plant communities are a significant impact under CEQA. Activities causing impacts to these habitats would be in violation of water quality standards in that a designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Changes or alterations are within the responsibility and jurisdiction of another public agency and not the jurisdiction of the State Water Board. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#4, 5, 6, 7, 8, 10, 44 and 45, measures specific to vernal pools are also required. As described above, Bio-MM#19 requires pre-construction sampling and assessment of vernal pool fauna; Bio-MM#20 provides season restrictions on operations in vernal pools; and Bio-MM#21 which specifies measures to be implemented to avoid and minimize direct project impacts to vernal pools. These measures are consistent with good construction management and ecological restoration practice and are likely to result in timely restoration of sites disturbed by Project activity, when implemented along with the conditions of this Certification. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 5, 6, 7, 8, 10, 19, 20, 21, 44, and 45 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #17. Construction of the Project would have indirect impacts on waters of the state. The M-F FEIR/FEIS concludes that indirect impacts on waters of the state resulting from Project construction would potentially include: erosion, siltation, and runoff into natural and constructed watercourses, and soil and water contamination from construction equipment leaks. According to the M-F FEIR/FEIS, these impacts would be significant under CEQA. The potential indirect impacts listed are those most likely to occur, but that this list should not be considered a complete list of all possible indirect impacts.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The **M-F** FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#3, 4, 5, 7, 8, 10, 15, 19, 20, 21, 44, and 45 (described above), HSRA has proposed compensatory mitigation for indirect impacts. These proposals are described in the 401 application and supporting documents, and in the PRMP. These measures are consistent with good construction management and ecological restoration practice. As concluded in the FEIR/FEIS, implementation of the approach specified in Bio-MM#3, 4, 5, 7, 8, 10, 15, 19, 20, 21, and 44 are adequate to reduce impacts to a less than significant level. These measures, as presented in the **M-F** MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #21. Construction of the Project would disturb Camp Pashayan (San Joaquin River Ecological Reserve). The M-F FEIR/FEIS concludes that a portion of Camp Pashayan (within the San Joaquin River Ecological Reserve) is within and adjacent to the construction footprint of the Hybrid Alternative and therefore would by affected by construction of the Project. Bio Impact #21 would include loss of riparian and aquatic habitats in Camp Pashayan that are subject to the State Water Board's authority (additional consideration of impacts to water based recreation is provided in the discussion of PK Impact # 4 and #7). According to the M-F FEIR/FEIS, these impacts on Camp Pashayan would be significant under CEQA, and may directly or indirectly affect designated beneficial uses of waters (i.e. rare species habitats (RARE)) and contact and non-contact water-based recreation (REC-1 and REC-2).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale: The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#15, 18, 19, 20, 21, 44 and 45, Bio-MM#17 will require that pre-construction surveys identify special status plant species and implement avoidance measures or, if avoidance is not feasible, incorporate the species into the relocation/compensation program defined in *Bio-MM#48: Compensate for Impacts on Special-Status Plant Species.* PK-MM#4 would also provide for minimization and avoidance of impacts in the park, and would provide In-Lieu Fee contributions for property impacts associated with pier installation. These measures are consistent with good construction management and ecological restoration practice and are likely to result in timely restoration of sites disturbed by Project activity. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 15, 17, 18, 19, 20, 21, 44, 45, and 48 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #22. Project period impacts would permanently convert Great Valley mixed riparian forest and other riparian habitat (Coastal and Valley Freshwater Marsh and vernal pools addressed in BIO IMPACT #16). The M-F FEIR/FEIS concludes that the Project would directly and permanently convert up to 4.96 acres of Great Valley mixed riparian forest and up to 1.23 acres of other riparian vegetation communities. According to the M-F FEIR/FEIS, these impacts would be significant under CEQA. Riparian forests and habitats support water quality and the beneficial uses of waters of the state, such as RARE. Permanent loss of these habitats can be a significant impact affecting a wide range of aquatic resource functions and beneficial uses.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact: Bio-MM#4, 14, 49, 57, 58, and 59. These measures are consistent with good construction management and ecological restoration practice. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 49, 57, 58, and 59 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #24. Project period impacts from the Project would permanently convert suitable habitat that has the potential to support vernal pool branchiopods.
The M-F FEIR/FEIS concludes that the Project would directly impact up to 2.82 acres of vernal pools. Vernal pools are suitable habitat for vernal pool branchiopods, which are special-status species According to the M-F FEIR/FEIS, this impact would be significant under CEQA , and may directly or indirectly affect designated beneficial uses of waters would be affected (i.e. rare species habitats (RARE)). Vernal pool branchiopod habitat is one designated beneficial use of waters of the state (RARE).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes Bio-MM#4, 14, 57, 58, 59, and 60 to address this impact. These measures are consistent with good construction management and ecological restoration practice and are likely to result in timely restoration of sites disturbed by Project activity, when implemented along with the conditions of this certification. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 57, 58, 59, and 60 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #25. Project period impacts from the Project would permanently convert suitable habitat that has the potential to support valley elderberry longhorn beetle. The M-F FEIR/FEIS concludes that the Project would displace populations of Mexican elderberry shrubs, specifically along the San Joaquin River area. Up to 1.31 acres of habitat that potentially contains elderberry shrubs would be directly impacted. According to the M-F FEIR/FEIS, this impact would be significant under CEQA . To the extent that valley elderberry longhorn beetle habitats may occur in waters of the state, impacts to those habitats would be in violation of water quality standards in that a designated beneficial use waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures Bio-MM#4, 14, 51, and 60 to address this impact, along with concurrent implementation of project-wide measures Bio-MM#57 58, & 59. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 51, 57, 58, 59, and 60 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the.

M-F BIO IMPACT #26. Project period impacts from the Project would permanently convert suitable habitat that has the potential to support California tiger salamander (CTS).
The M-F FEIR/FEIS concludes that the Project would displace potentially suitable breeding habitat for California tiger salamanders. Up to 15.57 acres of potentially suitable aquatic breeding habitat would be directly impacted. According to the M-F FEIR/FEIS, this impact

would be significant under CEQA. To the extent that some seasonal CTS habitats are typically in or closely associated with waters of the state, impacts to those habitats would be in violation of water quality standards in that a designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact: Bio-MM#4, 14, 25, and 52 (Which incorporates Bio-MM#57, 58, 59, and 60). As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 25, 52, 57, 58, 59, and 60 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #27. Project period impacts from the Project would permanently convert suitable habitat that has the potential to support western spadefoot toad. The M-F FEIR/FEIS concludes that the Project would displace potentially suitable aquatic breeding and upland habitat for western spadefoot toad. The loss of suitable breeding and upland habitat could impair the survival of self-sustaining populations. According to the M-F FEIR/FEIS, the conversion of suitable habitat for western spadefoot toad would be significant under CEQA. To the extent that these habitats are typically in or closely associated with waters of the state, impacts to those habitats would be in violation of water quality standards in that a designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact. In addition to Bio-MM#4, 14, and 25, Bio-MM#52 (which incorporates Bio-MM#57, 58, 59, and 60) is also proposed As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 25, 52, 57, 58, 59, and 60 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #28. Project period impacts from the Project would permanently convert suitable habitat that has the potential to support western pond turtle. The M-F FEIR/FEIS concludes that the Project footprint contains potentially suitable habitat for populations of western pond turtles. All suitable aquatic habitats are assumed to be occupied by western pond turtles. The loss of suitable habitat could impair the survival of self-sustaining populations and, according to the M-F FEIR/FEIS, would be significant under CEQA. To the extent that western pond turtle habitats occur in waters of the state, impacts to those habitats would be in violation of water quality standards in that a designated beneficial use of waters would be affected (i.e. rare species habitats (RARE)).

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation measures to address this impact, including Bio-MM#4, 14, 49, and 53 (which incorporates Bio-MM#57, 58, and 59). These measures are consistent with good construction management and ecological restoration practice and are likely to result in protection of western pond turtles. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 49, 53, 57, 58, and 59 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification .

M-F BIO IMPACT #37. Project period impacts from the Project would permanently convert
jurisdictional waters. The M-F FEIR/FEIS concludes that construction of the Project would "displace" (i.e. permanently fill or otherwise irreversibly impact) "wetlands and jurisdictional waters regulated by [CDFW], the USFWS, and the ACOE". According to the M-F FEIR/FEIS, this impact would be significant under CEQA.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen this significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale:
The M-F FEIR/FEIS proposes mitigation Measures to address this impact.

- Bio-MM#4: Prepare and Implement a Weed Control Plan (Described Above)
- Bio-MM#14: Post-Construction Compliance Reports (Described Above).
- Bio-MM#57: Conduct Delineation of Jurisdictional Waters and State Streambeds (Described Above).
- Bio-MM#58: Prepare and Implement a Habitat Mitigation and Monitoring Plan (Described Above).
- Bio-MM#59: Compensate for Permanent Impacts on Jurisdictional Waters (Described Above).
- Bio-MM#60: Offsite Habitat Restoration, Enhancement, and Preservation (Described Above).

These measures are consistent with good construction management and ecological restoration practice and are likely to result in protection of jurisdictional waters and beneficial uses of waters of the state when implemented along with the conditions of this Certification. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#4, 14, 57, 58, 59 and 60 are adequate to reduce direct impacts to a less than significant level (note, however, that as discussed for cumulative effects in Section D above, these measures are sufficient to minimize impacts, but not to a level that is less than significant). These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F BIO IMPACT #40. Construction in Camp Pashayan. The M-F FEIR/FEIS concludes that construction of the Project would displace vegetation within Camp Pashayan (within the San

Joaquin River Ecological Reserve), and would thereby also impact recreational use of the park. According to the M-F FEIR/FEIS, this impact would be significant under CEQA.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale: The M-F FEIR/FEIS proposes mitigation measures to address these impacts. Mitigation Measure PK-MM#1 requires compensation for lost recreational opportunities through various park management actions and ecological restoration practices. PK-MM #4 will include in-lieu fee payments for property impacts associated with pier installation as well as revegetation of disturbed areas with native plantings. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#1 and 4 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

M-F PK IMPACT #7. Acquisition of Camp Pashayan Park Property. The M-F FEIR/FEIS concludes that construction of the Project would cause the permanent loss of use of part of Camp Pashayan (within the San Joaquin River Ecological Reserve) as a result of acquisition of 0.6 acre of park lands for the High Speed Train alignment and footprint. This may reduce the opportunities for park and trail use, including access to water based recreational opportunities. According to the M-F FEIR/FEIS, this impact would be significant under CEQA.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the M-F FEIR/FEIS.

Rationale: The M-F FEIR/FEIS proposes mitigation measures to address this impact. Mitigation Measure PK-MM#1 requires compensation for lost recreational opportunities through various park management actions and ecological restoration practices. PK-MM #4 will include in-lieu fee payments for property impacts associated with pier installation as well as revegetation of disturbed areas with native plantings. As concluded in the M-F FEIR/FEIS, implementation of the approach specified in Bio-MM#1 and 4 are adequate to reduce impacts to a less than significant level. These measures, as presented in the MMRP, are incorporated by reference in the Certification.

F-B BIO IMPACT #1 Construction Impacts on Special Status Plan Species . The F-B FEIR/FEIS concludes that Indirect impacts on special-status plant species and native plant species would potentially include erosion, siltation, and runoff into natural and constructed watercourses; soil and water contamination from construction equipment leaks; construction dust affecting plants by reducing their photosynthetic capability (especially during flowering periods); and an increased risk of fire. These impacts are minimal for CP1c due to the highly developed urban and suburban setting of that portion of the project area.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR/FEIS.

Rationale: Mitigation measures F-B BIO-MM 1-17 and 53 for special status and native plant species are proposed to address this impact. These measures require implementation of various BMPs that are widely accepted as the feasible and effective for protection of special status plant species, and are listed in Table A, Section 2, and are incorporated by reference in this Certification.

F-B FEIR/FEIS Measures for special status and native plant species include:

- **BIO-MM#1. Designate Project Biologist(s), Regulatory Specialist (Waters), Project Botanist, and Project Biological Monitor(s).**
- **BIO-MM#2. Regulatory Agency Access.**
- **BIO-MM#3. Prepare and Implement a Worker Environmental Awareness Program.**
- **BIO-MM#4. Prepare and Implement a Weed Control Plan and Annual Vegetation Management Plan.**
- **BIO-MM#5. Prepare and Implement a Biological Resources Management Plan.**
- **BIO-MM#6. Prepare and Implement a Restoration and Revegetation Plan.**
- **BIO-MM#7. Delineate Environmentally Sensitive Areas and Environmentally Restricted Areas (on plans and in-field).**
- **BIO-MM#9. Equipment Staging Areas.**
- **BIO-MM#11. Vehicle Traffic.**
- **BIO-MM#13. Work Stoppage.**
- **BIO-MM#14. Take Notification and Reporting.**
- **BIO-MM#15. Post-Construction Compliance Reports.**
- **BIO-MM#16. Conduct Preconstruction Surveys for Special-Status Plant Species and Special-Status Plant Communities.**
- **BIO-MM#17. Prepare and Implement Plan for Salvage, Relocation, and/or Propagation of Special-Status Plant Species.**
- **BIO-MM#53. Compensate for Impacts on Special-Status Plant Species.**

As concluded in the HSRA's findings for the F-B EIR, implementation of the proposed mitigation measures BIO-MM-#1 - 17 and 53 will reduce impacts to special status plants to less than significant.

These mitigation measures, as presented in the F-B MMRP, are incorporated by reference in the Certification.

F-B BIO IMPACT #3. Construction Impacts on Habitats of Concern: Construction of the CP1c section of the Project could cause impacts to "Habitats of Concern" including wetlands. Direct construction impacts include removal or disruption of vegetation, placement of temporary or permanent fill in natural and constructed waters, and potential erosion and sedimentation. Indirect impacts include release of contaminants to areas outside the Project area, dust effects on plant photosynthesis, and increased fire risk.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the F-B FEIR/FEIS.

Rationale:

No critical habitat, public lands, conservation easements or mitigation banks occur in the F-B CP1c project area. However, general wildlife impacts may occur. The F-B MMRP proposes mitigation measures to address these impacts in the CP1c Project area. In addition to BIO-MM # 1-3, 5, and 7-17 (discussed above) the following additional mitigation measures are listed in Table A, Section 2, and are incorporated by reference in this Certification.

- **BIO-MM#47. Restore Temporary Riparian Impacts.**
- **BIO-MM#48. Restore Temporary Impacts on Jurisdictional Waters.**
- **BIO-MM#49. Monitor Construction Activities within Jurisdictional Waters.**
- **BIO-MM#50. Mitigation and Monitoring of Protected Trees.**
- **BIO-MM#61. Compensate for Permanent Riparian Impacts.**
- **BIO-MM#62. Prepare and Implement a Site-Specific Comprehensive Mitigation and Monitoring Plan.**
- **BIO-MM#63. Compensate for Permanent and Temporary Impacts on Jurisdictional Waters.**
- **BIO-MM#64. Compensate for Impacts to Protected Trees.**
- **BIO-MM#65. Offsite Habitat Restoration, Enhancement and Preservation.**

As reported in the F-B MMRP, impacts on habitats of concern from construction activities will be avoided and minimized where feasible. General avoidance/minimization measures will be implemented in order to track mitigation success and provide assurance that measures are implemented correctly and fully. These mitigation measures are standard procedures, commonly used on large infrastructure projects. The measures are the same as the general mitigation measures described in F-B BIO Impact #1, and have the same or similar ability to reduce impacts on habitats of concern.

F. MITIGATION AND MONITORING PROGRAM

As mentioned in the discussion of Project impacts above, HSRA has approved ~~**a**~~ Project Mitigation Monitoring and Reporting Plan**s** (MMRP) to guide implementation of all project mitigation measures by assigning implementation and reporting responsibilities and specifying timelines. The **M-F** MMRP and the **F-B MMRP (titled *Mitigation Monitoring and Enforcement Program*)** list all Project mitigation measures and reporting and are herewith incorporated by reference. The **M-F** MMRP is available at:
http://www.hsr.ca.gov/docs/programs/merced-fresno eir/final_EIR_MerFres_MMRP_Rev1_A_SIGNED.pdf

The F-B MMRP is available as Appendix C of the FRA's ROD for F-B at:
http://www.hsr.ca.gov/docs/programs/fresno-baker-eir/final_ERIS_FresBaker_AppDocs_ROD_Appendices.pdf

Amendments to the F-B MMRP are available at:
http://www.hsr.ca.gov/docs/programs/fresno-baker-eir/final_ERIS_FresBaker_AppDocs_MMEP_Amendment_FINAL_20141002.pdf

The MMRP incorporates by reference all "terms and conditions" of all permits including the

conditions of this Certification (see Mitigation Measure Bio-5).

G. STATEMENT OF OVERRIDING CONSIDERATIONS for Merced to Fresno Project Impacts

As noted in part A above, The HSRA's CEQA Findings of Fact concludes that implementing the Hybrid Alternative will result in certain significant impacts to the environment that cannot be avoided or substantially lessened with the application of feasible mitigation measures or feasible alternatives. Because there are significant and unavoidable impacts within the State Water Board's jurisdiction, the State Water Board provides this Statement of Overriding Considerations in compliance with CEQA (Pub. Resources Code, § 21081; Cal. Code Regs., tit. 14, §§ 15093 & § 15096, subd. (h)).

The significant and unavoidable impacts and the benefits related to implementing the HST system in the Merced to Fresno Section via the Hybrid Alternative are disclosed in the HSRA's CEQA Findings of Fact. The unavoidable impacts to resources under the jurisdiction of the State Water Board are discussed in Section D above.

The State Water Board has considered the economic, legal, social, technological, and other benefits, including region-wide or statewide environmental benefits, of the Project against its unavoidable environmental risks and finds that the specific economic, legal, social, technological benefits, including region-wide or statewide environmental benefits of implementing the Project outweigh the significant and unavoidable environmental impacts. These benefits are largely associated with resources that are not part of the State Water Board's authorities. However, the State Water Board agrees with the listing of benefits of the Project cited in the HSRA's CEQA Findings of Fact including long term transportation benefits, air quality benefits, greater energy efficiency, reduced highway noise and social benefits. In addition, the State Water Board agrees that the Project is consistent with the state policies in Executive Order S-3-05, Assembly Bill 32 (Stats. 2006, ch. 488) and Senate Bill 375 (Stats. 2008, ch. 728). Specifically, the Project would provide improved intercity transportation options throughout the Project's service area. To the extent that the Project displaces air and personal vehicle travel, benefits to air quality, greenhouse gas emissions, and highway congestion are expected.

These benefits are supported by substantial evidence in the record and are adequate to support a Finding of Overriding Considerations that offset the unavoidable adverse environmental effects.

H. MITIGATION MEASURES

Mitigation measures cited above are presented in Table A.
Note that all references to "CDFG" are within citations from Project documents and the MMRP, which was compiled before that agency was renamed the Department of Fish and Wildlife.

TABLE A Mitigation Measures Applicable to Resources Subject to the Water Boards Authorities for the High Speed Rail Merced to Fresno Permitting Phase 1 and Fresno to Bakersfield CP1c Project		
MITIGATION MEASURE	**MITIGATION MEASURE REQUIREMENT**	**ADDITIONAL STATE WATER BOARD STAFF FINDINGS AND COMMENTS**
SECTION 1: Mitigation Measures in the Merced to Fresno MMRP		
Bio-MM#3	Prepare and Implement a Worker Environmental Awareness Program.	The mitigation measure, as presented in the Final EIR and MMRP, states that construction crews will be informed during the WEAP training that, to the extent possible, travel within the marked project site will be restricted to established roadbeds. Established roadbeds include all pre-existing and project-constructed unimproved, as well as improved roads.
Bio-MM#4	Prepare and Implement a Weed Control Plan.	This plan will be linked to the Project Restoration and Revegetation Plan (Bio-MM#6) and will be part of the BRMP. Note that this plan is referenced by many other mitigation measures.
Bio-MM#5	Prepare and Implement a Biological Resources Management Plan.	Many of the Project impacts to resources under the State and Regional Water Boards authority, as identified in the FEIR/FEIS, are to be mitigated in part through development of a Biological Resources Management Plan (BRMP) as specified in Mitigation Measure Bio-MM#5. The goal of the BRMP is to assist the Project Biologist with an organized reporting tool to ensure the mitigation measures and terms and conditions from the various project permits, including this Certification, are implemented and reported in a timely manner. The BMP will include all avoidance, minimization, repair, mitigation, and compensatory actions stated in the mitigation measures or terms and conditions.
Bio-MM#6	Prepare and Implement a Restoration and Revegetation Plan	During final design, the Contractor's Biologist will prepare a restoration and revegetation plan (RRP) for upland communities and verified by the Project Biologist. This plan will be part of the BRMP.
Bio-MM#7	Delineate Environmentally Sensitive Areas and Environmentally Restricted Areas (on plans and in-field).	Bio-MM#7 states: "Prior to ground-disturbing activities, to the extent practicable, the Project Biologist will verify that environmentally sensitive areas (ESAs) and environmentally restricted areas (ERAs) are delineated as appropriate." In addition, sensitive resource areas will be specially delineated so that special operating rules (e.g., no equipment staging within 100' of waters) can be enforced.
Bio-MM#8	Project-wide Restrictions on Location of Equipment	Project-wide restrictions on location of staging areas specify that sensitive resources are to be avoided.

	Staging Areas.	
Bio-MM#9	Monofilament Netting	Prohibits the use of monofilament netting in erosion control materials.

TABLE A (cont.) Mitigation Measures Applicable to Resources Subject to the Water Boards Authorities for the High Speed Rail Merced to Fresno Permitting Phase 1 Project

MITIGATION MEASURE	MITIGATION MEASURE REQUIREMENT	MITIGATION MEASURE SUMMARY
Bio-MM#10	Vehicle Traffic	Restrictions on traffic and vehicular/equipment operation specify that sensitive resources are to be avoided.
Bio-MM#11	Entrapment Prevention	Requires BMPs to prevent wildlife entrapment in construction sites, equipment and materials.
Bio-MM#12	Work Stoppage	Requires immediate cessation of activity if special status species gain access to Project footprint.
Bio-MM#13	"Take" Notification and Reporting	Contractor's Biologist, in coordination with the Project Biologist and Mitigation Manager, will notify the USFWS and/or CDFW immediately in the case of an accidental death or injury to a federal or state listed species during project-related activities. The Authority or its designee will be notified prior to the notification to the agencies. The Project Biologist will submit a memorandum to the Mitigation Manager documenting compliance.
Bio-MM#14	Post-Construction Compliance Reports	Requires that after each construction period is completed, the Project Biologist will submit post-construction compliance reports consistent with the appropriate agency protocols.
Bio-MM#15	Restoration of Temporary Riparian Impacts	During post-construction, the Contractor's Biologist will revegetate all disturbed riparian areas using appropriate plants and seed mixes. Bio-MM-#15 requires simultaneous compliance with Bio-MM-#4, 5, 6, 7, 8, 10 and 15.
Bio-MM#17	Conduct Pre-Construction Surveys for Special-Status Plant Species.	Conduct pre-construction surveys for special-status plant species in suitable habitat areas subject to ground disturbing activities.
Bio-MM#18	Prepare and Implement Plan for Salvage, Relocation, and/or Propagation of Special-Status Plant Species	Prepare and implement a plan prior to ground-disturbing activities to address monitoring, salvage, relocation, and propagation of special-status plant species.

Bio-MM#19	Conduct Pre-Construction Sampling and Assessment for Vernal Pool Fauna	Prior to ground-disturbing activities, the Project Biologist will conduct pre-construction, non-protocol surveys in seasonally inundated habitats (seasonal wetland, non-inundated wetlands) within the construction footprint.
TABLE A (cont.) Mitigation Measures Applicable to Resources Subject to the Water Boards Authorities for the High Speed Rail Merced to Fresno Permitting Phase 1 Project		
MITIGATION MEASURE	**MITIGATION MEASURE REQUIREMENT**	**MITIGATION MEASURE SUMMARY**
Bio-MM#20	Seasonal Vernal Pool Work Restriction	For seasonal avoidance of special-status vernal pool branchiopods and vernal pool dependent species (e.g., California tiger salamander), the Contractor will not work within 250 feet of aquatic habitats suitable for these species (e.g., vernal pools and other seasonal wetlands) from October 15 to June 1.
Bio-MM#21	Implement and Monitor Vernal Pool Protection	If construction impacts can be avoided, the vernal pool(s) will be protected by erecting exclusion fencing. Otherwise, impacts will be minimized with BMPs, timing, and other practices.
Bio-MM#22	Implement Conservation Guidelines During the Construction Period for Valley Elderberry Longhorn Beetle	Requires adherence to the *Conservation Guidelines for the Valley Elderberry Longhorn Beatle* (USFWS 1999a) and will require various avoidance measures around individual elderberry plants.
Bio-MM#23	Translocation of California Tiger Salamanders	Prior to ground-disturbing activities... conduct a pre-construction survey and relocate any California tiger salamanders from within the construction footprint in accordance with the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS 2003).
Bio-MM#24	Erect Amphibian Exclusion Fencing	Mitigation measure states: "The Contractor's Biologist will install exclusion barriers (i.e. silt fences) to influence the movement of California tiger salamander, including other amphibian species (sic), within impacted areas."
Bio-MM#25	Conduct Emergence and Larval Surveys for Western Spadefoot Toad.	Conduct pre-construction emergence and larval surveys for western spadefoot toad during the fall and winter rainy season. Emergence surveys will be conducted within the appropriate time period(s) after precipitation events.
Bio-MM#26	Conduct Western Pond Turtle Pre-Construction Surveys and Relocation.	Conduct pre-construction surveys for western pond turtles to determine the presence or absence of western pond turtles within the construction footprint. If western pond turtles are found within the construction footprint, conduct daily clearance surveys prior to the initiation of any construction activities.
Bio-MM#27	Conduct Western Pond Turtle Monitoring	During ground disturbing activities, the Project Biologist will observe all construction activities within habitat that supports populations of western pond turtles.

TABLE A (cont.) Mitigation Measures Applicable to Resources Subject to the Water Boards Authorities for the High Speed Rail Merced to Fresno Permitting Phase 1 Project		
MITIGATION MEASURE	**MITIGATION MEASURE REQUIREMENT**	**MITIGATION MEASURE SUMMARY**
Bio-MM#28	Implement Western Pond Turtle Avoidance and Relocation	Prior to ground-disturbing activities, if a western pond turtle nesting area is present and will be affected by ground-disturbing activities as determined by the Project Biologist, the Contractor will avoid western pond turtle nesting areas. If avoidance is not feasible, as determined by the Authority or its designee, the Project Biologist will coordinate with CDFG to identify where to relocate western pond turtles.
Bio-MM#44	Restore Temporary Impacts on Jurisdictional Waters.	Sets restoration requirements for temporary Impacts on Jurisdictional Waters.
Bio-MM#45	Monitor Construction Activities within Jurisdictional Waters.	Requires monitoring of construction activities within jurisdictional waters.
Bio-MM#48	Compensate for Impacts to Special Status Plants	Requires compensatory mitigation for special status plants.
Bio-MM#49	Compensate for Permanent Impacts to waters	Requires compensation for permanent impacts to all classes or types of riparian resources.
Bio-MM#50	Compensate for Impacts on Special-Status Plant Species.	Prior to Final Design and during the permitting process, Purchase credits from an existing mitigation bank or conduct a special-status plant re-establishment program within the same watershed or in proximity to the impact area at a 1:1 ratio.
Bio-MM#51	Implement Conservation Guidelines During the Project Period for Valley Elderberry Longhorn Beetle.	Conduct compensatory mitigation for the valley elderberry longhorn beetle, including transplantation and replacement of elderberry shrubs, and maintenance for replacement shrubs.
Bio-MM#52	Compensate for Impacts on California Tiger Salamander	Determine compensatory mitigation for the temporary and permanent loss of suitable upland and aquatic breeding habitat.
Bio-MM#53	Implement Western Pond Turtle Mitigation Measures.	Mitigate the impacts on western pond turtle in accordance with the USFWS Biological Opinion and/or CDFG 2081(b).
Bio-MM#57	Conduct Delineation of Jurisdictional Waters and State Streambeds	States that HSRA will “conduct a jurisdictional delineation, documenting jurisdictional waters and state streambeds consistent with USACE, SWRCB, and CDFG guidance.”

TABLE A (cont.) Mitigation Measures Applicable to Resources Subject to the Water Boards Authorities for the High Speed Rail Merced to Fresno Permitting Phase 1 Project		
MITIGATION MEASURE	**MITIGATION MEASURE REQUIREMENT**	**MITIGATION MEASURE SUMMARY**
Bio-MM#58	Prepare and Implement a Habitat Mitigation and Monitoring Plan.	Prepare an HMMP to mitigate for temporary and permanent impacts on jurisdictional waters and state streambeds. Note: This HMMP was presented as the PRMP in the Certification Application, and is attached to this Certification.
Bio-MM#59	Compensate for Permanent Impacts on Jurisdictional Waters.	Mitigate permanent wetland impacts through compensation determined in consultation with the USACE, SWRCB, USFWS, and CDFW.
Bio-MM#60	Off-site Habitat Restoration, Enhancement, and Preservation.	Prior to site preparation at the mitigation site, the Authority or its designee will consider the off-site habitat restoration, enhancement, or preservation program, and identify short-term temporary and/or long-term permanent effects on the natural landscape. A determination will be made on any effects from the physical alteration of the site to onsite biological resources, including plant communities, land cover types, and the distribution of special status plants and wildlife.
PK-MM#1	Compensate for Staging in Park Property	Reduces loss of recreational opportunity, including REC-1 and REC-2 water based recreational opportunity, at Camp Pashayan.
PK-MM#4	Acquire Park Property for Camp Pashayan	Final design will continue to seek to minimize right-of-way impacts and pier placement in Camp Pashayan. Mitigation will include in-lieu fee for property impacts associated with pier installation as well as revegetation of disturbed areas.
SECTION 2: MITIGATION MEASURES IN THE FRESNO TO BAKERSFIELD MMRP		
BIO-MM#1	**Designate monitors**	**Designate Project Biologist(s), Regulatory Specialist (Waters), Project Botanist, and Project Biological Monitor(s).**
BIO-MM#2	**Provide regulatory agency access**	**If requested, before, during, or on completion of ground-disturbing activities, the Contractor will allow access by USFWS, USACE, SWRCB, and CDFW staff to the construction site.**
BIO-MM#3	**Prepare and Implement a Worker Environmental Awareness Program (WEAP).**	**Before the start of ground-disturbing activities, the Project Biologist, Regulatory Specialist (Waters) and Project Botanist will prepare and implement a WEAP for construction crews.**

BIO-MM#4	**Prepare and Implement a Weed Control Plan and Annual Vegetation Management Plan.**	**A construction-phase Weed Control Plan and an operation phase Annual Vegetation Control Plan will be developed and implemented.**
BIO-MM#5	**Prepare and Implement a Biological Resources Management Plan.**	**During final design, the Mitigation Manager, or its designee (Project Biologist, Regulatory Specialist or Project Botanist) will prepare the Biological Resources Management Plan (BRMP) and assemble the biological resources mitigation measures. The BRMP will be submitted to the Contractor.**
BIO-MM#6	**Prepare and Implement a Restoration and Revegetation Plan.**	**During final design, the Project Botanist will prepare a Restoration and Revegetation Plan (RRP) for temporarily disturbed upland communities.**
BIO-MM#7	**Delineate Environmentally Sensitive Areas and Environmentally Restricted Areas (on plans and in-field).**	**Before the start of ground-disturbing activities, the Project Biologist, Regulatory Specialist (Waters), and Project Botanist will verify that ESAs and ERAs are delineated on final construction plans (including grading and landscape plans) and in the field and will update as necessary. ESAs are areas within the construction zone, or on compensatory mitigation sites, containing suitable habitat for special-status species and habitats of concern that may allow construction activities but have restrictions based on the presence of special status species or habitats of concern at the time of construction. ERAs are sensitive areas that are typically outside the construction footprint that must be protected in place during all construction activities.**
BIO-MM#8	**Install Wildlife Exclusion Fencing when needed.**	**The Contractor, under the supervision of the Project Biologist will install wildlife-specific exclusion barriers at the edge of the construction footprint.**
BIO-MM#9	**Avoid staging in sensitive areas**	**Before the start of ground-disturbing activities, the Project Biologist, Regulatory Specialist (Waters), and Project Botanist will confirm that staging areas for construction equipment are outside areas of sensitive biological resources.**
BIO-MM#11	**Confine project traffic to designated work areas.**	**During ground-disturbing activities, the contractor will restrict project vehicle traffic within the construction area to established roads, construction areas, and other designated areas.**
BIO-MM#13	Stop work when special status wildlife enter construction areas.	**During ground-disturbing activities, the Project Biologist, Regulatory Specialist (Waters), and Project Botanist or Project Biological Monitor will halt work in the event that a special-status wildlife species gains access to the construction footprint.**

BIO-MM#14	**Report occurrences of Take of sensitive species**	**The Project Biologist, Regulatory Specialist (Water), or Project Botanist will immediately notify the Mitigation Manager in the event of an accidental death or injury to a federal- or state-listed species during project activities.**
BIO-MM#15	**Prepare Post-Construction Compliance Reports**	**After each construction package, construction phase, permitting phase, or other portion of the HST section as defined by Authority is completed, the Mitigation Manager, or their designee, will submit post-construction compliance reports.**
BIO-MM#16	**Conduct Preconstruction Surveys for Special-Status Plant Species and Special-Status Plant Communities.**	**Prior to construction, the Project Botanist will conduct protocol-level, pre-construction botanical surveys for special-status plant species and special-status plant communities in all potentially suitable habitats where permission to enter was not granted prior to construction**
BIO-MM#17	**Prepare and Implement Plan for Salvage, Relocation, and/or Propagation of Special-Status Plant Species.**	**The Project Botanist will prepare a plan before the start of ground-disturbing activities to address monitoring, salvage, relocation, and propagation of special-status plant species.**
BIO-MM#47	**Restore Temporary Riparian Impacts**	**During post-construction, the Contractor, under the direction of the Project Botanist, will revegetate all disturbed valley foothill riparian areas using appropriate plants and seed mixes The Project Botanist will monitor restoration activities consistent with provisions in the RRP, as described in BIO-MM#6.**
BIO-MM#48	**Restore Temporary Impacts on Jurisdictional Waters**	**During or after the completion of construction, the Contractor, under direction of the Regulatory Specialist (Waters) and Project Botanist, will restore disturbed jurisdictional waters to original topography using stockpiled and segregated soils.**
BIO-MM#49	**Monitor Construction Activities within Jurisdictional Waters**	**During ground-disturbing activities, the Regulatory Specialist (Waters) and Project Biological Monitor will conduct monitoring within and adjacent to jurisdictional waters, including monitoring of the installation of protective devices (silt fencing, sandbags, fencing, etc.), installation and/or removal of creek crossing fill, construction of access roads, vegetation removal, and other associated construction activities. The Project Biological Monitor will conduct biological monitoring to document adherence to habitat avoidance and minimization measures addressed in the project mitigation measures.**

BIO-MM#50	**Mitigation and Monitoring of Protected Trees**	**Before, during, and after construction, the prescribed methods to preserve and/or mitigate for impacts on protected trees will be implemented.**
BIO-MM#53	**Compensate for Impacts on Special-Status Plant Species**	**Before final design, the Authority will mitigate the impacts on special-status plants in accordance with the USFWS Biological Opinion (USFWS 2013).**
BIO-MM#61	**Compensate for Permanent Riparian Impacts**	**The Authority will compensate for permanent impacts on riparian habitats (i.e., valley foothill riparian), as determined in consultation with the appropriate agencies.**
BIO-MM#62	**Prepare and Implement a Site-Specific Comprehensive Mitigation and Monitoring Plan**	**As part of the USFWS, USACE, SWRCB, and CDFW permit applications and before the start of ground-disturbing activities, the Authority will prepare a CMMP to mitigate for temporary and permanent impacts on biological resources.**
BIO-MM#63	**Compensate for Permanent and Temporary Impacts on Jurisdictional Waters**	**The Authority will mitigate permanent and temporary wetland impacts through compensation determined in consultation with the USACE, SWRCB, USFWS, and CDFW, in order to be consistent with the CMMP (BIOMM# 62). Regulatory compliance for jurisdictional waters includes relevant terms and conditions from the USACE 404 Permit, SWRCB 401 Permit, and CDFW 1600 Streambed Alteration Agreement. Compensation shall include aquatic resources estoration, establishment, enhancement, or preservation.**
BIO-MM#64	**Compensate for Impacts to Protected Trees**	**The Authority will compensate for impacts, including removal or trimming of naturally occurring native protected trees and landscape or ornamental protected trees, in accordance with the local regulatory body.**
BIO-MM#65	**Offsite Habitat Restoration, Enhancement and Preservation**	**Before site preparation at a mitigation site, the Authority will consider the offsite habitat restoration, enhancement, and preservation program and identify short-term temporary and/or long-term permanent effects on the natural landscape. A determination will be made on any effects from the physical alteration of the site to onsite biological resources, including plant communities, land cover types, and the distribution of specialstatus plant and wildlife. The offsite habitat restoration, enhancement, and preservation program will be designed, implemented, and monitored in ways that are consistent with the terms and conditions of the USACE Section 404 Permit, CDFW 1600 Streambed Alteration Agreement, and CESA and federal ESA as they apply to their jurisdiction and resources onsite.**