



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

October 31, 2017

Mr. Mark McLoughlin  
California High Speed Rail Authority  
770 L Street, Suite 800  
Sacramento, CA 95814

Dear Mr. McLoughlin:

RE: THIRD AMENDMENT OF THE CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE CALIFORNIA HIGH SPEED TRAIN SYSTEM, MERCED TO FRESNO CONSTRUCTION PACKAGES 1A, 1B, 1C, AND 1D (FILE NUMBER SB13001IN)

Enclosed please find a CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER, as amended, authorized by State Water Resources Control Board Executive Director, Ms. Eileen Sobeck. This Order is issued to the California High Speed Rail Authority (Applicant) for the California High Speed Train System, Merced to Fresno section (Project). Attachments A through G of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by the California High Speed Rail Authority for proposed Project discharges to waters of the state, to ensure that the water quality standards for all waters of the state impacted by the Project are met. You may proceed with your Project according to the terms and conditions of the enclosed Order.

If you require further assistance, please contact me by phone at (916) 558-1709 or by email at [clifford.harvey@waterboards.ca.gov](mailto:clifford.harvey@waterboards.ca.gov). You may also contact Bill Orme, Chief of the Water Quality Certification and Wetlands Unit, by phone at (916) 341-5464 or by email at [Bill.Orme@waterboards.ca.gov](mailto:Bill.Orme@waterboards.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Cliff Harvey".

Cliff Harvey  
Environmental Scientist  
Division of Water Quality – Water Quality Certification and Wetlands Unit  
State Water Resources Control Board

Enclosures (1): Order for California High Speed Rail Authority (Applicant) for the California High Speed Train System, Merced to Fresno Construction Packages (CP) 1a, 1b, 1c, and 1d.

cc: see next page (delivered via email if email address is shown)

FELICIA MARCUS, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

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State Water Resources Control Board

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**THIRD AMENDMENT OF THE CLEAN WATER ACT SECTION 401  
WATER QUALITY CERTIFICATION AND ORDER FOR  
CALIFORNIA HIGH SPEED RAIL AUTHORITY  
CALIFORNIA HIGH SPEED TRAIN – MERCED TO FRESNO**

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**Effective Date:** October 31, 2017

**Program Type:** Fill/Excavation

**Project Type:** Railroads

Reg. Meas. ID:	391375
Place ID:	795831
SWRCB ID:	SB130011N
USACOE#:	SPK-2009-01483

**Project:** California High Speed Rail Authority – California High Speed Train System –Merced to Fresno Construction Packages 1a, 1b, 1c, and 1d (Project)

**Applicant:** California High Speed Rail Authority  
**Applicant Contact:** Mr. Mark McLoughlin  
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**State Water Board Contact Person:**

If you have any questions, please call State Water Resources Control Board (State Water Board) Staff listed above or (916) 341-5478 and ask to speak with the Water Quality Certification and Wetlands Unit Program Manager.

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## I. Amendment Summary:

The initial Order: The initial 401 Water Quality Certification and Order, issued on March 12, 2014, certified Phase 1 of the Merced to Fresno section of the High Speed Train system.

First Amendment: The first amendment, issued on April 10, 2014, provided a twelve (12) month extension to the due date of the financial assurances instrument for compensatory mitigation.

Second Amendment: The second amendment, issued on June 12, 2015, certified Construction Package (CP) 1c, which included 5 miles of the Fresno to Bakersfield section.

Third Amendment: All changes due to this third amendment are shown below as additions in **bold underline**, and deletions in **bold strikethrough**, with the following exceptions:

- Minor grammatical edits;
- Construction conditions (sections XV. G.) have been updated to be consistent with the most recent Orders issued for the HST Projects; i.e., the amended Fresno-Bakersfield Order, and to clarify conditions relating to stormwater management;
- Post-construction stormwater conditions included in the original Order and previous amendments are revised or eliminated, to avoid duplication with Water Quality Order No. 2013-0001-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004 - Waste Discharge Requirements (WDRs) for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (MS4s).

**Changes due to this third amendment include: (1) description of the additional impacts to waters proposed for construction of CP 1d; (2) description of the compensatory mitigation to be provided for temporary and permanent impacts to waters; (3) maps showing the location of waters impacts for CP 1d. No other changes are authorized or intended by this amendment.**

Copies of the original Order and the amendments are available for comparison to this order from the designated staff contact person or at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/certifications.shtml](http://www.waterboards.ca.gov/water_issues/programs/cwa401/certifications.shtml)

## II. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) with attachments A through G is **the third amendment and is** issued at the request of the California High Speed Rail Authority (herein after Permittee, or HSRA) for the Project.

This Order is for the purpose described in application and supplemental information submitted by the Permittee. The **initial** application was received on May 17, 2013. The application was deemed complete on June 17, 2013. A request to issue the first amendment was received on April 7, 2014. No new application information was required for this amendment request because this amendment only made revisions to technical conditions in the original Order. A request to issue a second amendment to include CP 1c was received on June 9, 2015 and deemed complete on June 11, 2015. **A request for a third amendment to add CP 1d was received on September 8, 2017 and deemed complete on September 9, 2017.**

State Water Board staff requested additional information necessary to supplement the contents of the complete application and the Permittee responded to the request for supplemental information on the following dates (Table 1).

<b>Table 1: Record of Supplemental Application Information</b>	
Date of Request for Supplemental Information	Date all requested information was received.
5/21/2013, 6/18/2013, 7/15/2013, <u>9/11/2017</u>	1/10/2014, <u>10/2/2017</u>

Additionally, State Water Board Staff issued a Denial Without Prejudice on July 16, 2013.

**III. Public Notice**

The State Water Board provided public notice of the **initial** application pursuant to California Code of Regulations, title 23, section 3858 from May 17, 2013 to June 7, 2013. The State Water Board did not receive any comments during the comment period.

**IV. Project Purpose**

The purpose of this Project is to construct the initial Merced to Fresno section of the HST system, **including CP 1d (a.k.a “North Extension”)** and the first five miles of the Fresno to Bakersfield section. The HST system will ultimately connect San Francisco and Los Angeles and encompasses 800 miles, including extensions to Sacramento and San Diego. The system is proposed to be an electrically powered, high-speed, steel-wheel-on-steel-rail technology with safety, signaling, and automated train-control systems. The trains are proposed to operate at speeds of up to 220 miles per hour over a fully grade-separated, dedicated track alignment.

**V. Project Description**

The Project includes the HST track alignment, the track right-of-way and Project facilities. These facilities include a downtown Fresno station, electrical traction power substations, and switching and paralleling stations (collectively, Non-Rail Facilities). Additionally, proposed shifts in the existing street, rural road and highway rights-of-way associated with the Project, including overcrossings and interchanges, are included to accommodate the HST system.

**VI. Project Location**

The north end of the **originally permitted** alignment for the Project starts at Avenue 17 (Madera County) and proceeds south of State Route (SR) 41 adjacent to Los Angeles Street (city of Fresno) in the south, and continues to the south end of CP1c, approximately five miles south of the proposed Fresno Station in downtown Fresno (under construction). **This amendment adds CP 1d, extending the Project 2.9 miles north of Merced from Avenue 17 to Avenue 19 in Madera County. The southern end of CP 1d lies at Avenue 17 (36.996256° N, Longitude -120.043397°); The northern end lies at Avenue 19 (37.025447° N, Longitude -120.078197°).** Maps showing the Project location are found in Attachment A (**revised**) of this Order.

**VII. Project Impact and Receiving Waters Information**

The Project is located within the jurisdiction of Central Valley Regional Water Quality Control Board (Central Valley Water Board) (collectively Regional Water Boards). Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the

applicable water quality control plans (Basin Plan) for the regions and other plans and policies which may be accessed online at: [http://www.waterboards.ca.gov/plans\\_policies/](http://www.waterboards.ca.gov/plans_policies/). The Basin Plans include water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

Project impact and receiving waters information **for CP 1d** can be found in Attachment B. Table 1 of Attachment B shows the receiving waters and beneficial uses of waters of the state impacted by the Project.

#### **VIII. Description of Direct Impacts to Waters of the State**

At the request of HSRA, the U.S. Army Corps of Engineers (Corps) issued a Preliminary Jurisdictional Determination (PJD) for all waters delineated by HSRA on the Project site, **including CP 1d**. A PJD is a non-binding opinion by the Corps that there may be jurisdictional waters of the United States on a particular site. The PJD process has been developed by the Corps to expedite the required Clean Water Act section 404 permitting. The PJD process allows the permit applicant to voluntarily waive or set aside questions regarding Clean Water Act or Rivers and Harbors Act jurisdiction over a particular site so that the Corps is not obligated to perform a formal delineation of federal waters.

Total Project fill/excavation quantities for all impacts are summarized in Table 2. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition only.

Table 2: Total Project Fill/Excavation Quantity for CP 1a - d <sup>1</sup>									
Aquatic Resource Type	Temporary Impact <sup>2</sup>			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY	LF	Acres	CY	LF	Acres	CY	LF
Lake <sup>3</sup>	2.590			3.642					
Ocean/bay/estuary									
Riparian Zone	0.600		620	1.330		875			
Stream Channel <sup>4</sup>	1.940 <b>2.160</b>		905 <b>1480</b>	2.301		7890	.032 <b>0.402</b>		130 <b>750</b>
Vernal Pool	0			1.282 <b>3.172</b>					
Wetland				0.364 <b>1.431</b>					

**IX. Description of Indirect Impacts to Waters of the State**

The State Water Board recognizes the potential for indirect impacts to waters of the state associated with the Project. Indirect impacts are reasonably foreseeable changes in the environment caused by the Project and its direct impacts, but that are later in time or further removed in distance from the project and its direct impacts. For CP 1a **and CP 1c** of the Project, no indirect impacts are assessed. For CP 1b **and CP 1d** of the Project, indirect impacts are assessed as described in the project application.

**X. Avoidance and Minimization**

**For CP 1a, 1b, and 1d**, the Project, through location and design, is the least environmentally damaging practicable alternative of those considered in the **Merced to Fresno** Project environmental document. Additional project avoidance and minimization measures include construction BMPs to avoid and control leaks, spills and discharges to water, erosion and sediment control measures, and restoration measures for temporary impacts (further described in section XIV.H. These measures are presented in the Project Mitigation Monitoring and Reporting Plan (MMRP), dated August 2013, and further discussed in the CEQA findings, Attachment C.

**For CP 1c**, the Project, through location and design, is the least environmentally damaging practicable alternative of those considered in the **Fresno to Bakersfield** Project environmental document. Additional project avoidance and minimization measures include construction BMPs to avoid and control leaks, spills and discharges to water, erosion and sediment control measures, and restoration measures for temporary impacts (further described in section XIV.H. These measures are presented in the Project Mitigation

<sup>1</sup> Previous sum of impacts for CP 1 a, b and c shown in strikethrough text. New sum shown in bold underline.

<sup>2</sup> Cubic Yards (CY); Linear Feet (LF). Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state.

<sup>3</sup> All Lake Impacts reported are impacts to constructed basins and “open water” features

<sup>4</sup> Stream Channels include natural watercourses as well as constructed watercourses. Reported physical loss of area applies only to constructed watercourses (irrigation ditches, etc...)

Monitoring and Reporting Program (MMRP), dated May, 2014, and further discussed in the CEQA findings, Attachment C.

#### **XI. Compensatory Mitigation**

The Permittee has agreed to provide compensatory mitigation for direct and indirect impacts, as described in section XV. I. for permanent impacts.

#### **XII. California Environmental Quality Act (CEQA)**

On May 3, 2012, HSRA, as lead agency, certified an environmental impact report/environmental impact statement (EIR/EIS) (State Clearinghouse (SCH) No. 2009091125) for the Merced to Fresno section of the Project (M-F FEIR/FEIS) and filed a Notice of Determination (NOD) at the SCH on May 3, 2012. Pursuant to CEQA, the State Water Board has made Findings of Facts and a Statement of Overriding Conditions (Findings) which support the issuance of this Order and are included in Attachment C.

On May 8, 2014, the HSRA, as lead agency, certified a Final Environmental Impact Report (FEIR) (State Clearinghouse (SCH) No. 2009091126) for the Fresno to Bakersfield section of Project (F-B FEIR/FEIS) and filed a Notice of Determination (NOD) at the SCH on May 8, 2014. Pursuant to CEQA, the State Water Board has made Findings of Facts and a Statement of Overriding Conditions (Findings) which support the issuance of this Order and are included in Attachment C.

#### **XIII. Petitions for Reconsideration**

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

#### **XIV. Fees Received**

An application fee of \$1,097.00 was received on March 21, 2014. The fee amount was determined as required by California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3), and was calculated as category A - Fill & Excavation Discharges (fee code 84) with the dredge and fill fee calculator.

An additional fee of \$73,794.00 based on total Project impacts was received on April 28, 2015. These fees apply to CP 1a, 1b and 1c.

**A fee of \$31,639.00 was received on October 20, 2017 for impacts associated with CP 1d, as calculated under the current fee schedule. Note that additional annual fees will be billed each year, according to the fee schedule in effect in that billing year, until a Notice of Project Complete Letter is issued by State Water Board staff.**

## XV. Conditions

The State Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watersheds of the Project. In accordance with this Order, the Permittee may proceed with the Project under the following terms and conditions:

### A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 2.

### B. Reporting and Notification Requirements

The following section details the reporting and notification types and timing of submittals. Requirements for the content of these reporting and notification types are detailed in Attachment D, including specifications for photo and map documentation during the Project.

Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment D, which must be signed by the Permittee or an authorized representative.

#### 1. Project Reporting

- a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on or by the last business day of January. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

#### 2. Project Status Notifications

- a. **Commencement of Construction:** The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities.
- b. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the State Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, State Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee which will end the active discharge period and associated annual fees.
- c. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete,<sup>5</sup> and no further Project activities will occur. This request shall be submitted to State Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the State Water

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<sup>5</sup> Completion of post-construction monitoring shall be determined by State Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

**3. Conditional Notifications and Reports:** The following notifications and reports are required as appropriate.

**a. Accidental Discharges of Hazardous Materials<sup>6</sup>**

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
  - first call – 911 (to notify local response agency)
  - then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
  - Lastly follow the required OES procedures as set forth in:  
[http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill Booklet Feb2014 FINAL BW Acc.pdf](http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill%20Booklet%20Feb2014%20FINAL%20BW%20Acc.pdf)
- ii. Following notification to OES, the Permittee shall notify State Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
- iii. Within five (5) working days of notification to the State Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

**b. Violation of Compliance with Water Quality Standards:** The Permittee shall notify the State Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

- i. Examples of noncompliance events include, but are not limited to: Discharges to waters of the state due to failure to install or maintain adequate storm water BMPs, hazardous material spills due to negligence, and unpermitted operations in waters of the state.
- ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

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<sup>6</sup> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Safety. Code, § 25501.)

**c. In-Water Work**

- i. The Permittee shall notify the State Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
- ii. Within three (3) working days following completion of work in water or stream diversions, an In-Water Work/Diversions Water Quality Monitoring Report must be submitted to State Water Board staff.

**d. Modifications to Project**

Project modifications may require an amendment of this Order. The Permittee shall give advance notice to State Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform State Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order. Notification may be made in accordance with conditions in the Certification Deviation section of this Order (Attachment E).

**e. Transfer of Property Ownership:** This Order is not transferable in its entirety or in part to any person or organization except after notice to the State Water Board in accordance with the following terms:

- i. The Permittee must notify the State Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the State Water Board at least 10 days prior to the transfer of ownership. The purchaser must also submit a written request to the State Water Board to be named as the permittee in a revised order.
- ii. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.
- iii. **Reporting requirements pertaining to a change in ownership or interest in ownership are waived under this Order for any project areas that are subject to the Construction General Permit (Order No. 2009-0009-DWQ as amended, NPDES No. CAS000002, sections II.C.1 and II.D).**

**f. Transfer of Long-Term BMP Maintenance:** If maintenance responsibility for post-construction BMPs is legally transferred, the Permittee must submit to the State Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must provide such notification to the State Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.

- i. **Reporting requirements for transferred post-construction BMP maintenance responsibilities are waived under this Order if the facilities are subject to the Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ, NPDES CAS000004, section E.12.h (pp. 58-60)).**
  
- g. Visually inspect **all installed structures/BMPs at** the Project site following completion of construction activities in the immediate proximity of any waters of the state for five years to ensure erosion, disruption of natural stream form or function, or other discharge of pollution is not occurring in or downstream of the Project site as a result of the Project. Annual reporting for this requirement shall be provided as part of the Post-Construction Compliance Reports. For CP 1a, b and d, these reports shall be provided as described in Project mitigation measure Bio-MM#58 and in the Project Permittee Responsible Mitigation Plan (PRMP) section 5.1.5 - 6 of the M-F FEIR/FEIS. For CP 1c, these reports shall be provided as described in Project mitigation measure Bio-MM#62 of the F-B FEIR/FEIS and the PRMP section 5.1.5 - 6. If a discharge is occurring, the applicant shall immediately commence remedial actions, and shall contact the designated State Water Board staff contact overseeing the Project within three (3) working days. The State Water Board may require the submission of a Violation of Compliance with Water Quality Standards Report. Additional permits may be required to carry out any necessary site remediation.

### C. Water Quality Monitoring

#### General

1. If surface water is present, continuous visual surface water monitoring shall be conducted during active construction (i.e., any time work is occurring in or adjacent to surface waters when flowing, ponded or pooled water is present) to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete). Site monitors and construction personnel shall be vigilant in observing the water surface to that if any contaminant plume, sheen, etc. occurs, it will be seen and acted upon in a timely manner.
2. **Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, State Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.
3. **In-Water Work or Diversions:** For projects involving planned work in water or stream **diversions in delineated waters of the state where flowing or standing water is present, or where flowing or standing water may occur during Project activities,** a water quality monitoring plan shall be submitted to State Water Board staff for acceptance at least 30 days in advance of any discharge to the affected water body. Water quality monitoring shall be conducted in accordance with the approved plan.

Surface water monitoring shall be implemented when: (1) in-water work is performed; (2) Project activities result in any materials reaching surface waters; or (3) Project activities result in the creation of a visible plume in surface waters. Monitoring of the water quality objectives listed below in subsections (a) through (e) shall be conducted immediately upstream out of the influence of the Project and within 300 feet downstream of the active work area.

Sampling frequency shall be at least once prior to scheduled activities and then every four hours during the activity (or after the discharge is discovered in the case of (2) and (3) described in the above paragraph), and at least one hour after the end of each day's work until the water quality objectives listed below in subsections (a) through (e) below are met. Overnight monitoring of affected stream reaches after each day's work is not required. Turbidity measurements must be collected within one hour after barrier installation and within one hour after barrier removal.

During planned work in water or stream diversions any discharge(s) to waters of the state shall conform to the following water quality standards:

- a. pH: The Project activities must not depress pH in receiving waters below 6.5 or raise pH above 8.3 as a result of waste discharges.
- b. Temperature: For waters designated COLD or WARM, the Project activities must not alter the receiving water temperature by more than 5 degrees Fahrenheit above the natural temperature.
- c. Dissolved Oxygen:
  - i. The dissolved oxygen concentration of all surface waters designated as WARM must not be depressed below 5.0 mg/l as a result of waste discharges due to Project activities.
  - ii. The dissolved oxygen concentration of all surface waters designated as COLD or SPWN must not be depressed below 7.0 mg/l as a result of waste discharges due to Project activities.
- d. Turbidity: Turbidity limits are listed below separately for discharges in areas subject to the Water Quality Control Plan for (1) the Sacramento and San Joaquin River Basins and (2) the Tulare Lake Basin. Project activities in these areas must not cause turbidity to exceed the applicable limits listed below.

Except during in-water working periods, these limits will be eased to allow a turbidity increase of 15 Nephelometric Turbidity Units (NTUs) over background turbidity within 300 feet downstream from the working area, and the limits below shall only apply outside of the 300 foot area during this period. In determining compliance with the limits listed below, appropriate averaging periods may be applied provided that beneficial uses will be fully protected and Regional Water Board approval is obtained. Prior approval must be obtained in advance of in-water work.

For discharges to areas subject to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Project activities must not cause turbidity in surface waters to exceed the following limits:

- i. where natural turbidity is less than 1 NTU, increases shall not exceed 2 NTUs;
- ii. where natural turbidity is between 1 and 5 NTUs, increases above natural shall not exceed 1 NTU;

- iii. where natural turbidity is between 5 and 50 NTUs, increases above natural shall not exceed 20 percent of turbidity;
- iv. where natural turbidity is between 50 and 100 NTUs, increases above natural shall not exceed 10 NTUs of turbidity; and
- v. where natural turbidity is greater than 100 NTUs, increases above natural shall not exceed 10 percent of turbidity.

For discharges to areas subject to the Water Quality Control Plan for the Tulare Lake Basin, Project activities must not cause turbidity in surface waters to exceed the following limits:

- i. where natural turbidity is between 0 and 5 NTUs, increases above natural shall not exceed 1 NTU;
  - ii. where natural turbidity is between 5 and 50 NTUs, increases above natural shall not exceed 20 percent of turbidity;
  - iii. where natural turbidity is between 50 and 100 NTUs, increases above natural shall not exceed 10 NTUs of turbidity; and
  - iv. where natural turbidity is greater than 100 NTUs, increases above natural shall not exceed 10 percent of turbidity.
- e. Temperature: For waters designated COLD or WARM, the Project activities must not alter the receiving water temperature by more than 5°F above the natural temperature.
- f. Settleable Matter: Project activities shall not cause settleable matter to exceed 0.1 mL/L in surface waters as measured in surface waters 300 feet downstream from the Project in-water work site

Sampling shall be conducted in accordance with Table 3 sampling parameters.<sup>7</sup>

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<sup>7</sup> Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by State Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring shall be maintained onsite.

Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Oil and Grease	N/A	Visual	Continuous
Dissolved Oxygen	mg/L & % saturation	Grab	Every 4 hours
pH	Standard Units	Grab	Every 4 hours
Turbidity	NTU	Grab	Every 4 hours
Temperature	°F (or as °C)	In Situ	Every 4 hours

**D. Standard**

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with section 3867. Additionally, the State Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the State Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.
2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

**E. General Compliance**

1. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project. For purposes of Clean Water Act, section 401 (d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.

2. The Permittee shall adhere to all requirements in the California High Speed Train Merced to Fresno MMRP, dated August, 2013, and accessible at [www.hsr.ca.gov](http://www.hsr.ca.gov),<sup>8</sup> which is incorporated herein by reference. The Permittee shall also comply with any additional measures as outlined in Attachment C, CEQA Findings of Fact.

The Permittee shall adhere to all requirements in the California High Speed Train Fresno to Bakersfield MMRP, dated May, 2014, and accessible at [www.hsr.ca.gov](http://www.hsr.ca.gov),<sup>9</sup> which is incorporated herein by reference. The Permittee shall also comply with any additional measures as outlined in Attachment C, CEQA Findings of Fact.

The Merced to Fresno MMRP and Fresno to Bakersfield MMRP shall be referred to throughout the remainder of this document as “the MMRPs.”

3. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
4. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Regional Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
5. Construction General Permit Requirement: The Permittee shall maintain compliance with conditions described in, and required by, NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ as amended; NPDES No. CAS000002). **All post construction shall be in compliance with the Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ, NPDES CAS000004).**
6. In response to a suspected violation of any condition of this Order, the State Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provide that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
7. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.

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<sup>8</sup> [http://www.hsr.ca.gov/docs/programs/merced-fresno-eir/final\\_EIR\\_MerFres\\_MMRP\\_Rev2\\_A\\_Signed.pdf](http://www.hsr.ca.gov/docs/programs/merced-fresno-eir/final_EIR_MerFres_MMRP_Rev2_A_Signed.pdf)

<sup>9</sup> [https://www.hsr.ca.gov/docs/programs/fresno-baker-eir/brdmtg\\_050614\\_Item5\\_6\\_ExB\\_Mitigation\\_Monitoring\\_Reporting\\_Program.pdf](https://www.hsr.ca.gov/docs/programs/fresno-baker-eir/brdmtg_050614_Item5_6_ExB_Mitigation_Monitoring_Reporting_Program.pdf)

**F. Administrative**

1. Signatory requirements for all document submittals required by this Order are presented in Attachment F of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant State Water Board staff, the Central Valley Regional Water Quality Control Board (Regional Water Board) staffs, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
  - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.
  - b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
  - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
  - d. Sample or monitor for the purposes of assuring Order compliance.
4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.
5. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.
6. A Water Quality Monitor shall be employed during construction and shall report to the Contractor's Mitigation Manager as designated in the MMRP's. The Water Quality Monitor shall be on site during all ground-disturbing activities that have the potential to affect water quality. The Water Quality Monitor must be notified by the contractor 24 hours prior to the implementation of all MM's pertaining to hydrology, water quality, erosion control, and storm water management. The Water Quality Monitor shall report on compliance of these Project MMs and related conditions of this Order. The designated Water Quality Monitor shall be qualified and knowledgeable in water quality, erosion and sediment control regulations, practices and principles. The Water Quality Monitor must, at minimum, be a Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner (QSP) or a Qualified SWPPP Developer (QSD) as defined in the Construction General Permit (Order No. 2009-0009-DWQ, as amended; NPDES No. CAS000002).

7. Project MMs pertaining to biological resources, as listed in the MMRPs associated with the M-F FEIR/FEIS and the F-B FEIR/FEIS, shall be monitored by a Project Biological Monitor. The Project Biological Monitor must be notified 24 hours prior to the implementation of a biological MM by the contractor. The reports of the status of biological MM must be reported directly to the Project Biological Monitor by the contractor.
8. The Biological Resources Management Plan (BRMP), as required by (MM) Bio-MM#5 in the M-F EIR/EIS and Bio-MM#5 in the F-B EIR/EIS, must include all biological **and hydrological** resources mitigation measures that are described in the EIR/EIS. The BRMP includes measures to protect water quality and beneficial uses of waters of the state; therefore, the conditions of the BRMP that address water quality and beneficial uses must be approved by State Water Board prior to the start of construction.
9. All Project personnel must receive Worker Environmental Awareness Program (WEAP) training before starting work in the Project area, as described in mitigation measure Bio-MM#3 in the M-F EIR/EIS and MM#3 in the F-B EIR/EIS. The WEAP shall include training in appropriate water quality protection measures, including compliance with pertinent conditions of this Order.
10. Lake and Streambed Alteration Agreement-The Permittee shall submit a signed copy of the Department of Fish and Wildlife's lake and streambed alteration agreement to the State Water Board immediately upon execution and prior to any discharge to waters of the state.

#### G. Construction Conditions

##### Good Site Management – “Housekeeping”

1. All materials and supplies necessary for implementing these construction conditions must be on-site and ready for use at the start of construction activity, and must remain in supply and ready for implementation throughout the construction process. All non-structural BMP materials (e.g., training documents, compliance tracking procedures) must be ready for use at the start of construction.
2. Waste containers shall be available and regularly serviced at all active construction sites. **Waste containers shall be placed in appropriate upland sites, and not stored or placed in delineated waters of the state.** No rubbish, waste material or waste containers shall be placed and maintained in a manner that could accidentally spill or discharge the contents into waters of the state.
3. Environmentally sensitive areas and environmentally restricted areas must be delineated for exclusion prior to start of construction, as required by mitigation measure Bio-MM#7 in the M-F EIR/EIS and Bio-MM#7 in the F-B EIR/EIS.

##### In-Water Work Conditions

4. The term "in-water work" means any ground disturbing activities in any delineated waters of the state, including waters of the U.S., that are permitted under this Order, regardless of the presence or absence of flowing or standing water. Work in water

commences at the onset of the regulated activity and continues until the activity is finished and all restoration of the affected work area is complete. In-water work activities must not cause water quality objectives of the receiving waters to be exceeded.

5. Areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity in or adjacent to delineated waters of the state which may result in a discharge to surface waters of the state, including ponded water, shall be dewatered before the activity starts. Appropriate BMPs for placement, operation and removal of diversion or isolation installations for site dewatering (e.g. diversion weirs, cofferdams) shall be used
6. Disturbed in-water work areas must be temporarily stabilized to prevent erosion at least 48 hours prior to the predicted commencement of a rainfall event with greater than a 50 percent probability of occurrence, as predicted by the National Oceanic and Atmospheric Administration (NOAA) - National Weather Service. If the predicted commencement of such a rainfall event is less than 48 hours after the prediction is issued, temporary stabilization of the disturbed in-water work areas must begin immediately.
7. Except for the following conditions, equipment must not be operated in standing or flowing waters without site-specific approval from State Water Board staff:
  - a. All construction activities must be effectively isolated from water flows to the greatest extent possible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. All open flow temporary diversion channels must be lined with filter fabric or other appropriate liner material to prevent erosion. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized, whether that removal is for seasonal work cessation or for permanent removal at the end of the project.
  - b. Cofferdams and water barrier construction must be adequate to prevent seepage into or from the work area to the greatest extent feasible.
  - c. Flow diversions must be conducted in a manner that prevents pollution and/or siltation and in a manner that restores pre-Project flows (except for variation in flows due to seasonality, upstream diversions, etc.) upon completion of the activity. Diverted flows must be of sufficient quality and quantity, and of appropriate temperature, to support existing fish and other aquatic life both above and below the diversion. Diversions must be designed, installed, and maintained to reduce erosion. Pre-Project flows must be restored to the affected surface water body upon completion of work at that location.
8. If groundwater dewatering is required for the Project, the Applicant shall consult with the Regional Water Board to determine if additional permits are required. If additional Regional Water Board permits relating to dewatering are required, the designated

State Water Board staff contact identified in this Order must be notified and copied on pertinent correspondence pertaining to those other required permits.

9. All temporary dewatering methods shall be designed to have the minimum necessary impacts to waters of the state. All dewatering methods shall be installed such that natural flow is maintained upstream and downstream of the diversion area. Any temporary dams or diversions shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the diversion area. All dewatering methods shall be removed immediately upon completion of activities for which diversions are needed.
10. All temporary dewatering activities are subject to the work-in-water reporting and monitoring conditions presented in sections XV.B.3.c and XV.C.3 above.

#### Directional Drilling

11. Because Horizontal Directional Drilling (HDD) and similar drilling operations may affect water quality, the following conditions shall apply to all drilling operations under waters of the state:
  - a. The discharge of bentonite, drilling muds, lubricants or any drilling compounds into waters of the state is prohibited. A draft HDD or drilling plan shall be prepared, and shall be subject to review by State Water Board staff at least 30 days before drilling activities under waters of the state. No HDD or other drilling operations under waters of the state shall commence until the HDD plan is approved by State Water Board staff.
  - b. Release of bentonite, drilling muds, lubricants or any drilling compounds through fractures in the streambed or bank substrate during drilling is referred to as a "frack-out." Because of the potential for frack-outs to occur, the HDD or drilling plan shall include a frack-out response plan. The frack-out response plan shall specify all measures to be initiated if frack-outs should occur during HDD operations.
  - c. For all HDD and other drilling sites, a means of containment (e.g., damming, fluming) or screening capable of capturing all of the potential discharge shall be described in the HDD plan. The downstream end of any such containment structure shall be capable of containing all bentonite or other drilling muds or debris that may be released during boring or drilling. Any drilling mud, spoils, etc. must be completely removed from the streambed prior to removal of the containment structures (e.g., dam, flume, and screen).
  - d. An environmental monitor (monitor) shall provide monitoring for compliance with the HDD or drilling plan throughout drilling operations under waters of the state.
  - e. Any HDD or other drilling operation shall be designed and directed in such a way as to minimize the risk of spills and discharges of all types including the frack-out release of drilling lubricants through fractures in the streambed or bank substrates. In substrates where frack-outs are likely to occur, HDD contractors shall employ all reasonable means and methods available to minimize potential for track-out.

- f. All drilling muds or compounds will be contained and properly disposed of after drilling activities are completed.
- g. If bore pits are excavated to support drilling operations, spoils shall be stored a minimum of 25 feet from the top of the bank of streams or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).

#### Hazardous Materials, Waste and Petroleum Products

- 12. A staging area for equipment and vehicle fueling and storage shall be designated at least one-hundred (100) feet away from waters of the state, in a location where fluids or accidental discharges cannot flow into waters of the state.
- 13. Stationary equipment (motors, pumps, generator, etc.) and vehicles parked in delineated waters shall be positioned over drip pans or other types of containment. Spill and containment equipment (oil spill booms, sorbent pads, etc.) shall be maintained on site at all locations where such equipment is used or staged.
- 14. Equipment working in delineated waters, including in areas protected by diversions, shall be removed from the delineated waters for fueling or service including maintenance whenever feasible. When use of stationary equipment that would require refueling or service in delineated waters is planned, BMPs for managing the additional risk posed by that refueling and service shall be developed and presented to State Water Board staff for approval. Such BMPs should include any additional precautions necessary to minimize and contain any potential spills and leaks.

#### Roads and Bridges

- 15. The number of access routes, number and size of staging areas, and the total area of the activity must be limited to the minimum necessary to achieve the project goal. Routes and work area boundaries must be clearly demarcated.
- 16. Bridges, culverts, dip crossings, or other structures must be installed so that water and in-stream sediment flow is not impeded. Appropriate design criteria, practices and materials must be used in areas where access roads intersect waters of the state.
- 17. Temporary materials placed in any water of the state must be removed as soon as construction is completed at that location, and all temporary roads must be removed or re-contoured and restored according to approved re-vegetation and restoration plans.
- 18. Any structure, including but not limited to, culverts, pipes, piers, and coffer dams, placed within a stream where fish (as defined in Fish and Game Code section 45) exist or may exist, must be designed, constructed, and maintained such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish due to impedance of their upstream or downstream movement. This includes, but is not limited to, maintaining the supply of water and maintaining flows at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any structure results in a long-term reduction in fish movement, the Applicant shall be responsible for restoration of

conditions as necessary (as determined by the State Water Board and Regional Water Board) to secure passage of fish across the structure.

19. Stream-crossings structures and **any other in-stream installations** must be designed and constructed to safely convey the flow from the 100-year, 24-hour storm event (including associated bed load and debris movement) and must not result in a change in floodway elevations of more than 12 inches. Stream-crossings must be properly aligned within the stream and otherwise engineered, installed, and maintained, to assure resistance to washout, and to prevent erosion and/or aggradation of the stream.
20. A method of containment must be used below any temporary bridge, trestle, boardwalk, and/or other stream crossing structure to prevent any debris or spills from falling into the waters of the state. Containment must be maintained and kept clean for the life of the temporary stream crossing structure.

#### H. Mitigation for Temporary Impacts

21. Mitigation amount for temporary impacts is shown in Table 4. The Permittee shall restore all areas of temporary impacts to waters of the state and all Project site upland areas of temporary disturbance which could result in a discharge of waters of the state as described in a restoration plan. The restoration plan shall be submitted for written acceptance by State Water Board staff within ninety (90) days of issuance of this Order. The restoration plan shall be prepared in compliance with Project mitigation measure Bio-MM#6 as described in the M-F EIR/EIS and Bio-MM#6 as described in the F-B EIR/EIS, and shall provide the following: a schedule; plans for grading of disturbed areas to pre-project contours; planting palette with plant species native to the Project area; seed collection location; invasive species management; performance standards; and maintenance requirements (e.g. watering, weeding, and replanting). The Permittee shall abide by the following mitigation monitoring requirements: The restoration plan shall provide measurable performance goals, a plan for annual monitoring and reporting for achievement of those goals, and adaptive management provisions for circumstances where monitoring shows that restoration goals are not being achieved.
22. The State Water Board may extend the monitoring period beyond requirements of the restoration plan upon a determination by State Water Board Executive Director that the performance standards provided in the approved restoration plan have not been met or are not likely to be met within the monitoring period.
23. If initial restoration of temporary impacts to waters of the state is not completed within 365 days of the completion of construction at that location, additional mitigation may be required to offset temporal loss of waters of the state. Initial restoration means all actions that are necessary and appropriate to return an area of temporary disturbance to its pre-project condition or better immediately following the end of construction activity. Initial restoration may include revegetation according to the restoration plan, or stabilization of the site until the appropriate season for planting arrives.

Table 4: Required Project Mitigation Quantity for Temporary Impacts								
Aquatic Resource Type	Mit. Type	Units	Method <sup>10</sup>					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Riparian Zone	PR	Acres		0.600				
Riparian Zone	PR	LF		620				
Stream Channel	PR	Acres		1.910 <b>2.160</b>				
Stream Channel	PR	LF		905 <b>1480</b>				
Wetland	PR	Acres		None <b>2.590</b>				

**I. Compensatory Mitigation for Permanent Impacts<sup>11</sup>**

**1. Compensatory Mitigation Plan**

The Permittee shall provide compensatory mitigation for impacts to waters of the state in accordance with the “Permittee-Responsible Mitigation Plan for Onsite [sic] and Offsite [sic] Mitigation for Permitting Phase 1 of the Merced to Fresno Section” (PRMP) received on February 3, 2014 (dated January 2014) and incorporated herein by reference. **This Plan shall be amended within 90 days of the issuance of this Order to document agreement to purchase mitigation bank credits for CP 1d vernal pool impacts and permittee-responsible mitigation for stream channel and seasonal wetland impacts authorized by this Order.**

**2. Compensatory Mitigation Monitoring Requirements**

- a. For compensatory mitigation under the PRMP, monitoring and reporting shall be conducted to assess progress and identify potential problems with the permittee-responsible restoration as planned in the PRMP. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be implemented by qualified practitioners during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the success criteria listed in the PRMP after the maintenance and monitoring period, maintenance and monitoring will be extended until the criteria are met or unless otherwise approved by State Water Board staff.

<sup>10</sup> Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

<sup>11</sup> Compensatory Mitigation is for permanent physical loss and permanent ecological degradation of a water of the state.

- b. Monitoring will include periodic condition assessment of wetland compensatory mitigation sites using the California Rapid Assessment Method (CRAM). At the conclusion of the monitoring period, a final CRAM report shall be provided that describes the progression from baseline to the final assessment.
- c. All reports must include the file number of this Order, SB13001IN, and the Regulatory Measure Number (RM#) 391375. All reports and replacement/restoration site maps shall be uploaded to EcoAtlas.

### 3. Financial Assurances

The State Water Board requires that sufficient financial assurances for compensatory mitigation be in place prior to the issuance of a water quality Order to ensure that water quality standards are met (40 C.F.R. § 121.2; Cal. Code Regs., tit. 23, § 3831, subd. (u)). However, in cases where an alternative mechanism is available to ensure a high level of confidence that compensatory mitigation will be provided and maintained, the State Water Board may determine that financial assurances are redundant and therefore not necessary.

The HSRA is funded, in part, through general obligation bonds authorized by California voters on November 11, 2008. The Legislature adopted a business plan that set aside up to 7.5 percent of these general obligation bond proceeds for, among other things, mitigation of any direct or indirect environmental impacts (Sts. & Hy. Code, § 2704.08, subd. (g)). The HSRA states that its public agency status and the Legislature's intent to expedite funding for the Project's environmental mitigation serve as a sufficient guarantee on HSRA's performance of compensatory mitigation requirements. However, HSRA has agreed to provide financial assurances according to the terms in Attachment G. Pursuant to these terms in Attachment G, HSRA shall enter into a covenant or obligation to spend the amount of mitigation funding necessary to implement and maintain the mitigation required by the PRMP, and additionally purchase the required mitigation bank credits, as required under this Order.<sup>12</sup> HSRA shall include a provision that names the State Water Board as a third party beneficiary entitled to act, in its sole discretion, to enforce HSRA's obligations to implement and maintain the required mitigation.

The State Water Board acknowledges that the terms set forth in Attachment G, along with any other financial assurances required by the U.S. Army Corps of Engineers in connection with the HSRA application for a permit, should be sufficient. However, the State Water Board reserves the right to reopen this Order and require additional financial assurances as deemed necessary by the State Water Board (33 U.S.C. 1341(a)(3); Cal. Code Regs., tit. 23, § 3860, subd. (a)).

Circumstances that may trigger the imposition of additional financial assurances include, but are not limited to: any court order that overturns or invalidates the voter authorization of the general obligation bonds; a proposed legislative amendment or executive order diminishing or striking the set aside for mitigation of environmental

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<sup>12</sup> This covenant or obligation has been determined to be an acceptable security instrument in lieu of an irrevocable letter of credit in an amount sufficient to pay for the cost of the Permittee's required compensatory mitigation under this Order. The Permittee is not obligated to prepare a draft letter of credit and submit it to the State Water Board staff for written acceptance.

impacts; unreasonable delay in meeting compensatory mitigation obligations; or, any other circumstance which results in a reasonable threat that water quality standards will not be met. Any judgment as to whether circumstances warrant the imposition of additional financial assurances shall be in the sole discretion of the State Water Board.

**4. CP 1a, 1b and 1c Permittee-Responsible Compensatory Mitigation Responsibility**

- a. Permittee responsible compensatory mitigation installation shall be completed by December 29, 2017.
  - b. The Permittee is responsible for the required compensatory mitigation in perpetuity. However, the Permittee may transfer the compensatory mitigation requirements associated with long-term management when the following conditions have been met:
    - i. Performance standards are met.
    - ii. A Transfer Agreement to a third party has been approved by State Water Board staff.
    - iii. An endowment fund has been provided by the Permittee to a third party for management in perpetuity of the mitigation site.
    - iv. A conservation easement, deed restriction, or other appropriate restrictive covenant for the mitigation site has been recorded and approved by State Water Board staff.
  - c. **Transfer of Long-Term Permittee-Responsible Compensatory Mitigation and Management Responsibility**
    - i. A transfer agreement shall be submitted from an authorized representative of the new party (transferee) for acceptance by State Water Board staff. This agreement shall demonstrate acceptance and understanding of the responsibility to comply with and fully satisfy the required compensatory mitigation and long-term management conditions. Failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the State Water Board under Water Code section 13385, subdivision (a).
    - ii. Notification of transfer of responsibilities meeting the above condition must be provided to the State Water Board staff. A draft transfer agreement is due to State Water Board staff no less than thirty (30) days prior to the transfer of the mitigation responsibility. A final transfer agreement is due to State Water Board staff within 30 days of the completion of the transfer.
5. Purchase of Mitigation Credits by Permittee for Compensatory Mitigation for CP 1d:
- a. **For impacts to waters of the state caused by construction of CP 1d, a copy of the fully executed agreement for the purchase of mitigation credits shall be provided to the State Water Board by December 29, 2017.**

- b. The Permittee shall retain responsibility for providing the compensatory mitigation and long-term management until State Water Board staff has received documentation of the credit purchase and the transfer agreement between the Permittee and the seller of credits.

#### 6. Total Required Compensatory Mitigation

- a. For CP 1d, the Permittee is required to provide compensatory mitigation for the authorized impacts to 1.890 acres of vernal pools by purchasing 5.910 acres of Vernal Pool credits from Dutchman Creek Mitigation Bank. In addition, the Permittee is required to purchase 3.580 Seasonal Wetland credits from Grasslands Mitigation Bank. These seasonal wetland credits are required to compensate for 1.070 acres of seasonal wetlands, and provide out of kind compensation for 0.370 acres of ecologically degraded stream channel and to augment the Dutchman Creek purchase for the 1.890 acres of vernal pool impacts.
- b. For CP 1 a, b, and c, the Permittee is required to provide permittee-responsible compensatory mitigation for the authorized impacts to streams (including artificial channels), seasonal wetlands, and vernal pools, as described below.

For CP 1a and b, **impacts to 0.361 acres of seasonal wetlands, 1.282 acres of vernal pools, 0.032 acres of natural watercourses, 3.642 acres of constructed basins (including 2.751 acres of ecologically degraded constructed basins and 0.831 acres of impacts to features reported as "open water"), and 1.761 acres of constructed watercourses shall be implemented through 8.531 acres of vernal pool re-establishment at the Lazy K mitigation site and shall be subject to all approved mitigation and monitoring plans in place for the Lazy K site, and shall comply with the PRMP. Additionally, compensatory mitigation for the impacts to the 1.761 acres of constructed watercourses and the 3.642 acres of constructed basins (lakes) will be provided by on-site replacement at a 1:1 mitigation ratio.**

**Impacts to 1.330 acres of riparian areas for CP 1a and 1b are to be mitigated under conditions of the DFW lake and streambed alteration agreement, and includes 1.330 acres of riparian enhancement at Lazy K Ranch. Due to the highly developed condition of the streams and artificial channels in CP 1c and CP 1d, no riparian impacts are reported for these sections of the Project by agreement with DFW and the Permittee.**

For CP 1c, compensation for impacts to 0.010 acres of seasonal wetlands shall be implemented through vernal pool re-establishment at the Lazy K mitigation site at a 3:1 ratio, and shall be subject to all approved mitigation and monitoring plans in place or under review for the Lazy K site, and shall comply with the PRMP. Mitigation for 0.540 acres of impacts to canals and ditches, and 0.060 acres of impacts to retention/detention basins will occur at the location of impacts through restoration of the watercourse to pre-project functions, consistent with the implementation plan for on-site mitigation at Section 5 of the PRMP, such that all functions and values are replaced.

- c. Total required Project compensatory mitigation information for permanent physical loss of area is summarized in Table 5.

Table 5: Required Project Compensatory Mitigation Quantity for Permanent Physical Loss of Area (CP 1 a, b, c, and d)								
Aquatic Resource Type	Comp Mit. Type <sup>13</sup>	Units	Method <sup>14</sup>					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Lake	PR	Acres	3.642					
Riparian Zone	PR	Acres				<u>1.330</u>		
Riparian Zone	PR	LF				875		
Stream Channel	PR	Acres	0.032					
Vernal Pool	PR	Acres		8.561				
Vernal Pool	MB	Acres					<u>5.910</u>	
Wetland	MB	Acres		<u>3.580</u>				

- d. The Permittee is required to provide compensatory mitigation for the ecological degradation to Vernal Pools by purchase of vernal pool species credits at the Dutchman Creek Mitigation Bank.
- e. Total required Project compensatory mitigation information for permanent degradation of ecological condition is summarized in Table 6.

<sup>13</sup> Compensatory mitigation type may be: In-Lieu-Fee (ILF); Mitigation Bank (MB); Permittee-Responsible (PR)

<sup>14</sup> Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

Table 6: Required Project Compensatory Mitigation Quantity for Permanent Degradation of Ecological Condition								
Aquatic Resource Type	Comp Mit. Type <sup>9</sup>	Units	Method <sup>10</sup>					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Stream Channel	PR	Acres		0.032 <u>0.402</u>				

**J. Certification Deviation**

1. Minor modifications of Project locations or predicted impacts may be necessary as a result of unforeseen field conditions, necessary engineering re-design, construction concerns, or similar reasons. Some of these prospective Project modifications may have impacts on water resources. Some modifications of Project locations or predicted impacts may qualify as Certification Deviations as set forth in Attachment E. For purposes of this Order a “Certification Deviation” is a Project locational or impact modification that does not require an immediate amendment of the Order, because the State Water Board has determined that any potential water resource impacts that may result from the change are sufficiently addressed by the Order conditions and the CEQA Findings. After the termination of construction, this Order will be formally amended to reflect all authorized Certification Deviations and any resulting adjustments to the amount of water resource impacts and required compensatory mitigation amounts.
2. A Project modification shall not be granted a Certification Deviation if it warrants or necessitates changes that are not addressed by the Order conditions or the CEQA environmental document such that the Project impacts are not addressed in the Project's environmental document or the conditions of this Order. In this case a supplemental environmental review and different Order will be required.

**XVI. Water Quality Certification**

I hereby issue the Order for the California High Speed Train System Merced to Fresno Construction Packages CP 1a, b, and d, and Fresno to Bakersfield CP 1c, (WDID SB130011N) certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

The State Water Board will file a Notice of Determination (NOD) at the SCH within five (5) working days of issuance of this Order. This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies.



Eileen Sobeck  
Executive Director  
State Water Resources Control Board

10/31/17

Date