



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 9, 2018

Paul Caron
State of California Department
of Transportation
100 South Main Street
Los Angeles, CA 90012

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
No. 7017 1450 0002 1559 2328

Dear Mr. Caron:

RE: CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER
FOR THE SCHUYLER HEIM BRIDGE REPLACEMENT PROJECT (WDID FILE
#4WQC40117151)

Enclosed please find a Clean Water Act Section 401 Water Quality Certification and Order, authorized by Los Angeles Regional Water Quality Control Board Executive Officer, Deborah J. Smith. This Order is issued to State of California Department of Transportation (Applicant) for Schuyler Heim Bridge Replacement Project (Project). Attachments A through C of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by the State of California Department of Transportation for proposed Project discharge 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 Valerie Carrillo Zara by phone at (213) 576-6759 or by email at Valerie.CarrilloZara@waterboards.ca.gov.

You may also contact LB Nye, Senior Environmental Scientist, by phone at (213) 576-6785 or by email at LB.Nye@waterboards.ca.gov.

Sincerely,

LB Nye, Senior Environmental Scientist
Section 401 Certification and Wetlands Unit
Los Angeles Water Quality Control Board

Enclosures (1): Order for Schuyler Heim Bridge Replacement, File No. 17-151

cc: [Via email only] (w/ enclosure):

Elaine Silvestro
Alameda Corridor Transportation Authority

CWA Section 401 WQC Program
Division of Water Quality
State Water Resources Control Board

Stephanie Hall
Regulatory Branch, Los Angeles District
Army Corps of Engineers

Daniel Blankenship
California Department of Fish and Wildlife
Streambed Alteration Team
Los Alamitos Field Office

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US EPA, Region 9

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Jonathan Snyder
U.S. Fish and Wildlife Service

Al Padilla
California Coastal Commission

Los Angeles Regional Water Quality Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: July 9, 2018

Program Type: Fill/Excavation

Reg. Meas. ID:	417316
Place ID:	842019
WDID:	4WQC40117151
NWP:	14
USACOE#:	SPL-2010-00186-PHT
R4 File No	17-151

Project Type: Bridges, Overpasses and Crossings

Project: Schuyler Heim Bridge Replacement Project

Applicant: State of California Department of Transportation (Caltrans)
Applicant Contact: Paul Caron
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If you have any questions, please call Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) Staff listed above or (213) 576-6600 and ask to speak with the Water Quality Certification and Wetlands Unit Program Manager.

Table of Contents

I. Order.....3

II. Public Notice3

III. Project Purpose.....3

IV. Project Description3

V. Project Location 10

VI. Project Impact and Receiving Waters Information 11

VII. Description of Direct Impacts to Waters of the State..... 11

VIII. Compensatory Mitigation..... 11

IX. California Environmental Quality Act (CEQA)..... 11

X. Petitions for Reconsideration..... 12

XI. Fees Received 12

XII. Conditions 12

XIII. Water Quality Certification.....20

- Attachment A** Map
- Attachment B** Signatory Requirements Signatory Requirements
- Attachment C** Report and Notification Requirements Report and Notification Requirements

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of Caltrans (herein after Permittee) for the Project. This Order is for the purpose described in application and supplemental information submitted by the Permittee. The application was received on November 30, 2017. The application was deemed complete on February 6, 2018.

II. Public Notice

The Los Angeles Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from December 4, 2017 to the effective date of Order. The Los Angeles Water Board did not receive any comments during the comment period.

III. Project Purpose

The purpose of the Project is to replace the Schuyler Heim Bridge (Bridge) to provide a structurally and seismically safe vehicular connection along the critical north-south corridor between Terminal Island and the mainland that can remain in service following a major earthquake.

IV. Project Description

The Los Angeles Water Board issued a CWA section 401 Water Quality Certification (File 10-005) for the Project on July 21, 2010, which was amended on December 18, 2014 and July 22, 2015 and which has expired. This Order certifies the completion of the Project.

The Project is to replace the existing Bridge with a concrete, fixed-span bridge east of the existing Bridge. The Bridge was considered functionally obsolete. It had substandard lane widths, bridge rails, and shoulder widths, and in some places there was no shoulder. The Bridge was used by a large number of heavy trucks, and needed standard lane widths that better accommodate larger vehicles. In addition, a standard shoulder in each direction was needed so that disabled vehicles could more easily be removed from the travel lanes. In addition, traffic approaching the bridge had to stop when the bridge was raised to allow boats to pass underneath which created the potential for accidents. The bridge replacement is a fixed-span, and will eliminate the raising and lowering that impedes traffic.

The Project is being performed in three phases with the first phase constructing the north bound portion of the new fixed- span bridge east of the existing Bridge. Once built, traffic from the existing bridge approaches will be routed onto the new fixed- span bridge. In the second phase, the existing bridge will be demolished. Demolition will include the removal of the bridge superstructure, approaches, roadway between Ocean Boulevard and Pier A Way, and finally removal of the bridge piers to the approved elevations at the bottom of the channel. The third and final phase will construct the south bound portion of the new fixed-span bridge over the footprint of the recently demolished Bridge. South bound traffic will be routed to the newly constructed portion of the bridge and all lanes for the north bound traffic will then be opened.

The first phase, a majority of the second phase (except in-channel pier removal) and a portion of the third phase (majority of the roadway between Ocean Boulevard and Pier A Way) have been completed. The demolition of the in-channel piers (second phase), and the completion of the remaining roadway, approaches, and bridge over the Cerritos Channel (third phase)

remains to be completed at the time of this Order. This Project Description includes all three phases.

The estimated total temporary and permanent disturbance area associated with the Project is approximately 92 acres, which includes the permanent disturbance footprint as well as a 250-foot buffer to accommodate temporary structures (trestles, piers, lay down areas, and access and egress routes).

The fixed-span bridge will be approximately 4,800 feet long and with an average width of 120 feet. The fixed-span bridge is 43 feet wider than the lift bridge due to a new southbound auxiliary lane, standard 12-foot wide lanes, and standard Caltrans shoulders. In the northbound direction, the fixed-span bridge will include three 12-foot wide through traffic lanes, 10-foot shoulders. In the southbound direction, the fixed-span bridge will include three 12-foot wide traffic lanes, one 12-foot auxiliary lane, and 10-foot shoulders. The proposed alignment for the fixed-span bridge is located primarily within, and partially east of the existing bridge's right-of-way.

The footprint of the proposed fixed-span bridge is located east of the existing bridge footprint to avoid impacts to the Alameda Corridor Transportation Authority tracks which are located on the Badger Bridge immediately west of the existing Schuyler Heim Bridge, and to accommodate construction sequencing and maintain traffic flows during Project construction and demolition activities.

The vertical clearance of the proposed fixed-span bridge will be 47 feet over the Cerritos Channel mean high water line of 4.7 feet. This profile will accommodate a 45-foot fireboat. The width of the navigable channel (distance between bridge-support columns and fenders) will be 180 feet, the same as the existing width. The bridge replacement will retain access to a southbound off-ramp and northbound on-ramp at New Dock Street on Terminal Island, as well as a northbound off-ramp and southbound on-ramp at Henry Ford Avenue on the mainland (north) side of the bridge. The New Dock Street southbound off-ramp will be elevated to clear the existing industry tracks that join the Badger Bridge rail alignment from east of State Route (SR)-47. The new alignment of the off ramp will eliminate one of the two at-grade rail crossings at SR-47 and New Dock Street. New Dock Street will be realigned to accommodate the realigned on-ramp and off-ramp.

Construction of the Project will require temporary structures, or "falsework" that will be built to support the new bridge and then be removed once construction is complete. The falsework required to construct the new bridge within the channel will temporarily restrict the available horizontal clearance and the vertical clearance to 13 foot wide openings required for U.S. Coast Guard emergency and security vessels. The Cerritos Channel clearance restrictions are projected for a period of 12 to 24 months during construction of the eastern deck sections of the new bridge, demolition of the existing steel lift bridge and construction of the western deck sections of the new bridge. The channel will be closed completely to large marine vessels for a period of approximately one year to erect the new bridge and remove the mid-span truss of the old lift bridge. With the exception of these periods of restriction and closure, the channel will be open for navigation during bridge construction.

The Project will use shafts that are cast-in-drilled-hole (CIDH) over land and cast-in-steel-shell (CISS) in the water depending on soil conditions. Most of the shafts will be of CIDH construction, as CIDH shafts can carry vertical and lateral loads through the deep, liquefiable soil layers. Also, the CIDH shafts do not require footings and, therefore, minimize right-of-way

takes and utility relocations and have less effect on biological resources compared to the CISS shafts. The CISS shafts which require footings will be constructed where soil conditions require additional support.

The Project will demolish the existing Bridge by first removing the lift span and then removing the remaining steel structure. The first phase will construct the easterly portion of the new fixed-span bridge east of the existing bridge. Once built, traffic from the existing bridge approaches will be routed onto the recently constructed bridge. In the second phase, the existing Schuyler Heim Bridge will be demolished. The final phase constructs the westerly portion of the new fixed-span bridge over the footprint of the recently demolished bridge.

The eastern side of the new fixed-span bridge will be constructed east of the existing lift bridge. The south ends of the new bridge approach will connect to Ocean Boulevard. On the north, the new bridge will connect to the existing SR-I03 and Henry Ford Avenue. The connection to Ocean Boulevard and SR-I03 are expected to occur at night without closing the SR -47 to traffic. Traffic on the existing bridge will be diverted to the eastern side of the new bridge, and the existing bridge will be demolished.

Construction of the portion of the new bridge that is directly over the Cerritos Channel will require access from both sides of the channel. Pier S and Pier A West will serve as local construction staging and materials storage areas. The contractor will employ material delivery and crane work with the use of temporary trestles. A temporary pier will be constructed to supply construction materials, falsework, equipment and workers from the Pier S staging area.

A temporary pier composed of individual concrete column footings spaced every 20 feet, timber posts, cross tie beams and a wooden deck will be constructed from Pier S. The temporary pier will extend approximately 150 feet beyond the Pier S channel embankment and connect to a temporary trestle. The temporary pier will be approximately 40 feet wide to accommodate a haul truck or front loader. The temporary pier will also be utilized in constructing the eastern half of the new bridge, demolishing of the existing Schuyler Heim Bridge and constructing the western half of the new bridge. Upon completion of this work, the temporary pier will be completely removed from the channel. The pier will have an estimated temporary in-channel impact of 0.0023 acres, based on 26 column footings that are approximately four feet square each.

The contractor will build a temporary trestle bridge to construct the Project. This approach will require a timber trestle erected on concrete column footings, or short steel driven piles spaced every 20 feet to span the entire channel. The temporary structure will be placed just east of the eastern half of the new bridge to load and unload construction materials, falsework, equipment and workers from the Pier A and Pier S construction staging areas. The temporary structure will be approximately 780 feet long and 40 feet wide. The trestle bridge will have a temporary in-channel impact of 0.0110 acres, based on 120 column footings that are approximately four feet square each.

Openings within the temporary trestle to accommodate U.S. Coast Guard emergency and security vessels will be provided by the contractor. Once the eastern half of the new bridge is completed, the temporary trestle will be removed. After demolition of the existing Schuyler Heim Bridge, another temporary trestle will be constructed just west of the second half of the new bridge to supply construction materials, falsework, also be approximately 780 feet long and 40 feet wide. Once the western half of the new bridge is completed, the temporary trestle

will be removed. The trestle bridge will have a temporary in-channel impact of 0.0110 acres, based on 120 column footings that are approximately four square feet each.

The new eastern half of the bridge will require the contractor to install two footings at each of the four bents within the Cerritos Channel for a total of eight CISS piles. After demolition of the existing Schuyler Heim Bridge, the contractor will install the remaining eight piers for a grand total of 16 CISS piles constructed within the Cerritos Channel. All CISS piles within the channel that support the new Schuyler Heim Bridge have a 12-foot diameter. Drilling for the 16 CISS piles will produce 2,513 cubic yards of excavated material to be removed from the channel, and the same volume of concrete and steel reinforcing bars will be placed into the channel to permanently fill the drilled CISS piles.

In order to construct 12 of the 16 CISS piles in the channel (8 piles on the east side and 4 of the outer channel piles on the west side), a temporary casing will be installed inside the permanent casing of each. For this to occur, a 12-foot in diameter permanent steel casing will be driven into the bottom of the Cerritos Channel at each of the column locations to about 50 feet below the mud line (on average) and about 6 feet above mean high water line (to elevation of 10 feet based on North American Vertical Datum of 1988 (NAVD '88) for Piers 14 and 15 (inner piers) and to 5 feet below mean high water line (to elevation of -1 feet based on NAVD '88) for Piers 13 and 16 (outer piers). An 11-foot in diameter temporary steel casing will then be oscillated inside the 12-foot casing to the full depth of the CIDH pile (specified tip elevations vary approximately -190 feet NAVD '88).

The sediments/soils inside the temporary steel casing will be removed to specified tip elevation (on average, about 40 feet below mudline and about 6 feet mean high water line for the two in-channel piers and to 5 feet below mean high water line for the two outer piers) with a clam shell bucket and dumped into a truck positioned on the adjacent timber trestle. All excavated material will be analyzed to identify if it is contaminated, and will either be used for fill in upland areas, in the Cerritos Channel within Project limits or transported to a legal point of disposal. Once the space is excavated, a 10-foot in diameter rebar cage will then be oscillated inside the 12 foot casing to the full depth of specified tip elevation (about 110 feet below the mud line). Concrete will be pumped into the hole, immersing the rebar cage. While the concrete is being pumped inside, the temporary 11-foot diameter steel casing will be pulled out as the level of concrete inside rises. Water displaced during this activity will be removed by pumping it first through a filter and then into 21,000 gallon baker tanks stored on-site. It will be analyzed to identify if it is contaminated, classified, and treated if required before it is disposed in an approved manner.

Due to schedule and location, the other 4 of the 16 CISS piles in the channel will be constructed in the same manner as described above; however, will be installed in the same locations as the existing in-channel piers and inside two of the temporary enclosed turbidity curtain already in place for the removal of the mid-channel piers. The permanent impact to the Cerritos Channel due to the construction of the 16 piles will be 0.017 ha (0.042 ac). Construction materials, equipment, and laborers will be supplied by trestle.

Falsework for the new Schuyler Heim Bridge will require driven steel pipe columns, 23.6 inches in diameter, to be installed at 20 feet center-to-center spacing for additional temporary support. The driven, steel pipe columns will have a temporary impact of 0.0635 acres on both sides of the channel for a total of 0.127 acres, based on 440 driven steel pipes. Once the steel pipes are in place, wooden timber posts with cross-bracing lumber ties will support structural steel "I" beams to form a temporary heavy timber deck. The temporary deck will be employed

for constructing the cast-in-place and post tensioned girders as well as the final concrete deck between spans. During erection and dismantling of the bridge falsework, marine traffic will not be allowed to pass.

During the anticipated ten year construction period, marine traffic in Cerritos Channel will be limited, as temporary navigation openings will be a maximum 75 feet wide and 43 feet high. In addition, the channel could be closed for periods up to 30 days for falsework erection, girder casting, lift bridge span demolition and falsework dismantling. During periods when the channel will be open, marine traffic will be directed through temporary openings.

Bridge construction will occur in phases. The construction schedule balances speed of construction with maintaining traffic on SR-47 and also minimizes bridge closures during construction. During construction, security fencing will be installed; followed by rough grading. Grading will occur on the north and south sides of the Cerritos Channel within the right-of-way to build the access ramps and approaches for the new higher bridge. It is expected that cut and fill will be balanced for this activity. A total linear distance of 560 feet has been estimated, and included approximately 200 linear feet of embankment on Pier A and approximately 360 linear feet of embankment on Pier S. This will result in an additional temporary impact of 0.04 ha (0.10 ac) on Pier A and 0.065 ha (0.16 ac) on Pier S for a total of 0.105 ha (0.26 ac).

Pile casting will be completed after the column's reinforcing steel bar cages have been installed, the vertical column forms have been erected, and the structural concrete has been poured. Concrete will be brought on site in ready-mix trucks and pumped into the forms. After the specified curing period, the column forms will be removed. The columns will be spaced approximately 154 feet to 246 feet apart to support the fixed-span bridge. Each column will be approximately seven to nine feet in diameter. The east side columns of the bridge (northbound) were completed in October 2014. The west side columns of the bridge (southbound) are expected to be completed by January 2019.

The existing fender piles (a mooring structure designed to absorb the impact energy of berthing vessels that avoids damage to the vessel or pier structure) in the channel will be pulled out with a crane. A total of 144 fender piles will be removed, each having a diameter of 1.2 feet for a total area of 0.0013 acres. A pile-driver will be used to install the new fender piles in the channel. The fender piles for this Project will be approximately 24-inches in diameter, and approximately 80 piles will be required. The permanent impact of new fender piles is estimated to be 0.018 acres. Fender piles are likely to be driven with a hydraulic impact hammer, with total energy per strike up to 370,000 foot-pounds of force. During this period, actual striking time is approximately 45 minutes, with a strike occurring between every one to two seconds, excluding adjustments or to check the pile tip elevation. A total of approximately 1,350 to 1,800 strikes or more may be required to drive each pile for duration of approximately 2 hours. The pile installation will be performed in 2 phases, first on the east side completed by December 2014) and then on the west side (estimated to be completed by October 2019).

After column installation is complete in the channel, wood forms supported by steel and wood falsework will be erected at each pair of columns. During this phase, warning signs and night lighting will be utilized on the falsework as necessary to alert marine traffic of the presence of construction structures. This phase will also be performed in 2 phases, first on the east side (completed by December 2014) and then on the west side which is expected to be completed by July 2020.

When the falsework for the approach span is completed, installation will begin by constructing the bridge support structure with steel and reinforced concrete. Overhead bridge deck forms will be placed, and concrete will be poured and cured. The forms will be removed as the final step. This phase will also be performed in two phases, first on the east side (completed by July 2015) and then on the west side which is expected to be completed by September 2020.

The existing bridge superstructure and piers will also need to be removed. The contractor has chosen two methods for removal, the first was the use of a hydraulic ram to break apart the reinforced concrete and a clam shell bucket to remove the concrete pieces from the bottom of the Cerritos Channel. However, due to unforeseen conditions, a second method was chosen and implemented the use of diamond wire cutting (the process of cutting the concrete into manageable pieces) and a crane to lift the pieces out of the water.

The pile caps will remain, except for a small portion of the existing main-span footing, which will be removed to allow placement of several CISS piles in the channel. The existing pile caps, footings, and piles will be cut off as follows: the two mid-channel piers (Piers 27 and 28) will be removed to the top of the pile cap foundations approximately -46 feet below mean sea level (MSL) and the two outer piers (Piers 26 and 29) will be removed to the top of the existing footings which are at an approximate elevation of -5.8 feet below MSL (-3 feet below mean lower low water [MLLW]) and the hard-bottom substrate will revert to native earth bottom.

Prior to existing substructure removal, three enclosed turbidity curtains will be erected (completed in June 2016). The truss pier on the north shore is enclosed by a bulkhead or a retaining wall and therefore will not require the use of a coffer dam since it is already enclosed by mechanical means. The two enclosed turbidity curtains in the center of the channel for the removal of the tower piers will be approximately 140 feet in length and 80 feet in width each and the enclosed turbidity curtain for the removal of the truss pier on the south side of the channel will be approximately 140 feet in length and 51 feet in width. The temporary impacts of the three turbidity curtains will be 0.274 ha (0.678 ac).

The bridge was not sold for reuse in an alternate location, the port will leave the existing bridge pile caps in place, provided they are cut off and appropriately marked. The superstructure will be sent to a scrap metal exporting terminal. While there are no steel recycling mills operating in the Port of Long Beach (POLB) or Port of Los Angeles (POLA), there are several scrap metal exporting terminals at both ports. Because lead paint was encountered on the old superstructure, special measures were employed during demolition to prevent lead contamination. A lead-based paint and asbestos survey was conducted. Asbestos was encountered at levels higher than the mandated thresholds, and these building materials were removed from the structure prior to demolition. The demolition phase (including removal of the approaches and piers) is expected to be completed by December 2018.

Once the approach and main-span decks have been completed, construction of the deck barriers and joints will begin. The deck barriers will consist of forms and reinforced concrete to provide vehicle protection along both the outside portions of the structure and the center divider. Joints will consist of forms and reinforced concrete to tie together each segment of the bridge and expressway structure, and allow for expansion and contraction of the road surface. This phase was (for the east side) and will be (for the west side) performed at the same time as the construction of the bridge support structure.

At the close of construction, the bridge surface will be striped for the prescribed number of traffic lanes, lighting fixtures and signage will be installed, and a fence will be incorporated on

both sides of the new bridge with a height of 14 feet. This phase was performed in two phases, first on the east side which is expected to be completed by September 2017 and then on the west side which is expected to be completed mid-2021.

Two additional design elements have been added to the Project. The first was a Special Condition listed in the Port of Long Beach (POLB) Harbor Development Permit (HDP-10-014). The POLB required Caltrans to handle all storm water runoff from the Project without discharging into the POLB's storm water drainage facilities. Currently, there is an existing POLB pump station on the north side of the Cerritos Channel which accepts the storm water from the Project and adjoining areas and pumps the water through an outfall structure on the north bank of the Cerritos Channel under the existing bridge. Once the storm water has been separated, the existing POLB pump station will manage storm water from POLB owned property and Caltrans will manage storm water from the Caltrans' roadways at Pier A (roadways beginning from northern half of new bridge to ramp and approaches at Pier A).

The combined Caltrans and POLB discharge is equivalent to the previous discharge; there will be no change in the volume of storm water discharged into the channel.

In order to manage its storm water, Caltrans will construct a new storm water drainage system including a higher capacity replacement storm water pumping plant (UPRR OH Storm Water Pump Plant No. 53-2626W) and a new outfall structure. The proposed new outfall will be located adjacent to the bridge and to the east side of the bridge in the north bank of the Cerritos Channel. The outfall will be connected to a storm water drainage system via an 18-inch RCP pipe that will run approximately 50 feet under an adjacent access road embankment. The outfall consists of an 18-inch opening in an approximately 15-foot by 39-foot reinforced concrete headwall. The opening is above the water line, at a 6-foot elevation (NAVD '88). Existing riprap at the site will be removed to make room for the outfall and restored between the outfall and the channel water.

The scope for construction of the proposed outfall is as follows:

- Remove riprap from construction area.
- Install sheet piling in channel.
- Install concrete headwall, outfall, and grating.
- Restore riprap and remove sheet piling

This proposed Project modification will result in an additional permanent impact of 0.005 ha (0.013 ac).

The California Department of Transportation will comply with the *Statewide Construction Storm Water General Permit, 2009-0009-DWQ* or the stormwater provisions of the *Statewide Storm Water Permit for the State of California Department of Transportation 2012-0011-DWQ*.

Under the proposed schedule, including excavation and the installation of structural components, construction will occur following the completion of Pier 13 (estimated to be about July 2019). This schedule has the construction described above occurring concurrently with the bridge construction. Construction hours will be the same as the bridge construction hours, during permitted hours identified in the cities of Los Angeles and Long Beach building codes and in compliance with local noise ordinances.

The second additional design element requested by POLB will be to reinforce the bank on the south side of the channel adjacent to Pier 26 with additional rock revetment (riprap) beginning on the floor of the channel, north of the remaining pile cap. The rock will range from 2 to 4 feet thick and will cover the remaining footing (after the pier is removed) to join the existing embankments on each side of the bridge at an approximate slope of 1 (vertical) to 1.75 (horizontal). The new rock will introduce a new permanent impact to the floor of the channel in the form of an approximately 6 feet wide strip, approximately 204 feet long running adjacent to the limits of existing rip rap. In addition, rock will also be placed on top of the newly exposed footing for Pier 26 after removal of the old bridge piers. This proposed Project modification will result in an additional permanent impact of 0.017 ha (0.042 ac).

Under the proposed schedule, the rock revetment protection will occur following the removal of the truss piers of the current bridge, about September 2020. Construction hours will be the same as the bridge construction hours, during permitted hours identified in the cities of Los Angeles and Long Beach building codes and in compliance with local noise ordinances.

Dewatering activities may include coffer dams. If the contractor elects to use coffer dams for the installation of the new outfall structure, excavator mounted vibratory pile drivers would be used to vibrate sheet piles for the coffer dams into the soils on the north bank of the channel. The coffer dams will be equipped with pumps for maintaining a dry environment. Water that enters the coffer dams will be removed by a pump and placed in a baker storage tank for testing and treatment. Pumped water will be allowed to settle in the baker tanks. If foreign material enters the water it will be disposed of according to the requirements of the Clean Water Act Section 402 National Pollution Discharge Elimination System Permit, Industrial Water Permit, or taken to a legal point of disposal. Clean water will be returned to the Cerritos Channel.

Sediments from the baker tanks will be disposed of with other spoils. The coffer dams will be removed using the excavator mounted vibratory pile drivers upon completion of construction. The contractor has elected to enclose each of the piers for the removal of the old bridge columns with a turbidity curtain. The turbidity curtain will be attached/anchored to the trestle bridge column footings on the north, south, and east sides. On the west side, the turbidity curtain will be attached to the piers on the adjacent bridge (Badger Bridge). Water will remain flowing during construction around the coffer dams or through the turbidity curtains within the Cerritos Channel.

The Project will not disrupt the tidally influenced hydrological regime within the Cerritos Channel. The channel will maintain its tidally-influenced hydrologic regime during Project construction to avoid or minimize adverse impacts to fish or other biological resources and localized water chemistry.

V. Project Location

Attachment A, Maps, Figures 1 through 3 show the locations of the existing piers for the vertical-lift bridge and proposed pier columns for the concrete fixed-span bridge. Figure 1 is a side view comparing the existing piers (26 through 29) to the proposed piers (13 through 16) including their cutoff elevations. Figures 2 and 3 are plan views showing the exact location of the existing piers and proposed piers in the Cerritos Channel along with cross section of Cerritos Channel with depths and contours. Figures 1 through 3 also show the current foundation depths, and where demolition will take place. The elevations in Figure 1 are based on mean sea level (MSL) and in Figures 2 and 3, are based on NAVD '88.

<u>Latitude</u>	<u>Longitude</u>
33.76508	-118.24041
33.76604	-118.24072
33.76744	-118.23867
33.76491	-118.23830
33.76604	-118.24056
33.76712	-118.23965
33.76631	-118.23851
33.76483	-118.23932

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of Los Angeles Regional Water Quality Control Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plan (Basin Plan) for the region and other plans and policies which may be accessed online at:

http://www.waterboards.ca.gov/plans_policies/. The Basin Plan includes 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.

Receiving Water: Los Angeles - Long Beach Harbor
(Hydrologic Unit Code: 180701060703)

Designated Beneficial Uses: IND, NAV, REC-1, REC-2, COMM, MAR, WILD, BIOL, RARE, SHELL

VII. Description of Direct Impacts to Waters of the State

Total Project fill/excavation quantities for all impacts are summarized in Table 1.

Aquatic Resource Type	Temporary Impact ¹			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY ²	LF	Acres	CY	LF	Acres	CY	LF
Ocean/bay/estuary	1.089			0.115					

VIII. Compensatory Mitigation

The Permittee has agreed to provide compensatory mitigation for direct impacts, described in section XII, I for permanent impacts.

IX. California Environmental Quality Act (CEQA)

On May 12, 2009, the California Department of Transportation, as lead agency, certified an environmental impact (EIR) (State Clearinghouse (SCH) No. 2002021009) for the Project and filed a Notice of Determination (NOD) at the SCH on August 17, 2009. The environmental

¹ 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.

² Cubic Yards (CY); Linear Feet (LF)

document includes the mitigation monitoring and reporting program (MMRP) for all mitigation measures that have been adopted for the Project to reduce potential significant impacts. (Pub. Resources Code, § 21081.6, subd. (a)(1); Cal. Code Regs., tit. 14, § 15091, subd. (d).)

X. 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.

XI. Fees Received

An application fee of \$1,174 was received on November 30, 2017. This certification is conditioned upon the receipt of the full project fees of \$1,526. 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.

XII. Conditions

The Los Angeles Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watershed 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 1.

B. Reporting and Notification Requirements

Requirements for the content of these reporting and notification types are detailed in Attachment CCC, 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 CCC, 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 the anniversary of Project effective date. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. 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 Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Los Angeles 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.

- b. 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,³ and no further Project activities will occur. This request shall be submitted to Los Angeles Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Los Angeles Water 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 Materials⁴

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 Los Angeles 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 Los Angeles 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 Los Angeles 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: lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, and water contact with uncured concrete.

³ Completion of post-construction monitoring shall be determined by Los Angeles Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

⁴ "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 & Saf. Code, § 25501.)

- ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

c. In-Water Work

- i. The Permittee shall notify the Los Angeles Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, or delivered written notice.
- ii. An In-Water Work/Diversions Water Quality Monitoring Report must be submitted to Los Angeles Water Board staff per Section XII, C, 3, below.

d. Modifications to Project

Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Los Angeles 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 Los Angeles Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order.

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 Los Angeles Water Board in accordance with the following terms:

- i. The Permittee must notify the Los Angeles 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 Los Angeles Water Board at least 10 days prior to the transfer of ownership.
- 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.

f. Transfer of Long-Term BMP Maintenance: If maintenance responsibility for post-construction BMPs is legally transferred, the Permittee must submit to the Los Angeles 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 Los Angeles Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.

C. Water Quality Monitoring

- 1. **General:** If surface water is present, continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).

2. Accidental Discharges/Noncompliance: Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Los Angeles 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:

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

- a. Oil and Grease. Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.
- b. Dissolved Oxygen. At a minimum, the mean annual dissolved oxygen concentration of all waters shall be greater than 6 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
- c. pH. The pH of bays or estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
- d. Turbidity. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.
- e. Sampling shall be conducted in accordance with Table 2 sampling parameters.⁵

Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Oil and Grease	N/A	Visual	Continuous
Dissolved Oxygen	mg/L & % saturation	Grab	Daily for the first week, weekly, thereafter
pH	Standard Units	Grab	Daily for the first week, weekly, thereafter
Turbidity	NTU	Grab	Daily for the first week, weekly, thereafter
Temperature	°F (or as °C)	Grab	Daily for the first week, weekly, thereafter

Baseline sampling may be conducted at one location within the project boundary for each phase. All other sampling shall take place on both sides of silt curtains at a

⁵ 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 Los Angeles 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.

minimum of two locations (4 locations total). Results of the analyses shall be submitted to this Regional Board by the 15th day of each subsequent sampling month. A map or drawing indicating the locations of sampling points shall be included with each submittal.

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 sections 3867-3869, inclusive. Additionally, the Los Angeles Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Los Angeles 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. 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.
2. 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 Los Angeles 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.
3. In response to a suspected violation of any condition of this Order, the Los Angeles 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.

4. 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.
5. 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.
- 6. 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).

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment BBB 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 Los Angeles Water Board staff, 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. This Certification shall expire five (5) years from date of this Certification. The Applicant shall submit a complete application at least 90 days prior to termination of this Certification if renewal is requested.

G. Best Management Practices

1. Turbidity Curtains

- Turbidity curtains that are constructed of a permeable material allowing water to flow through the membrane while trapping suspended sediment shall be used. Use of these permeable membranes allows the barrier to extend from the water surface to the bottom, providing effective containment and filtering of suspended sediments.

2. Good Site Management "Housekeeping"

- Sediment re-suspension shall be minimized by adherence to the CIDH, CISS, or similar material designed for all in-water piles, whereby the outer shell would act as a coffer dam during construction and contain re-suspended sediment onsite until it is removed from within the shell prior to concrete pile installation.
- Cofferdams and sand blasting mats may be used during sand blasting operations.
- The Permittee shall erect shrouds around working areas and suspend nets and tarps below bridges to catch debris from abrasive removal of old paint, where wind conditions permit.
- The Permittee shall use vacuum or suction shrouds on blast heads to capture grit and old paint.
- The Permittee shall use barges and booms to capture fugitive floating paint chips, and custom-built enclosures to confine and capture the abrasives, old paint chips, and paint.
- The Permittee shall anchor tarps to barges below and enclose the bridge above to confine debris, where the bridge deck is not too far above water level.
- Tires on construction equipment shall be washed before the equipment leaves the Project.
- Construction equipment shall be cleaned as necessary to minimize the volume of decontamination wash water and prevent transport of contaminants from the Project.
- Designated locations shall be provided for servicing, washing, and refueling equipment, away from temporary channels or swales that would quickly convey runoff to the drainage system and into the Cerritos Channel.
- Contaminated material (e.g., oil, lubricants) shall be kept at a safe distance from an entry into a receiving water body. Temporary barriers and containers shall be used to confine any contaminated materials. Upon completion of construction, all contaminated material on the Project shall be removed and disposed of in

accordance with federal, regional, and local regulations.

- A temporary spill containment system shall be installed and maintained within Project limits during construction. The contractor will be responsible for the containment plan and the execution of spill containment during construction.
- During Project construction, as appropriate, the contractor shall:
 - Provide stabilized entrances and exits;
 - Regularly water the non-paved surfaces;
 - Regularly sweep and vacuum paved surfaces;
 - Install silt fences at the toe of excavation and embankment slopes;
 - Install sand or gravel bag berms along the top of slopes;
 - Install slope protection such as geotextiles, plastic covers, soil binders, and erosion control, blankets/mats;
 - Install slope interruption devices such as fiber rolls and slope drains;
 - Install permanent erosion control seeding, landscape planting, or slope/rock paving
 - Protect storm drain inlets with inserts or linear interrupters such as gravel bag and/or sand bag berms
 - Manage stockpiles against wind and water erosion

3. Storm Water

The project shall comply with the local regulations associated with the Los Angeles Water Board’s Municipal Stormwater Permit issued to Los Angeles County and co-permittees under NPDES No. CAS004001 and Waste Discharge Requirements Order No. R4-2012-0175.

H. On-Site Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts to waters of the state.

Table 3: Required Project Mitigation Quantity for Temporary Impacts								
Aquatic Resource Type	Mit. Type ⁷	Units	Method ⁸					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Ocean/Bay/Estuary	PR	Acres			1.089			

I.

I. Compensatory Mitigation for Permanent Impacts¹²

1. Final Compensatory Mitigation Plan The Permittee shall provide compensatory mitigation for impacts to waters of the state in accordance with *Proposed Offsite Mitigation for Schuyler Heim Bridge State Route 47: Mitigation to Satisfy Los Angeles*

⁷ Mitigation type for onsite restoration of temporary impacts is Permittee Responsible (PR).

⁸ Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

¹² Compensatory Mitigation is for permanent physical loss and permanent ecological degradation of a water of the state.

Water Board CWA Section 401 Water Quality Certification File No 10-005 (Compensatory Mitigation Plan) dated April 21, 2014 and incorporated herein by reference. Any deviations from, or revisions to, the *Proposed Offsite Mitigation for Schuyler Heim Bridge State Route 47: Mitigation to Satisfy Los Angeles Water Board CWA Section 401 Water Quality Certification File No 10-005* must be pre-approved by Los Angeles Water Board staff. The monitoring period shall continue until the Los Angeles Water Board staff determines that performance standards have been met. This may require the monitoring period to be extended.

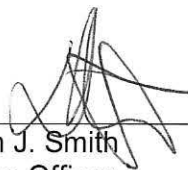
Table 4: Required Project Compensatory Mitigation Quantity for Permanent Physical Loss of Area								
Aquatic Resource Type	Comp Mit. Type ¹⁷	Units	Method ¹⁸					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Wetland	MB	Acres		0.348				

XIII. Water Quality Certification

I hereby issue the Order for the Schuyler Heim Bridge Replacement, 4WQC40117151 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).

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.



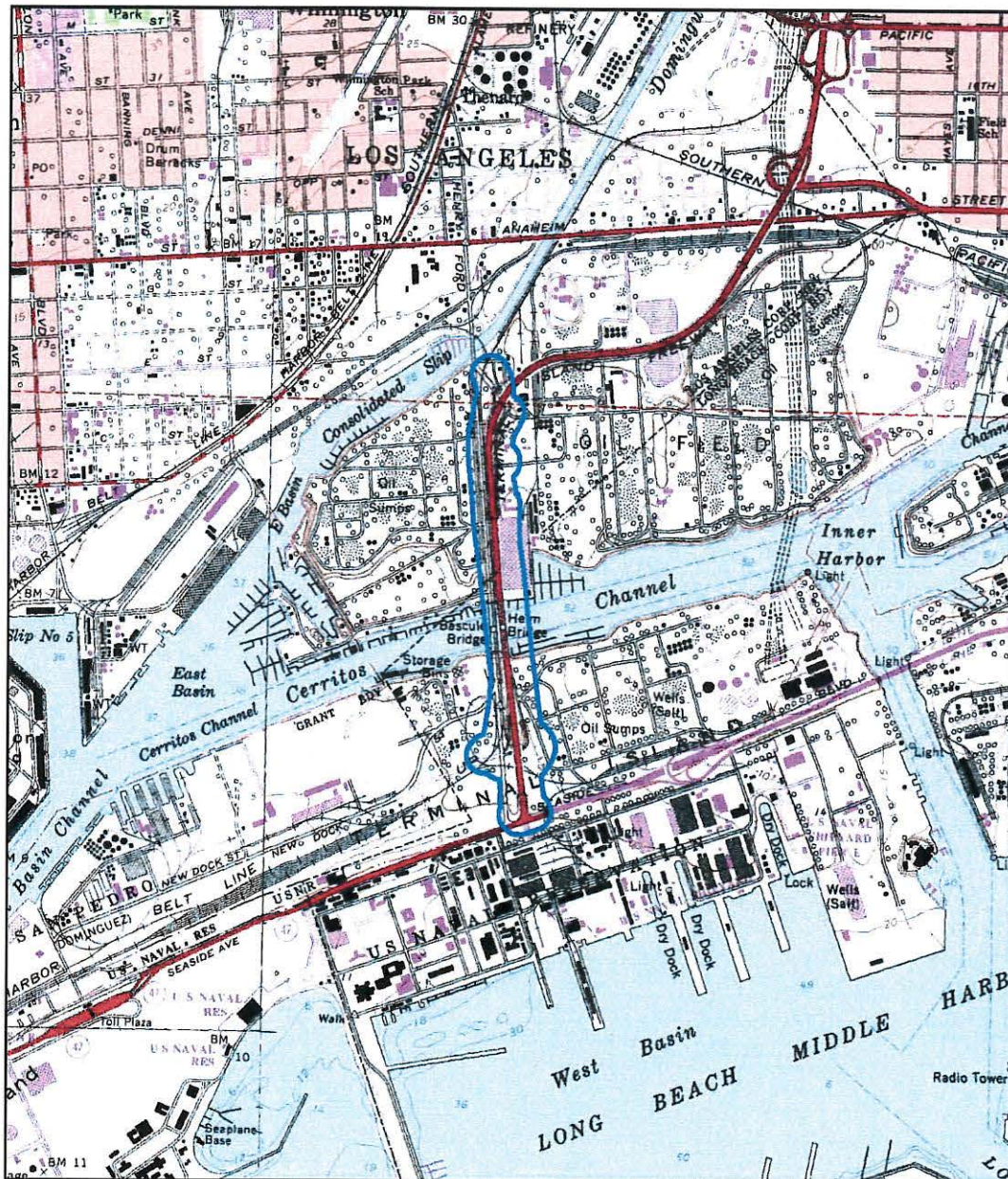
 Deborah J. Smith
 Executive Officer
 Los Angeles Water Quality Control Board

7-9-18

 Date

¹⁷ Compensatory mitigation type may be: In-Lieu-Fee (ILF); Mitigation Bank (MB); Permittee-Responsible (PR)

¹⁸ Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.



Legend
 Study Area

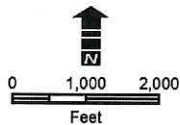
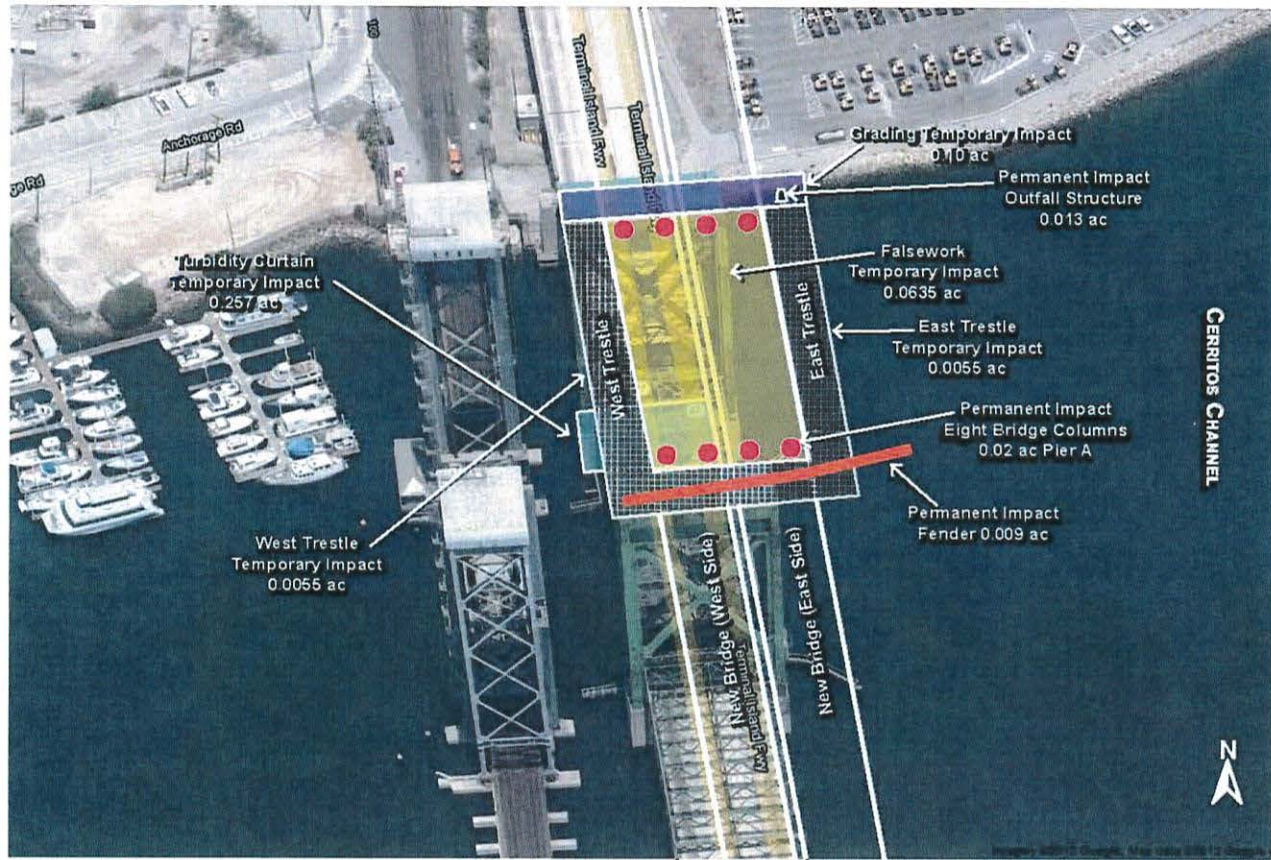


FIGURE 1
SITE VICINITY

**SCHUYLER HEIM BRIDGE (SR-47)
REPLACEMENT PROJECT**

Source: USGS 7.5' Topographic Quadrangle,
Torrance (1978), San Pedro (1979), and Long
Beach (1981)

Figure 2
Pier A - Temporary & Permanent Impacts



Temporary Impacts

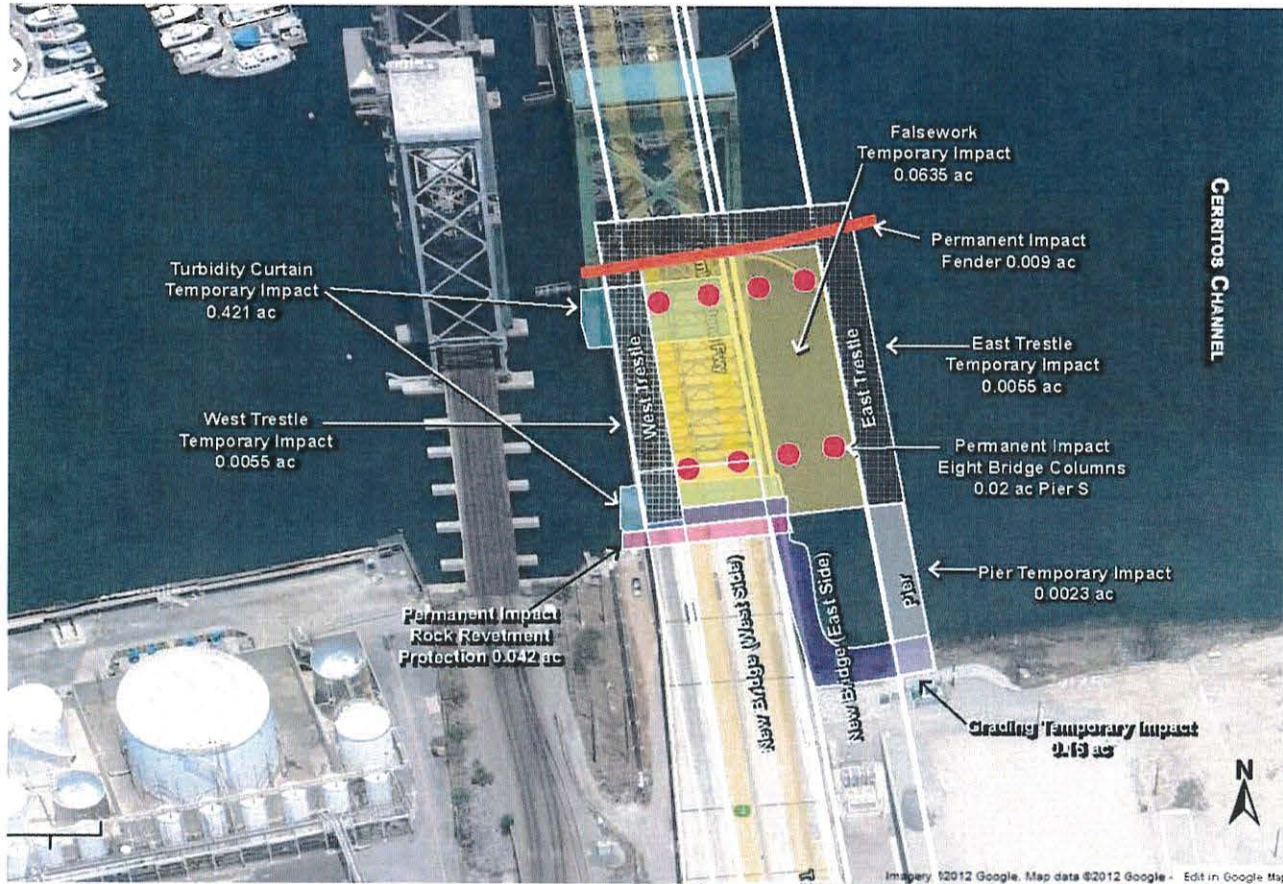
- 1. East Trestle Bridge (0.0055 ac)
- 2. West Trestle Bridge (0.0055 ac)
- 3. Falsework (0.0635 ac)
- 4. Turbidity Curtain to remove existing bridge column (0.257 ac)
- 5. Grading (0.10 ac)

Permanent Impacts

- 1. Fender (0.009 ac)
- 2. 8 Bridge Columns (0.021 ac)
- 3. Caltrans Pump Station Outfall Structure (0.013 ac)

revised 09-13-16

Figure 3
Pier S - Temporary & Permanent Impacts



- Temporary Impacts**
- 1. East Trestle Bridge (0.0055 ac)
 - 2. Pier (0.0023 ac)
 - 3. West Trestle Bridge (0.0055 ac)
 - 4. Falsework (0.0635 ac)
 - 5. Turbidity Curtain to remove existing bridge column (0.421 ac)
 - 6. Grading (0.16 ac)

Badger Bridge (Henry Ford)
Existing Schuyler Heim Bridge as shown

- Permanent Impacts**
- 1. Fender (0.009 ac)
 - 2. 8 Bridge Columns (0.021 ac)
 - 3. Rock Revetment Protection (0.042 ac)

revised 09-13-16

Attachment B
Signatory Requirements

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 Los Angeles Water Quality Control Board (Los Angeles 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 Staff Contact prior to submitting any documents listed in item 1 above.

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.”

Copies of this Form

In order to identify your project, it is necessary to include a copy of the Project specific Cover Sheet below with your report: please retain for your records

Report Submittal Instructions

1. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting.
 - **Part A (Annual Report):** This report will be submitted annually from the anniversary of Project effective date until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the Los Angeles Water Board of the status of the Project schedule that may affect Project billing.
 - **Part C (Conditional Notifications and Reports):** Required on a case by case basis for accidental discharges of hazardous materials, violation of compliance with water quality standards, notification of in-water work, or other reports.
2. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.
3. **Electronic Report Submittal Instructions:**
 - Submit signed Report and Notification Cover Sheet and required information via email to: Valerie.CarrilloZara@waterboards.ca.gov
 - Include in the subject line of the email:
Subject: ATTN: Valerie CarrilloZara; File No: 17-151, Reg. Measure ID: 417316_Report

Definition of Reporting Terms

1. **Active Discharge Period:** The active discharge period begins with the effective date of this Order and ends on the date that the Permittee receives a Notice of Completion of Discharges Letter or, if no post-construction monitoring is required, a Notice of Project Complete Letter. The Active Discharge Period includes all elements of the Project including site construction and restoration, and any Permittee responsible compensatory mitigation construction.
2. **Request for Notice of Completion of Discharges Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. Los Angeles Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon approval. This letter will initiate the post-discharge monitoring period and a change in fees from the annual active discharge fee to the annual post-discharge monitoring fee.
3. **Request for Notice of Project Complete Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that either have completed post-construction monitoring and achieved performance standards or have no post-construction monitoring requirements, and no further Project activities are planned. Los Angeles Water Board staff will review the request and send a Project Complete

Letter to the Permittee upon approval. Termination of annual invoicing of fees will correspond with the date of this letter.

4. **Post-Discharge Monitoring Period:** The post-discharge monitoring period begins on the date of the Notice of Completion of Discharges Letter and ends on the date of the Notice of Project Complete Letter issued by the Los Angeles Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.
5. **Effective Date:** Date of Order issuance.

Map/Photo Documentation Information

When submitting maps or photos, please use the following formats.

1. **Map Format Information:**

Preferred map formats of at least 1:24000 (1" = 2000') detail (listed in order of preference):

- **GIS shapefiles:** The shapefiles must depict the boundaries of all project areas and extent of aquatic resources impacted. Each shape should be attributed with the extent/type of aquatic resources impacted. Features and boundaries should be accurate to within 33 feet (10 meters). Identify datum/projection used and if possible, provide map with a North American Datum of 1983 (NAD38) in the California Teale Albers projection in feet.
- **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. Include URL(s) of maps. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
- **Other electronic format** (CAD or illustration format) that provides a context for location (inclusion of landmarks, known structures, geographic coordinates, or USGS DRG or DOQQ). Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
- Aquatic resource maps marked on paper **USGS 7.5 minute topographic maps** or **Digital Orthophoto Quarter Quads (DOQQ)** printouts. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.

2. **Photo-Documentation:** Include a unique identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.

REPORT AND NOTIFICATION COVER SHEET

Project:	Schuyler Heim Bridge Replacement		
Permittee:	Caltrans		
Reg. Meas. ID:	417316	Place ID:	842019
			File No: 17-151

Report Type Submitted

Part A – Project Reporting

Report Type	<input type="checkbox"/> Annual Report
--------------------	---

Part B - Project Status Notifications

Report Type	<input type="checkbox"/> Commencement of Construction
--------------------	--

Report Type	<input type="checkbox"/> Request for Notice of Completion of Discharges Letter
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Report Type	<input type="checkbox"/> Request for Notice of Project Complete Letter
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Part C - Conditional Notifications and Reports

Report Type	<input type="checkbox"/> Accidental Discharge of Hazardous Material Report
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Report Type	<input type="checkbox"/> Violation of Compliance with Water Quality Standards Report
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Report Type	<input type="checkbox"/> In-Water Work/Diversions Water Quality Monitoring Report
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Report Type	<input type="checkbox"/> Modifications to Project Report
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Report Type	<input type="checkbox"/> Transfer of Property Ownership Report
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Report Type	<input type="checkbox"/> Transfer of Long-Term BMP Maintenance Report
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"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."

Print Name ¹

Affiliation and Job Title

Signature

Date

¹STATEMENT OF AUTHORIZATION (include if authorization has changed since application was submitted)

I hereby authorize _____ to act in my behalf as my representative in the submittal of this report, and to furnish upon request, supplemental information in support of this submittal.

Permittee's Signature

Date

*This Report and Notification Cover Sheet must be signed by the Permittee or a duly authorized representative and included with all written submittals.

Part A – Project Reporting

Report Type	Annual Report
Report Purpose	Notify the Los Angeles Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
When to Submit	Annual reports shall be submitted each year on the anniversary of the Project effective date. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
Report Contents	<p>The contents of the annual report shall include the topics indicated below for each project period. Report contents are outlined in Annual Report Topics below.</p> <p><u>During the Active Discharge Period</u></p> <ul style="list-style-type: none"> • Topic 1: Construction Summary • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status <p><u>During the Post-Discharge Monitoring Period</u></p> <ul style="list-style-type: none"> • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status
Annual Report Topics (1-3)	
Annual Report Topic 1	Construction Summary
When to Submit	With the annual report during the Active Discharge Period.
Report Contents	<ol style="list-style-type: none"> 1. Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs). If construction has not started, provide estimated start date and reasons for delay. 2. Map showing general Project progress. 3. If applicable: <ol style="list-style-type: none"> a. Summary of Conditional Notification and Report Types 6 and 7 (Part C below). b. Summary of Certification Deviations. See Certification Deviation Attachment for further information.
Annual Report Topic 2	Mitigation for Temporary Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.

Report Contents	<ol style="list-style-type: none"> 1. Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.
Annual Report Topic 3	Compensatory Mitigation for Permanent Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.
Report Contents	<p>*If not applicable report N/A.</p> <p>Part A. Permittee Responsible</p> <ol style="list-style-type: none"> 1. Planned date of initiation of compensatory mitigation site installation. 2. If installation is in progress, a map of what has been completed to date. 3. If the compensatory mitigation site has been installed, provide a final map and information concerning attainment of performance standards contained in the compensatory mitigation plan. <p>Part B. Mitigation Bank or In-Lieu Fee</p> <ol style="list-style-type: none"> 1. Status or proof of purchase of credit types and quantities. 2. Include the name of bank/ILF Program and contact information. 3. If ILF, location of project and type if known.

Part B – Project Status Notifications

Report Type	Commencement of Construction
Report Purpose	Notify Los Angeles Water Board staff prior to the start of construction.
When to Submit	Must be received at least seven (7) days prior to start of initial ground disturbance activities.
Report Contents	<ol style="list-style-type: none"> 1. Date of commencement of construction. 2. Anticipated date when discharges to waters of the state will occur. 3. Project schedule milestones including a schedule for onsite compensatory mitigation, if applicable.

Report Type	Request for Notice of Completion of Discharges Letter
Report Purpose	Notify Los Angeles Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities.
Report Contents	<ol style="list-style-type: none"> 1. Status of storm water Notice of Termination(s), if applicable. 2. Status of post-construction storm water BMP installation. 3. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized. 4. Summary of Certification Deviation discharge quantities compared to initial authorized impacts to waters of the state, if applicable. 5. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

Report Type	Request for Notice of Project Complete Letter
Report Purpose	Notify Los Angeles Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project activities.
Report Contents	<p>Part A: Mitigation for Temporary Impacts</p> <ol style="list-style-type: none"> 1. A report establishing that the performance standards outlined in the restoration plan have been met for Project site upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. A report establishing that the performance standards outlined in the restoration plan have been met for restored areas of temporary impacts to waters of the state. Pre- and post-photo documentation of all restoration sites.

	<p>Part B: Permittee Responsible Compensatory Mitigation</p> <ol style="list-style-type: none">3. A report establishing that the performance standards outlined in the compensatory mitigation plan have been met.4. Status on the implementation of the long-term maintenance and management plan and funding of endowment.5. Pre- and post-photo documentation of all compensatory mitigation sites.6. Final maps of all compensatory mitigation areas (including buffers). <p>Part C: Post-Construction Storm Water BMPs</p> <ol style="list-style-type: none">7. Date of storm water Notice of Termination(s), if applicable.8. Report status and functionality of all post-construction BMPs.
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Part C – Conditional Notifications and Reports

Report Type	Accidental Discharge of Hazardous Material Report
Report Purpose	Notifies Los Angeles Water Board staff that an accidental discharge of hazardous material has occurred.
When to Submit	Within five (5) working days following the date of an accidental discharge. Continue reporting as required by Los Angeles Water Board staff.
Report Contents	<ol style="list-style-type: none"> 1. The report shall include the OES Incident/Assessment Form, a full description and map of the accidental discharge incident (i.e. location, time and date, source, discharge constituent and quantity, aerial extent, and photo documentation). If applicable, the OES Written Follow-Up Report may be substituted. 2. If applicable, any required sampling data, a full description of the sampling methods including frequency/dates and times of sampling, equipment, locations of sampling sites. 3. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.

Report Type	Violation of Compliance with Water Quality Standards Report
Report Purpose	Notifies Los Angeles Water Board staff that a violation of compliance with water quality standards has occurred.
When to Submit	The Permittee shall report any event that causes a violation of water quality standards within three (3) working days of the noncompliance event notification to Los Angeles Water Board staff.
Report Contents	The report shall include: the cause; the location shown on a map; and the period of the noncompliance including exact dates and times. If the noncompliance has not been corrected, include: the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and any monitoring results if required by Los Angeles Water Board staff.

Report Type	In-Water Work and Diversions Water Quality Monitoring Report
Report Purpose	Notifies Los Angeles Water Board staff of the completion of in-water work.
When to Submit	Within three (3) working days following the completion of in-water work. Continue reporting in accordance with the approved water quality monitoring plan.
Report Contents	As required by the approved water quality monitoring plan.

Report Type	Modifications to Project Report
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Report Purpose	Notifies Los Angeles Water Board staff if the Project, 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.
When to Submit	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.
Report Contents	A description and location of any alterations to Project implementation. Identification of any Project modifications that will interfere with the Permittee's compliance with the Order.

Report Type	Transfer of Property Ownership Report
Report Purpose	Notifies Los Angeles Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
When to Submit	At least 10 working days prior to the transfer of ownership.
Report Contents	<ol style="list-style-type: none"> 1. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts: <ol style="list-style-type: none"> a. the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; and b. responsibility for compliance with any long-term BMP² maintenance plan requirements in this Order. 2. A statement that the Permittee has informed the purchaser to submit a written request to the Los Angeles Water Board to be named as the permittee in a revised order.

Report Type	Transfer of Long-Term BMP Maintenance Report
Report Purpose	Notifies Los Angeles Water Board staff of transfer of long-term BMP maintenance responsibility.
When to Submit	At least 10 working days prior to the transfer of BMP maintenance responsibility.
Report Contents	A copy of the legal document transferring maintenance responsibility of post-construction BMPs.

² Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.