

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER:

STORMWATER POLLUTION PREVENTION PLAN

for

SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

RISK LEVEL: 2

CALTRANS ENCROACHMENT PERMIT NUMBER FOR LOCAL AGENCY / PRIVATE ENTITY:

CALTRANS ENCROACHMENT PERMIT NUMBER FOR CONTRACTOR:

Prepared for:

City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
Michael L. Wolfe, PE
(951) 413-3100

Submitted by:

Spectrum Construction Group, Inc.
16 Goodyear, Suite 140
Irvine, CA 92618
(949) 299-1400
Zade Muhtaseb

Project Site Address

SR-60/Moreno Beach Drive, Moreno Valley, CA 92552

Water Pollution Control (WPC) Manager

Chris Becker
(949) 456-0823

Alternate/Substitute WPC Manager

Oscar Flores
(714) 873-0056

Assistant WPC Manager

Javier Garcia
(805) 228-2311

SWPPP Developed by:

Chris Becker
RTC, Inc.
22431 Antonio Parkway, B 160-251
Rancho Santa Margarita, CA
(949) 456-0823

FALCON ENGINEERING SERVICES

- APPROVED
- APPROVED AS NOTED
- REVISE AND RESUBMIT
- REJECTED
- FOR INFORMATION ONLY

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any actions shown is subject to the requirements of the plans and specifications. Contractor is responsible for: dimensions, fabrication process and techniques of construction; coordination of the work of all trades and the performance of his work in a safe and satisfactory manner.

Chris Becker - WPCM/QSD/QSP/CPESC/CESSWI

SWPPP Date

7/12/2021

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Appendix GCEM-2030 Stormwater Site Inspection Report
Appendix H CEM-2034 Monthly Stormwater Best Management & Materials Inventory Report Form
Appendix ICEM-2035 Stormwater Corrective Actions Summary
Appendix JCEM-2045 Rain Event Action Plan Forms
Appendix KCEM- 2061 Notice of Discharge Form
Appendix LCEM-2058 Stormwater Meter Calibration Record– Specialty Meters Form
Appendix MCEM-2051 Stormwater Sampling and Testing Activity Log – Optional Form
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SWPPP Files

File Category 20.01Stormwater Pollution Prevention Plan (SWPPP)
File Category 20.02Stormwater Pollution Prevention Plan Amendments
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SECTION 100

SWPPP Certifications and Approval

100.1 Legally Responsible Person Certification and Caltrans Approval

The Local Agency's Legally Responsible Person (LRP) has authorized the RE to be the authorized Approved Signatory of the Local Agency for approving, signing, and certifying the Stormwater Pollution Prevention Plan (SWPPP) in conformance with Section IV.I of the Construction General Permit (CAS000002, Order No. 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ). The LRP authorization for the RE to be the Approved Signatory is included as Attachment A. The SWPPP was developed by the Contractor and submitted for review and approval to the RE, pursuant to the contract Special Provisions, the Caltrans SWPPP / WPCP Preparation Manual, and the Caltrans Standard Specifications Section. The Contractor and Local Agency is responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA). Include copies of the SWRCB-issued WDID Number and NOI form as Attachment B.

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

For Local Agency Use Only

**RE's Approval and
Local Agency Certification of the
Stormwater Pollution Prevention Plan**

Project Name: SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Caltrans Encroachment Permit
Number issued to Local Agency: 08-21-A-0P-0429

Caltrans Encroachment Permit
Number issued to Contractor:

Local Agency Name: City of Moreno Valley

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



RE's Signature

Juan Rojas, PE

RE's Name

08/19/2021

Date

(951) 750-4357

RE's Telephone Number

For Use by Caltrans Only

CALTRANS OVERSIGHT ENGINEER'S CONCURRENCE OF SWPPP

I, and/or personnel acting under my direction and supervision, have reviewed this SWPPP and concur with the RE's findings that it meets the requirements set forth in the contract Special Provisions, Caltrans Standard Specifications, and the Caltrans SWPPP/WPCP Preparation Manual.



Caltrans Oversight Engineer's Signature

Paul Brown

Caltrans Oversight Engineer's Name

08/19/2021

Date of Concurrence

(951) 232-6161

Telephone Number

100.2 Contractor and QSD SWPPP Certification

Contractor's Certification of SWPPP

Project Name: SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Caltrans Encroachment Permit
Number issued to Local Agency /
Private Entity:

Caltrans Encroachment Permit
Number issued to Contractor:

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Zade Muhtaseb

Contractor's Signature

Zade Muhtaseb

Contractor's Name

Project Manager

Contractor's Title

8/16/2021

Date

(949) 299-1400

Telephone Number

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

QSD's Certification of SWPPP

Project Name: SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Caltrans Encroachment Permit
Number issued to Local Agency /
Private Entity:

Caltrans Encroachment Permit
Number issued to Contractor:

"I certify under penalty of law that I relied upon available project and site information, current watershed and basin plan maps and available soil data to develop this SWPPP so that Best Management Practices (BMPs) were designed and placed in accordance with industry standards and best professional judgment to reduce pollutants from leaving the job site. All other sources relied upon to gain information for this project's SWPPP were appropriate and dependable, based on my best professional judgment. To the best of my knowledge and belief, the information submitted in this SWPPP is in compliance with all requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ). I certify that the 'required text' portions of this document are unaltered from the original required text and content."



QSD's Signature

Chris Becker

Date

(949) 456-0823

QSD's Name

QSD's Telephone Number

WPCM/QSD/QSP/CPESC/CESSWI

QSD's Title

100.3 Amendments

100.3.1 SWPPP Amendments Certification and Approval

This SWPPP is meant to be a “living document,” therefore, updated and additional information is expected to be added to the SWPPP as the project progresses, including information regarding changes in the field that do not require an amendment, such as the following:

- adding BMPs as required by a *Rain Event Action Plan*
- increasing or decreasing the quantity of BMPs in the field that are already part of the erosion control plan in the SWPPP,
- moving BMPs shown on the WPCDs to protect water quality during different phases of construction,
- updating WPCDs to reflect actual site conditions, and
- maintenance and repairs to BMPs.

This SWPPP shall be amended when:

- a change in construction or operations affects the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- a contract change order includes additional water pollution control practices, not already specified in the approved SWPPP;
- deemed necessary by the RE;
- SWPPP objectives to reduce or eliminate pollutants in stormwater discharges have not been achieved; or
- a CGP violation has occurred; when the RWQCB determines that a CGP violation has occurred, the SWPPP shall be amended and corrective actions implemented within 14 calendar days after notification by the RWQCB.

The following information shall be included in each amendment:

- who requested the amendment;
- the location of proposed change;
- the reason for the change;
- the original BMP proposed, if any;
- the new BMP proposed; and
- any existing implemented BMP(s).

The annual SWPPP amendment must include an annual winterization plan.

The annual winterization plan must describe the preparation for the upcoming rainy season including:

1. Updated schedule
2. Materials and labor
3. Management of stormwater through the job site including:
 - 3.1. Run-on
 - 3.2. Run-off
 - 3.3. Conveyance downslope
4. Management of areas within the job site including:
 - 4.1. Areas where work is suspended
 - 4.2. Areas of soil stabilization
 - 4.3. New disturbed soil areas
5. Changes to monitoring locations
6. Slope stabilization

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Submit a revised SWPPP annually before September 15th

Approved and certified amendments shall be inserted into the appropriate section or attachment of the SWPPP. All SWPPP amendments prepared by the WPC Manager and approved by the Contractor shall be accepted and certified by the LRP or Approved Signatory. A blank copy of the CEM-2008 SWPPP/WPCP Amendment Certification and Approval form is in Appendix A. For approved amendments, the signed SWPPP Amendment Certification and Approval form shall be attached to the SWPPP amendment.

A copy of each approved and certified amendment shall be inserted into Attachment AA. All SWPPP amendments shall be listed in the SWPPP Amendment Log, available in Appendix B. The Amendment Log shall be kept in SWPPP File Category 20.02 and a copy shall be inserted into Attachment AA.

The SWPPP will be completely revised if either the number of amendments or the amount of information contained in the amendments makes implementation of the SWPPP confusing, as determined by the RE, or the Contractor requests to revise the SWPPP based on planned changes in activities that would require a major SWPPP amendment.

100.3.2 Amendment Log

All approved and certified SWPPP amendments shall be shown on the SWPPP Amendment Log. A blank Amendment Log is available in Appendix B. The SWPPP Amendment Log shall include the following information:

- amendment number;
- amendment date;
- brief description of the amendment;
- name of individual requesting amendment; and
- approval date.

All SWPPP amendment(s) prepared and approved as discussed in Section 100.3.1 shall be documented in the Amendment Log and kept in SWPPP File Category 20.02: Stormwater Pollution Prevention Plan Amendments. A copy of the Amendment Log shall also be inserted into Attachment AA.

SECTION 200

OBJECTIVES

This SWPPP has five (5) main objectives, which are listed below.

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled.
2. Where not otherwise required to be under a California Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated.
3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non- stormwater discharges from the construction activity to the best available technology (BAT) / best conventional technology (BCT) standard.
4. Calculations and design details for site run-on, as well as BMP controls, are complete and correct.
5. Stabilization BMPs designed to eliminate or reduce pollutants after construction is complete have been installed

This SWPPP was developed to conform to the required elements of the CGP (CAS000002, Order No. 2009-0009-DWQ as ammended by Order 2010-0014-DWQ and 2012-006-DWQ) issued by the SWRCB.

This SWPPP is designed to be a useful document for those who must implement the SWPPP on a daily basis in the field. Most of the information necessary for the daily implementation of the SWPPP is contained in Attachment BB: Water Pollution Control Drawings, Attachment CC: Water Pollution Control Best Management Practices List, and Attachment DD: Water Pollution Control Schedule.

This SWPPP is also a “living document” because updated and additional information is added to the SWPPP file categories as the project progresses, including:

- SWPPP Amendments;
- Subcontractor and Material Supplier Information;
- Contractor Personnel Training Documentation;
- Site Inspection Reports;
- Monthly Status Reports;
- Rain Event Action Plans;
- Sampling and Analysis Results; and
- Notice of Discharge Reports.

The SWPPP shall be readily available on site for the duration of the project.

SECTION 300

PROJECT AND CONTRACTOR INFORMATION

300.1 Project Description

The Project is located at the intersection of State Route 60 and Moreno Beach Drive, in the City of Moreno Valley, in the County of Riverside, State of California; Latitude 33. 946459°, Longitude -117.175510 °, on the U.S. Geological Survey (USGS) Sunnymead 7.5 minute series quadrangle topographic map.

This project will replace the SR-60 / Moreno Beach two-lane bridge with a seven lane bridge, reconfigure the north side of the interchange, and add a west bound auxiliary lane. The interchange will have a cloverleaf in the northeast quadrant and a dedicated southbound Moreno Beach Drive to westbound SR-60 on-ramp. The eastbound ramp terminals will be raised to meet the new grade of the bridge. A portion of Storm Drain Line K-1 upstream in Ironwood Avenue will be constructed. The City applied for and received an SB1 TCEP grant for interchange construction. Expansion of the current facilities will be needed due to the traffic demand resulting from development in the area.

To comply with the Master Drainage Area Plan, Project activities include extending an existing segment of Line K-1, which will convey storm drain flows to the Nason Basin. This basin is located northeast of the SR-60/NasonStreet interchange. The approximately 1,700-foot- long Line K-1 storm drain system is located along the north side of Ironwood Avenue from approximately 400 feet west of Pettit Street to Line K (approximately 700 feet west of Moreno Beach Drive). The existing Line K-1 segment that conveys flows southerly beneath Ironwood Avenue consists of a 90-inch diameter pipe and 7-foot by 7-foot reinforced concrete box culvert and associated inlet and outlet. The project involves the installation of approximately 218 cubic yards of ½-ton rock rip rap, adjacent to a newly constructed concrete culvert headwall at the downstream outlet, south of Ironwood Avenue.

Receiving Water: Unnamed watercourse that discharges to the Nason Basin.
Any discharges from the Nason Basin flow to the Perris Valley Channel and eventually to the San Jacinto River. Perris Valley Channel has the present or potential beneficial uses, including: water contact recreation (REC1), non-contact water recreation (REC2), intermittent warm freshwater habitat (WARM), wildlife habitat (WILD) and rare, threatened, or endangered species (RARE).

Contract Time: Three Hundred Sixty Seven (367) Working Days for Base Bids 1 through 4 plus Additive Alternate Bid 1 and Four Hundred Forty (440) Working Days for Plant Establishment. If Additive Alternate Bid 2 is chosen, deduct Thirty Seven (37) Working Days from Three Hundred Sixty Seven (367) Working Days for a total of Three Hundred Thirty (330) Working Days. The Plant Establishment duration remains the same.

300.2 Project Risk Level

The risk level assessment of the project site was calculated to be Risk Level 2 . This risk level will determine the minimum level of BMPs that will be acceptable based on the project site and the project construction activities. The risk level is the basis for the minimum level of site-specific monitoring and reporting that will be required. The risk level is based on project duration, proximity to impaired receiving waters, and soil conditions. The Risk Level Determination is discussed in Section 500.1.3 and the calculations are included in Attachment C.

300.3 Construction Sites Estimates

The following are estimates of the construction site.

Stormwater Pollution Prevention Plan (SWPPP)
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-
- Construction site area 30.44 25.00 DSA
 - Percentage impervious area before construction 70
 - Runoff coefficient before construction .70
 - Percentage impervious area after construction 75
 - Runoff coefficient after construction .75

Run-on from off-site areas anticipated: Yes No

Anticipated stormwater run-on flow rate to the construction site: 2.12 cfs

Anticipated drainage patterns following the completion of grading activities are shown on the WPCDs from Attachment BB.

Locations of potential run-on with the estimated flow rates shall be noted on the WPCDs. The BMPs designed to handle the run-on flows are included in Section 500.3.1.

300.4 Vicinity and Site Map

The construction project vicinity map showing the project location, surface water boundaries, geographic features, construction site perimeter, and general topography, is located in Attachment D. The project contract plan Title Sheet provides additional detail regarding the project location and is also included in Attachment D.

The Project is located at the intersection of State Route 60 and Moreno Beach Drive, in the City of Moreno Valley, in the County of Riverside, State of California; Latitude 33. 946459°, Longitude -117.175510 °, on the U.S. Geological Survey (USGS) Sunnymead 7.5 minute series quadrangle topographic map.

Receiving Water: Unnamed watercourse that discharges to the Nason Basin.
Any discharges from the Nason Basin flow to the Perris Valley Channel and eventually to the San Jacinto River. Perris Valley Channel has the present or potential beneficial uses, including: water contact recreation (REC1), non-contact water recreation (REC2), intermittent warm freshwater habitat (WARM), wildlife habitat (WILD) and rare, threatened, or endangered species (RARE).

300.5 Unique Site Features

Project has Fill Material: Yes No

Project has Native Material: Yes No

Hydrologic Soil Group: A (high infiltration rate) B (moderate infiltration rate)

C (slow infiltration rate) D (very slow infiltration rate)

Soil Erodibility: Slight Moderate Severe

Unique Features Onsite: Water Bodies Wetlands Endangered or Protected Species

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Environmentally Sensitive Areas Other None

Existing fish or wildlife resources the Project could substantially adversely affect include: Amphibians, Mammals and Reptiles (see Streambed Alteration Agreement for full listing). The adverse effects the Project could have on the fish or wildlife resources identified above include: the disturbance to, alteration of, and/or loss of nesting, roosting, and foraging habitat; the reduction or loss of habitat coverage, composition, and distribution; the disturbance to and alteration of wildlife movement corridors; and temporary impacts to water quality. The Project will permanently impact a total of 1.19 acres of fish and wildlife resources subject to Fish and Game Code section 1600 et seq; total Project impacts of 1.19 acres to fish and wildlife resources subject to Fish and Game Code section 1600 et seq. are authorized under the project Streambed Alteration Agreement.

300.6 Contact Information for Responsible Parties

The following parties are responsible for this SWPPP:

WPC Manager

Name: **Chris Becker**
Title: **Water Pollution Control Manager**
Company: **RTC, Inc.**
Address: **22431 Antonio Parkway, B 160-251**
Rancho Santa Margarita, CA 92688
Phone Number: **(949) 456-0823**
Emergency Phone Number (24/7): **(949) 456-0823**
Email address: **chris@rtcstormwater.com**

Alternate/Substitute WPC Manager

Name: **Oscar Flores**
Title: **Alternate/Substitute WPC Manager**
Company: **RTC, Inc.**
Address: **29135 Outrigger Street**
Lake Elsinore, CA 92530
Phone Number: **(714) 873-0056**
Email address: **wovf@yahoo.com**

Qualified SWPPP Developer (QSD)

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Name: **Chris Becker**
Title: **Qualified SWPPP Developer**
Company: **RTC, Inc.**
Address: **22431 Antonio Parkway, B 160-251**
Rancho Santa Margarita, CA
Phone Number: **(949) 456-0823**
Email address: **chris@rtcstormwater.com**

Resident Engineer

Name: **Michael L. Wolfe, PE**
Title: **Resident Engineer**
Company: **City of Moreno Valley**
Address: **14177 Frederick Street**
Moreno Valley, CA 92552
Phone Number: **(951) 413-3100**
Emergency Phone Number (24/7) **(951) 413-3100**
Email address: **michaelw@moval.org**

Contractor

Name: **Zade Muhtaseb**
Title: **Contractor**
Company: **Spectrum Construction Group, Inc.**
Address: **16 Goodyear, Suite 140**
Irvine, CA 92618
Phone Number: **(949) 299-1400**
Emergency Phone Number (24/7) **(949) 299-1400**
Email address: **zmuhtaseb@spectrumcgi.com**

Contractor Site Manager

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Name: **Zade Muhtaseb**
Title: **Senior Project Manager**
Company: **Spectrum Construction Group, Inc.**
Address: **zmuhtaseb@spectrumcgi.com**
Irvine, CA 92618
Phone Number: **(949) 299-1400**
Emergency Phone Number (24/7) **(949) 299-1400**
Email address: **zmuhtaseb@spectrumcgi.com**

Erosion and Sediment Control Provider

Name: **Zade Muhtaseb**
Title: **Project Manager**
Company: **Spectrum Construction Group, Inc.**
Address: **zmuhtaseb@spectrumcgi.com**
Irvine, CA 92618
Phone Number: **(949) 299-1400**
Emergency Phone Number (24/7) **(949) 299-1400**
Email address: **zmuhtaseb@spectrumcgi.com**

Stormwater Sampling and Testing Agent

Name: **Chris Becker**
Title: **QSD/QSP/CPESC/CESSWI/WPCM**
Company: **RTC, Inc.**
Address: **22431 Antonio Parkway, B 160-251**
Rancho Santa Margarita, CA 92688
Phone Number:
Emergency Phone Number (24/7) **(949) 456-0823**
Email address: **chris@rtcstormwater.com**

300.7 List of Subcontractor and Materials Suppliers

Stormwater Pollution Prevention Plan (SWPPP)
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The following subcontractors will be working on this project:

1 Malcomb Drilling Company, Inc.

SWPPP Responsibility: Material and equipment use and storage, spill prevention, inlet protection

2 Ferreira Coastal Construction Company

SWPPP Responsibility: Material and equipment use and storage

3 PCI

SWPPP Responsibility: Material and equipment use and storage

4 Alcorn Fence

SWPPP Responsibility: Material and equipment use and storage, inlet protection

5 D.B. Electric, Inc.

SWPPP Responsibility: Material and equipment use and storage, inlet protection

6 Integrity Rebar Placers

SWPPP Responsibility: Material and equipment use and storage

Contact information for each subcontractor will be provided in the SWPPP Notification log in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters. Contact information shall include subcontractor name, type of work performed, contact name, phone number and emergency telephone number (24/7).

The following materials suppliers will be delivering materials to the project site and must comply with pertinent SWPPP requirements:

1 Various asphalt and concrete suppliers

Contact information for each material supplier will be provided in the SWPPP Notification log in SWPPP File Category 20.22: Material Supplier Contact Information and Notification Letters. Contact information shall include company name, type of material supplied, contact name and phone number.

All subcontractors and material suppliers shall be notified that the project is covered by the

- SWRCB Order No. 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, September 02, 2009 (Construction General Permit).

Stormwater Pollution Prevention Plan (SWPPP)

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Each subcontractor and material supplier shall also be notified that the project has a SWPPP and the pertinent water pollution control BMPs with which the subcontractor or material supplier must comply. If subcontractors or material suppliers are added during the project, appropriate notification that the project has a SWPPP and the pertinent water pollution control BMPs shall be given to the subcontractor or materials supplier prior to working or supplying materials on the project site.

A SWPPP Notification Letter shall be sent to all subcontractors and material suppliers. A sample notification letter and notification letter log is provided in Appendix D. A copy of SWPPP Notification Letters sent to subcontractors and material suppliers are in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters or 20.22 Material Supplier Contact Information and Notification Letters. Notification letter logs and contact information are filed in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters and File Category 20.22: Material Supplier Contact Information and Notification Letters.

300.8 Training

The Contractor's WPC Manager is a QSP. The WPC Manager for this project, meets the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

- QSD/QSP #24331
- CPESC #7408
- CESSWI #3080
- Caltrans Certified WPC Manager
- CA Title 22 HazMat Certified

The WPC Manager has received the following training:

- 24-hours State QSD/QSP training and exams
- 12-hours Envirocert International, Inc. - Certified Professional in Erosion and Sediment Control (CPESC) training, refresher course and exam
- 8-hours Envirocert International, Inc. - Certified Professional in Storm Water Quality (CPSWQ) training
- 8-hours Envirocert International, Inc. - Certified Erosion, Sediment and Storm Water Inspector (CESSWI) training and exam
- 8-hours Caltrans Water Pollution Control Manager training
- 4-hours California Title 22 HazMat training and exam

The WPC Manager has the following SWPPP development and implementation experience:

- The WPC Manager has over 30-years experisnce in heavy civil and infrastructure construction management experience and prepares many SWPPPs for Caltran projects annually including all risk levels.

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The SWPPP for this project was developed by a QSD. The QSD that developed the SWPPP meets the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

QSD/QSP #24331	Caltrans Certified WPC Manager
CPESC #7408	CA Title 22 HazMat Certified
CESSWI #3080	

The QSD has received the following training.

- Same as above.

The QSD has the following SWPPP development experience.

- Same as above.

An Assistant WPC Manager will be available to assist the WPC Manager to ensure that: required BMPs are implemented; non-stormwater and stormwater visual observations and sampling and analysis are performed; BMP maintenance is completed; and weekly training is provided. The Assistant WPC Manager for this project, must meet the qualifications and certification requirements of Section 13-01D(4) of the Caltrans Specifications including the 8-hr WPC Manager Training.

- 2-years on-the-job training with the QSD/WPC Manager

The Assistant WPC Manager has received the following training.

- 8-hours Caltrans Water Pollution Control Manager training

The Assistant WPC Manager has the following SWPPP implementation experience.

- The Assistant WPC Manager has 2-years experience in the inspection of Caltrans SWPPP and WPCP projects including several with similar scope as the present project.

Ongoing, formal training sessions for individuals responsible for SWPPP development and implementation shall be selected from one of the following organizations.

- City of Los Angeles Storm Water Program
- County of Los Angeles Storm Water Program

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- State of California RWQCB
- ECA-, ABAG- and/or AGC-sponsored training
- USEPA-sponsored training
- Recognized municipal stakeholder organizations throughout California
- Professional organizations and societies in the building and construction field

Contractor or subcontractor employees responsible for water pollution control BMP installation, maintenance and repair have received the following training.

- Prior to the start of construction, the general contractor and subcontractors will complete a storm water and erosion control training program prepared by the WPC Manager. A CEM-2023 will be prepared to document the training.

Contractor and subcontractor employees shall be trained prior to working on the site in the following subjects:

- water pollution control rules and regulations
- implementation and maintenance for:
 - temporary soil stabilization,
 - temporary sediment control,
 - tracking control,
 - wind erosion control,
 - material pollution prevention control,
 - waste management, and
 - non-stormwater management
- identification and handling of hazardous substances
- potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Informal employee training shall include tailgate site meetings to be conducted weekly; tailgate meetings should address the following topics:

- water pollution control BMP deficiencies and corrective actions;
- BMPs that are required for work activities during the week;
- spill prevention and control;
- material delivery, storage, use, and disposal;

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- waste management; and
- non-stormwater management procedures.

A summary of formal and informal training of various personnel is shown in Attachment E. A copy of all training certificate(s) (e.g., Caltrans 8-Hour WPC Manager and CGP Training) for the WPC Manager, the Qualified SWPPP Developer, the Alternate WPC Manager, and the Assistant WCP Manager are included in Attachment E.

Training records for project personnel shall be updated by completing the CEM-2023 Stormwater Training Record form, available in Appendix E, and the CEM-2024 Stormwater Training Log - Optional form, available in Appendix F. Records of training, with training certificates attached, when applicable, and the training log will be kept in SWPPP File Category 20.23: Contractor Personnel Training Documentation. Personnel training records, with required documentation attached and an updated training log, shall be submitted to the RE within five (5) days of completion of training.

Training information, consisting of the following items, shall be provided in the Stormwater Annual Report:

- documentation of all training for individuals responsible for all activities associated with compliance with CGP
- documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair, and
- documentation of all training for individuals responsible for overseeing, revising, and amending the SWPPP.

SECTION 400

REFERENCES, OTHER PLANS, PERMITS AND AGREEMENTS

The documents listed below are made a part of this SWPPP by reference.

- Standard Plans and Specifications, dated 2018.
- Contract Plans and Special Provisions for Contract No. 08-323034, dated 10/05/2020, prepared by Caltrans.
- SWRCB-Order No. 2009-0009-DWQ, Order No. 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (Construction General Permit), September 2009
- RWQCB Basin Plan: *Santa Ana Regional Water Quality Control Board Basin Plan*
- *Caltrans Statewide Storm Water Management Plan* (SWMP), dated July 2016
- *Caltrans SWPPP/WPCP Preparation Manual*, dated October 2016
- *Caltrans Construction Site Monitoring Program Guidance Manual*, August 2013
- US Army Corps of Engineers Section 404 Permit
- California Department of Fish and Wildlife Streambed Alteration Agreement 1600-2019-0252-R6
- California Department of Fish and Wildlife Streambed Alteration Agreement 1600-2019-0104-R6
- Santa Ana Regional Water Quality Control Board 401 Permit and Amendment (LINE K-1) 332014

Attachment F includes copies of the Caltrans Statewide Permit, the CGP, and other local, state, and federal plans and permits. A list of the other local, state, and federal plans and permits included in Attachment F is provided below.

- US Army Corps of Engineers Section 404 Permit
- California Department of Fish and Wildlife Streambed Alteration Agreement 1600-2019-0252-R6
- California Department of Fish and Wildlife Streambed Alteration Agreement 1600-2019-0104-R6
- Santa Ana Regional Water Quality Control Board 401 Permit and Amendment (LINE K-1) 332014

SECTION 500

DETERMINATION OF CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

500.1 Pollutant Sources

500.1.1 Inventory of Materials and Activities that May Pollute Stormwater

The following table contains a list of construction activities that have the potential to contribute pollutants, including sediment, to stormwater discharges. All potential pollutants, except sediment, and their locations shall be listed in this section, and, where possible, the locations shall be shown on the WPCDs from Attachment BB. Details for controlling these pollutants using soil stabilization and sediment control BMPs are discussed in Sections 500.3.1 through 500.3.5. Potential non-storm water and waste management-related discharges are further described in Sections 500.4.1 and 500.4.2, respectively.

TABLE 500.1.1 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
<input checked="" type="checkbox"/> Demolition	<input checked="" type="checkbox"/> Pavement Removal (asphalt concrete, concrete) <input type="checkbox"/> Structure Demolition/Removal over or Adjacent to Water <input type="checkbox"/> Building Demolition (Structure, HVAC, insulation) <input checked="" type="checkbox"/> Hardscape Demolition (Parking areas, curbs, gutters, sidewalks)
<input checked="" type="checkbox"/> Earthwork	<input checked="" type="checkbox"/> Clearing and Grubbing <input checked="" type="checkbox"/> Grading Activities <input checked="" type="checkbox"/> Soil Import and Export <input checked="" type="checkbox"/> Stockpiling <input checked="" type="checkbox"/> Excavation <input checked="" type="checkbox"/> Disturbance of Contaminated Soil <input checked="" type="checkbox"/> Dewatering <input type="checkbox"/> Temporary Stream Crossing <input checked="" type="checkbox"/> Drainage Construction <input type="checkbox"/> Dredging <input type="checkbox"/> Pile Driving <input checked="" type="checkbox"/> Utilities <input checked="" type="checkbox"/> Line Flushing (hydrostatic test water, pipe flushing) <input checked="" type="checkbox"/> Landscaping, Planting and Plant Maintenance, Amending of Soil and Mulching <input type="checkbox"/> Material and Equipment Use over Water
<input checked="" type="checkbox"/> Masonry, Concrete, Asphalt Work	<input checked="" type="checkbox"/> Saw Cutting (cement and brick dust, saw cut slurries) <input checked="" type="checkbox"/> Paving and Grinding

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TABLE 500.1.1 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
	<input checked="" type="checkbox"/> Concrete Placement (colored chalks) <input checked="" type="checkbox"/> Concrete Curing (curing and glazing compounds) <input checked="" type="checkbox"/> Concrete Finishing (surface cleaners) <input checked="" type="checkbox"/> Concrete Waste Management
<input type="checkbox"/> Building Construction	<input type="checkbox"/> Paint Preparation, Painting, Stenciling, and Etching <input type="checkbox"/> Material Use <input type="checkbox"/> Material Delivery and Storage <input type="checkbox"/> Adhesives (glues, resins, epoxy synthetics, caulks, sealers, putty, sealing agents and coal tars) <input type="checkbox"/> Cleaning, Polishing (metal, ceramic, tile), and Sandblasting Operations <input type="checkbox"/> Plumbing [solder (lead, tin), flux (zinc chloride), pipe fitting] <input type="checkbox"/> Framing (sawdust, particle board dust and treated woods) <input type="checkbox"/> Interior Construction (tile cutting, flashing, saw-cutting drywall, galvanized metal in nails and fences, and electric wiring)
<input checked="" type="checkbox"/> Equipment Use	<input type="checkbox"/> Vehicle and Equipment Cleaning <input checked="" type="checkbox"/> Vehicle and Equipment Fueling <input checked="" type="checkbox"/> Vehicle and Equipment Maintenance
<input checked="" type="checkbox"/> Waste Management	<input checked="" type="checkbox"/> Hazardous Waste Management <input checked="" type="checkbox"/> Solid Waste Management (litter, trash, and debris) <input type="checkbox"/> Liquid Waste Management (wash water) <input checked="" type="checkbox"/> Sanitary Septic Waste Management (portable toilets, disturbance of existing sewer lines)

The WPC Manager shall update the list of potential pollutants in accordance with onsite conditions, documenting all materials or equipment that have been received or produced onsite that are not designed to be outdoors and are potential sources of stormwater contamination.

Materials Management Plan

A list of construction materials that will be on site and have the potential to contribute pollutants, other than sediment, to stormwater runoff, which has been prepared to prevent or minimize the off-site discharge of those pollutants, are provided below.

The following stockpiles will be covered and bermed prior to likely precipitation events.

- All material and debris stockpiles (active and inactive) including those in yard and laydown areas.

The following materials will be kept off the ground or bermed and covered prior to likely precipitation events.

- All steel and metal materials as well as bagged and liquid materials.

The following materials will be properly stored according to Material Safety Data Sheet requirements.

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- All project materials will be stored in accordance with SDS requirements. SDS sheets will be submitted to the RE for all materials prior to start of work and the materials inventory will be kept current and updated.

The following dumpsters shall be covered prior to likely precipitation events.

- All project dumpsters will be covered prior to likely precipitation events.
- All refuse cans/containers will have sealed lids and be kept closed at all times.
- All temporary concrete washouts

The following areas will be inspected for leaks or spills prior to likely precipitation events.

- Portable toilets
- Secondary containment areas for stored liquids including totes for curing compounds
- All vehicle and equipment parking/storage areas

Potential pollutants shall not be stored within 50 feet of stormwater conveyance features or concentrated flow paths. In addition, authorized non-stormwater discharges shall not be made within 50 feet of potential pollutants.

500.1.2 Potential Pollutants from Site Features or Known Contaminates

Former site usage or known site contamination may contribute pollutants to stormwater discharges from the site. Based on information available for the project site, the following site usage and historical contamination has been determined:

Former Industrial Operations: Yes No

Description of Former Industrial Operations

None.

Historic Contamination: Yes No

- Aerially deposited lead
- Treated wood waste

The following contaminants are known to exist at the project site locations identified:

- Aerially deposited lead
- Treated wood waste

Implement the requirements from the Lead Compliance Plan as well as the standard specifications and special provisions for handling lead and treated wood waste.

500.1.3 Risk Level Determination

The project R Value was calculated using the EPA Erosivity Calculator for new construction projects. The State SMARTS system was used to calculate the project K and LS values and to determine the overall Risk Level based on the DSAs at each location. These computations resulted in a Risk Level 2 project. This was confirmed with the Caltrans Water Quality Planning Tool.

500.2 Pre-Construction Existing Stormwater Control Measures

The following are existing (pre-construction) control measures encountered within the project site.

- Paved roadways and shoulders
- Stormdrain inlets and conveyance systems
- Vegetation

500.3 BMP Selection for Erosion and Sediment Control

The Contractor shall control construction site erosion through the implementation of effective erosion and sediment control measures in accordance with the CGP. The Contractor and the WPC Manager shall develop a schedule that includes the sequencing of construction activities and the implementation of effective erosion control BMPs while taking local climate (rainfall, wind, etc.) into consideration, thereby reducing the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking. The SWPPP schedule shall: describe when work activities will be performed that could cause the discharge of pollutants in stormwater; describe the water pollution control practices associated with each construction phase; and identify the soil stabilization and sediment control practices for all disturbed soil areas. Effective soil cover shall be provided for:

- All project areas where DSA is active and inactive.

Additional erosion and sediment control BMPs may be required in other locations on the project site as work progresses in order to prevent sediment from leaving the construction site. These measures shall be determined by the Contractor and the WPC Manager in the field. As long as the water pollution control measures consist of additions to the BMPs already selected in the approved SWPPP, then these additional measures do not require a SWPPP amendment and the WPC Manager shall simply show the additional measures on the WPCDs. If erosion control or sediment control BMPs must be changed because of field conditions or because they are determined to be ineffective, the SWPPP must be amended. Once deemed necessary, corrective actions/design changes to the SWPPP shall be reviewed and signed by the WPC Manager, implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). Immediate corrective action is required for numeric action level (NAL) exceedances. Routine BMP maintenance or the implementation of an additional quantity of a BMP included in the SWPPP as recommended by the WPC Manager does not require an amendment to the SWPPP.

An effective combination of erosion (soil stabilization) and sediment control BMPs shall be implemented and maintained during the project. The following principles shall be followed to the maximum extent practicable to control erosion and sedimentation in disturbed areas at the site.

- Install/apply temporary cover (Hydromulch/BFM) on all DSA to prevent erosion
- Install linear sediment control on all project perimeters, slope contours and toe of slopes and install inlet protection

A more concise listing of the BMP control measures to be implemented and maintained at the project site are denoted in the BMP selection tables in the following sub-sections.

500.3.1 Temporary Run-on Control BMPs

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TABLE 500.3.1						
TEMPORARY RUN-ON CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIRE- MENT (2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
SS-1	Scheduling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-2	Preservation of Property/ Preservation of Existing Vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-9	Earth Dikes / Drainage Swales & Lined Swales	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-10	Outlet Protection / Velocity Dissipation Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-11	Slope Drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SC-4	Temporary Check Dam	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-5	Fiber Rolls	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-6	Temporary Gravel Bag Berm/Earthen Berm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-8	Temporary Sandbag Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
ALTERNATIVE BMPs USED⁽³⁾						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

Notes:

(1) The BMP designations (SS-1, SC-5, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.

(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.

(3) Use of alternative BMPs will require written approval by the RE.

Implementation of Temporary Run-on Controls BMPs

SS-1 Scheduling - The schedule shall include detail on the non-rain and rainy season implementation and deployment of: Temporary soil stabilization BMPs, Temporary sediment control BMPs, Tracking control BMPs, Wind erosion control BMPs, Non-storm water BMPs and Waste management and materials pollution control BMPs. Develop the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading,

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excavation, paving, pouring foundations, installing utilities, etc., to minimize the active construction area during the rainy season. Schedule major grading operations for the non-rainy season when practical. Monitor the weather forecast for rainfall. When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment controls and sediment treatment controls on all disturbed areas prior to the onset of rain.

SS-2 Preservation of property/preservation of existing vegetation - The contractor will stake the boundaries of all the work areas and avoid disrupting existing vegetation to the extent practical. The Contractor will instruct all site workers during weekly tailgate safety meetings on where approved areas are for the parking and storing of vehicles and equipment. Any damaged vegetation will be restored at the Contractor's expense to its pre-project condition. Construction staging, storage, and parking areas will be located on paved surfaces and outside of prohibited work areas. And, Prior to the start of construction Environmentally Sensitive Areas shall be clearly delineated (ESAs) using high visibility fencing to protect sensitive habitats.

SS-9 Earth Dikes, Drainage Swales & Lined Swales - Care must be applied to correctly size and locate earth dikes, drainage swales and lined ditches. Excessively steep, unlined dikes and swales are subject to erosion and gully formation. Conveyances shall be stabilized. Use a lined ditch for high flow velocities. Select flow velocity based on careful evaluation of the risks due to erosion of soils.

SC-4 Temporary Check Dam - The contractor will install gravel bag check dams to slow the velocity of stormwater and to block and control any run on.

SC-5 Fiber Rolls - The contractor will install temporary fiber rolls on DSA perimeters, toe of slopes and along slope contour lines, as depicted on the water pollution control drawings in Attachment BB.

SC-6 Temporary Gravel Bag Berm - Temporary gravel bag berms will be placed along sheetflow and concentrated drainage paths to control the direction of discharged stormwater.

500.3.2 Soil Stabilization (Erosion Control)

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Soil stabilization BMPs protect the soil surface by covering and/or binding soil particles. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary soil stabilization requirements, temporary soil stabilization measures required by the contract documents, and other measures selected by the Contractor.

Sufficient soil stabilization materials will be maintained on site to allow implementation in conformance with Caltrans requirements and as described in this SWPPP. This includes implementation requirements for active and non-active areas that require deployment before the onset of rain.

The following soil stabilization BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site. Temporary soil stabilization BMPs are listed by location in the WPCBMPL in Attachment CC and are shown on the WPCDs from Attachment BB. Any details for temporary soil stabilization BMPs are shown in Attachment BB.

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TABLE 500.3.2 TEMPORARY SOIL STABILIZATION BMPs						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIRE- MENT(2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
SS-1	Scheduling	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-2	Preservation of Property/ Preservation of Existing Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-3	Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-3	Temporary Hydraulic Mulch (Polymer Stabilized Fiber Matrix)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-4	Temporary Erosion Control (With Temporary Seeding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-5	Temporary Soil Stabilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-6	Temporary Erosion Control (Straw Mulch with Stabilizing Emulsion)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-7	Temporary Erosion Control Blanket (On Slope)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-7	Temporary Erosion Control Blanket (In swale or ditch)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SS-7	Temporary Cover (Geotextiles and Mats)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	

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SS-8	Temporary Mulch (Wood)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SS-9	Earth Dikes / Drainage Swales & Lined Swales	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-10	Outlet Protection/ Velocity Dissipation Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SS-11	Slope Drains	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
ALTERNATIVE BMPs USED ⁽³⁾						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

Notes:

(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.

(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.

(3) Use of alternative BMPs will require written approval by the RE.

The BMPs selected for the project are listed below along with an explanation of how they will be incorporated into the project.

SS-1 Scheduling - The schedule shall include detail on the non-rain and rainy season implementation and deployment of: Temporary soil stabilization BMPs, Temporary sediment control BMPs, Tracking control BMPs, Wind erosion control BMPs, Non-storm water BMPs and Waste management and materials pollution control BMPs. Develop the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading, excavation, paving, pouring foundations, installing utilities, etc., to minimize the active construction area during the rainy season. Schedule major grading operations for the non-rainy season when practical. Monitor the weather forecast for rainfall. When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment controls and sediment treatment controls on all disturbed areas prior to the onset of rain.

SS-2 Preservation of property/preservation of existing vegetation - The contractor will stake the boundaries of all the work areas and avoid disrupting existing vegetation to the extent practical. The Contractor will instruct all site workers during weekly tailgate safety meetings on where approved areas are for the parking and storing of vehicles and equipment. Any damaged vegetation will be restored at the Contractor's expense to its pre-project condition. Construction staging, storage, and parking areas will be located on paved surfaces and outside of prohibited work areas. And, Prior to the start of construction Environmentally Sensitive Areas shall be clearly delineated (ESAs) using high visibility fencing to protect sensitive habitats.

SS-3 Temporary Hydraulic Mulch (bonded Fiber Matrix)-Hydraulic mulch will be applied to disturbed areas requiring temporary protection until permanent vegetation is established or disturbed areas that must re-disturbed following an extended period of inactivity. Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical. Avoid mulch over-spray onto the traveled way, sidewalks, lined drainage channels, and existing vegetation.

SS-5 Soil Binder--Follow manufacturer's recommendations for application rates, pre-wetting of application area, and cleaning of equipment after use. Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where rolling is impractical. Soil binders shall not be applied during or immediately before rainfall. Follow manufacturer's recommended cure times. Reapply as needed to provide continuous cover and to touch-up disturbed areas.

SS-7 Geotextiles (temporary cover-geotextiles and mats)--In the event of unexpected rain in the forecast, the contractor will use temporary cover materials --plastic or geotextile fabrics secured in place by gravel bags or erosion control mat staples--to cover any open disturbed soil areas.

SS-9 Earth Dikes, Drainage Swales & Lined Swales - Care must be applied to correctly size and locate earth dikes, drainage swales and lined ditches. Excessively steep, unlined dikes and swales are subject to erosion and gully formation. Conveyances shall be stabilized. Use a lined ditch for high flow velocities. Select flow velocity based on careful evaluation of the risks due to erosion of soils.

500.3.3 Sediment Control

Sediment controls are structural measures that are intended to complement and enhance the selected soil stabilization (erosion control) measures and reduce sediment discharges from construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary sediment control requirements, temporary sediment control measures required by the contract documents, and other measures selected by the Contractor.

Sediment control BMPs will be installed at all appropriate locations along the site perimeter and at all operational internal inlets to storm drain systems at all times.

Throughout the duration of the project, temporary sediment control materials, equivalent to 10 percent of the materials installed on site, will be maintained on site for implementation in event of predicted rain, or the need for rapid response to failures or emergencies, in conformance with other Caltrans requirements, and as described in the SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

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The following sediment control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Temporary sediment control BMPs are listed by location in the WPCBMPL in Attachment CC and are shown on the WPCDs from Attachment BB. Any details for temporary sediment control BMPs are shown in Attachment BB.

TABLE 500.3.3						
TEMPORARY SEDIMENT CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIREMENT(2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
SC-1	Temporary Silt Fence	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-2	Temporary Sediment Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SC-3	Temporary Sediment Trap/Curb Cutback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SC-4	Temporary Check Dam	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-5	Fiber Rolls	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-6	Temporary Gravel Bag Berm/Earthen Berm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-7	Street Sweeping	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-8	Temporary Sandbag Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SC-9	Temporary Straw Bale Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SC-10	Temporary Drain Inlet Protection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-11	Compost Stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
SC-12	Flexible Sediment Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
ALTERNATIVE BMPs USED(3)						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

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Notes:

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE

The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

SC-1 Temporary Silt Fence - Temporary Silt Fence will be installed at the toe of slopes to prevent sediment from discharging from the site.

SC-4 Temporary Check Dam - The contractor will install gravel bag check dams to slow the velocity of stormwater and to block and control any run on.

SC-5 Fiber Rolls - The contractor will install temporary fiber rolls on DSA perimeters, toe of slopes and along slope contour lines, as depicted on the water pollution control drawings in Attachment BB.

SC-6 Temporary Gravel Bag Berm - Temporary gravel bag berms will be placed along sheetflow and concentrated drainage paths to control the direction of discharged stormwater.

SC-7 Street Sweeping - The contractor will use a motorized vacuum powered sweeper to keep the streets in the project area clean and free of sediment trackout. Sweeping will occur as often as needed to control sediment/trackout. Collected sweeping debris materials shall be disposed of offsite at an approved dumpsite

SC-10 Temporary Drain Inlet Protection-the contractor will implement inlet protection following the Special Provisions and Standard Specifications as well as considering the specific physical site conditions for each inlet location. During potential pollutant generating work including concrete work, inlets will be temporarily blocked with impervious material. All inlet protection will be removed at completion of work. The contractor shall maintain inlet protection BMP's and replace broken gravel bags and clean litter, debris and loose gravel. Inlets shall be checked at completion of work and any sediment or debris removed from grates and inverts.

500.3.4 Tracking Control

Tracking control BMPs are implemented to reduce sediment tracking from the construction site onto private or public roads. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary tracking control requirements, temporary tracking control measures required by the contract documents, and other measures selected by the Contractor.

The following tracking control BMP selection table indicates the BMPs that shall be implemented to reduce sediment tracking from the construction site onto private or public roads. Temporary tracking control BMPs are listed by location in the WPCBMPL in Attachment CC and shown on the WPCDs from Attachment BB. Any details for temporary tracking control BMPs are shown in Attachment BB.

TABLE 500.3.4						
TEMPORARY TRACKING CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIRE- MENT(2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	

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SC-7	Street Sweeping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-1	Temporary Construction Entrance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-2	Stabilized Construction Roadway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
TC-3	Temporary Entrance / Outlet Tire Wash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
ALTERNATIVE BMPs USED⁽³⁾						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

Notes:

(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.

(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.

(3) Use of alternative BMPs will require written approval by the RE.

The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

SC-7 Street Sweeping - The contractor will use a motorized vacuum powered sweeper to keep the streets in the project area clean and free of sediment trackout. Sweeping will occur as often as needed to control sediment/trackout. Collected sweeping debris materials shall be disposed of offsite at an approved dumpsite.

TC-1 Temporary Construction Entrance- The contractor will install construction entrances/exits at locations where paved roadways meet unpaved surfaces where equipment and vehicles travel including stockpile and staging areas.

500.3.5 Wind Erosion Control

Wind erosion control BMPs will be implemented to prevent sediment from leaving the construction site. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary wind erosion control requirements, temporary wind erosion control measures required by the contract documents, and other measures selected by the Contractor.

The following temporary wind erosion control BMP selection table indicates the BMPs that shall be implemented to reduce wind erosion at the construction site. Temporary wind erosion control BMPs are listed by location in the WPCBMPL in Attachment CC and shown on the WPCDs from Attachment BB. Any details for temporary wind erosion control BMPs are shown in Attachment BB.

TABLE 500.3.5						
TEMPORARY WIND EROSION CONTROL BMPs						
CONSTRUCTION BMP ID NO.⁽¹⁾	BMP NAME	CONTRACT MIN REQUIREMENT⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
WE-1	Wind Erosion Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	

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		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-1	Temporary Construction Entrance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-2	Stabilized Construction Roadway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
----	All Soil Stabilization Measures included in Section 500.3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
ALTERNATIVE BMPs USED⁽³⁾						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

Notes:

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE.

The following list of BMPs and narrative explain how the selected BMPs shall be incorporated into the project.

WE-1 Wind Erosion Control-apply water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Implement wind erosion control on areas where there may be construction vehicle traffic on unpaved roads and areas where work including excavation, trenching or digging will occur. Use water truck or water trailer to apply the water and do not over-soak the ground.

TC-1 Temporary Construction Entrance- The contractor will install construction entrances/exits at the stockpile and staging area to prevent sediment trackout.

500.4 BMP Selection for Construction Site Management

Construction site management shall consist of controlling potential sources of water pollution before they come in contact with stormwater systems or watercourses. The Contractor shall control material pollution and manage waste and non-stormwater discharges at the construction site by implementing effective handling, storage, use, and disposal practices.

500.4.1 Non-Stormwater Site Management

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the Caltrans Permit or authorized under a separate NPDES permit, shall be prohibited. The selection of non-stormwater BMPs is based on whether construction activities with a potential for non-stormwater discharges will be conducted, as discussed in the Materials Management Plan and in Section 500.4. This project will incorporate SWPPP/WPCP Preparation Manual minimum non-stormwater pollution control requirements, non-stormwater pollution temporary wind erosion control measures required by the contract documents, and other measures selected by the Contractor.

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The following non-stormwater control BMP selection table indicates the BMPs that shall be implemented to prevent non-stormwater discharges from construction activities conducted at the project site. Non-stormwater pollution control BMPs are listed by location in the WPCBMPL in Attachment CC and shown on the WPCDs from Attachment BB. Any details for non-stormwater pollution control BMPs are shown in Attachment BB.

TABLE 500.4.1 TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIRE- MENT (2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
NS-1	Water Control and Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-2	Dewatering(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-3	Paving, Sealing, Sawcutting, and Grinding Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-4	Temporary Stream Crossing (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-5	Clear Water Diversion (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-6	Illegal Connection and Illegal Discharge Detection Reporting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-7	Potable Water / Irrigation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-8	Vehicle and Equipment Cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	Performed offsite.
NS-9	Vehicle and Equipment Fueling	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-10	Vehicle and Equipment Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-11	Pipe Driving Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-12	Concrete Curing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-13	Material and Equipment Used Over Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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NS-14	Concrete Finishing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-15	Structure Demolition / Removal Over or Adjacent to Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
ALTERNATIVE BMPs USED⁽⁴⁾						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

Notes:

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) The BMPs listed above are incidental and do not include operations listed as separated line items in the contract.
- (4) Use of alternative BMPs will require written approval by the RE.

The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

NS-1 Water Control and Conservation - The contractor shall carefully use water during construction operations such as for sawcutting work and dust mitigation to conserve water. Direct runoff water, including water from the repair of a water line, from the job site to areas where it can infiltrate into the ground. Do not allow spilled water to escape the areas used to fill water trucks. Manage run-on to minimize contact with job site water. Obtain authorization before washing anything at the job site with water that could discharge into a storm drain system or receiving waters. Immediately report discharges.

NS-2 Dewatering - Regional Water Quality Control Board (RWQCB) Regions may require notification and approval prior to any discharge of water from construction sites. Dewatering discharges should not cause erosion at the discharge point. Appropriate BMPs should be implemented to maintain compliance with all applicable permits. Maintain dewatering records in accordance with all local and project-specific permits and regulations.

NS-3 Paving, Sealing, Sawcutting, and Grinding Operations -The contractor shall use wet vacuums to immediately pick up spoils and fines generated from the work. Temporarily block all drain inlets and protect any receiving water body, if any, prior to start of work. Remove all BMP's as soon as work is completed. Monitor work for non-stormwater visual pollutants. The contractor will install inlet blocking per the water pollution control schedule, during non-stormwater operations. Clean the inlet area prior to protection installation. Block inlets with impermeable material during concrete work as directed by the Water Pollution Control Manager to protect inlets from prohibited non-stormwater discharges. Remove in the blocking when non-stormwater operations are completed, when rain is in the forecast or at the direction of the Water Pollution Control Manager with the Resident Engineer authorization if needed.

Cover inlets prior to starting any work that could generate material that could enter the inlet and remove inlet protection at completion. Sweep the inlet area and inspect and light and remove any work related materials. Do not schedule paving, sealing, saw-cutting or grinding work when rain is in the forecast.

Do not use inlet sediment control BMP's for non-stormwater inlet blocking (Reference 13-4 standard specifications). Contractor will install and impermeable liner and plywood blocking over inlets during paving, sealing, saw-cutting and grinding work. The contractor will use a motorized vacuum powered sweeper to keep the highway in the project area clean and free of sediment trackout. Sweeping will occur as often as needed to control sediment/trackout. See WPC Drawings, Attachment A, for exact locations. The contractor will inspect ingress/egress access points daily and sweep tracked sediment as needed, or as required by the Resident Engineer (RE) or WPC Manager.

NS-6 Illegal Connection and Illegal Discharge Detection Reporting -Before starting work and daily thereafter, inspect

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the job site and its perimeter for the following evidence of illicit connections, illegal discharges, and dumping: debris or trash piles, staining or discoloration on pavement or soils, pungent odors coming from drainage systems, discoloration or an oily sheen on water, stains and residue in ditches, channels, or drain boxes, abnormal water flow during dry weather, excessive sediment deposit nonstandard drainage junction structures and broken concrete or other disturbances at or near junction structures. ---- If evidence of an illegal connection, discharge, or dumping is discovered, immediately notify the Engineer. Do not take further action unless ordered. Assume that unlabeled or unidentifiable material is hazardous.

NS-7 Potable Water/Irrigation - The contractor will inspect irrigated areas within the construction limits for excess watering. Adjust watering times and schedules to ensure that the appropriate amount of water is being used and to minimize runoff. Consider factors such as soil structure, grade, time of year, and type of plant material in determining the proper amounts of water for a specific area. Where possible, direct water from off-site sources around or through the construction site in a way that minimizes contact with the construction site. When possible, discharges from water line flushing shall be reused for landscaping purposes. Shut off the water source to broken lines, sprinklers, or valves as soon as possible to prevent excess water flow. Protect downstream storm water drainage systems and watercourses from water pumped or bailed from trenches excavated to repair water lines. Repair brokken water lines as soon as possible or as directed by the RE. Inspect irrigated areas regularly for signs of erosion and/or discharge.

NS-9 Vehicle and Equipment Fueling - If fueling must be performed at the job site, obtain authorization for an assigned area or areas for these activities before using them. Minimize mobile fueling activities. Perform fueling activities on level ground in areas protected from stormwater run-on and runoff. Fueling nozzles must be equipped with (1) an automatic shutoff control and (2) vapor recovery where required by the Air Quality Management District. Secure nozzles in an upright position when not in use. Do not top off fuel tanks. Use containment berms or dikes around fueling areas. Keep enough absorbents and spill kits in the fueling area and on fueling trucks to handle potential spills. Dispose of spill-cleanup material and kits immediately after use. Use drip pans or absorbent pads during fueling.

NS-10 Vehicle and Equipment Maintenance - Perform maintenance offsite to the extent possible. Obtain authorization for a designed area if maintenance must be performed on-site. Maintenance should be located on level ground at least 50 feet away from drainage intlets or drainage flow lines, curbs, gutters, culverts and swales. Do not leave maintenance areas unattended during maintenance activities. Recycle or properly dispose of used batteries and tires. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site. Use containment berms or dikes around maintenance areas. Have spill kits ready for use in the maintenance area. Absorbent pads and drip pans shall be available.

500.4.2 Waste Management and Materials Pollution Control

An inventory of construction activities, materials, and wastes is provided in Section 500.1.1. The following BMP consideration checklist lists the BMPs that have been selected to control construction site wastes and materials. Locations and details of applicable materials handling and waste management BMPs are shown on the WPCDs from Attachment BB. In the narrative description, a list of waste disposal facilities and the type of waste to be disposed at each facility is also provided. The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

TABLE 500.4.2						
TEMPORARY WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIREMENT(2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
WM-1	Material Delivery and Storage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	

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WM-2	Material Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-3	Stockpile Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-4	Spill Prevention and Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-5	Solid Waste Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-6	Hazardous Waste Management (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-7	Contaminated Soil Management (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-8	Concrete Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-8	Temporary Concrete Washout (Portable)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-8	Temporary Concrete Washout Facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
WM-9	Sanitary/Septic Waste Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-10	Liquid Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
ALTERNATIVE BMPs USED⁽⁴⁾						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

Notes:

(1)The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.

(2)Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.

(3)The BMPs listed above are incidental and do not include operations listed as separated line items in the contract.

(4)Use of alternative BMPs will require written approval by the RE.

WM-1 Material Delivery and Storage - Store materials in their original containers with the original labels maintained in legible condition. Immediately replace damaged or illegible labels. Comply with section 14-11.03 for the storage of liquidsm oetroleum materials, and substances listede in 40 CFR 110, 117 and 302. Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during non-working days and whenever precipitation is forecasted.

WM-2 Material Use - Material Safety Data Seets (MSDS) shall be supplied to the resident Engineer (RE) for all

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materials. Do not remove the original product label, it contains important safety and disposal information. Use the entire product before disposing of the container. Use recycled and less hazardous products when practical. Recycle residual paints, solvents, non-treated lumber, and other materials. Use materials only where and when needed to complete the construction activity. Use safer alternative materials as much as possible. Reduce or eliminate use of hazardous materials on-site when practical. Keep an ample supply of spill clean up material near use areas. Train employees in spill clean up procedures. Avoid exposing applied materials to rainfall and runoff unless sufficient time has been allowed for them to dry. Spot check employees and subcontractors monthly throughout the job to ensure appropriate practices are being employed.

WM-3 Stockpile Management - Minimize stockpiling of materials at the job site. Do not allow soil, sediment, or other debris from stockpiles to enter stormdrains, open drainages or watercourses. Manage stockpiles by implementing WPC practices (cover and place perimeter fiber roll) prior to rain and when inactive.

Cover stockpiles of concrete and asphalt concrete rubble, HMA, AB or AS with a temporary cover and surround them with a linear sediment barrier. Place stockpiles of pressure-treated wood on pallets and cover them with an impermeable material. Place stockpiles of cold mix asphalt concrete on an impervious surface and cover them with an impermeable material. Protect the stockpile from stormwater run-on and runoff. Repair or replace linear sediment barriers and covers as needed to keep them functioning properly. If sediment accumulates to 1/3 of the linear sediment barrier's height, remove the accumulated sediment.

WM-4 Spill Prevention and Control - Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored. Implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site. If you spill or your equipment or materials leak chemicals or hazardous substances at the job site, you are responsible for all associated cleanup costs and related liability. Prevent spills from entering stormwater runoff before and during cleanup activities. Do not bury the spill or wash it with water. Immediately report spills to the WPC manager. As soon as it is safe, contain and clean up spills of petroleum and sanitary and septic waste substances listed in 40 CFR, parts 110, 117 and 302. Comply with section 14-11 for a spill or leak that produces hazardous waste. Minor Spills: Clean up a minor spill as follows. 1. Contain the spread of the spill. 2 Recover the spilled material using absorbents. 3. Clean the contaminated area. 4. Promptly dispose of the contaminated material and absorbents. Semisignificant Spills: Immediately clean up a semisignificant spill as follows: 1. Contain the spread of the spill. 2. On a paved or other impervious surface, encircle and recover the spilled material with absorbents. 3. On soil, construct an earthen dike and dig up the contaminated soil for disposal. 4. During precipitation, cover the spill with 10-mil plastic sheeting or other material to prevent contamination of the runoff. 5. Promptly dispose of the contaminated material and absorbents. Significant or Hazardous Spills: Immediately notify the Engineer and qualified personnel of a significant or hazardous spill. Handle the spill as follows: 1. Do not attempt to clean up the spill until qualified personnel have arrived. 2. Obtain the immediate services of a spill contractor or hazardous material team. 3. Notify local emergency response teams by dialing 911 and county officials by using the emergency phone numbers retained at the job site. 4. Notify the California State Warning Center at (800) 852-7550. 5. Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under 40 CFR 110, 117, and 302. 6. Notify other agencies as appropriate, including 6.1. Fire department 6.2. Public works department 6.3. US Coast Guard 6.4. California Highway Patrol 6.5. City Police or county sheriff's department 6.6. DTSC 6.7 Department of Conservation, Division of Oil, Gas and Geothermal Resources 6.8. Cal/OSHA 6.9. RWQCB.

WM-5 Solid Waste Management- Dispose of or recycled solid waste from the job site. Do not allow litter, trash, or debris to accumulate anywhere on the site, including storm grates, trash racks, and ditch lines. Pick up and remove litter, trash and debris from the job site at least once a week. The WPC manager will monitor solid waste storage and disposal procedures. If practicable, recycle nonhazardous waste and excess material. If recycling is not practicable, dispose of the material. Furnish enough closed-lid dumpsters of sufficient size to contain the solid waste generated by work activities. When waste reaches the fill line, empty the dumpsters. Dumpsters must be watertight. Do not wash out dumpsters at the job site. Furnish additional containers and more frequent pickup during the demolition phase of construction. Solid waste includes: 1. Brick 2. Mortar 3. Timber 4. Metal Scraps 5. Sawdust 6. Pipe 7. Electrical cuttings 8. Nonhazardous equipment parts 9. Styrofoam and other packaging materials 10. Vegetative material and plant containers from highway planting 11. Litter and smoking material, including litter generated by the public 12. Other trash and debris. Furnish

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and use trash containers in the job-site yard, field trailers, and locations where workers gather for lunch and breaks. Trash containers must be water-tight and covered at end of each shift and prior to rain events.

WM-6 Hazardous Waste Management - If hazardous waste is or will be generated on the job site, the WPC manager must be knowledgeable of proper handling and emergency procedures for hazardous waste under 40 CFR 262.34(d)(5)(iii) and must have successfully completed training under 22 CA Code of Regs § 66265.16. The WPC manager must:

1. Oversee and enforce hazardous waste management practices
2. Inspect hazardous waste storage areas daily, including temporary containment facilities and satellite collection locations
3. Oversee hazardous waste transportation activities on the job site. Handle, store, and dispose of hazardous waste under 22 CA Code of Regs Div 4.5. Use the following storage procedures:
 1. Store hazardous waste and potentially hazardous waste separately from nonhazardous waste at the job site.
 2. Store hazardous waste using metal containers approved by the US Department of Transportation for the transportation and temporary storage of hazardous waste.
 3. Store hazardous waste in sealed, covered containers labeled with the contents and accumulation state date under 22 CA Code of Regs Div 4.5. Labels must comply with the provisions of 22 CA Code of Regs Div 4.5. § 66262.31 and §66262.32. Immediately replace damaged or illegible labels.
 4. Handle the containers such that no hazardous waste is spilled.
 5. Store hazardous waste away from storm drains, watercourses, moving vehicles, and equipment.
 6. Furnish containers with enough storage volume at convenient satellite locations for collections of hazardous waste. When full or no longer needed, immediately move the containers to secure temporary containment facilities.
 7. Store hazardous waste and potentially hazardous waste in secure, temporary containment enclosures within secondary containment facilities. The secondary containment facilities must be impervious to the stored materials for a minimum contact time of 72 hours. Locate the temporary enclosures away from public access. Acceptable secure enclosures include a locked, chain-link-fenced area or a lockable shipping container located on the job site until disposal as authorized.
 8. Design and construct secondary containment facilities with the capacity to contain the greater of:
 - 8.1 Precipitation from a 24-hour-long, 25-year storm and 10 percent of the aggregate volume of all containers.
 - 8.2 Entire volume of the largest container within the facility.
 9. Cover secondary containment facilities during non-working days and if a storm event is predicted. Secondary containment facilities must be adequately ventilated.
 10. Keep secondary containment facilities free of accumulated rainwater or spills. After a storm event or a spill or leak, collect the accumulated liquid and place it into storage drums within 24 hours. Handle these liquids as hazardous waste unless testing determines them to be nonhazardous.
 11. Do not store incompatible wastes such as chlorine and ammonia in the same secondary containment facility.
 12. Provide enough separation between storage containers to allow for cleanup of spills or emergency-response access. Keep storage areas clean, organized, and equipped with supplies appropriate for cleaning up the hazardous wastes being stored.
 13. Inspect storage areas at least daily and before and after a storm event.
 14. Repair or replace perimeter controls, containment structures, covers and liners as needed.
- Do not:
 1. Overfill storage containers.
 2. Spill hazardous waste or potentially hazardous waste.
 3. Mix hazardous wastes.
 4. Allow hazardous waste or potentially hazardous waste to accumulate on the ground.

Dispose of hazardous waste within 90 days of the start of generation. Use a hazardous waste manifest and a transporter registered with the DTSC to transport the waste to an appropriately-permitted hazardous waste facility. The transporter must have completed the California Highway Patrol's Biennial Inspection of Terminals Program.

WM-7 Contaminated Soil Management- Materials from areas designated as containing (ADL) may, if allowed by the contract special provisions, be excavated, transported, and used in the construction of embankments and/or backfill. Excavation, transportation, and placement operations shall result in no visible dust. Use caution to prevent spillage of lead containing material during transport. If temporary stockpiling is necessary: (1) Cover the stockpile with plastic sheeting or tarps; (2) Install a berm around the stockpile to prevent runoff from leaving the area; (3) Do not stockpile in or near storm drains or watercourses.

WM-8 Concrete Waste Management- the contractor will prevent the discharge of concrete and asphalt concrete waste into storm drain systems and receiving waters. Collect concrete waste, including grout, dust and debris from demolition, saw cutting, coring, grinding, or grooving, simultaneously with the waste-producing activity. Residue from saw cutting, coring and grinding operations shall be picked up by means of a vacuum device. Perform washout of concrete mixers, delivery trucks, and other delivery systems in designated areas only. Residue shall not be allowed to flow across the pavement and shall not be left on the surface of the pavement. Place concrete waste materials in the concrete washout bins. Clean-up any spills immediately. Protect drain inlets and water bodies prior to any concrete work.

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WM-8 Temporary Concrete Washout (Portable) - The contractor shall notify its crews, subcontractors and concrete truck drivers to use the on-site concrete washouts and let them know where they are located. A sign shall be installed adjacent to each temporary concrete washout to inform concrete equipment operators to utilize them. A foreman and/or construction supervisor shall monitor on-site concrete working tasks, such as saw cutting, coring, grinding, and grooving to ensure proper methods are implemented. Locate washouts at least 50 feet from any storm drain inlets, open drainage facilities, and watercourses. Temporary concrete washouts shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations. Wash concrete only from mixer chutes into approved concrete washouts. Do not transport full washouts until all materials inside are solidified. Empty washouts when 75 percent full. Cover washouts at end of work day and prior to rain events.

WM-9 Sanitary/Septic Waste Management - Do not bury or discharge wastewater from a sanitary or septic system within the highway. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. Locate portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Comply with local health agency regulations if using an on-site disposal system. Portable facilities shall be placed inside secondary containment pans. Inspect for leaks daily. Secure portable facilities from tipping over when strong winds are in the weather forecast.

WM-10 Liquid Waste Management - The contractor will prevent job-site liquid waste from entering storm drain systems and receiving waters. Liquid wastes include: 1. Drilling slurries or fluids. 2. Grease- and oil-free wastewater and rinsewater. 3. Dredgings, including liquid waste from cleaning drainage systems. 4. Liquid waste running off a surface, including wash and rinse water. 5. Other non-stormwater liquids not covered by separate permits. Store liquid waste in structurally sound, leak-proof containers, such as roll-off bins or portable tanks. Provide enough liquid waste containers with enough volume to prevent overflow, spills, and leaks. Store containers at least 50 feet from moving vehicles and equipment. Remove and dispose of deposited solids from sediment traps under section 14-10 unless another method is authorized. Liquid waste may require testing to determine hazardous material content before disposal. Dispose of drilling fluids and residue. If an authorized location is available within the job site, fluids and residue exempt under 23 CA Code of Regs § 2511 (g) may be dried by evaporation in a leak-proof container. Dispose of the remaining solid waste under section 14-10.

500.5 Water Pollution Control Drawings

The WPCDs are the component of the project SWPPP that show the BMPs, by project phase/stage, that are necessary for the project to be in compliance with the CGP. The construction activity phases used in this SWPPP are the preliminary phase, grading phase, highway construction phase, and the highway planting / erosion control establishment phase. These phases are defined below.

Preliminary Phase (Pre-Construction Phase – Part of the Grading Phase)

Includes rough grading/or disking, clearing and grubbing operations, or any soil disturbance prior to mass grading.

Grading Phase

Includes reconfiguring the topography for the highway, including excavation for roadway (e.g., necessary blasting of hard rock), highway embankment construction (fills); mass grading, and stockpiling of select material for capping operations.

Highway Construction Phase

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Encompasses both highway and structure construction. Highway construction includes final roadway excavation, placement of base materials and highway paving, finish grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm drain systems and/or other drainage improvements, highway lighting, traffic signals and/or other highway electrical work, guardrail, concrete barriers, sign installation, pavement markers, traffic striping and pavement markings. Structure construction includes structure footings, bridges, retaining walls, major culverts, overhead sign structures and buildings.

Highway Planting / Erosion Control Establishment Phase

Includes clearing and grubbing operations, soil preparation (grading, incorporation of soil amendments, and placement of topsoil), irrigation (trenching, installation and trench backfilling), minor grading (top dressing and fine grading of lawn and ground cover areas), planting (seeding and planting of vegetation), mulching (application of wood chips or other mulches) and plant establishment (weeding, plant replacement, and, if needed, fertilizer application, irrigation maintenance, and reapplication of mulch). Erosion control includes placement of permanent erosion control materials and maintenance of temporary sediment controls during the erosion control establishment period.

The WPCDs provide field staff with the information on where to install BMPs so that they are effective. The WPCDs, WPCBML and Water Pollution Control Schedule provide the necessary tools for a Contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCD cover sheet(s) shall include a listing of the BMPs that will be used along with the associated BMP symbols used on the WPCDs.

WPCDs are provided for all areas that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within the Caltrans rights-of-way

The WPCDs shall show the construction project site in detail, including:

- the construction site perimeter;
- geographic features within or immediately adjacent to the site; include surface waters such as lakes, streams, springs, wetlands, estuaries, ponds, and the ocean;
- site topography before and after construction; include roads, paved areas, buildings, slopes, drainage facilities, and areas of known or suspected contamination; and
- permanent (post-construction) BMPs.

The WPCDs shall show the following site information:

- discharge points from the project to off-site storm drain systems or receiving waters;
- tributary areas and drainage patterns across the project area (show using flow arrows) into each on-site stormwater inlet or receiving water;
- tributary areas and drainage patterns to each on-site stormwater inlet, receiving water or discharge point;
- off-site tributary drainage areas that generate run-on to the project;
- temporary on-site drainage(s) to carry concentrated flows;
- drainage patterns and slopes anticipated after major grading activities are completed;

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- outlines of all areas of existing vegetation, soil cover, or native vegetation that will remain undisturbed during the project;
- outlines of all areas of planned soil disturbance (disturbed soil areas, DSAs);
- known location(s) of contaminated or hazardous soils; and
- any potential non-stormwater discharges and activities, such as dewatering operations, concrete saw-cutting or coring, pressure washing, waterline flushing, diversions, cofferdams, and vehicle and equipment cleaning; if operations can't be located on the WPCDs, a narrative description should be provided.

The WPCDs show proposed locations of all construction site BMPs. Additional detail drawings are provided if necessary to convey site-specific BMP configurations. The WPCDs shall show construction site BMPs including the following:

- temporary soil stabilization and temporary sediment control BMPs that will be used during construction; any temporary on-site drainage(s) to carry concentrated flows, BMPs implemented to divert off-site drainage around or through the construction site, and BMPs that protect stormwater inlets;
- construction entrances used for site ingress and egress points and any proposed temporary construction roads;
- BMPs to mitigate or eliminate non-stormwater discharges;
- BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal; and
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning.

The WPCDs can be found in Attachment BB of the SWPPP.

500.6 Water Pollution Control BMP List

The Water Pollution Control Best Management Practices List (WPCBMPL) provides, by location and project phase/stage, the BMPs necessary for the project to be in compliance with the CGP. The WPCBMPL provides field staff both with a list of necessary BMPs and with an estimated quantity for each BMP by location and phase/stage of the project. The construction activity phases are typically the Preliminary Phase, Grading Phase, Highway Construction Phase, and the Highway Planting / Erosion Control Establishment Phase. The construction activity phases are defined in Section 500.5.

The WPCBMPL, water pollution control drawings and water pollution control schedule provide the tools necessary for the Contractor to plan and implement BMPs to meet the requirements of the project SWPPP. The BMPs listed on the WPCBMPL are the base line for site inspections and visual monitoring.

The WPCBMPL cover sheet includes a list of all BMPs to be used on the project based on Section 500 Determination of Construction Site Best Management Practices.

The names and number of locations listed on the WPCBMPL were established so that field staff and inspectors can easily identify where BMPs need to be located. The WPCBMPL includes all locations that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within Caltrans rights-of-way.

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Necessary additional information to convey site-specific BMP configurations or BMP modifications are noted on the WPCBMPL.

All construction site BMPs are listed on the WPCBMPL including the following:

- temporary soil stabilization and temporary sediment control BMPs that will be used during construction; include temporary on-site drainage(s) to carry concentrated flows
- BMPs implemented to divert off-site drainage around or through the construction site, and BMPs that protect stormwater inlets
- BMPs to mitigate or eliminate non-stormwater dischargesBMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning
- permanent BMPs that are a component of the project SWPPP

The WPCBMPL can be found in Attachment CC of the SWPPP.

500.7 Water Pollution Control Schedule

The WPCS shall be updated quarterly and the quarterly updates shall be filed in SWPPP File Category 20.03: Water Pollution Control Schedule Updates.

The Water Pollution Control Schedule can be found in Attachment DD of the SWPPP. The WPCS shall identify when BMPs will be installed so that the project is in compliance with the CGP. The WPCS provides field staff with the information necessary to plan for adequate materials and crews to install BMPs at the right time so that they are effective. The WPCS, WPCBMPL, and WPCDs provide the necessary tools for the Contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCS shall contain an adequate level of detail to show major activities sequenced with the implementation of construction site BMPs, including:

- project start and finish dates, including each stage of the project
- SWPPP review and approval
- annual certifications
- mobilization dates
- mass clearing and grubbing/roadside clearing dates
- major grading/excavation dates
- dates named in other permits such as TRPA, Fish and Game and Army Corps of Engineers Permits
- dates for submittal of SWPPP amendments as required in the contract specifications

The WPCS shall show by location the dates for the deployment of:

- temporary soil stabilization BMPs
- temporary sediment control BMPs

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- wind erosion control BMPs
- tracking control BMPs
- non-stormwater BMPs
- waste management and materials pollution control BMPs

The WPCS shall include:

- paving, saw-cutting, and any other pavement-related operations;
- major planned stockpiling operations;
- dates for other significant long-term operations or activities that may cause non-stormwater discharges, such as dewatering, grinding, etc; and
- final stabilization activities for each disturbed soil area of the project.

Winterization Plan

The SWPPP requires an annual winterization plan which must describe the preparation for the upcoming rainy season including:

1. Updated schedule
2. Materials and labor
3. Management of stormwater through the job site including:
 - 3.1. Run-on
 - 3.2. Run-off
 - 3.3. Conveyance downslope
4. Management of areas within the job site including:
 - 4.1. Areas where work is suspended
 - 4.2. Areas of soil stabilization
 - 4.3. New disturbed soil areas
5. Changes to monitoring locations
6. Slope stabilization

The WPCS shall be updated quarterly and the quarterly updates shall be filed in SWPPP File Category 20.03: Water Pollution Control Schedule Updates.

The Water Pollution Control Schedule can be found in Attachment DD of the SWPPP.

SECTION 600

PROJECT SITE IMPLEMENTATION PROGRAM

600.1 Water Pollution Control (WPC) Manager Responsibilities

The WPC Manager shall have primary responsibility and authority to implement the SWPPP and ensure the project is in compliance with the CGP. The WPC Manager is responsible for implementing the SWPPP and amending the SWPPP when any of the conditions specified in Section 100.3 are met. The Contractor has assigned authority to the WPC Manager to mobilize crews and subcontractors, as necessary, for SWPPP and CGP compliance. The WPC Manager will be available at all times throughout duration of the project.

Duties of the Contractor's WPC Manager include but are not limited to the following

- ensuring full compliance with the SWPPP and the CGP
- implementing all elements of the SWPPP, including but not limited to implementing:
 - prompt and effective erosion and sediment control measures
 - all non-stormwater management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); performing general site cleanup; cleaning vehicles and equipment, performing fueling and maintenance activities; providing spill control; ensuring that no materials other than stormwater are discharged in quantities that will have an adverse effect on receiving waters or storm drain systems, etc.
- overseeing and ensuring that the following site inspections and visual site monitoring are conducted:
 - daily required BMP inspections
 - weekly routine stormwater site BMP inspections
 - quarterly non-stormwater site inspections
 - pre-storm inspections prior to forecasted storm events
 - daily inspections during extended forecasted storm events
 - post-storm inspections for qualifying rain events
- mobilizing crews to repair, replace, and/or implement additional BMPs due to deficiencies, failures or other shortcomings identified during inspections, to be completed within 24 hours of identification in compliance with Standard Specification 13-1.03A (the contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews), unless a longer period is authorized.
- coordinating with the RE to assure that if design changes to BMPs are required due to deficiencies, failures or other shortcomings identified during inspections, the changes are completed as soon as possible and the SWPPP is revised accordingly
- monitoring NWS Forecast Office forecasts for both forecasted storm events and qualifying rain events; these events are defined as follows:
 - forecasted storm event is defined as a 50% or greater likelihood that 0.10 inch or more of precipitation will fall within a 24-hour period

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- a qualifying rain event is defined as a rain event that may produce or has produced ½ inch or greater of precipitation at the time of discharge, with a 48-hour dry period between events
- monitoring weather at the project site
- preparing and implementing qualifying rain event sampling and analysis plans
- preparing and implementing Rain Event Action Plans for forecasted storm events
- mobilizing crews immediately, in the event of NAL exceedances, to repair existing BMPs and/or implement additional BMPs (the Contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews),
- coordinating with the RE in the event of NAL exceedances to assure that any SWPPP revisions (corrective actions) are made immediately, either to prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs, so that the project complies with the SWPPP, the CGP and approved plans at all times,
- submitting NAL exceedances reports to the RE
- submitting test results for stormwater samples to the RE
- preparing amendments to the SWPPP when required
- preparing contractor's SWPPP Annual Compliance Certification
- preparing the Stormwater Annual Reports
- ensuring elimination of all unauthorized discharges
- preparing and submitting Notice of Discharge reports to the RE
- preparing and submitting reports of illegal connections or illicit discharges to the RE

600.2 Site Inspections

Stormwater site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the CGP. Project site visual monitoring requirements are covered in Section 700 Construction Site Monitoring Program. Project site inspections of stormwater BMPs are conducted to identify and record:

- that BMPs are properly installed
- what BMPs need maintenance to operate effectively
- what BMPs have failed
- what BMPs could fail to operate as intended.

Routine stormwater site inspections shall be conducted by the contractor's WPC Manager or other 24-hour trained staff at the following minimum frequencies:

- daily inspections of:
 - storage areas for hazardous materials and waste
 - hazardous waste disposal and transporting activities

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- hazardous material delivery and storage activities
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use.
- demolition sites within 50 feet of storm drain systems and receiving waters
- pile driving areas for leaks and spills if pile driving occurs daily
- temporary concrete washouts if concrete work occurs daily
- paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily
- dewatering work if dewatering work occurs daily
- temporary active treatment system if temporary active treatment system activities occur daily
- work over water if work over water occurs daily
- daily inspections for projects within the Lake Tahoe Hydrologic Unit
- daily inspections of access roadways
- weekly inspection of site BMPs

Stormwater site inspections shall be documented on CEM-2030 Stormwater Site Inspection Report, in Appendix G. Completed stormwater inspection reports shall be submitted to the RE within 24 hours after completion of the inspection. Copies of completed inspection reports will be kept in SWPPP File Category 20.31: Contractor Stormwater Site Inspection Reports,

Deficiencies identified during site inspections and correction of deficiencies will be tracked on the CEM-2035 Stormwater Corrective Actions Summary, in Appendix I. Corrective Action Summary forms shall be submitted to the RE when corrections are completed but must be submitted within five (5) days after completion of the site inspection. Completed Stormwater Site Inspection Report Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding Stormwater Site Inspection Report that generated the need for the CEM-2035 Stormwater Corrective Actions Summary

600.3 Weather Forecast Monitoring

The WPC Manager shall have primary responsibility to monitor the National Weather Service Forecast Office for forecasted precipitation based on project site location. Precipitation forecast information shall be obtained from the National Weather Service Forecast Office accessible at: <http://www.srh.noaa.gov/>.

The project site location to be used for obtaining forecast from National Weather Forecast Office website is:

Moreno Valley, CA

Project's latitude/longitude for NWS Station :

33.93932; -117.17864

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The WPC Manager shall monitor the weather forecast on a daily basis for predicted precipitation within the following 96 hours. The WPC Manager shall monitor the forecast for the next 24, 48, 72 and 96 hours to determine if the forecast for precipitation is 50 percent or greater for any 6-hour period. If the forecast for precipitation is 50 percent or greater, the WPC Manager shall calculate the amount of precipitation forecasted for each 24-hour period and the total precipitation for the forecasted storm event and record the information. Weather forecast monitoring shall be recorded be filed in File Category 20.40: Weather Monitoring Logs.

When the forecast for precipitation is 50 percent or greater and the forecasted amount of precipitation is 0.10 inch or more for any 24-hour period within the next 48 hours, the WPC Manager shall perform a pre-storm site inspection and ensure that the site is prepared for the likely forecasted storm event. For Risk Level 2 and 3 the WPC Manager will prepare a Rain Event Action Plan for forecasted storm events.

Forecasted storm event site preparation shall include, but is not limited to, the installation of soil stabilization and sediment BMPs on active disturbed soil areas and stockpiles.

600.4 Weather Monitoring

The WPC Manager shall have primary responsibility to monitor weather at the project site. The WPC Manager, on a daily basis, shall monitor the weather and record the weather conditions.

When there is precipitation, the WPC Manager shall ensure that storm precipitation data is obtained from the project site rain gauge. Precipitation monitoring will include recording the time, amount of precipitation measured in the project site rain gauge, amount of precipitation within a 24-hour period, and total cumulative amount of precipitation for the forecasted storm event.

If no pre-storm visual site monitoring was performed, and the amount of precipitation for any 24-hour period is 0.10 inch or greater, the WPC Manager will implement during storm visual site monitoring, as discussed in Section 700.1.

When a forecasted storm event was not forecasted to be a qualifying rain event, but the measured cumulative amount of precipitation for the storm event and the expected severity of the continuing storm event results in ½ inch or more of precipitation, the WPC Manager will prepare to sample.

Weather monitoring will be conducted daily. Weather monitoring documentation shall be kept in File Category 20.40: Weather Monitoring Logs.

600.5 Best Management Practices Status Report

The WPC Manager shall prepare a monthly status report of the water pollution control BMPs (site BMPs) installed on the project site. The monthly BMP status report will be based on the progress of the work and the WPCBMPL for the project, with any additional BMPs the WPC Manager has determined are necessary based on the stage of construction and construction activities.

Because the SWPPP, including the WPCBMPL and WPCDs, are based on the entire project site and all construction activities, the monthly BMP status report should be a “snapshot” of which BMPs are deployed on the project site, so a project inspector or reviewer can easily determine what could be expected to be seen on the project site that month. The monthly status report will be used by stormwater inspectors and contractor personnel to ensure SWPPP compliance.

The weekly status report will be used to ensure that weekly training meetings cover BMPs that are required for work activities during the week. The weekly status report will be provided to regulatory agency staff who visit the project site to indicate which BMPs should be in place and which are scheduled to be implemented during the coming week.

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The monthly status of stormwater BMPs will be documented on CEM-2034 Stormwater Best Management Practices and Materials Inventory Report form, in Appendix H. Completed monthly status reports shall be submitted to the RE 48 hours prior to the beginning of the work week. Copies of the completed reports will be kept in SWPPP File Category 20.34: Monthly Best Management Practices and Materials Inventory Reports.

600.6 Rain Event Action Plans (REAP)

REAPs will be prepared by the WPC Manager when there is a forecasted storm event. A forecasted storm event is any weather pattern that is forecasted to have a 50 percent or greater probability of producing precipitation of 0.10 inch or more within any 24-hour period at the project site location. The WPC Manager will prepare the REAP for the forecasted storm event based on the current construction activity phase of the project. For REAPs, the construction activity phases are the Highway Construction Phase, Highway Planting / Erosion Control Establishment Phase or Inactive Project Phase. The construction activity phases are defined in Section 500.5.

When the NWS forecast for 72 hours and greater predicts a forecasted storm event, the WPC Manager will prepare a REAP using the REAP form appropriate to the current project stage. REAP forms are available in Appendix L. Prepared REAPs shall be submitted to the RE at least 48 hours prior to a forecasted storm event. If the NWS forecast changes and a storm event is forecasted to occur within 24-72 hours then a REAP must be prepared. If the NWS forecast changes and a storm event is forecasted to occur within the next 24 hours a REAP will not be prepared and the WPC Manager will take immediate actions to ready the project site for the forecasted storm event.

The WPC Manager shall implement a REAP within the 48 hours prior to the forecasted storm event. A copy of the REAP shall be available on the job site at least 48 hours prior to the forecasted storm event. Copies of REAPs will be maintained in SWPPP File Category 20.45: Rain Event Action Plans in reverse chronologic order.

SECTION 700

CONSTRUCTION SITE MONITORING PROGRAM

700.1 Site Visual Monitoring Inspection

This Construction Site Monitoring Program includes conducting site visual monitoring inspections of the project site to address the following objectives:

- determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives
- determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges
- determine whether BMPs included in the REAP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges
- demonstrate that the site is in compliance with the discharge prohibitions and applicable NALs and Receiving Water Monitor Triggers of the CGP
- determine whether immediate corrective actions, additional BMP implementation, or SWPPP amendments are necessary to reduce pollutants in stormwater and authorized non-stormwater discharges
- demonstrate that the site is in compliance with the discharge prohibitions
- document the presence or evidence of any non-stormwater discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source, if applicable, and the response taken to eliminate unauthorized non-stormwater discharges and to reduce or prevent pollutants from contacting non-stormwater discharges

700.1.1 Visual Monitoring Locations

Locations of Visual Monitoring Prior To A Storm Event

Visual monitoring (a pre-storm inspection) of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, 72, 96 hours, and the amount of precipitation forecasted for any 24-hour period is 0.10 inch or greater. Within 48 hours of a forecasted storm event, a stormwater visual monitoring site inspection shall be performed and shall include observations of:

- stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources
- BMPs to identify whether they have been properly implemented
- any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard

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4 drainage area(s) on the project site and the Contractor’s yard, staging areas, and storage areas have been identified as required forecasted storm event visual observation location(s), according to Section I.3.e of Attachments C, D, and E of the CGP. Drainage area(s) are shown on the WPCDs in Attachment BB and are listed by drainage area location number and location description in Table 700.1.1.1: Drainage Areas.

TABLE 700.1.1.1 DRAINAGE AREAS	
Drainage Area No.	Location
1	NW QUADRANT OF INTERCHANGE
2	NE QUADRANT OF INTERCHANGE
3	SW QUADRANT OF INTERCHANGE
4	SE QUADRANT OF INTERCHANGE

0 stormwater storage or containment area(s) are located on the project site. These stormwater storage and containment area(s) have been identified as required forecasted storm event visual observation location(s). Stormwater storage or containment area(s) are shown on the WPCDs from Attachment BB and are listed by storage or containment area location number and location description in Table 700.1.1.2: Stormwater Storage and Containment Areas.

TABLE 700.1.1.2 STORMWATER STORAGE AND CONTAINMENT AREAS	
Location No.	Location
NONE	

Locations of Visual Monitoring during Extended Forecasted Storm Events and within 48 Hours After a Qualifying Rain Event

During any extended forecasted storm events and within 48 hours after a qualifying rain event (a rain event that has produced ½ inch or more of precipitation), a stormwater visual monitoring site inspection is required to observe:

- stormwater discharges at all discharge locations
- BMPs to identify and record those that need maintenance to operate effectively, those that have failed, and those that could fail to operate as intended
- the discharge of stored or contained stormwater

8 discharge location(s) are located on the project site. These stormwater discharge location(s) have been identified as required visual observation location(s). Stormwater discharge location(s) are shown on the WPCDs in Attachment BB and are listed in Table 700.1.1.3: Stormwater Discharge Locations.

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**TABLE 700.1.1.3
 STORMWATER DISCHARGE LOCATIONS**

Unique Sampling Location Identifier	Location	
001DL01	Concrete V-ditch North of Route 60, STA 991+20	33.939100; -117.18448
002DL02	DI along D-Line @ STA 1001+10	33.93892; -117.180210
003DL03	DI NWC Moreno Beach Drive/Eucalyptus Av	33.937489; -117.178889
004DL04	DI South side Route 60 STA 1016+00	33.939129; -117.175646
005DL05	Infiltration basin bottom in the Southeast gore area	33.939727; -117.177765
006DL06	Concrete ditch/DI on slope Northwest quadrant	33.94085; -117.179070
007DL07	Earth swale East side Moreno Beach Drive STA 50+10	33.94128; -117.178240
008DL08	Splash wall North side Route 60 @ STA 1031+70	33.939442; -117.170161

BMP locations shown on the WPCDs in Attachment BB and are listed on the WPCBMPL in Attachment CC.

0 stormwater storage or containment area(s) are located on the project site. Stormwater storage or containment area(s) are shown on the WPCDs in Attachment BB and are listed on Table 700.1.1.2: Stormwater Storage and Containment Areas.

Locations of Visual Monitoring for Non-Stormwater Discharges

A visual monitoring site inspection for non-stormwater discharges requires that each drainage area be observed for the presence of or indications of prior unauthorized and authorized non-stormwater discharges.

4 drainage area(s) are located on the project site and in the contractor’s yard, staging areas, and storage areas that have been identified as observation location(s) for non-stormwater discharges. Drainage area(s) are shown on the WPCDs in Attachment BB and are listed in Table 700.1.1.1: Drainage Areas.

700.1.2 Visual Monitoring Schedule

On a daily basis, contractor personnel will visual monitor the all immediate access roadways.

On a daily basis contractor personnel will visually monitor BMPs during applicable activities:

- storage areas for hazardous materials and waste
- hazardous waste disposal and transporting activities
- hazardous material delivery and storage activities
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use.
- demolition sites within 50 feet of storm drain systems and receiving waters

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- pile driving areas for leaks and spills if pile driving occurs daily
- temporary concrete washouts if concrete work occurs daily
- paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily
- dewatering work if dewatering work occurs daily
- temporary active treatment system if temporary active treatment system activities occur daily
- work over water if work over water occurs daily

Stormwater site visual monitoring inspections shall be conducted at a minimum:

- within 48 hours prior to a forecasted storm event (any weather pattern that is forecasted to have a 50 percent or greater probability of producing 0.1 inches or more of precipitation in the project area within a 24 period)
- at 24-hour intervals during any extended forecasted storm event
- within 48 hours after a qualifying rain event (a rain event that has produced ½ inch or more of precipitation)

Non-stormwater discharge site visual monitoring inspections shall be conducted, at a minimum, during each of the following periods: January-March, April-June, July-September, and October-December.

If visual monitoring of the site for stormwater is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the site inspector shall document the conditions that prevented the inspection. The documentation of the site visual monitoring inspection shall be filed in SWPPP File Category 20.33: Site Visual Monitoring Inspection Reports.

700.1.3 Visual Monitoring Procedures

Site visual monitoring inspections shall be overseen by the contractor's WPC Manager. Site visual monitoring will be conducted by the WPC Manager, appointed QSP or stormwater inspector.

The name(s) and contact number(s) of the site visual monitoring inspection personnel are listed below and their training qualifications are provided in Attachment E:

- Assigned Inspector: Chris Becker Contact phone: (949) 456-0823
- Alternate Inspector: Oscar Flores Contact phone: (714) 704-9547

Daily Access Road Monitoring

All immediate access roads must be inspected on a daily basis. Any sediment or other construction-related materials deposited on the roads must be removed daily (or more frequently when necessary) and prior to any rain event.

Daily BMP Monitoring During Applicable Activities

Standard Specification 13-1.03C requires that the contractor personnel on the site shall inspect the following activities on a daily basis:

- storage areas for hazardous materials and waste
- hazardous waste disposal and transporting activities

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- hazardous material delivery and storage activities
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use.
- demolition sites within 50 feet of storm drain systems and receiving waters
- pile driving areas for leaks and spills if pile driving occurs daily
- temporary concrete washouts if concrete work occurs daily
- paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily
- dewatering work if dewatering work occurs daily
- temporary active treatment system if temporary active treatment system activities occur daily
- work over water if work over water occurs daily

Discharge Monitoring

During inspections, the contractor personnel shall be observant of any discharges or evidence of a prior discharge that could cause adverse conditions in the storm sewer system or the receiving water. If a discharge or evidence of a prior discharge is discovered by the contractor, the WPC Manager or contractor shall immediately notify the RE, and shall file a written report on the CEM-2061 Notice of Discharge form with the RE within 24 hours of the discharge or discovery of evidence of a prior discharge. Corrective measures shall be implemented immediately following the discovery of the discharge. Form CEM-2061 for reporting discharges is available in Appendix K.

Caltrans will notify the owner/operator of the MS4 and the RWQCB as soon as practicable, but no later than 24 hours after onset of or threat of discharge which can cause adverse conditions to the storm sewer system or the receiving water. This applies to any such discharge that is not covered by California Emergency Management Agency procedures for discharges from a highway to a storm sewer system subject to a MS4 permit.

Discharges requiring reporting include:

- stormwater from a DSA discharged to a waterway without treatment by an effective combination of temporary erosion and sediment control BMPs
- non-stormwater, except conditionally exempted discharges, discharged to a waterway or a storm drain system, without treatment by an approved control measure (BMP)
- stormwater discharged to a waterway or a storm drain system where the control measures (BMPs) have been overwhelmed or not properly maintained or installed
- discharge of hazardous substances above the reportable quantities, as provided in 40 CFR 110.3, 117.3 or 302.4
- stormwater runoff containing hazardous substances from spills discharged to a waterway or storm drain system

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The initial notification to the RWQCB of a discharge or threat of discharge will be made immediately for any discharge that can cause adverse conditions to the storm sewer system or the receiving water, with a follow-up in writing within 24 hours. Adverse conditions include, but are not limited to, serious violations or serious threatened violations of Waste Discharge Requirements (WDRs), significant spills of petroleum products or toxic chemicals, or serious damage to control facilities that could affect compliance. Caltrans shall perform follow-up monitoring of major spills and/or perform confirmation sampling to ensure that threats to waters of the U.S. have been eliminated as determined by the local RWQCB.

Weekly BMP Monitoring

Weekly monitoring is required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. The weekly BMP monitoring shall include observations of:

- all stormwater storage and containment areas identified in Table 700.1.1.2 to detect leaks and ensure maintenance of adequate freeboard
- all BMPs for proper installation and adequate maintenance.

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced in the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, implemented within 24 hours.

Visual Monitoring Prior To A Forecasted Storm Event

Visual monitoring of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, 72, or 96 hours and the amount of precipitation forecasted for any 24-hour period during the storm event is 0.10 inch or greater within a 24-hour period. Site visual monitoring shall be conducted within 48 hours prior to a forecasted storm event. The pre-storm site visual monitoring shall include observations of:

- all drainage areas identified in Table 700.1.1.1 to identify any spills, leaks, or uncontrolled pollutant sources;
- all stormwater storage and containment areas identified in Table 700.1.1.2 to detect leaks and ensure maintenance of adequate freeboard
- all BMPs for proper installation and adequate maintenance.

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced in the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, implemented within 24 hours and prior to the forecasted storm event.

Any corrective actions identified by a pre-storm visual monitoring site inspection shall be included in the REAP for the forecasted storm event.

Visual Monitoring during Extended Forecasted Storm Events

Stormwater visual monitoring site inspections shall be conducted at least once each 24-hour period during any extended forecasted storm events. During any extended forecasted storm event, the site visual monitoring inspector shall visually observe:

- stormwater discharges at all discharge locations (Table 700.1.1.3)

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- all stored or contained stormwater that is derived from and discharged subsequent to the qualifying rain event producing precipitation of ½ inch or more at the time of discharge; stored or contained stormwater that will likely discharge after working hours, due to anticipated precipitation, shall be observed prior to the discharge during working hours

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

During any forecasted storm event, stormwater visual monitoring site inspections will include the observation of all site BMPs for:

- proper installation
- achievement of maintenance requirements
- possible failure
- BMPs that could fail to operate as intended
- effectiveness, so that design changes can be implemented as soon as feasible if needed

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes.

Visual Monitoring Within 48 Hours after a Qualifying Rain Event

Site visual monitoring post-qualifying rain events shall be conducted within 48 hours after the qualifying rain event. The post-storm site visual monitoring inspection shall include observations of:

- discharges of stormwater that have not been processed by a BMP or evidence of stormwater that has not been processed by a BMP at all discharge locations
- evidence of a breach at stored or contained stormwater that is derived from and discharged subsequent to the qualifying rain event producing precipitation of ½ inch or more at the time of discharge; stored or contained stormwater that will likely discharge after working hours, due to anticipated precipitation, shall be observed prior to the discharge during working hours

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Post-qualifying rain event stormwater visual monitoring site inspections will include observation of all site BMPs to determine if BMPs have failed to operate as intended because of:

- improper installation
- lack of maintenance
- lack of effectiveness

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Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, necessary implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes.

Visual Monitoring of Non-Stormwater Discharges

For non-stormwater site visual monitoring, each drainage area will be monitored quarterly for the presence or prior indications of unauthorized and authorized non-stormwater discharges, and their sources. The presence or absence of non-stormwater discharges based on site observations will be documented in the CEM-2030 Stormwater Site Inspection Report. Documentation of observed non-stormwater discharges will include presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Site observations of the site and any recommended corrective actions will be documented. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes. Corrective actions shall be documented in the CEM-2035 Stormwater Corrective Actions Summary. Any photographs used to document observations will be referenced in the CEM-2030 Stormwater Site Inspection Report.

700.1.4 Visual Monitoring Follow-up and Tracking Procedures

For deficiencies identified during visual monitoring (site inspections), the required repairs or maintenance of BMPs shall begin and be completed as soon as possible, while taking into consideration worker safety. For deficiencies identified during visual site inspections that require design changes, including additional BMPs, the implementation, as required by Standard Specification 13-1.03A, will begin within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). When design changes to BMPs are required, the SWPPP shall be amended, including the WCBMPL and WPCDs. If NALs are exceeded, corrective actions shall be approved by the WPC Manager and implemented immediately.

Deficiencies identified on site inspection reports, as well as corrections of deficiencies, will be tracked on the CEM-2035 Stormwater Corrective Actions Summary, in Appendix I. Corrective action summaries shall be submitted to the RE when corrections are completed, but must be submitted within five (5) days of a site inspection.

700.1.5 Data Management and Reporting

The results of site visual monitoring (pre-storm, during storm, post-storm, and quarterly inspections) shall be recorded on the CEM-2030 Stormwater Site Inspection Report, in Appendix G. A copy of each report shall be kept in SWPPP File Category 20.33.

All reports shall be provided to the RE within 24 hours of the site inspection.

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Deficiencies identified during visual monitoring (site inspections) and correction of deficiencies will be tracked on the CEM-2035 Stormwater Corrective Actions Summary, in Appendix I. Corrective Action Summary forms shall be submitted to the RE when corrections are completed, but must be submitted within five (5) days of the site inspection. Completed Stormwater Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding inspection report and shall be kept in the SWPPP Category 20.33.

If a discharge or evidence of a prior discharge that could cause adverse condition in the storm sewer or the receiving water is discovered by the Contractor, the WPC Manager or Contractor shall immediately notify the RE, and no more than 6 hours after discovery, and will file a written report to the RE within 24 hours of the discovery of evidence of a prior discharge. The written report to the RE will contain:

- the date, time, location, and type of unauthorized discharge;
- The nature of the operation that caused the discharge;
- An initial assessment of any impacts caused by the discharge;
- the BMPs deployed before the discharge;
- the date of deployment and type of BMPs deployed after the discharge, including additional measures installed or planned to reduce or prevent re-occurrence
- steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge

Reporting of discharges shall be documented on the CEM-2061 Notice of Discharge form, in Appendix K. Completed Notice of Discharge reports shall be submitted to the RE within 24 hours of discovery of evidence of a discharge. Copies of the Notice of Discharge reports will be kept in SWPPP File Category 20.61: Notice of Discharge Reports.

700.2 Sampling and Analysis Plans

700.2.1 General SAP

A sampling and analysis plan (SAP) describes how samples will be collected, under what conditions, where and when the samples will be collected, what the sample will be tested for, what test methods and detection limits will be used, and what methods/procedures will be performed to ensure the integrity of the sample during collection, storage, shipping and testing (i.e., quality assurance/quality control protocols). Therefore, a SAP shall include the components listed below.

1. Scope of Monitoring Activities
2. Monitoring Preparation
3. Monitoring Strategy
4. Sample Collection and Handling
5. Sampling Analysis
6. Quality Control and Assurance
7. Data Management and Reporting
8. Data Evaluation

9. Change of Conditions

This SWPPP contains a non-visible pollutants SAP. The SWPPP may also contain four additional specific SAPS based on the project risk level, project dewatering requirements, RWQCB sampling and analysis requirements, and a SAP for monitoring an active treatment system.

700.2.1.1 Scope of Monitoring Activities

For specific details with regard to monitoring activities, refer to the specific SAP identified below.

- Non-visible Pollutants (Section 700.2.2.1)
- Non-Stormwater Discharges (Section 700.2.3.1)
- Stormwater pH and Turbidity (Section 700.2.4.1)
- Monitoring required by the Regional Board (Section 700.2.5.1)
- Monitoring for Active Treatment Systems (ATS) (Section 700.2.6.1)

700.2.1.2 Monitoring Preparation

To ensure an effective construction site monitoring and reporting program, the following monitoring preparation activities are required:

- identifying qualified sampling personnel
- ensuring the availability of an adequate quantity of monitoring supplies
- ensuring the availability of field instruments; field instruments must be properly maintained and calibrated prior to sampling events
- identifying a qualified testing laboratory that is capable of performing stormwater and non-stormwater analysis for those constituents that must be tested in a laboratory

700.2.1.2.1 Qualified Sampling Personnel

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).

Samples on the project site will be collected by the following Environmental Consultant:

Company Name:	RTC, Inc.
Address:	22431 Antonio Parkway, B 160-251 Rancho Santa Margarita, CA 92688
Contact Name:	Chris Becker
Title:	WPC Manager (949) 456-0823
Phone Number:	(949) 456-0823
Emergency Phone Number (24/7)	(949) 456-0823
Email Address:	chris@rtcstormwater.com

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- Stormwater sampling and field analysis will be performed by the following primary and alternative stormwater samplers: Chris Becker (949) 456-0823
- Oscar Flores (714) 704-9547

The primary stormwater sampler has received the following stormwater sampling training:

- 24-hour State QSP/QSD training 8-hour Caltrans WPC Manager training
 8-hour CESSWI training 8-hour CPSWQ training
 8-hour CPESC training

The primary stormwater sampler has the following stormwater sampling experience:

- 10-years experience in stormwater sampling and analysis

The alternate stormwater sampler has received the following stormwater sampling training:

- 16-hour State QSP training
 8-hour CISEC training
 8-hour Caltrans WPC Manager training

The alternate stormwater sampler has the following stormwater sampling experience:

- 5-years experience in stormwater sampling and analysis

Training records of designated contractor sampling personnel are provided in Attachment D, Contractor Personnel Stormwater Training.

Safety practices for sample collection will be in accordance with the Spectrum Construction Group Inc. Health and Safety Plan 01/01/2021.

700.2.1.2.2 Monitoring Supplies

Environmental Consultant will provide monitoring supplies and equipment, including, but not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, and ice.

Environmental Consultant will obtain and maintain the field testing instruments, identified in Section 700.2.1.2.3, for analyzing samples in the field by their sampling and testing personnel.

700.2.1.2.3 Field Instruments

The field instrument(s) shown in Table 700.2.1.2.3: Field Instruments will be used to analyze the constituents shown:

TABLE 700.2.1.2.3 FIELD INSTRUMENTS	
Field Instrument	Constituent
Oakton pH Testr 30	pH

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Lamotte 2020we	Turbidity
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The instrument(s) shall be maintained in accordance with manufacturer's instructions.

The instrument(s) shall be calibrated before each sampling and analysis event.

A Standard Operating Procedure (SOP) for calibration and maintenance of field instruments shall be implemented based on the meter manufacturer's instructions. A copy of the manufacturer's instructions shall be attached to the SOP so that they are readily available.

Maintenance and calibration records shall be maintained in SWPPP File Category 20.55: Field Testing Equipment Maintenance and Calibration Records.

700.2.1.2.4 Testing Laboratory

Samples collected on the project site that require laboratory testing will be tested by a laboratory certified by the State Department of Health Services. Samples collected on the project site will be analyzed by:

Laboratory Name: **Test America/Eurofins**
Address: **17461 Derian Avenue, Unit 100**
Irvine, CA 92614
Contact Name: **Taryn McKnight**
Title: **Lab Director**
Phone Number: **(949) 261-1022**
Emergency Phone Number (24/7): **(949) 261-1022**
Email Address: **info@testamericainc.com**

700.2.1.3 Monitoring Strategy

The monitoring strategy includes identifying analytical constituents, potential sampling locations, identification of actual sampling locations, and sampling schedule,

700.2.1.3.1 Analytical Constituents

Stormwater and non-stormwater discharges shall be monitored for the analytical constituents specified in the specific SAP(s) in this SWPPP.

700.2.1.3.2 Potential Sampling Locations

Potential sampling locations must be representative of the stormwater and non-stormwater discharges from the construction site. Existing conditions and associated construction activities within each drainage area form the basis for determining representative stormwater sampling locations.

Project drainage areas and potential sampling locations have been determined by:

- reviewing project plans

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- visiting project site
- reviewing topography maps

The WPCDs show the demarcation of all drainage areas that are either:

- within the project site
- cover part of the project site

The QSD must identify potential sampling locations where concentrated run-off:

- leaves the Caltrans right-of-way
- drains into an MS4
- discharges into a receiving water

Potential run-on sampling locations were determined where concentrated run-on:

- enters the right-of-way
- combines with the stormwater on site and then discharges into an MS4, including the location(s) of discharge into the MS4

The following locations were determined when runoff discharges directly into receiving water bodies:

- the discharge location(s) into the receiving water
- a potential sampling location upstream of all discharge locations
- a potential sampling location downstream from all discharge location(s) into the receiving water.

Necessary potential sampling locations were determined when:

- there are potential sources of non-visible pollutants, as discussed in Section 500.1, and discharge locations are downgradient
- run-on locations are present that may contribute non-visible pollutants
- there are potential non-stormwater discharges and corresponding discharge locations are downgradient
- there are proposed dewatering construction activities

If an ATS is used on site, then sample locations must be included in Section 700.2.6.

Potential stormwater and non-stormwater sampling locations must be shown on the WPCDs in Attachment BB and listed in Attachment EE: Stormwater Sample Locations. The QSD has identified each of the potential sampling locations with a unique sample location identification code, as shown below. The identification code must start with a number and must be different for each location. If the construction site lies in a west-to-east orientation, starting with one (01) from the east, the potential sampling locations shall be numbered toward the west. If the construction site lies in a south-to-north orientation, the potential sampling locations shall be numbered toward the north.

To further distinguish among the locations, each potential sampling location has been identified with one of the following abbreviations based on the sampling location type:

- discharge locations leaving Caltrans right-of-way: DL

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- discharge locations from areas with known non-visible pollutants: NVP
- discharge locations upgradient of areas with known non-visible pollutants: UNVP
- discharge locations to an MS4: MS
- run-on locations: RO
- discharge locations into a receiving water: RW
- downstream of all discharge locations: RWD
- upstream of all discharge locations: RWU
- dewatering discharge locations: DDL
- contained stormwater discharge locations: CSDL
- discharge locations for ATS: ATS

The unique sample location identification code shall follow this format, **SSSTTTTXX** , where:

SSS = sampling location identifier number (e.g., 010)
TTTT = sampling location type (e.g. DL)
XX = identifier number for the type of sampling location

For example, the sampling location identification for the 15th sampling location based on starting from the south end of the project for a stormwater discharge location that has been identified to be the ninth discharge location would be **015DL09**.

Potential sampling locations shown on the WPCDs shall be identified with unique sampling location identifiers. Each potential sample location must be listed on Stormwater Sample Locations in Attachment EE. The unique identification of each potential sampling location based on its number and abbreviation of type shall be used on all sampling documentation.

The WPC Manager may have to revise and/or add additional sampling locations during the course of construction as conditions dictate.

700.2.1.3.3 Identification of Actual Sampling Locations

For each forecasted storm event, actual sampling locations will be determined by the WPC Manager based on the strategy described in each specific SAP.

700.2.1.3.4 Sampling Schedule

For the sampling schedule, see the specific SAPs in the CSMP. If a scheduled sampling activity is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document why an exception to performing the sampling was necessary.

700.2.1.4 Sample Collection and Handling

Sample collection procedures shall be used to ensure that representative samples are collected and that the potential for contamination of samples is minimized. Sample handing procedures are followed to ensure that samples are identified accurately and that the required analysis is clearly documented. Chain-of-custody requirements for samples are necessary to trace the possession of the sample from collection through analysis.

700.2.1.4.1 Sample Collection Procedures

Samples shall be collected, maintained and shipped in accordance with the SWAMP's 2008 QAPrP.

Grab samples shall be collected and preserved in accordance with the methods identified in each specific SAP. Only personnel trained in proper water quality sampling shall collect samples.

Samples from areas of sheet flow can be collected using the collection procedures shown in the video at <http://www.youtube.com/watch?v=AmEJUNp44aU>. For pH and turbidity sampling, sheet flow sampling can be conducted as described below to concentrate the flow in order to collect a sample or follow other procedures approved by the RE.

- Place several rows of sandbags in a half circle directly in the path of the sheet flow to pond water, and wait for enough water to spill over. Then place a cleaned or decontaminated flexible hose along the top, and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Do not reuse the same sandbags during future sampling events as they may cross-contaminate future samples.
- Place a cleaned or decontaminated dustpan with open handle in the path of the sheet flow so that water will pour through the handle and into sample bottles.

For receiving water sampling, upstream samples shall be collected to represent the water body upgradient of the construction site. Downstream samples shall be collected to represent the water body mixed with direct discharge from the construction site. Samples shall not be collected directly from ponded, sluggish, or stagnant water.

Receiving water upstream and downstream samples shall be collected using one of the following methods:

- placing a sample bottle directly into the stream flow in or near the main current upstream of sampling personnel and allowing the sample bottle to fill completely;
- OR
- placing a decontaminated or sterile bailer or other sterile collection device in or near the main current to collect the sample and then transferring the collected water to appropriate sample bottles allowing the sample bottle to fill completely.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel shall follow the procedures listed below.

- Wear a clean pair of surgical gloves donned prior to the collection and handling of each sample at each location.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water. Dispose of decontamination water/soaps appropriately (i.e., do not discharge to the storm drain system or receiving water).
- Do not allow the inside of the sample bottle to come into contact with any material other than the run-off sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Do not leave the cooler lid open for an extended period of time once samples are placed inside.
- Do not sample near a running vehicle where exhaust fumes may impact the sample.
- Do not touch the exposed end of a sampling tube, if applicable.

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- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles.
- Do not eat, smoke, or drink during sample collection/field measurement.
- Do not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample.

700.2.1.4.2 Sample Handling Procedures

Immediately following collection, sample bottles to be forwarded for laboratory analytical testing shall be capped, labeled, documented on the Chain-of-Custody Record, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at 0 ±4 degrees Celsius, and delivered within 24 hours to the laboratory shown in sub-section 700.2.1.2.4.

Immediately following collection, samples used for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the CEM-2052 Stormwater Sample Field Test Report form.

700.2.1.4.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, the Chain-of-Custody, and the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form, shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

The following form, used for sample documentation, is provided in the SWPPP appendices:

- CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form, in Appendix M

Duplicate samples shall be identified in a manner consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples can be identified in the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form.

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle, which shall include, at a minimum, the following information:

- project name
- contract number and/or project identifier number
- unique sample identification code, which shall follow this format, SSSSYMMDDHHmmTT , where

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SSSSS	=	sampling location identifier number (e.g., 01MS1)
YY	=	last two digits of the year (e.g. 11)
MM	=	month (01-12)
DD	=	day (01-31)
HH	=	hour sample collected (00-23)
mm	=	minute sample collected (00-59)
TT	=	Type or QA/QC Identifier (if applicable)
G	=	grab
FS	=	field duplicate

For example, the sample number for a grab sample collected at Station 01MS1, collected at 4:15PM on December 8, 2011 would be **01MS11112081615G**.

- constituent to be analyzed
- initials of person who collected the sample

Stormwater Sampling and Testing Activity Log: A log of sampling events and test results shall include:

- sampling date
- separate times for collected samples and QA/QC samples, recorded to the nearest minute
- unique sample identification number and location
- constituent analyzed
- names of sampling personnel
- weather conditions (including precipitation amount)
- test results
- other pertinent data

Sample Information, Identification and Chain-of-Custody Record Forms: All samples to be analyzed by a laboratory will be accompanied by a Chain-of-Custody. The samplers will sign the Chain-of-Custody when samples are turned over to the testing laboratory. Chain-of-custody procedures will be strictly adhered to for QA/QC purposes.

700.2.1.5 Sample Analysis

For the analytical methods to be used to determine the presence of pollutant(s), see the specific SAPs in this CSMP.

700.2.1.6 Quality Assurance/Quality Control

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For verification of laboratory or field analysis, duplicate samples shall be collected at a rate of 10 percent or 1 minimum duplicate per sampling event. The duplicate sample shall be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample shall be collected immediately after the primary sample has been collected. Duplicate samples shall not influence any evaluations or conclusions; however, they shall be used as a check on laboratory or field analysis quality assurance.

700.2.1.7 Data Management and Reporting

All test results shall be documented on either the CEM-2052 Stormwater Sample Field Test Report form and/or may be entered on the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

For field tests, the submitted information shall include a signed copy of the Chain-of-Custody and CEM-2052 Stormwater Sample Field Test Report form. Appendix N contains the CEM-2052 Stormwater Sample Field Test Report form, which must accompany the Chain-of-Custody Record. The test results can be recorded on the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form, in Appendix M.

For laboratory testing, all laboratory analysis results shall be reviewed for consistency among laboratory methods, sample identifications, dates, and times for both primary samples and QA/QC samples. The test results may be recorded on the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form.

All sampling and testing documentation, including the Chain-of-Custody, CEM-2051 Stormwater Sampling and Testing Activity Logs - Optional Form, CEM-2052 Stormwater Sample Field Test Reports, and Laboratory Test Reports shall be kept in the appropriate SWPPP file category. Sampling and testing documentation shall be filed in the appropriate following SWPPP file category based on the specific SAP that required the sampling and analysis:

- non-visible pollutant sampling and testing – SWPPP File Category 20.51;
- non-stormwater discharge sampling and testing – SWPPP File Category 20.50
- turbidity, pH, and SSC sampling and testing – SWPPP File Category 20.52
- required RWQCB sampling and testing – SWPPP File Category 20.53
- ATS sampling and testing – SWPPP File Category 20.54

If corrective actions are taken as a result of the data evaluation, a copy of the completed CEM-2035 Stormwater Corrective Actions Summary shall be filed in File Category 20.35: Corrective Actions Summary.

A copy of completed sampling records and reports and an updated CEM-2051 Stormwater Sampling and Testing Log - Optional shall be submitted to the RE. All water quality analytical results, including QA/QC data, shall be submitted to the RE within 48 hours of sampling for field analyzed samples, and within 30 days for laboratory analyses.

In addition to a paper copy of the water quality test results, the test results shall be submitted electronically in Microsoft Excel (.xls) format, and shall include, at a minimum, the following information from the lab: Sample ID Number, Contract Number, Constituent, Reported Value, Laboratory Name, Method Reference, Method Number, Method Detection Limit, and Reported Detection Limit. Electronic copies of stormwater data shall be forwarded by email to Michael L. Wolfe, PE at michaelw@moval.org for inclusion into a statewide database.

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It is recommended that the excel file provides the following information shall be provided: Rain Event No., Event Starting Time, Event Ending Time, Date, Day of Week, Business Day (YES/NO), Runoff Observed (Daily YES/NO and Total Days), Sampling Performed (Daily YES/NO and Total Days), Rain Gage Reading (Daily Inches and Total Inches), Daily Comments (if sampling is not performed), and each sampling point's Number, Location, Latitude, and Longitude.

EXAMPLE:

[Job Name] - [EA] - Rain Event Data - [Reporting Year]										Sampling Points			
Rain Event No.	Event Starting Time	Event Ending Time	Date	Day of Week	Business Day?	Runoff Observed?	Sampling Performed?	Rain Gage Reading (Inches)	Comments	Number	Location	Latitude	Longitude
1	22:00		12/31/2017	Sunday	NO	N/A	N/A		Weekend	01DX.01	North End	38.3575	-121.3414
			1/1/2018	Monday	NO	N/A	N/A		Holiday	02DX.02	South End	38.3745	-121.3645
			1/2/2018	Tuesday	YES	NO	NO	0.25					
			1/3/2018	Wednesday	YES	YES	YES	0.50					
			1/4/2018	Thursday	YES	YES	YES	0.50					
	12:00		1/5/2018	Friday	YES	NO	NO	0.10					
			1/6/2018	Saturday	NO	N/A	N/A						
TOTALS						2	2	1.35					

700.2.1.8 Data Evaluation

For data evaluation of stormwater sample test results, see specific SAPs.

700.2.1.9 Change of Conditions

Whenever stormwater visual monitoring site inspections indicate a change in site conditions that might affect the appropriateness of sampling locations, sampling and testing protocols shall be revised accordingly. All such revisions shall be implemented as soon as feasible, and the SWPPP updated or amended.

700.2.2 Sampling and Analysis Plan for Non-Visible Pollutants

This SAP has been prepared for monitoring non-visible pollutants in stormwater and non-stormwater discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring non-visible pollutants includes all of the components listed in Section 700.2.1.

700.2.2.1 Scope of Monitoring Activities

The scope of monitoring for discharges of non-visible pollutants from the construction site is based on the construction materials and construction activities to be performed on the project site, potential for the presence of non-visible pollutants, based on the historical use of the site, and potential non-visible pollutants in run-off from areas where soil amendments have been used on the project site.

The construction materials, wastes or activities listed below, and identified in Section 500.1.1, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the WPCDs in Attachment BB.

- Vehicle and equipment fluids, batteries, portable toilets, trash dumpsters, concrete washouts
- Bagged materials: concrete products. Liquids: curing compound totes

The existing site features listed below, and identified in Section 500.1.2, are potential sources of non-visible pollutants to stormwater discharges from the project.

- Lead (Aerially deposited)
- Treated wood waste

The soil amendments listed below have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site.

- Soil/seed mix amendments, compost and mulch

700.2.2.2 Monitoring Preparation

Refer to the general requirements in General SAP Section 700.2.1.2 for monitoring preparation.

700.2.2.2.1 Qualified Sampling Personnel

Refer to the general requirements in General SAP Section 700.2.1.2.1 for Qualified Sampling Personnel.

700.2.2.2.2 Monitoring Supplies

Refer to the general information in General SAP Section 700.2.1.2.2 regarding monitoring supplies.

700.2.2.2.3 Field Instruments

Refer to the general information in General SAP Section 700.2.1.2.3 regarding field instruments.

700.2.2.2.4 Testing Laboratory

Refer to the contact information found in General SAP Section 700.2.1.2.4 for the Testing Laboratory.

700.2.2.3 Monitoring Strategy

The monitoring strategy for non-visible pollutants in stormwater discharges is to identify all potential non-visible pollutants that may be on the project site, non-visible pollutant sources, and water quality indicators that will indicate the presence of the non-visible pollutant in stormwater discharges. Locations will be identified where sources of non-visible pollutants will be used, stored or exist because of historical use of the project site so that these areas are monitored prior to and during forecasted storm events.

Non-visible pollutant monitoring is only required where a discharge can cause or contribute to an exceedance of a water quality standard based on one of the following triggers:

- construction materials are waste are exposed

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- the site contains historical non-visible pollutants
- construction activity has occurred or material has been placed within the past 24 hours that may cause an exceedance of a water quality standard
- there is run-on to the site that may contains non-visible pollutants
- there is a breach, malfunction, leak or spill from a BMP

When one of the triggers that indicates a non-visible pollutant source may have come in contact with stormwater is discovered during a site inspection conducted prior to, during or after a forecasted storm event, the WPC Manager will require that sampling and analysis of the stormwater discharge be conducted for the applicable non-visible pollutant water quality indicator(s).

For the forecasted storm event in which a trigger for a non-visible pollutant sampling and analysis has occurred, the WPC Manager will also require the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. The WPC Manager will perform an evaluation of the analysis results from the non-visible pollutant stormwater discharge sampling location and the analysis results from the uncontaminated run-off sampling location to determine if there is an increased level of the tested non-visible pollutant analyte in the stormwater discharge.

700.2.2.3.1 Analytical Constituents

Identification of Potential Non-Visible Pollutants

The following table lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

TABLE 700.2.2.3.1 POTENTIAL NON-VISIBLE POLLUTANTS AND WATER QUALITY INDICATOR CONSTITUENTS		
Pollutant Source	Pollutant	Water Quality Indicator Constituent
Uncontaminated groundwater dewatering	Suspended solids	Turbidity
Flows from riparian habitats or wetlands, diverted stream flows, springs, rising groundwaters, and uncontaminated groundwater infiltration	Suspended solids, naturally occurring acids	Turbidity and pH
Concret washout water	Suspended spoldis and concrete	Turbidity and pH
Slurries from concrete cutting and cutting and coring operations. Portland cement concrete grindings or asphalt concrete grinding operations.	Suspended solids, concrete, hydrocarbons, (gasoline, oil, grease, lubricants)	Turbidity, pH, TOC, SVOVs
Slurries from concrete mortar mixing operations	Masonry products, sealants, (MMAs), ash, sand, waste, curing compounds	pH, alkalinity, Methyl Methacrylate, Al, CA, V, Zn
Blast residue from high pressure washing	Suspended soilds, masonry products, metals	Turbidity, pH, alkalinity, Al, Cu, Fe, Pb, Ni, Zn, TOC, SVOCs
Sanitary and septic waste	Bacteria, disinfectants	Total fecal coliform, disinfectant (chemical specific)
Chemical leaks, and/or spills of any kind including but not limited to petroleum, paints, cure compounds, etc.	Chemical specific	Chemical specific

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700.2.2.3.2 Potential Sampling Locations

Using the criteria in Section 700.2.1.3.2, the potential sampling locations on the project site for monitoring non-visible pollutants were identified. Sampling locations are based on: proximity to planned non-visible pollutant storage; occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the Caltrans Construction Site Monitoring Program Guidance Manual, latest edition. Sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE:

2 sampling location(s) on the project site and the contractor’s support facilities have been identified as potential locations for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned. Potential non-visible pollutant sampling locations are listed in the Table 700.2.2.3.2.1: Potential Non-Visible Pollutant Sampling Locations.

TABLE 700.2.2.3.2.1 POTENTIAL NON-VISIBLE POLLUTANT SAMPLING LOCATIONS		
Sampling Location Identifier	Location Description	
PNVP1	EB Route 60 south sheetflow along the shoulder STA 991+00	33.939100; -117.184596
PNVP2	WB Route 60 north sheetflow along shoulder STA 1030+00	33.393124; -117.170110

Potential non-visible pollutant sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE:

2 sampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location(s) was selected such that the sample will not have come in contact with (1) operational or storage areas associated with the materials, wastes, and activities identified in Section 500.1.1; (2) potential non-visible pollutants due to historical use of the site, as identified in Section 500.1.2; (3) areas in which soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied; or (4) disturbed soils areas. Potential non-visible pollutant uncontaminated sampling locations are listed in Table 700.2.2.3.2.2: Potential Uncontaminated Non-visible Pollutant Sampling Locations.

TABLE 700.2.2.3.2.2 POTENTIAL UNCONTAMINATED NON-VISIBLE POLLUTANT SAMPLING LOCATIONS		
Sampling Location Identifier	Location Description	
PUNVP1	Centerpoint of contractor main yard	33.938020; -117.179060
PUNVP2	Low elevation point on the perimeter of contractor main yard	33.937578; -117.179120

Potential non-visible pollutant uncontaminated sampling locations shall be shown on the WPCDs from Attachment BB and listed on Stormwater Sampling Locations in Attachment EE.

700.2.2.3.3 Actual Sampling Locations

Sampling for non-visible pollutants at any potential non-visible pollutant sampling location will be based on any of the conditions listed below having been identified during the visual monitoring site inspections.

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- Locations where materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.
- Locations where materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the forecasted storm event, and (3) the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.
- Locations where a construction activity (including but not limited to those identified in Section 500.1.1) with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the forecasted storm event, (2) involved the use of applicable BMPs that were observed to be breached, malfunctioning, or improperly implemented, and (3) resulted in the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Locations where soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.
- Locations where stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.

If the presence of a material storage, waste storage, or operations area where spills have been observed or the potential for the discharge of non-visible pollutants to surface waters or a storm drain system was noted during a site inspection conducted prior to or during a forecasted storm event and such an area has not been identified on the list of potential non-visible pollutant sampling locations, the WPC Manager must identify the corresponding discharge location and the corresponding upgradient sampling location as actual non-visible sampling locations. The additional sampling location for non-visible pollutant monitoring shall be shown on the WPCDs from Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

For forecasted storm events, the selection of the actual sampling locations for non-visible pollutants by the WPC Manager will be documented on the CEM-2048 Storm Event Sampling and Analysis Plan form, in Appendix N. The completed SAP for each storm event will be filed in File Category 20.46: Storm/Rain Event Action, Sampling and Analysis Plans. Within 24 hours prior to a storm event, a copy of the storm event SAP shall be submitted to the RE.

For qualifying rain events, the selection of the actual sampling locations for non-visible pollutants by the WPC Manager will be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan. The completed SAP for each qualifying rain event will be filed in File Category 20.46: Storm/Rain Event Sampling and Analysis Plans. Within 24 hours prior to a storm event, a copy of the SAP shall be attached to the REAP and submitted to the RE.

700.2.2.3.4 Sampling Schedule

In addition to the general scheduling requirements in General SAP Section 700.2.1.3.4, samples for non-visible pollutant monitoring, including both the non-visible pollutants samples and uncontaminated background samples, shall be collected during the first two hours of discharge from storm events that result in a sufficient discharge for sample collection. Samples shall be collected during daylight hours, 7 days a week.

700.2.2.4 Sample Collection and Handling

Refer to the general requirements for sample collection and handling in General SAP Section 700.2.1.4.

700.2.2.4.1 Sample Collection Procedures

Refer to the general procedures for sample collection in General SAP Section 700.2.1.4.1.

700.2.2.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 700.2.1.4.2.

700.2.2.4.3 Sample Documentation Procedures

In addition to the general sample documentation procedures provided in General SAP Section 700.2.1.4.3, when applicable, the contractor’s stormwater inspector will document in the CEM-2030 Stormwater Site Inspection Report, that samples for non-visible pollutants were taken during a storm event, based on the criteria for non-visible pollutant sampling described in Section 700.2.2.3.3.

700.2.2.5 Sample Analysis

Samples collected for monitoring of non-visible pollutants will be analyzed by the laboratory identified in Section 700.2.1.2.4. Samples shall be analyzed for the constituents identified in Table 700.2.2.3.1, using the analytical methods identified in the following table, entitled “Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants.”

TABLE 700.2.2.5 SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING NON-VISIBLE						
Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Turbidity	Field test with calibrated portable instrument	100ml	Polypropylene or glass	store @ 4 degrees (39.2 F)	1 NTU	48 Hours
pH		100ml	Polypropylene or glass	store @ 4 degrees (39.2 F)	0.2	15 Minutes

700.2.2.6 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in General SAP Section 700.2.1.6.

700.2.2.7 Data Management and Reporting

Refer to general requirements for data management and reporting in Section General SAP 700.2.1.7.

Ensure that the excel file as described in 700.2.1.7 for the constituents and locations sampled are submitted in electronic format for ease of transfer to adhoc (Annual Reporting).

700.2.2.8 Data Evaluation

Water quality sample analytical results for non-visible pollutants shall be compared to the uncontaminated background sample results. Should the discharge (downgradient) sample show an increased level of the tested non-visible pollutant analyte relative to the background sample, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visual pollutant concentrations. Once deemed necessary, corrective actions shall be implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter), and documented on the CEM-2035 Stormwater Corrective Actions Summary. Revisions/design changes to BMPs required as a result of data evaluation and site assessment shall be implemented based on an amendment to the SWPPP.

700.2.2.9 Change of Conditions

Refer to the general requirements for change of conditions in General SAP Section 700.2.1.9.

700.2.3 Sampling and Analysis Plan for Non-Stormwater Discharges

This SAP has been prepared for monitoring non-stormwater discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring non-stormwater discharges includes all of the components listed in Section 700.2.1.

700.2.3.1 Scope of Monitoring Activities

Non-stormwater discharges can be authorized by a separate NPDES permit or conditional exemption. For non-stormwater discharges that are unauthorized where runoff is discharged off site, sampling and testing of the discharge must be conducted in compliance with the CGP.

Examples of unauthorized non-stormwater discharges common to construction activities include:

- vehicle and equipment wash water, including concrete washout water
- slurries from concrete cutting and coring operations, or grinding operations
- slurries from concrete or mortar mixing operations

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- residue from high-pressure washing of structures or surfaces
- wash water from cleaning painting equipment
- runoff from dust control applications of water or dust palliatives
- sanitary and septic wastes
- chemical leaks and/or spills of any kind, including but not limited to, petroleum, paints, cure compounds, etc

When an unauthorized non-stormwater discharge is discovered, the WPC Manager will require sampling and analysis of the effluent to detect whether non-visible pollutants are present in the discharge. Sampling and analysis of non-stormwater discharges shall be performed in accordance with Section 700.2.2, the SAP for non-visible pollutants.

Sampling and analysis for pH and turbidity of stored or impounded stormwater discharges subsequent to a qualifying rain event (a rain event that has produced ½ inch or more of precipitation at the time of discharge) shall be performed in accordance with Section 700.2.4, the SAP for stormwater pH and turbidity.

700.2.3.2 Monitoring Preparation

Refer to the general requirements for monitoring preparation in General SAP Section 700.2.1.2.

700.2.3.2.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel in General SAP Section 700.2.1.2.1.

700.2.3.2.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies in General SAP Section 700.2.1.2.2.

700.2.3.2.3 Field Instruments

Refer to the general information regarding field instruments in General SAP Section 700.2.1.2.3.

700.2.3.2.4 Testing Laboratory

Refer to the contact information for the testing laboratory found in General SAP Section 700.2.1.2.4.

700.2.3.3 Monitoring Strategy

Non-stormwater discharges from the construction site will be monitored for exceedances of water quality standards.

700.2.3.3.1 Analytical Constituents

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For non-stormwater dewatering discharges and discharges of stored stormwater, samples shall be analyzed for the following constituents:

- turbidity
- pH

700.2.3.3.2 Potential Sampling Locations

Using the criteria in Section 700.2.1.3.2, potential sampling locations on the project site for monitoring dewatering discharges, discharges of impounded stormwater, and other non-stormwater discharges were identified. Sampling locations were based on: proximity to planned non-stormwater dewatering; non-stormwater occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the *Caltrans Construction Site Monitoring Program Guidance Manual*, August 2013. Sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE.

0 sampling location(s) on the project site have been identified as potential locations for the collection of non-stormwater dewatering samples and the sampling location(s) are listed in Table 700.2.3.3.2.1: Potential Non-stormwater Dewatering Sampling Locations.

POTENTIAL NON-STORMWATER DEWATERING SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description

0 sampling location(s) on the project site been identified as potential locations for the collection of discharge samples of impounded stormwater and the sampling location(s) are listed in Table 700.2.3.3.2.2: Potential Impounded Stormwater Discharge Sampling Locations.

POTENTIAL IMPOUNDED STORMWATER DISCHARGE SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description

700.2.3.3.3 Actual Sampling Locations

Actual sampling locations will be determined by the WPC Manager prior to dewatering activities based on the potential dewatering discharge sample locations initially selected.

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When stormwater is impounded in excavations on the project site and the impounded stormwater has the potential to create runoff from the project site, the WPC Manager will determine the actual sampling location for collecting impounded stormwater discharge samples.

If new locations for dewatering discharges or impounded stormwater discharges that have not been identified on the list of potential stormwater and non-stormwater sampling locations are identified during the course of construction, the WPC Manager must create sampling location identifiers for the dewatering discharge sampling location. The additional sampling location for dewatering discharge monitoring shall be shown on the WPCDs in Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

Same as Table 700.1.1.3

700.2.3.3.4 Sampling Schedule

Whenever there are dewatering discharges or impounded stormwater discharges, sampling will be performed daily during discharging. Sampling will be performed upon commencement of the dewatering discharge or impounded stormwater discharge, and then at least a minimum of three (3) samples per day will be collected for analysis, depending on visual monitoring.

700.2.3.4 Sample Collection and Handling

Refer to the general requirements for sample collection and handling in General SAP Section 700.2.1.4.

700.2.3.4.1 Sample Collection Procedures

Refer to the general procedures for sample collection in General SAP Section 700.2.1.4.1.

700.2.3.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 700.2.1.4.2.

700.2.3.4.3 Sample Documentation Procedures

In addition to the general procedures for sample documentation in General SAP Section 700.2.1.4.3, when applicable, the contractor's stormwater inspector will document on the CEM-2030 Stormwater Site Inspection Report that samples for non-stormwater discharge pollutants were taken based on a visual monitoring site inspection.

700.2.3.5 Sample Analysis

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Samples from non-stormwater discharges shall be analyzed for pH and turbidity at a minimum. (If other constituents are warranted.)

The WPC Manager may determine that samples of non-stormwater discharges, need to be analyzed for non-visible pollutants. If the WPC Manager determines that non-visible pollutants may have contaminated the discharge, the samples shall be analyzed for the suspected pollutants. Sampling and analysis for non-visible pollutants in non-stormwater discharges shall be performed following the guidance in Section 700.2.2, the SAP for non-visible pollutants.

Samples shall be analyzed for the constituents indicated in the following table, titled “Sample Collection, Preservation and Analysis for Monitoring Water Extracted by Dewatering or Impounded Stormwater Discharges.”

TABLE 700.2.3.5 SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING WATER EXTRACTED BY DEWATERING OR IMPOUNDED STORMWATER DISCHARGES						
Parameter	Test Method	Sample Preservation	Minimum Sample Volume⁽¹⁾	Sample Bottle	Maximum Holding Time	Detection Limit (min)
Turbidity	Field test with calibrated portable instrument	Store at 4° C (39.2° F)	100 mL	Polypropylene or Glass	48 hours	1 NTU
pH	Field test with calibrated portable instrument	Store at 4° C (39.2° F)	100 mL	Polypropylene	15 Minutes	0.2

Notes: 1. Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

- °C - degrees Celsius
- °F - degrees Fahrenheit
- L - liter
- ml - milliliters
- NTU - Nephelometric Turbidity Unit

700.2.3.6 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in Section General SAP 700.2.1.6. For samples analyzed for turbidity and pH the following replaces the requirements for QA/QC in Section 700.2.1.6:

The contractor shall coordinate with the Caltrans RE on sampling locations and timing for quality assurance verification of field sampling and analysis. The contractor shall notify the RE at least 24 hours prior to dewatering discharge or impounded stormwater discharge sampling events.

700.2.3.7 Data Management and Reporting

Refer to the general requirements for data management and reporting in General SAP Section 700.2.1.7.

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It is recommended that the excel file provides the following information shall be provided: Rain Event No., Event Starting Time, Event Ending Time, Date, Day of Week, Business Day (YES/NO), Runoff Observed (Daily YES/NO and Total Days), Sampling Performed (Daily YES/NO and Total Days), Rain Gage Reading (Daily Inches and Total Inches), Daily Comments (if sampling is not performed), and each sampling point's Number, Location, Latitude, and Longitude.

EXAMPLE:

[Job Name] - [EA] - Rain Event Data - [Reporting Year]										Sampling Points			
Rain Event No.	Event Starting Time	Event Ending Time	Date	Day of Week	Business Day?	Runoff Observed?	Sampling Performed?	Rain Gage Reading (inches)	Comments	Number	Location	Latitude	Longitude
1	22:00		12/31/2017	Sunday	NO	N/A	N/A		Weekend	01DE.01	North End	38.3575	-121.3434
			1/1/2018	Monday	NO	N/A	N/A		Holiday	02DE.02	South End	38.3745	-121.3645
			1/2/2018	Tuesday	YES	NO	NO	0.25					
			1/3/2018	Wednesday	YES	YES	YES	0.50					
			1/4/2018	Thursday	YES	YES	YES	0.50					
	12:00		1/5/2018	Friday	YES	NO	NO	0.10					
			1/6/2018	Saturday	NO	N/A	N/A						
TOTALS						2	2	1.35					

700.2.3.8 Data Evaluation

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the RE for every day that the water from dewatering is discharged. Should the dewatering discharge concentrations exceed applicable water quality standards, discharging will be stopped immediately and the WPC Manager or other personnel shall evaluate the dewatering BMPs to determine the probable cause for the exceedance. For dewatering discharges, Caltrans requires that the turbidity of any sample must not exceed 200 NTU. The pH value of any sample must be within the range of 6.7 to 8.3 pH units.

Samples of non-stormwater collected during discharge shall be evaluated by determining if suspected contaminants are present. Unauthorized discharges will be stopped as soon as possible and the RE will be notified immediately and a written report of discharge shall be completed and submitted to the RE. Authorized discharges shall be sampled for pH and turbidity and all suspected pollutants. For pH and turbidity, sample results shall be compared to the NAL.

As determined by the data evaluation and project site assessment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documents on the CEM-2035 Stormwater Corrective Actions Summary. Any revisions/design changes to BMPs shall be implemented based on an amendment to the SWPPP.

700.2.3.9 Changes of Conditions

Refer to the general requirements for changes of conditions in General SAP Section 700.2.1.9.

700.2.4 Sampling and Analysis Plan for Stormwater pH and Turbidity

This SAP has been prepared for monitoring pH and turbidity in stormwater discharges from the project site and off-site activities directly related to the project in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring pH and turbidity includes all of the components listed in Section 700.2.1.

700.2.4.1 Scope of Monitoring Activities

The scope of monitoring for this SAP includes monitoring for pH and turbidity in stormwater discharges from the project site and, run-on to the project site.

700.2.4.2 Monitoring Preparation

Refer to the general requirements for monitoring preparation in General SAP Section 700.2.1.2.

700.2.4.2.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel in General SAP Section 700.2.1.2.1.

700.2.4.2.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies in General SAP Section 700.2.1.2.2.

700.2.4.2.3 Field Instruments

Refer to the general information regarding field instruments in General SAP Section 700.2.1.2.3.

700.2.4.2.4 Testing Laboratory

Refer to the contact information for the testing laboratory found in General SAP Section 700.2.1.2.4.

700.2.4.3 Monitoring Strategy

Monitor representative stormwater discharges from the project site for pH and turbidity during qualifying rain events (a rain event that has produced precipitation in the form of rain and produced run-off at the time of discharge).

700.2.4.3.1 Analytical Constituents

Stormwater discharge samples are to be analyzed for pH and turbidity.

700.2.4.3.2 Potential Sampling Locations

Using the criteria in Section 700.2.1.3.2, the potential sampling locations on the project site for monitoring pH and turbidity were identified. Potential sampling locations for monitoring stormwater discharges for pH and turbidity are based on drainage areas; run-on and runoff locations; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. Stormwater discharge locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sample Locations in Attachment EE:

The stormwater discharge locations on the project site are listed in Table 700.2.4.3.2.1 “Stormwater Discharge Locations.”

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

TABLE 700.2.4.3.2.1 STORMWATER DISCHARGE LOCATIONS	
Sampling Location Identifier	Location
Same as Table 700.1.1.3	

The project does not receive run-on with the potential to combine with stormwater discharges.

700.2.4.3.3 Actual Sampling Locations

The WPC Manager shall select sampling locations from the list of potential sampling locations for stormwater discharge sampling shown on the WPCDs from Attachment BB and listed on Stormwater Sampling Locations in Attachment EE. If the construction activity has not started within the drainage area at a sampling location, and there is no disturbed soil within a drainage area, sampling from the stormwater discharge location from that drainage area is not required.

Within 72 to 48 hours prior to each qualifying rain event, the WPC Manager must identify the drainage areas that must be sampled. To identify these drainage areas, the WPC Manager must refer to the WPCDs and consider the conditions described below and activities within each drainage area that could have an effect on the stormwater discharge pH or turbidity.

1. Turbidity: The area of the disturbed soil at the time of precipitation could have an impact on the stormwater run-off turbidity. The area of the disturbed soil at the time of predicted precipitation must be expressed as a percentage of the total drainage area. It is reasonable to assume that a larger percentage of disturbed soil area could result in a more turbid run-off.
2. pH: The type of construction activities that could have an impact on stormwater run-off pH (for example, concrete work and saw cutting, lime stabilization work, use of crushed concrete, etc).

For representative sampling of construction site discharges, 20 percent of the drainage areas with disturbed soil areas and 20 percent of the drainage areas where activities that could potentially have an impact on the discharge pH must be sampled. At least five (5) drainage area discharge locations for each qualifying rain event must be sampled. If there are five (5) or fewer drainage area sampling locations in a project, then all drainage area sampling locations must be sampled. The drainage areas with the largest percentage of disturbed soil area must be included in the selected drainage areas to be sampled. The drainage areas where the most extensive activities (activities that potentially can alter discharge pH) are in progress must be included in the selected drainage areas to be sampled.

This representative monitoring strategy for stormwater discharges requires collection of additional samples based upon the preceding sampling event stormwater discharge pH or turbidity analysis results when the:

- turbidity analysis results – even in one sampling location – in the previous sampling event have exceeded 200 NTU, the number of drainage areas with disturbed soil areas requiring sampling will be raised to 50 percent.
- turbidity analysis results – even in one sampling location – in the previous sampling event have exceeded 250 NTU, the number of drainage areas with disturbed soil areas requiring sampling will be raised to 100 percent.
- pH analysis results – even in one sampling location – in the previous sampling event have not fallen within 6.5 to 8.5 pH unit range, the number of drainage areas requiring sampling where construction activities could have an impact on the discharge pH readings will be raised to 50 percent.

Stormwater Pollution Prevention Plan (SWPPP)

SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

- pH analysis results – even in one sampling location – in the previous sampling event have not fallen within 6.0 to 9.0 pH unit range, the number of drainage areas requiring sampling where construction activities could have an impact on the discharge pH readings will be raised to 100 percent.

The selection of additional sampling locations, based on turbidity results, will involve drainage areas with the highest percentage of disturbed soil area. The selection of additional sampling locations, based on pH results, will be involve drainage areas with construction activities that are most likely to affect stormwater discharge pH.

700.2.4.3.4 Sampling Schedule

Discharge samples shall be collected for turbidity and pH for qualifying rain events that result in a discharge from the project site. When applicable, upstream, downstream, and run-on samples shall be collected for analysis of turbidity and pH. Sampling and testing for turbidity and pH will be performed daily during all qualifying rain events. Samples shall be collected during working hours.

At least 48 hours prior to each qualifying rain event, the WPC Manager must prepare a list of sampling locations that must be sampled for the qualifying rain event.

The locations shall include all of the following sampling location types:

- discharge locations from the drainage areas with the largest percentage of disturbed soil areas,
- discharge locations from the drainage areas where construction activities that could have an impact on stormwater run-off pH are in progress, and
- if applicable, at least one sampling location from drainage areas where the disturbed soil areas have been stabilized.

The sampling locations must be sampled in the following order: starting with the sampling location on the northwest corner of the WPCDs as the first entry and move clockwise on the WPCDs.

The Caltrans stormwater site inspector and contractor inspector must coordinate and select the sampling locations and the time to meet and collect simultaneous samples for the purposes of QA/QC.

Every reasonable attempt has to be made to collect at least three grab samples per day from each sampling location during the qualifying rain event.

Sampling must start immediately after the flow begins or as soon as possible thereafter. The individual responsible for collecting samples must begin sampling with the first sampling location identified and move on to the next sampling location until all locations are sampled. It is preferable that the three rounds of sampling are performed over the first three hours of the flow; however, depending on the time of the day or other dictating conditions in the field, the three rounds of sampling could be performed over a shorter period of time to ensure that three samples per location are collected.

If stormwater sampling is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document the conditions resulting in the sampling not being performed as planned.

700.2.4.4 Sample Collection and Handling

Stormwater Pollution Prevention Plan (SWPPP)
SR-60/Moreno Beach Drive Interchange Improvements (Ph-2)

Refer to the general requirements for sample collection and handling in General SAP Section 700.2.1.4.

700.2.4.4.1 Sample Collection Procedures

In addition to the general procedures for sample collection in General SAP Section 700.2.1.4.1, the procedures described below apply to sample collection for monitoring of pH and turbidity.

- Grab samples shall be collected and preserved in accordance with the methods identified in Table 700.2.4.5.1: Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH, provided in Section 700.2.4.5.
- Only personnel trained in proper water quality sampling shall collect samples.

700.2.4.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 700.2.1.4.2.

700.2.4.4.3 Sample Documentation Procedures

Refer to the general procedures for sample documentation in General SAP Section 700.2.1.4.3.

700.2.4.5 Sample Analysis

Samples shall be analyzed for the constituents indicated in Table 700.2.4.5.1: “Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH.”

**TABLE 700.2.4.5.1
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING TURBIDITY AND PH**

Parameter	Test Method	Sample Bottle	Minimum Sample Volume⁽¹⁾	Sample Preservation	Maximum Holding Time	Detection Limit (min)
Turbidity	Field test with calibrated portable instrument	Polypropylene or Glass	100 mL	Store at 4° C (39.2° F)	48 hours	1 NTU
pH	Field test with calibrated portable instrument	Polypropylene	100 mL	Store at 4° C (39.2° F)	15 minutes	0.2

Acronyms/Notes:

- C = Celsius
- F = Fahrenheit
- Min = minimum
- mL = milliliter
- NTU = Nephelometric Turbidity Units

(1) Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

700.2.4.6 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in General SAP Section 700.2.1.6. The following replaces the requirements for QA/QC in Section 700.2.1.6 for turbidity and pH quality assurance testing. However, Section 700.2.1.6 requirements apply for SSC quality assurance testing: The contractor shall coordinate with Caltrans RE on sampling locations and timing for quality assurance verification of field sampling and analysis activities. The contractor shall notify the RE at least 24 hours prior to sampling events.

700.2.4.7 Data Management and Reporting

Refer to general requirements for data management and reporting in General SAP Section 700.2.1.7.

In addition to the general requirements for data management and reporting in Section 700.2.1.7, the additional reporting described below is required.

Numeric Action Limit Exceedance Reporting - This project is subject to NALs for pH and turbidity as shown in Table 700.2.4.7.1 "NALs for Monitoring pH and Turbidity."

If the NAL for pH or turbidity or both are exceeded, then form CEM-2062 NAL Exceedance Report will be completed and submitted to the RE within 48 hours after the sampling and analysis event. The NAL Exceedance Report will

- test results, analytical methods, reporting units, and detection limits
- date, sampling location, time of sampling, and visual observations
- predicted quantity of precipitation of the forecasted storm event, and estimated quantity of precipitation at the time of sampling
- description of BMPs
- corrective actions taken to manage the NAL exceedance

Once deemed necessary, corrective actions shall be immediately implemented and documented. Appendix I contains the CEM-2035 Stormwater Corrective Actions Summary form and Appendix O contains the CEM-2062 NAL Exceedance Report form. NAL exceedance reports will be filed in SWPPP File Category 20.62: Numeric Action Level Exceedance Reports.

700.2.4.8 Data Evaluation

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the RE for every day of stormwater sampling. If the stormwater discharge concentrations exceed applicable water quality standards, the WPC Manager or other personnel shall evaluate the project site BMPs to determine the probable cause for the exceedance.

As determined by the data evaluation and project site assessment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documented on the CEM-2035 Stormwater Corrective Actions Summary. Any revisions/design changes to BMPs shall be implemented based on an amendment to the SWPPP.

SECTION 800

POST-CONSTRUCTION CONTROL PRACTICES

800.1 Post-Construction Control Practices

Approved Treatment BMPs for the project site:

- Bio-swales
- Infiltration basin

Design Pollution Prevention (DDPs) BMPs for the project site:

- Bio-swales
- Infiltration basin

800.2 Post-Construction Operation/Maintenance

The post-construction BMPs that are listed above will be funded and maintained in the following manner.

- short-term funding: Caltrans District 8 and City of Moreno Valley
- long-term funding: Caltrans District 8 and City of Moreno Valley

The responsible party for the long-term maintenance of post-construction BMPs is Caltrans District 8 and City of Moreno Valley

SECTION 900

SWPPP REPORTING REQUIREMENTS

900.1 Recordkeeping

To manage the various documents required by the SWPPP and to provide easy access to the documents, the following SWPPP file categories will be used to file SWPPP compliance documents:

File Category 20.01	.....Stormwater Pollution Prevention Plan (SWPPP)
File Category 20.02	.....Stormwater Pollution Prevention Plan Amendments
File Category 20.03	.....Water Pollution Control Schedule Updates
File Category 20.05	.....Notice of Intent
File Category 20.06	.....Legally Responsible Person Authorization of Approved Signatory
File Category 20.10	.....Correspondence
File Category 20.21	.....Subcontractor Contact Information and Notification Letters
File Category 20.22	.....Material Suppliers Contact Information and Notification Letters
File Category 20.23	.....Contractor Personnel Training Documentation
File Category 20.31	.....Contractor Stormwater Site Inspection Reports
File Category 20.32	.....Caltrans Stormwater Site Inspection Reports
File Category 20.33	.....Site Visual Monitoring Inspection Reports
File Category 20.34	.....Best Management Practices Weekly Status Reports
File Category 20.35	.....Corrective Actions Summary
File Category 20.40	.....Weather Monitoring Logs
File Category 20.45	.....Rain Event Action Plans
File Category 20.46	.....Storm/Rain Event Sampling and Analysis Plan
File Category 20.50	.....Non-Stormwater Discharge Sampling and Test Results
File Category 20.51	.....Non-Visible Pollutant Sampling and Test Results
File Category 20.52	.....Turbidity, pH and SSC Sampling and Test Results
File Category 20.53	.....Required Regional Water Board Monitoring Sampling and Test Results
File Category 20.54	.....ATS Monitoring Sampling and Test Results
File Category 20.55	.....Field Testing Equipment Maintenance and Calibration Records
File Category 20.61	.....Notice of Discharge Reports
File Category 20.62	.....Numeric Action Level Exceedance Reports
File Category 20.63	.....Numeric Effluent Limitation Violation Reports
File Category 20.70	.....Annual Certification of Compliance
File Category 20.80	.....Stormwater Annual Reports

File Category 20.90Notice of Termination

Records shall be retained for a minimum of three years for the following items:

- approved SWPPP document and amendments
- Stormwater Site Inspection Reports
- Site Inspection Report Corrections Summary
- Rain Event Action Plans (REAPs)
- Notice of Discharge Reports
- Numeric Action Limit (NAL) Exceedance Reports
- Numeric Effluent Limitaion (NEL) Violation Reports
- sampling records and analysis reports
- Annual Compliance Certifications
- copies of all applicable permits

900.2 Stormwater Annual Report

A Stormwater Annual Report will be prepared for this project to document the stormwater monitoring information and training information.

The stormwater monitoring information listed below shall be included in the Stormwater Annual Report.

- A summary and evaluation of all sampling and analysis results, including copies of laboratory reports.
- The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter.
- A summary of all corrective actions taken during the compliance year.
- Identification of any compliance activities or corrective actions that were not implemented.
- •A summary of all violations of the CGP.
- The names of individual(s) who performed site inspections, sampling, site visual monitoring inspections and/or measurements.
- The date, place, and time of site inspections, sampling, site visual monitoring inspections, and/or measurements, including precipitation (rain gauge).
- Any site visual monitoring inspection and sample collection exception records.

The stormwater training information listed below shall be included in the Stormwater Annual Report.

- Documentation of all training for individuals responsible for all activities associated with compliance with the CGP.
- Documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair.
- Documentation of all training for individuals responsible for overseeing, revising and amending the SWPPP.

900.3 Discharge Reporting

If an unauthorized discharge is discovered or evidence of a previously unseen discharge is discovered, the Contractor shall notify the RE within 6 hours of the discovery, and will file a written report with the RE within 24 hours after the discovery. The written report to the RE will contain the following items:

- date, time, location, and type of unauthorized discharge
- nature of operation that caused the discharge
- initial assessment of any impacts caused by the discharge
- BMPs deployed before the discharge event and date(s) of deployment
- BMPs deployed after the discharge event, including re-installation, maintenance or repair of initial BMPs
- steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge

Reporting of discharges shall be documented on the CEM-2061 Notice of Discharge form in Appendix M. A log of all reportable discharges shall be documented on CEM-2065 Discharge Reporting Log form in Appendix Z. Completed CEM-2061 Notice of Discharge forms shall be submitted to the RE within 24 hours after the discharge event or discovery of evidence of a prior discharge. Copies of completed forms will be kept in File Category 20.61: Notice of Discharge Reports.

900.4 Regulatory Agency Notice or Order Reporting

If a written notice or order is issued to the project by any regulatory agency, the Contractor will notify the RE within 6 hours of receiving the notice or order and will file a written report to the RE within 48 hours of receiving the notice or order. Corrective measures will be implemented immediately following receipt of the notice or order.

The report to the RE will contain the following items

- the date, time, location, and cause or nature of the notice or order
- the BMPs deployed prior to receiving the notice or order
- the date of deployment and type of BMPs deployed after receiving the notice or order, including additional BMPs installed or planned to reduce or prevent recurrence
- an implementation and maintenance schedule for any affected BMPs

900.5 Illegal Connection/Illicit Discharge Reporting

If the Contractor discovers an illegal connection to a storm drain system or any pipe discharging onto the project site, not shown on the project plans, the Contractor shall notify the RE within 6 hours of the discovery and shall file a written report to the RE within 48 hours of the discovery.

If the Contractor discovers any illicit discharge, including illegal disposing of material on the project site, the Contractor shall immediately notify the RE and shall file a written report to the RE within 3 days of discovery.

The report to the RE will contain the following items:

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- the date, time, and location of the discovery
- the details for the illegal connection or illicit discharge, including any photographs taken
- any actions taken to contain the illicit discharge
- any sampling and testing performed on material that was illegally disposed of or discharged

Attachment A

Legally Responsible Person Authorization of Approved Signatory

(CEM 2006 11/2013 is an Optional Form and not selected for use)

Attachment B

Notice of Construction(NOC)/Notice of Intent(NOI)

Attachment C

Risk Level Determination

Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- [Submit your LEW through EPA's eReporting Tool](#)
- [List of states, Indian country, and territories where EPA is the permitting authority](#)
- [Construction Rainfall Erosivity Waiver Fact Sheet](#)
- [Appendix C of the 2017 CGP – Small Construction Waivers and Instructions](#)


The R-factor calculation can also be integrated directly into custom applications using the [R-Factor web service](#).

For questions or comments, email EPA's CGP staff at cgp@epa.gov.

 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

Start Date:  End Date: 

 Locate your small construction project using the search box below or by clicking on the map.

Location: Search

+
—

R Year 1 = 43.7
R Year 2 = 29.37
TOTAL = 72.54

● Click the "Calculate R Factor" button below to calculate an R Factor for your small construction project.

Calculate R Factor

Facility Information

Start Date: 08/02/2021	Latitude: 33.9393
End Date: 08/01/2022	Longitude: -117.1786

Calculation Results

Rainfall erosivity factor (R Factor) = **43.17**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage. If you are located in an [area where EPA is the permitting authority](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeT\)](#). Otherwise, you must seek coverage under your state's CGP.

National Pollutant Discharge Elimination System (NPDES)

[CONTACT US](#)



Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- [Submit your LEW through EPA's eReporting Tool](#)
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The R-factor calculation can also be integrated directly into custom applications using the [R-Factor web service](#).

For questions or comments, email EPA's CGP staff at cgp@epa.gov.



Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

Start Date:  **End Date:** 



Locate your small construction project using the search box below or by clicking on the map.

Location: **Search**





Click the "Calculate R Factor" button below to calculate an R Factor for your small construction project.

Calculate R Factor

Facility Information

Start Date: 08/02/2022	Latitude: 33.9393
End Date: 02/15/2023	Longitude: -117.1786

Calculation Results

Rainfall erosivity factor (R Factor) = **29.37**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage. If you are located in an [area where EPA is the permitting authority](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeT\)](#). Otherwise, you must seek coverage under your state's CGP.

Water Boards Storm Water Multiple Application & Report Tracking System

[Help](#)

[Logout](#)

You are logged-in as:
If this account does not belong to you, please log out.

Navigate To:

Risk

The application is organized into different tabs. Please complete all applicable tabs before submitting the form. If you want to complete the application at a later time, please click on "Save & Exit".

WDID/App ID: - 538954 **Owner:** **Certified Date:**
Status: Not Submitted **Processed Date:**
Order No: 2009-0009-DWQ **Site:** SR 60 at Moreno Beach Drive Interchange **NOT Effective Date:**
Permit Type: Construction - NOI Moreno Beach Drive Moreno Valley CA 92552 **Previous ID:** -

- Owner Info
 - Developer Info
 - Site Info
 - Risk
 - Addl. Site Info
 - Post Construction
 - Billing Info
 - Attachments
 - Certification
 - Reports
 - Inspections
 - Print
- Status History
 - Linked Users
 - NOTs
 - COIs

SEDIMENT RISK FACTOR WORKSHEET	
Instructions: Enter R,K and LS factor values. System will calculate watershed erosion estimates and site sediment risk factor A. Sediment Risk	
A) R Factor Value: (What's this?)	<input style="width: 90%;" type="text" value="72.54"/> <input type="button" value="!"/> <small>* Erosivity Calculator</small>
B) K Factor Value (weighted average, by area, for all site soils) (What's this?) <small>***If not using the SWRCB map(Populate K Factor) upload your analysis on the Attachment Tab prior to submitting to the SWRCB.</small>	<input style="width: 90%;" type="text" value="0.2"/> <input type="button" value="Populate K Factor"/>
C) LS Factor (weighted average, by area, for all slopes) (What's this?) <small>***If not using the SWRCB map(Populate LS Factor) upload your analysis on the Attachment Tab prior to submitting to the SWRCB.</small>	<input style="width: 90%;" type="text" value="1.4688046"/> <input type="button" value="Populate LS Factor"/>
Watershed Erosion Estimate (=R*K*LS) in tons/acre	
<input style="width: 90%;" type="text" value="21.3094171368"/>	
Site Sediment Risk Factor	
<input style="width: 90%;" type="text" value="Medium"/>	
<small>Low Sediment Risk: < 15 tons/acre Medium Sediment Risk: >= 15 and <75 tons/acre High Sediment Risk: >= 75 tons/acre</small>	

RECEIVING WATER (RW) RISK FACTOR WORKSHEET

A. Watershed Characteristics

A.1.(a) Does the disturbed area discharge directly or indirectly to a 303(d) listed waterbody impaired by sediment? <p style="text-align: center;"><u>OR</u></p> A.1.(b) Is the disturbed area located within a sub-watershed draining to a 303(d) listed waterbody impaired by sediment? <p style="text-align: center;"><u>OR</u></p> A.2. Is the disturbed area located within a planning watershed draining to a waterbody with designated beneficial uses of COLD, SPAWN AND MIGRATORY?	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Populate Receiving Water Risk <input style="width: 90%;" type="text" value="No"/> * </div> <p style="text-align: center;">Yes = High, No = Low</p> <p style="text-align: center;">Statewide Map of High Receiving Water Risk Watersheds</p>
---	--

C. Combined Risk Level Matrix

		Sediment Risk		
		Low	Medium	High
Receiving Water Risk	Low	Level1	Level2	
	High	Level2		Level3

Project Sediment Risk:

Project Receiving Water Risk:

Project Combined Risk:

Fields marked with * are mandatory fields.

Computation Sheet for Determining Run-on Discharges

Existing Site Conditions

$$\begin{aligned} \text{Area Runoff Coefficient} &= 0.75 && \text{(A)} \\ \text{Area Rainfall Intensity} &= \frac{0.093}{30.44} \text{ in/hr} && \text{(B)} \\ \text{Drainage Area} &= 30.44 \text{ Acres} && \text{(C)} \\ \text{Site Area Run-on Discharge} &= \frac{(A) \times (B) \times (C)}{2.12} \text{ cu ft/sec} && \text{(D)} \end{aligned}$$

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.16 (0.972-1.40)	1.57 (1.31-1.91)	2.11 (1.75-2.57)	2.56 (2.11-3.14)	3.17 (2.52-4.02)	3.64 (2.83-4.72)	4.12 (3.12-5.47)	4.61 (3.40-6.31)	5.28 (3.73-7.56)	5.82 (3.96-8.62)
10-min	0.834 (0.696-1.01)	1.13 (0.942-1.37)	1.52 (1.26-1.84)	1.84 (1.51-2.25)	2.27 (1.81-2.88)	2.60 (2.03-3.38)	2.95 (2.24-3.92)	3.30 (2.44-4.52)	3.79 (2.68-5.41)	4.16 (2.84-6.17)
15-min	0.672 (0.560-0.812)	0.908 (0.756-1.10)	1.22 (1.02-1.49)	1.48 (1.22-1.81)	1.83 (1.46-2.32)	2.10 (1.64-2.72)	2.38 (1.80-3.16)	2.66 (1.96-3.64)	3.05 (2.16-4.36)	3.36 (2.29-4.98)
30-min	0.510 (0.426-0.618)	0.690 (0.576-0.838)	0.928 (0.772-1.13)	1.12 (0.926-1.38)	1.39 (1.10-1.76)	1.59 (1.24-2.07)	1.80 (1.37-2.40)	2.02 (1.49-2.77)	2.32 (1.64-3.31)	2.55 (1.74-3.78)
60-min	0.373 (0.312-0.452)	0.506 (0.421-0.613)	0.680 (0.565-0.827)	0.823 (0.678-1.01)	1.02 (0.810-1.29)	1.17 (0.909-1.52)	1.32 (1.00-1.76)	1.48 (1.09-2.03)	1.70 (1.20-2.43)	1.87 (1.27-2.77)
2-hr	0.279 (0.232-0.338)	0.366 (0.305-0.444)	0.480 (0.400-0.584)	0.574 (0.473-0.704)	0.702 (0.558-0.890)	0.800 (0.622-1.04)	0.900 (0.683-1.20)	1.00 (0.740-1.37)	1.14 (0.808-1.64)	1.25 (0.854-1.86)
3-hr	0.232 (0.194-0.281)	0.301 (0.251-0.366)	0.392 (0.326-0.477)	0.466 (0.384-0.571)	0.566 (0.451-0.719)	0.644 (0.501-0.835)	0.722 (0.548-0.961)	0.803 (0.592-1.10)	0.914 (0.645-1.31)	1.00 (0.682-1.48)
6-hr	0.166 (0.139-0.201)	0.213 (0.178-0.259)	0.275 (0.228-0.334)	0.325 (0.268-0.399)	0.393 (0.313-0.499)	0.445 (0.347-0.578)	0.499 (0.378-0.663)	0.553 (0.408-0.758)	0.628 (0.443-0.897)	0.686 (0.467-1.02)
12-hr	0.109 (0.091-0.132)	0.140 (0.116-0.169)	0.180 (0.150-0.219)	0.213 (0.176-0.261)	0.258 (0.205-0.327)	0.292 (0.227-0.379)	0.327 (0.248-0.435)	0.362 (0.267-0.496)	0.411 (0.290-0.587)	0.448 (0.306-0.664)
24-hr	0.071 (0.063-0.082)	0.093 (0.082-0.107)	0.121 (0.106-0.140)	0.143 (0.125-0.167)	0.174 (0.147-0.210)	0.198 (0.164-0.243)	0.222 (0.180-0.279)	0.246 (0.194-0.319)	0.280 (0.212-0.377)	0.305 (0.224-0.426)
2-day	0.042 (0.037-0.049)	0.056 (0.049-0.064)	0.073 (0.064-0.085)	0.088 (0.077-0.102)	0.107 (0.091-0.129)	0.122 (0.101-0.150)	0.138 (0.112-0.173)	0.154 (0.121-0.199)	0.175 (0.133-0.236)	0.192 (0.141-0.268)
3-day	0.030 (0.026-0.034)	0.040 (0.035-0.046)	0.053 (0.046-0.061)	0.063 (0.056-0.074)	0.078 (0.066-0.094)	0.090 (0.074-0.110)	0.101 (0.082-0.128)	0.114 (0.090-0.147)	0.130 (0.099-0.175)	0.143 (0.105-0.200)
4-day	0.024 (0.021-0.028)	0.032 (0.029-0.037)	0.044 (0.038-0.050)	0.053 (0.046-0.061)	0.065 (0.055-0.079)	0.075 (0.062-0.092)	0.085 (0.069-0.107)	0.095 (0.075-0.123)	0.110 (0.083-0.148)	0.121 (0.089-0.169)
7-day	0.016 (0.014-0.018)	0.021 (0.019-0.025)	0.029 (0.026-0.034)	0.036 (0.031-0.042)	0.044 (0.038-0.054)	0.051 (0.043-0.063)	0.058 (0.047-0.074)	0.066 (0.052-0.085)	0.076 (0.058-0.103)	0.084 (0.062-0.118)
10-day	0.012 (0.010-0.014)	0.016 (0.014-0.019)	0.022 (0.020-0.026)	0.027 (0.024-0.032)	0.034 (0.029-0.041)	0.040 (0.033-0.049)	0.045 (0.037-0.057)	0.051 (0.040-0.066)	0.059 (0.045-0.080)	0.066 (0.048-0.092)
20-day	0.007 (0.006-0.008)	0.010 (0.009-0.012)	0.014 (0.012-0.016)	0.017 (0.015-0.020)	0.022 (0.018-0.026)	0.025 (0.021-0.031)	0.029 (0.024-0.037)	0.033 (0.026-0.043)	0.039 (0.029-0.052)	0.043 (0.031-0.060)
30-day	0.006 (0.005-0.007)	0.008 (0.007-0.009)	0.011 (0.010-0.013)	0.014 (0.012-0.016)	0.017 (0.015-0.021)	0.020 (0.017-0.025)	0.023 (0.019-0.029)	0.027 (0.021-0.034)	0.031 (0.024-0.042)	0.035 (0.026-0.049)
45-day	0.005 (0.004-0.005)	0.006 (0.006-0.007)	0.009 (0.008-0.010)	0.011 (0.009-0.012)	0.013 (0.011-0.016)	0.016 (0.013-0.019)	0.018 (0.015-0.023)	0.021 (0.016-0.027)	0.024 (0.018-0.033)	0.027 (0.020-0.038)
60-day	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.007-0.009)	0.009 (0.008-0.011)	0.012 (0.010-0.014)	0.013 (0.011-0.017)	0.015 (0.013-0.019)	0.018 (0.014-0.023)	0.021 (0.016-0.028)	0.023 (0.017-0.033)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

Figure 819.2A

**Runoff Coefficients for Undeveloped Areas
Watershed Types**

	Extreme	High	Normal	Low
Relief	.28 -.35 Steep, rugged terrain with average slopes above 30%	.20 -.28 Hilly, with average slopes of 10 to 30%	.14 -.20 Rolling, with average slopes of 5 to 10%	.08 -.14 Relatively flat land, with average slopes of 0 to 5%
Soil Infiltration	.12 -.16 No effective soil cover, either rock or thin soil mantle of negligible infiltration capacity	.08 -.12 Slow to take up water, clay or shallow loam soils of low infiltration capacity, imperfectly or poorly drained	.06 -.08 Normal; well drained light or medium textured soils, sandy loams, silt and silt loams	.04 -.06 High; deep sand or other soil that takes up water readily, very light well drained soils
Vegetal Cover	.12 -.16 No effective plant cover, bare or very sparse cover	.08 -.12 Poor to fair; clean cultivation crops, or poor natural cover, less than 20% of drainage area over good cover	.06 -.08 Fair to good; about 50% of area in good grassland or woodland, not more than 50% of area in cultivated crops	.04 -.06 Good to excellent; about 90% of drainage area in good grassland, woodland or equivalent cover.
Surface Storage	.10 -.12 Negligible surface depression few and shallow; drainageways steep and small, no marshes	.08 -.10 Low; well defined system of small drainageways; no ponds or marshes	.06 -.08 Normal; considerable surface depression storage; lakes and pond marshes	.04 -.06 High; surface storage, high; drainage system not sharply defined; large flood plain storage or large number of ponds or marshes.

Table 819.2B**Runoff Coefficients for
Developed Areas**

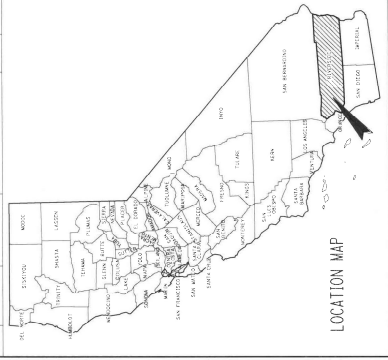
Type of Drainage Area	Runoff Coefficient
Business:	
Downtown areas	0.70 - 0.95
Neighborhood areas	0.50 - 0.70
Residential:	
Single-family areas	0.30 - 0.50
Multi-units, detached	0.40 - 0.60
Multi-units, attached	0.60 - 0.75
Suburban	0.25 - 0.40
Apartment dwelling areas	0.50 - 0.70
Industrial:	
Light areas	0.50 - 0.80
Heavy areas	0.60 - 0.90
Parks, cemeteries:	0.10 - 0.25
Playgrounds:	0.20 - 0.40
Railroad yard areas:	0.20 - 0.40
Unimproved areas:	0.10 - 0.30
Lawns:	
Sandy soil, flat, 2%	0.05 - 0.10
Sandy soil, average, 2-7%	0.10 - 0.15
Sandy soil, steep, 7%	0.15 - 0.20
Heavy soil, flat, 2%	0.13 - 0.17
Heavy soil, average, 2-7%	0.18 - 0.25
Heavy soil, steep, 7%	0.25 - 0.35
Streets:	
Asphaltic	0.70 - 0.95
Concrete	0.80 - 0.95
Brick	0.70 - 0.85
Drives and walks	0.75 - 0.85
Roofs:	0.75 - 0.95

C= 0.75

Attachment D

Vicinity Map and Site Map

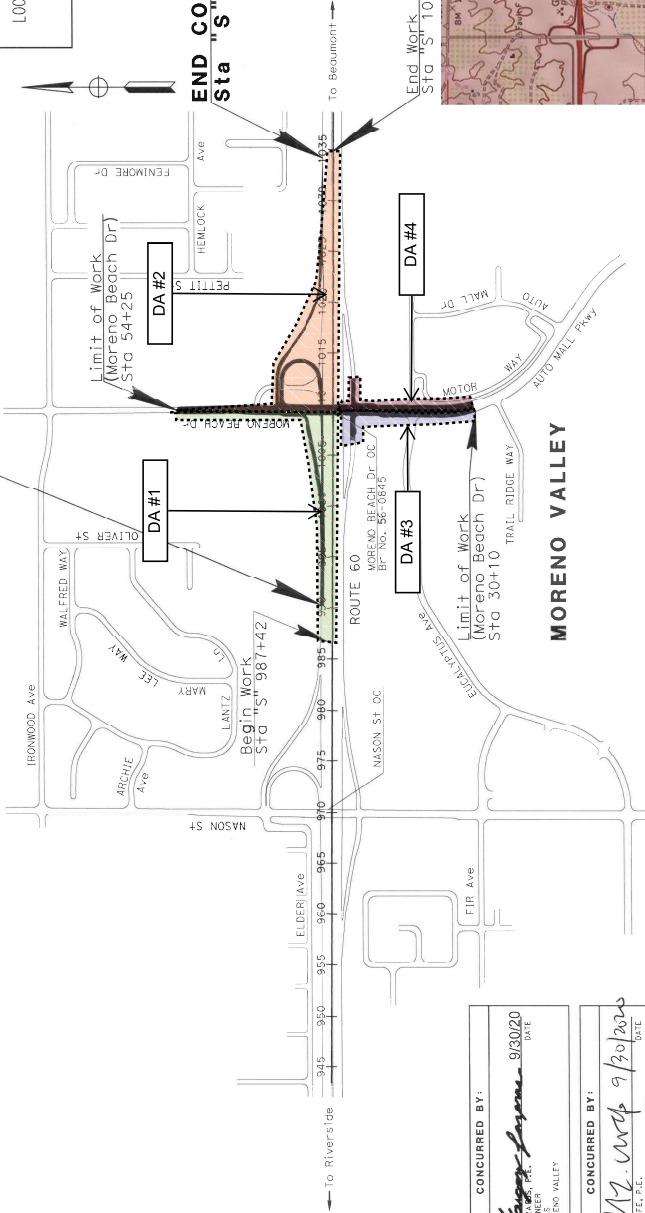
08 Riv 60 18.8/19.6 1 358



**STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN RIVERSIDE COUNTY
IN MORENO VALLEY
FROM 0.3 MILE WEST TO 0.5 MILE EAST
OF MORENO BEACH DRIVE OVERCROSSING**

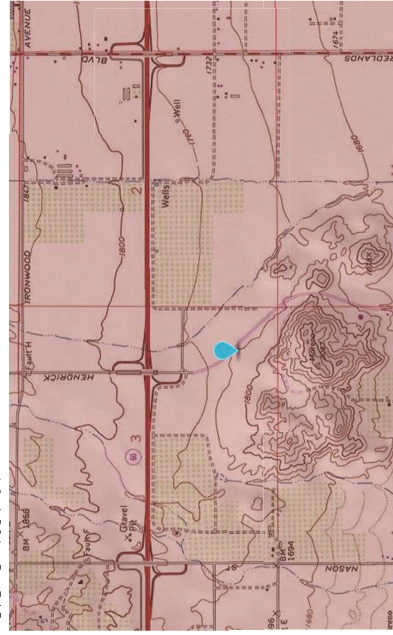
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018

**BEGIN CONSTRUCTION
Sta "S" 990+28.54 PM 18.8**



**END CONSTRUCTION
Sta "S" 1034+26.81 PM 19.6**

End Work
Sta 1034+84



DIG ALERT
DIAL TOLL FREE 1-800-428-2828
OR 951-261-1111
BEFORE YOU DIG
UNLAWFUL TO DIG
OF SOUTHERN CALIFORNIA

CAUTION - NOTICE TO CONTRACTOR
ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES. CONTRACTOR TO VERIFY EXACT LOCATION OF UTILITIES. THE CONTRACTOR SHALL CALL FOR A UTILITY AT 1-800-277-6868, 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON SITE HAVE BEEN LOCATED BY THE CONTRACTOR. UNMARKED UTILITIES ARE DISCOVERED DURING EXCAVATION PHASE. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.

CONCURRED BY:
Michael Rolfe
MICHAEL ROLFE, P.E., CIVIL ENGINEER
CITY OF MORENO VALLEY
DATE: 9/30/2018

CONCURRED BY:
MJ. Murphy
MICHAEL J. MURPHY, CIVIL ENGINEER
CITY OF MORENO VALLEY
DATE: 9/30/2018



PREPARED BY:
RTC, Inc.
22431 Antonio Parkway B 109-251
Moreno Valley, CA 92580
(949) 456-8223



APPROVED:
DATE: 08-323034
BY:

**WATER POLLUTION CONTROL
DRAWING**

Sheet 2 of 2

NO.	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
4					
3					
2					
1					

Attachment E

Contractor Personnel Stormwater Training

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
SWPPP/WPCP ATTACHMENT D
CONTRACTOR PERSONNEL TRAINING RECORD

CEM-20DCON (NEW 9/2012)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM	
	PROJECT IDENTIFIER NUMBER	
CONTRACTOR NAME AND ADDRESS	PROJECT WATER POLLUTION CONTROL	SWPPP PROJECT SITE RISK LEVEL
	<input type="checkbox"/> WPCP <input checked="" type="checkbox"/> SWPPP	<input type="checkbox"/> Risk Level 1 <input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
Submitted by Contractor (Print and Sign Name)		Date

CONTRACTOR PERSONNEL STORMWATER TRAINING RECORD

Project Manager

NAME	TITLE		PHONE
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

Water Pollution Control Manager

NAME	COMPANY	PHONE	
Chris Becker	RTC, Inc.	949-456-0823	
TITLE		AFTER HOURS PHONE NUMBER	
QSD/CPESC		949-456-0823	
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)
24-hour State QSP/QSD Training	QSD/QSP Certificate # 24331	4/1/2015	24
8-hour CESSWI Training	CESSWI Certificate #3080	8/15/2015	8
8-hour CPECS Training	CPECS Certificate #7408	9/25/2015	8
8-hour CPSWQ Training	CPSWQ Training	10/30/2016	8
4-hour CA Title 22 HazMat training	Title 22 Haz Mat Certification	01/01/2017	4

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CORTE/PM
	PROJECT IDENTIFIER NUMBER

STORMWATER TRAINING RECORD CONTINUED

Include the following when the WPC Manager does not develop the SWPPP.

Qualified SWPPP Developer (QSD)

NAME Same as WPC Manager	COMPANY		PHONE
TITLE			AFTER HOURS PHONE NUMBER
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

Include the following when a Qualified SWPPP Practitioner will be assisting the WPC Manager with SWPPP/WPCP implementation.

Qualified SWPPP Practitioner (QSP)

NAME Oscar Flores	COMPANY RTC, Inc.		PHONE (833) 782-4252
TITLE QSP			AFTER HOURS PHONE NUMBER (833) 782-4252
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)
16-hour State QSP Training	QSP Certification		16
8-hour CESSWI Training	CISEC		8

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

STORMWATER TRAINING RECORD CONTINUED

Include the following training record information when a storm water inspector will be assisting the WPC Manager.

Stormwater Inspector

NAME	COMPANY		PHONE
TITLE			AFTER HOURS PHONE NUMBER
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

Include the following when contractor employees will be responsible for stormwater discharge sampling testing.

Primary Stormwater Discharge Sampler and Tester

NAME Same as WPC Manager	COMPANY		PHONE
TITLE			AFTER HOURS PHONE NUMBER
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

Alternate Stormwater Discharge Sampler and Tester

NAME	COMPANY		PHONE
TITLE QSP (See QSP Information)			AFTER HOURS PHONE NUMBER
Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

STORMWATER TRAINING RECORD CONTINUED

Include the following when contractor employees will be responsible for BMP installation, maintenance, and repair.

Employees Responsible for BMP Installation, Maintenance, and Repair

EMPLOYEE NAME

Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

EMPLOYEE NAME

Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

EMPLOYEE NAME

Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

EMPLOYEE NAME

Training Course Title	Training Objective	Date Training Completed	Course Length (Hours)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

STORMWATER TRAINING RECORD CONTINUED

CONTRACTOR EMPLOYEES STORMWATER TRAINING RECORD

Employee Name	Training Course Title	Date Training Completed	Course Length (Hours)

I have reviewed this document and based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true accurate, and complete.

Water Pollution Control Manager Name _____ Date _____

Water Pollution Control Manager Signature _____



EnviroCert International, Inc.
3054 Fite Circle, Suite 108, Sacramento, CA 95827
(279) 888-6911 | www.envirocert.org

Christopher Becker
CESSWI

Certified Erosion, Sediment, and
StormWater Inspector

3080

CERTIFICATION NO.

2022-07-27

EXPIRES



EnviroCert International, Inc.
3054 Fite Circle, Suite 108, Sacramento, CA 95827
(279) 888-6911 | www.envirocert.org

Christopher Becker
CPESC

Certified Professional in Erosion &
Sediment Control

7408

CERTIFICATION NO.

2022-07-06

EXPIRES

CERTIFICATE OF TRAINING
CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP DEVELOPER (QSD)
AND
QUALIFIED SWPPP PRACTITIONER (QSP)

Christopher Becker

Jun 28, 2020 - Sep 04, 2022

Certificate # 24331



California Stormwater Quality Association and
California Construction General Permit Training Team



The CPESC® Application Review Committee certifies that



Christopher C. Becker

Subscribes to the Code of Conduct and Ethics and has met the requirements established by the CPESC Council as a

Certified Professional in Erosion and Sediment Control™

An EnviroCert International, Inc. Program

Certification Number: **7408**

Certification Date: **May 13, 2013**


Chair, CPESC Council


Interim Program Director



The CPESC Program was established in 1982.





The CESSWI™ Application Review Committee
certifies that



Christopher C. Becker

Subscribes to the Code of Conduct and Ethics and has met the requirements
established by the CESSWI Council as a

**Certified Erosion, Sediment and
Storm Water Inspector™**

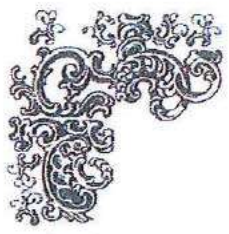
An EnviroCert International, Inc. Program

Certification Number: **3080**

Certification Date: **July 27, 2012**

Thomas M. Nunk Jr.
Chair, CESSWI Council

Wanda Conway
CESSWI Program Coordinator



The CESSWI Program was established in 2007.



Certificate of Completion

THIS CERTIFIES THAT

Chris Becker

has attended

Certified Professional in Storm Water Quality Exam

Review Course TM

and has been awarded 6 Professional Development Hours.

Exam Review Date: 10/8/2015

Robert Anderson, EnviroCert Board
President



ENVIROCERT
International, Inc.[®]
49 State Street • Marion, NC 28752





Certificate of Completion

Chris Becker

has successfully completed training in

Title 22/RCRA

presented by

NERS, Inc.

May 11, 2017

Date

CERTIFICATE of COMPLETION

Chris Becker

HAS SUCCESSFULLY COMPLETED THE 8-HOUR CALTRANS
MANDATORY WATER POLLUTION CONTROL MANAGER (WPCM)
TRAINING COURSE ON

10/28/2020



Bob Shults, PE, QSD, CGP-TOR



To verify the authenticity of
this certificate, please email
info@veruxinc.com.

CERTIFICATE OF TRAINING
CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP
PRACTITIONER (QSP)

Oscar Flores

Jan 04, 2021 - Feb 04, 2023

Certificate # 27044



California Stormwater Quality Association and
California Construction General Permit Training Team



CISEC, Inc.
P.O. Box 188
Parker, CO 80134
Ph: (720) 235-2783
Fax: 303-841-6383
E-mail: contactus@cisecinc.org




CISEC, Inc. Wallet Card

Name: Oscar Flores

Order Date: March 2021

Below is your wallet card.

Please print this card and keep it in your wallet or your files.

	<p>CISEC, Inc. Board of Directors <i>certifies that</i> Oscar Flores <i>has demonstrated satisfactory evidence of sediment and erosion control inspection skills and successfully passed the certification examination and therefore, as required by CISEC, Inc., is authorized to use the title of</i> Certified Inspector of Sediment and Erosion Control</p> <p>2647  February 28, 2022</p>	<p><i>As a CISEC Registrant, I agree to the following:</i></p> <ul style="list-style-type: none">At all times, strictly abide by the CISEC, Inc. Code of Ethics,Perform all services in a professional manner and uphold professional standards in relating to the public, to other CISEC, Inc. registrants and to other professionals within the industry,Earn at least 12 CDH's each year after becoming a CISEC registrant andPay CISEC, Inc. annual renewal fees.	 <p>CISEC, Inc. P.O. Box 188 Parker, CO 80134 720-235-2783 www.cisecinc.org</p>
CISEC #	CISEC, Inc. President	Expiration Date	Signature (required)

Safety Compliance Management
is proud to award this

Certificate of Completion

to

Oscar Flores

for successfully completing 4 hours of training & testing in

California Title 22 Hazardous Waste Generator Training #1398

Presented this 27 day of March, 2020.



3160 Crow Canyon Place
San Ramon, CA 94583
1-800-974-1419

Josua Guitx
Safety Compliance Management, Inc.

CERTIFICATE OF TRAINING

THIS CERTIFICATE ACKNOWLEDGES ATTENDANCE BY

Oscar Flores

8-HOUR WATER POLLUTION CONTROL MANAGER
TRAINING COURSE PER 13-1.01D(4)(b)
DECEMBER 2, 2020



12-2-2020



JOHN GLEASON, PE, QSD, TOR, CPESC
JOHN.GLEASON@MSHATCH.COM
(949) 981-3867

DATE



Search city or lab name

Lab ID: 1032

LabName	Eurofins Calscience Irvine
Phone #	9492611022
Address	17461 Derian Avenue
City	Irvine
Zip	92614
Certifications	101: Microbiology: Drinking Water; 102: Inorganic Chemistry: Drinking Water; 103: Toxic Chemical Elements: Drinking Water; 104: Volatile Organic Chemistry: Drinking Water; 106: Radiochemistry: Drinking Water; 107: Microbiology: Wastewater; 108: Inorganic Chemistry: Wastewater; 109: Toxic

[Zoom to](#) ***



STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

TestAmerica Irvine

Irvine

17461 Derian Avenue

Irvine, CA 92614-5817

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection,
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2706**

Expiration Date: **6/30/2022**

Effective Date: **7/1/2018**

A handwritten signature in black ink, appearing to read "Christine Sotelo".

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program



CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing



TestAmerica Irvine

Irvine
17461 Derian Avenue
Irvine, CA 92614-5817
Phone: 9492611022

Certificate No. 2706
Expiration Date 6/30/2021

Field of Testing: 101 - Microbiology of Drinking Water

101.010	001	Heterotrophic Bacteria	SM 9215 B
101.010	002	Heterotrophic Bacteria	SimPlate
101.020	001	Total Coliform P/A	SM 9221 B
101.020	002	Fecal Coliform P/A	SM 9221 B,E
101.020	003	E. coli P/A	SM 9221 B,F
101.050	001	Total Coliform P/A	SM 9223 B Collert
101.050	002	E. coli P/A	SM 9223 B Collert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Collert
101.050	004	E. coli (Enumeration)	SM 9223 B Collert
101.050	005	Total Coliform P/A	SM 9223 B Collert 18
101.050	006	E. coli P/A	SM 9223 B Collert 18
101.050	007	Total Coliform (Enumeration)	SM 9223 B Collert 18
101.050	008	E. coli (Enumeration)	SM 9223 B Collert 18
101.050	009	Total Coliform P/A	SM 9223 B Collisure
101.050	010	E. coli P/A	SM 9223 B Collisure
101.050	011	Total Coliform (Enumeration)	SM 9223 B Collisure
101.050	012	E. coli (Enumeration)	SM 9223 B Collisure

Field of Testing: 102 - Inorganic Chemistry of Drinking Water

102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (Calculation)	EPA 200.7
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	008	Phosphate,Ortho (as P)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.040	001	Bromide	EPA 300.1

102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.121	001	Hardness	SM 2340 C-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.200	001	Fluoride	SM 4500-F C-2011
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.262	001	Total Organic Carbon TOC	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000
102.564	001	Cyanide, Total	Kelada-01 Revision 1.2

Field of Testing: 103 - Toxic Chemical Elements of Drinking Water

103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8

103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6
103.311	001	Chromium (VI)	EPA 218.7

Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water

104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2

104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2

Field of Testing: 106 - Radiochemistry of Drinking Water

106.092	001	Uranium	EPA 200.8
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Field of Testing: 107 - Microbiology of Wastewater

107.020	002	Total Coliform (Enumeration)	SM 9221 B-2006
107.030	002	Total Coliform with Chlorine Present	SM 9221 B,C-2006
107.040	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.050	002	Fecal Coliform with Chlorine Present	SM 9221 C,E-2006
107.242	001	Enterococci	Enterolert
107.245	002	E. coli (Enumeration)	SM 9223 B Colilert
107.247	001	E. coli (Enumeration)	SM 9221 B,F-2006

Field of Testing: 108 - Inorganic Chemistry of Wastewater

108.020	001	Specific Conductance	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (Calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica, Dissolved	EPA 200.7
108.112	007	Sodium	EPA 200.7

As of 6/25/2019, this list supersedes all previous lists for this certificate number.
 Customers: Please verify the current accreditation standing with the State.

108.112	008	Phosphorus, Total	EPA 200.7
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	008	Sulfate (as SO4)	EPA 300.0
108.120	012	Nitrate (as N)	EPA 300.0
108.120	013	Nitrate-Nitrite (as N)	EPA 300.0
108.120	014	Nitrite (as N)	EPA 300.0
108.120	015	Phosphate, Ortho (as P)	EPA 300.0
108.209	001	Ammonia (as N)	EPA 350.1
108.211	002	Kjeldahl Nitrogen, Total (as N)	EPA 351.2
108.264	001	Phosphate, Ortho	EPA 365.3
108.265	001	Phosphorus, Total	EPA 365.3
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.381	001	Oil and Grease	EPA 1664 A
108.381	002	Oil & Grease Total	EPA 1664 B
108.385	001	Color	SM 2120 B-2001
108.390	001	Turbidity	SM 2130 B-2001
108.400	001	Acidity	SM 2310 B-1997
108.410	001	Alkalinity	SM 2320 B-1997
108.420	001	Hardness (Calculation)	SM 2340 B-1997
108.421	001	Hardness	SM 2340 C-1997
108.430	001	Specific Conductance	SM 2510 B-1997
108.439	001	Residue, Volatile	SM 2540 E-1997
108.440	001	Residue, Total	SM 2540 B-1997
108.441	001	Residue, Filterable TDS	SM 2540 C-1997
108.442	001	Residue, Non-filterable TSS	SM 2540 D-1997
108.443	001	Residue, Settleable	SM 2540 F-1997
108.465	001	Chlorine, Total Residual	SM 4500-CI G-2000
108.470	001	Cyanide, Total	SM 4500-CN B or C-1999
108.472	001	Cyanide, Total	SM 4500-CN E-1999
108.473	001	Cyanide, Amenable	SM 4500-CN G-1999
108.490	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
108.502	002	Ammonia (as N)	SM 4500-NH3 B,D-1997
108.506	002	Ammonia (as N)	SM 4500-NH3 G-1997
108.536	001	Oxygen, Dissolved	SM 4500-O G-2001
108.584	001	Sulfide (as S)	SM 4500-S D-2000
108.592	001	Biochemical Oxygen Demand	SM 5210 B -2001
108.592	002	Carbonaceous BOD	SM 5210 B -2001
108.595	001	Chemical Oxygen Demand	SM 5220 D-1997
108.596	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
108.605	001	Surfactants	SM 5540 C-2000

Field of Testing: 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	006	Boron	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	025	Titanium	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.020	021	Iron	EPA 200.8

109.020	022	Tin	EPA 200.8
109.104	001	Chromium (VI)	EPA 218.6
109.190	001	Mercury	EPA 245.1
109.445	002	Chromium (VI)	SM 3500-Cr B-2009

Field of Testing: 110 - Volatile Organic Chemistry of Wastewater

110.040	000	Purgeable Organic Compounds	EPA 624
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Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater

111.100	000	Base/Neutral & Acid Organics	EPA 625
111.103	000	Nitrosamines	EPA 625
111.170	000	Organochlorine Pesticides and PCBs	EPA 608

Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste

114.010	001	Antimony	EPA 6010 B
114.010	002	Arsenic	EPA 6010 B
114.010	003	Barium	EPA 6010 B
114.010	004	Beryllium	EPA 6010 B
114.010	005	Cadmium	EPA 6010 B
114.010	006	Chromium	EPA 6010 B
114.010	007	Cobalt	EPA 6010 B
114.010	008	Copper	EPA 6010 B
114.010	009	Lead	EPA 6010 B
114.010	010	Molybdenum	EPA 6010 B
114.010	011	Nickel	EPA 6010 B
114.010	012	Selenium	EPA 6010 B
114.010	013	Silver	EPA 6010 B
114.010	014	Thallium	EPA 6010 B
114.010	015	Vanadium	EPA 6010 B
114.010	016	Zinc	EPA 6010 B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020

114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196 A
114.106	001	Chromium (VI)	EPA 7199
114.140	001	Mercury	EPA 7470 A
114.141	001	Mercury	EPA 7471 A
114.222	001	Cyanide, Total	EPA 9014
114.230	001	Sulfides, Total	EPA 9034
114.240	001	Corrosivity - pH Determination	EPA 9040 B
114.241	001	Corrosivity - pH Determination	EPA 9045 C
114.250	001	Fluoride	EPA 9056
114.270	001	Fluoride	EPA 9214

Field of Testing: 115 - Extraction Test of Hazardous Waste

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP) EPA 1311 (TCLP)	
115.021	001	TCLP Inorganics	EPA 1311 (TCLP)
115.022	001	TCLP Extractables	EPA 1311 (TCLP)
115.023	001	TCLP Volatiles	EPA 1311 (TCLP)
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP) EPA 1312 (SPLP)	

Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste

116.030	001	Gasoline-range Organics	EPA 8015 B
116.080	000	Volatile Organic Compounds	EPA 8260 B
116.080	120	Oxygenates	EPA 8260 B
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS
116.110	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT

Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste

117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015 B
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT
117.110	000	Extractable Organics	EPA 8270 C
117.150	000	Carbonyl Compounds	EPA 8315 A
117.210	000	Organochlorine Pesticides	EPA 8081 A
117.220	000	PCBs	EPA 8082

Field of Testing: 120 - Physical Properties of Hazardous Waste

120.010	001	Ignitability	EPA 1010
120.020	001	Ignitability	EPA 1020A
120.070	001	Corrosivity - pH Determination	EPA 9040 B
120.080	001	Corrosivity - pH Determination	EPA 9045 C

Field of Testing: 126 - Microbiology of Recreational Water

126.010	001	Total Coliform (Enumeration)	SM 9221 B-2006
126.030	001	Fecal Coliform (Enumeration)	SM 9221 B,E-2006
126.050	001	Total Coliform (Enumeration)	SM 9223 B Colilert
126.050	002	E. coli (Enumeration)	SM 9223 B Colilert

Training Log		
Date of Training	Name/Title of Trainee Area of Responsibility	Description/Summary of Training



Attachment F

Other Plans/Permits/Agreements

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

**ORDER NO. 2012-0011-DWQ
NPDES NO. CAS000003
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
STATEWIDE STORM WATER PERMIT
WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION**

Effective Date: July 1, 2013

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APPENDIX: FACT SHEET FOR NPDES PERMIT AND WASTE DISCHARGE REQUIREMENTS
FOR STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION

- ATTACHMENT I: INCIDENT REPORT FORM
- ATTACHMENT II: MONITORING CONSTITUENT LIST
- ATTACHMENT III: ASBS PRIORITY DISCHARGE LOCATIONS
- ATTACHMENT IV: TMDL IMPLEMENTATION REQUIREMENTS
- ATTACHMENT V: REGIONAL WATER BOARD SPECIFIC REQUIREMENTS
- ATTACHMENT VI: STANDARD PROVISIONS
- ATTACHMENT VII: ACRONYMS & ABBREVIATIONS
- ATTACHMENT VIII: GLOSSARY
- ATTACHMENT IX: REPORTING REQUIREMENTS
- ATTACHMENT X: References

STATE WATER RESOURCES CONTROL BOARD

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

NPDES Permit No. CAS000003

ORDER NO. 2012-0011-DWQ

STATEWIDE STORM WATER PERMIT

WASTE DISCHARGE REQUIREMENTS (WDRs)

FOR

THE STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

FINDINGS

The State Water Resources Control Board (State Water Board) finds that:

Permit Application

1. The State of California, Department of Transportation (hereafter the Department) has applied to the State Water Board for reissuance of its statewide storm water permit and waste discharge requirements to discharge storm water and permitted non-storm water to waters of the United States under the National Pollutant Discharge Elimination System (NPDES) permit program.

Background and Authority

Permit Background

2. Prior to issuance of the Department's first statewide storm water permit (Order No. 99-06-DWQ), the Regional Water Boards regulated storm water discharges from the Department's storm drain systems with individual permits. On July 15, 1999, the State Water Board adopted a statewide permit to consolidate storm water permits previously adopted by the Regional Water Boards. This statewide permit regulates storm water and non-storm water discharges from the Department's properties and facilities, and discharges associated with operation and maintenance of the State highway system. The Department's properties include all Right-of-Way (ROW) owned by the Department. The Department's facilities include, but are not limited to, maintenance stations/yards, equipment storage areas, storage facilities, fleet vehicle parking and maintenance areas and warehouses with material storage areas.

Federal Authority

3. In 1987, the United States Congress amended the federal Clean Water Act (C.W.A.) and added section 402(p), which established a framework for regulating municipal and industrial storm water discharges under the NPDES Permit Program. On November 16, 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated federal regulations for controlling pollutants in storm water runoff discharges (known as Phase I storm water regulations). Phase I storm water regulations require permit coverage for storm water discharges from large and medium Municipal Separate Storm Sewer Systems (MS4s), certain categories of industrial facilities, and construction activities disturbing five or more

acres of land. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II storm water regulations, which require NPDES permit coverage for storm water discharges from small MS4s and construction sites which disturb one to five acres of land.

State Authority

4. California Water Code (Wat. Code) section 13376 provides that any person discharging or proposing to discharge pollutants to waters of the United States within the jurisdiction of the state shall apply for and obtain Waste Discharge Requirements (WDRs). (For this permit, the State term "WDRs" is equivalent to the federal term "NPDES permits" as used in the Clean Water Act). The State Water Board issues this Order pursuant to section 402 of the Clean Water Act and implementing regulations adopted by U.S. EPA and chapter 5.5, division 7 of the California Water Code (commencing with § 13370 et seq.). It shall serve as an NPDES permit for point source discharges to surface waters. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with § 13260 et seq.). Applicable State regulations on discharges of waste are contained in the California Code of Regulations (Cal. Code Regs.), tit. 23, Division 3, Chapter 9.

Storm Water Definition

Storm Water Discharge

5. Storm water discharges consist only of those discharges that originate from precipitation events. Storm water is defined in the Code of Federal Regulations (40 C.F.R. § 122.26(b)(13)) as storm water runoff, snowmelt runoff, and surface runoff and drainage. During precipitation events, storm water picks up and transports pollutants into and through MS4s and ultimately to waters of the United States.

Non-Storm Water Discharge

6. Non-storm water discharges consist of all discharges from an MS4 that do not originate from precipitation events.

Generally, non-storm water discharges to an MS4 are prohibited, conditionally exempt from prohibition, or regulated separately by an NPDES permit. The categories of conditionally exempt non-storm water discharge are specified at 40 Code of Federal Regulations section 122.26(d)(2)(iv)(B)(1). Non-storm water discharges that are regulated by a separate NPDES permit are not subject to the discharge prohibition. Prohibited non-storm water discharges include conditionally exempt discharges that are found to be a source of pollutants to waters of the United States. Illicit discharges must also be prohibited. An illicit discharge is defined in 40 Code of Federal Regulations section 122.26(b)(2) as "any discharge to a municipal storm sewer that is not composed entirely of storm water except discharges pursuant to an NPDES permit (other than the NPDES Permit for discharges from the Municipal Separate Storm Sewer System) and discharges resulting from fire fighting activities." Provision B of this Order addresses non-storm water discharge.

Non-storm water discharges to an MS4 with a discharge to an ASBS are subject to a different set of conditions as stated in Finding 22.a.

Performance Standards

Performance Standard for Discharges from MS4s

7. Clean Water Act section 402(p) establishes performance standards for discharges from MS4s. Clean Water Act section 402(p)(3)(B) requires that municipal permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." This Order prohibits storm water discharges that do not comply with the maximum extent practicable (MEP) standard.
8. Compliance with the MEP standard involves applying Best Management Practices (BMPs) that are effective in reducing or eliminating the discharge of pollutants to the waters of the United States. MEP emphasizes pollutant reduction and source control BMPs to prevent pollutants from entering storm water runoff. MEP may require treatment of the storm water runoff if it contains pollutants. BMP development is a dynamic process, and the menu of BMPs contained in a SWMP may require changes over time as experience is gained and/or the state of the science and art progresses. MEP is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. The State Water Board has held that "MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the costs would be prohibitive." (SWRCB, 2000b).

Permit Coverage and Scope

Discharges Regulated by this Permit

9. This Order regulates the following discharges:
 - a. Storm water discharges from all Department-owned MS4s;
 - b. Storm water discharges from the Department's vehicle maintenance, equipment cleaning operations facilities and any other non-industrial facilities with activities that have the potential of generating significant quantities of pollutants; and
 - c. Certain categories of non-storm water discharges as listed under provision B. of this Order.

This Order does not regulate storm water discharges from leased office spaces, Department owned batch plants or any other industrial facilities, as industrial facilities defined in the Statewide Industrial General Permit. The Department will obtain coverage for storm water discharges associated with industrial activities under the Statewide Industrial General Permit for each batch plant and industrial facility, and shall comply with applicable requirements. While this Order does not regulate storm water discharges associated with industrial activities, it does impose contractor requirements for certain industrial facilities.

This Order does not regulate discharges from the Department's construction activities, including dewatering effluent discharges from construction projects. Instead, the Department will obtain coverage for storm water discharges associated with construction

activities under Order No. 2009-0009-DWQ Statewide Construction General Permit. While this Order does not regulate storm water discharges associated with construction activities, it does impose electronic filing, notification, reporting and contractor requirements for certain construction projects, and imposes limitations on types of materials that may be used during construction which may have an impact on post-construction discharges. Any discharges from a site occurring after completion of construction are fully subject to the requirements of this Order.

Some Regional Water Boards have issued specific requirements for dewatering effluent discharges in their regions. The Department will consult with the appropriate Regional Water Board and comply with the applicable dewatering requirements in each region.

Department Activities and Discharges

Department Activities

10. The Department is primarily responsible for the design, construction, management, and maintenance of the State highway system including; freeways, bridges, tunnels, and facilities such as corporation yards, maintenance facilities, rest areas, weigh stations, park and ride lots, toll plazas and related properties. The Department is also responsible for initial emergency spill response and cleanup for unauthorized discharges of waste within the Department's ROW.

Department Discharges

11. The Department's discharges include storm water and non-storm water discharges generated from:
 - a. Maintenance and operation of State-owned ROW;
 - b. Department storage and disposal areas;
 - c. Department facilities;
 - d. Department Airspaces; and
 - e. Other properties and facilities owned and operated by the Department.

The Department discharges either directly to surface waters or indirectly through municipal storm water conveyance systems. These surface waters include creeks, rivers, reservoirs, wetlands, saline sinks, lagoons, estuaries, bays, and the Pacific Ocean and tributaries thereto, some or all of which are waters of the United States as defined in 40 Code of Federal Regulations section 122.2. As specified, this Order regulates the Department's municipal storm water and non-storm water discharges.

Potential Pollutants

12. Discharges of storm water and non-storm water from Department properties, facilities, and activities have been shown to contribute pollutants to waters of the United States. As such, these discharges may be causing or threatening to cause violations of water quality objectives and can have damaging effects on human health and aquatic ecosystems. The quality and quantity of these discharges vary considerably and are affected by many environmental factors including hydrology, geology, land use, climatology and chemistry, and by controllable management factors including maintenance practices, spill prevention

and response activities, public education (i.e., concerning trash and other storm water pollutants) and pollution prevention.

Pollutant sources from the Department properties, facilities, and activities include motor vehicles, highway surface materials such as fine particles of asphalt and concrete, highway maintenance products, construction activities, erodible shoulder materials, eroding cut and filled slopes, abrasive sand and deicing salts used in winter operations, abraded tire rubber, maintenance facilities, illegal connections, illegal dumping, fluids from accidents and spills, and landscape care products.

Pollutant categories include, but are not limited to, metals (such as copper, lead, and zinc), synthetic organic compounds (pesticides), Polycyclic Aromatic Hydrocarbons (PAHs) from vehicle emissions, oil and grease, Total Petroleum Hydrocarbons (TPH), sediment, nutrients (nitrogen and phosphorus fertilizers), debris (trash and litter), pathogens, and oxygen demanding substances (decaying vegetation, animal waste, and other organic matter).

Characterization Monitoring

13. Under the previous permit (Order No. 99-06-DWQ), the Department conducted a comprehensive, multi-component storm water monitoring program. The Department monitored and collected pollutant characterization information at more than 180 sites statewide, yielding more than 60,000 data points. The Department used the data to evaluate the effectiveness of the Department's maintenance facility pollution prevention plans and highway operation control measures. This information is also used to identify pollutants of concern in the Department's discharges.

Department Discharge Characterization Studies

14. The Department compared the monitoring results from the 2002 and 2003 Runoff Characterization Studies (California Department of Transportation, 2003)¹ to California Toxics Rule (CTR) objectives and to several surface water quality objectives considered potentially relevant to storm water runoff quality. The Department prioritized constituents as high, medium, and low, according to a percentage estimate by which the most stringent water quality objective was exceeded. The Department identified lead, copper, zinc, aluminum, diazinon, chlorpyrifos, and iron as high priority constituents in the Department's runoff. The sources of other water quality objectives considered were:
 - a. National Primary Drinking Water Maximum Contaminant Levels (40 C.F.R., § 141.1);
 - b. U.S. EPA Action Plan for Beaches and Recreational Waters;
 - c. U.S. EPA Aquatic Life Criteria;
 - d. California Department of Public Health Maximum Contaminant Levels; and California Department of Fish and Game Recommended Criteria for Diazinon and Chlorpyrifos.

Department Discharges that are Subject to MS4 Permit Regulations

15. An MS4 is a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm

¹ References are found in Attachment X of this Order.

drains. An MS4 is designed or used for collecting or conveying storm water. It is not a combined sanitary sewer and is not part of a Publicly Owned Treatment Works (POTW). Clean Water Act section 402(p) and 40 Code of Federal Regulations section 122.26 (a)(v) give the State authority to regulate discharges from an MS4 on a system-wide or jurisdiction-wide basis. All MS4s under the Department's jurisdiction are considered one system, and are regulated by this Order. Therefore, all storm water and exempted and conditionally exempted non-storm water discharges from the Department owned MS4 are subject to the requirements in this Order.

Maintenance and Construction Activities not Subject to the Construction General Permit

16. Some maintenance and construction activities such as roadway and parking lot repaving and resurfacing may not be subject to the Construction General Permit. Such activities may involve grinding and repaving the existing surface and have the potential to mobilize pollutants, even though it may not involve grading or land disturbance. The Department's Maintenance Staff Guide (Department, 2007b), Project Planning and Design Guide (Department, 2010) and the California Stormwater Quality Association (CASQA) California Construction Stormwater BMP Handbook (CASQA, 2009) specify BMPs for paving and grinding operations. The Department is required to implement BMPs for such operations to control the discharge of pollutants to the MEP.

Department Construction Projects Involving Lead Contaminated Soils

17. Department construction projects may involve soils that contain lead in quantities that meet the State definition of hazardous waste but not the federal definition. The Department of Toxic Substances Control (DTSC) has issued a variance (V09HQSCD006) effective July 1, 2009, allowing the Department to place soil containing specific concentrations of aerially deposited lead under pavement or clean soil. In addition to complying with the terms of the variance, the Department also needs to notify the appropriate Regional Water Boards to determine the appropriate regulation of these soils.
18. Past monitoring data show that storm water runoff from the Department's facilities contains pollutants that may adversely affect the beneficial uses of receiving waters. Facilities not subject to the Industrial General Permit are required to implement BMPs to reduce the discharge of pollutants from these facilities to the MEP.

Provisions of This Order

19. Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges. In accordance with 40 Code of Federal Regulations section 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits. This Order requires implementation of BMPs to control and abate the discharge of pollutants in storm water to the MEP. To assist in determining if the BMPs are effectively achieving MEP standards, this Order requires effluent and receiving water monitoring. The monitoring data will be used to determine the effectiveness of the applied BMPs and to make appropriate adjustments or revisions to BMPs that are not effective.

Receiving Water Limitations

20. The effect of the Department's storm water discharges on receiving water quality is highly variable. For this reason, this Order requires the Department to implement a storm water program designed to achieve compliance with water quality standards, over time through an iterative approach. If discharges are found to be causing or contributing to an exceedance of an applicable Water Quality Standard, the Department is required to revise its BMPs (including use of additional and more effective BMPs).

Discharges to Areas of Special Biological Significance

21. The State Water Board has designated 34 coastal marine waters as Areas of Special Biological Significance (ASBS) in the California Ocean Plan. An ASBS is a coastal area requiring protection of species or biological communities. The Department discharges storm water into the following ASBS:
- a. Redwoods National Park ASBS
 - b. Saunders Reef ASBS
 - c. James V. Fitzgerald ASBS
 - d. Año Nuevo ASBS
 - e. Carmel Bay ASBS
 - f. Point Lobos ASBS
 - g. Julia Pfeiffer Burns ASBS
 - h. Salmon Creek Coast ASBS
 - i. Laguna Point to Latigo Point ASBS
 - j. Irvine Coast ASBS
22. The Ocean Plan prohibits waste discharges into ASBS. The Ocean Plan allows the State Water Board to grant exceptions to this prohibition, provided that: (1) the exception will not compromise protection of ocean waters for beneficial uses, and (2) the public interest will be served. The Department has applied for and been granted an exception under the General Exception for Storm Water and Non-Point Source Discharges to ASBS. The exception allows the continued discharge into ASBS provided the Department complies with the special protections specified in the General Exception.
- 22a. Non-storm water discharges to ASBS are prohibited except as specified in the General Exception. Certain enumerated non-storm water discharges are allowed under the General Exception if essential for emergency response purposes, structural stability, slope stability, or if occur naturally. In addition, an NPDES permitting authority may authorize non-storm water discharges to an MS4 with a direct discharge to an ASBS to the extent the NPDES permitting authority finds that the discharge does not alter natural ocean water quality in the ASBS. This Order allows utility vault discharges to segments of the Department MS4 with a direct discharge to an ASBS, provided the discharge is authorized by the General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Water, NPDES No. CAG 990002. The State Water Board is in the process of reissuing the General NPDES Permit for Utility Vaults. As part of the renewal, the State Water Board will require a study to characterize representative utility vault discharges to an MS4 with a direct discharge to an ASBS and will impose conditions on such discharges to ensure the

discharges do not alter natural ocean water quality in the ASBS. Given the limited number of utility vault discharges to MS4s that discharge directly to an ASBS, the State Water Board finds that discharges from utility vaults and underground structures to a segment of the Department's MS4 with a direct discharge to an ASBS are not expected to result in the MS4 discharge causing a substantial alteration of natural ocean water quality in the ASBS in the interim period while the General NPDES Permit for Discharges from Utility Vaults is renewed and the study is completed. However, if a Regional Water Board determines a specific discharge from a utility vault or underground structure does alter the natural ocean water quality in an ASBS, the Regional Water Board may prohibit the discharge as specified in this Order.

New Development and Re-development Design Standards

23. 40 Code of Federal Regulations section 122.26(d)(2)(iv)(A)(2) requires municipal storm water permittees to implement a new development and redevelopment program to reduce the post-construction generation and transport of pollutants. Development can involve grading and soil compaction, an increase in impervious surfaces (roadways, roofs, sidewalks, parking lots, etc.), and a reduction of vegetative cover, all of which increase the amount of rainfall that ends up as runoff, and decrease the particle size and the load of watershed sediment. The increase in runoff generally leads to increased pollutant loading from watersheds, even if post-construction pollutant concentrations are similar to pre-construction concentrations. The accelerated erosion and deposition resulting from an increase in runoff and a decrease in the size and load of watershed sediment generally causes a stream channel to respond by deepening and widening and detaching from the historic floodplain. The magnitude of response depends on geology, land use, and channel stability at the time of the watershed disturbance. Increased pollutant loads and alteration of the runoff/sediment balance have the potential to negatively impact the beneficial uses of receiving waters including streams, lakes, wetlands, ground water, oceans, bays and estuaries, and the biological habitats supported by these aquatic systems.
24. Department projects have the potential to negatively impact stream channels and downstream receiving waters through modification of the existing runoff hydrograph. The hydromodification requirements in this Order are "effluent limitations," which are defined by the Clean Water Act to include any restriction on the quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources (C.W.A., § 502(11)).
25. Waters of the United States supporting the beneficial use of fish migration could be adversely impacted by improperly designed or maintained stream crossings, or through natural channel evolution processes affected by Department activities. This Order requires the Department to submit to the State Water Board the annual report required under Article 3.5 of the Streets and Highways Code reporting on the Department's progress in locating, assessing, and remediating barriers to fish passage.
26. Low Impact Development (LID) is a sustainable practice that benefits water supply and contributes to water quality protection. Unlike traditional storm water management, which collects and conveys storm water runoff through storm drains, pipes, or other conveyances

to a centralized storm water facility, LID uses site design and storm water management to maintain the site's pre-project runoff rates and volumes by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source.

27. On October 5, 2000, the State Water Board adopted a precedential decision concerning the use of Standard Urban Storm Water Mitigation Plans (SUSMPs) (Order WQ 2000-11). The SUSMP in that case required sizing design standards for post-construction BMPs for specific categories of new development and redevelopment projects. Order WQ 2000-11 found that provisions in the SUSMPs, as revised in the order, reflected MEP. The LID requirements, post-construction requirements for impervious surface and the design standards in this Order are consistent with Order WQ 2000-11 and meet the requirement for development of a SUSMP.

Self-Monitoring Program

28. Effluent and receiving water monitoring are necessary to evaluate the effectiveness of BMP measures and to track compliance with water quality standards. This Order requires the Department to conduct effluent and receiving water monitoring.

Storm Water Management Plan (SWMP)

29. The SWMP describes the procedures and practices that the Department proposes to reduce or eliminate the discharge of pollutants to storm drainage systems and receiving waters. On May 17, 2001, the State Water Board approved a Storm Water Management Plan submitted by the Department. That SWMP was updated in 2003 (Department, 2003c) and the updates were approved by the Executive Director of the State Water Board on February 13, 2003. On January 15, 2004, the Department submitted a proposed Storm Water Management Plan as part of its NPDES permit application to renew its previous statewide storm water permit (Order No. 99-06-DWQ). The State Water Board and Regional Water Board staff and the Department discussed and revised Best Management Practices (BMP) controls and many other components proposed in each section of the SWMP during numerous meetings from January 2004 to 2006. The Department submitted a revised SWMP in June 2007. The 2004 and 2007 SWMPs have not been approved by the State Water Board and the Department has continued to implement the 2003 SWMP. The Department is in the process of revising aspects of the 2003 SWMP to address the Findings of Violation and Order for Compliance issued by U.S. EPA in 2011 (U.S. EPA Docket No. CWA-09-2011-0001).
30. The SWMP and any future modifications or revisions are integral to and enforceable components of this Order. Any documents incorporated into the SWMP by reference that specify the manner in which the Department will implement the SWMP shall be consistent with the requirements of this Order.
31. This Order requires the Department to submit an Annual Report each year to the State Water Board. The Annual Report serves the purpose of evaluating, assessing, and reporting on each relevant element of the storm water program, and revising activities, control measures, BMPs, and measurable objectives, as necessary, to meet the applicable standards.

32. Revisions to the SWMP requiring approval by the State Water Board's Executive Director are subject to public notice and the opportunity for a public hearing.

Total Maximum Daily Load (TMDL) Requirements

33. TMDLs are calculations of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and non-point sources (load allocations or LAs), plus the contribution from background sources and a margin of safety (40 C.F.R., § 130.2, subd.(i)). Discharges from the Department's MS4 are considered point source discharges.
34. This Order implements U.S. EPA-approved or U.S. EPA-established TMDLs applicable to the Department. This Order requires the Department to comply with all TMDLs listed in Attachment IV. Attachment IV identifies TMDLs adopted by the Regional Water Boards and approved by the State Water Board and U.S. EPA that assign the Department a Waste Load Allocation (WLA) or that specify the Department as a responsible party in the implementation plan. In addition, Attachment IV identifies TMDLs established by U.S. EPA that specify the Department as a responsible party or that identify NPDES permitted storm water sources or point sources generally, or identify roads generally, as subject to the TMDL. In accordance with 40 Code of Federal Regulations section 122.44, subdivision (d)(1)(vii)(B), NPDES water quality-based effluent limitations (WQBELs) must be consistent with the assumptions and requirements of available TMDL WLAs. In addition, Water Code section 13263, subdivision (a), requires that waste discharge requirements implement any relevant water quality control plans. The TMDL requirements in this Order are consistent with the assumptions and requirements of the TMDLs applicable to the Department.
35. TMDL WLAs in this Order are not limited by the MEP standard. Implementation requirements for many TMDLs are partially or fully specified in Regional Water Board Water Quality Control Plans (Basin Plans) and are an enforceable part of this Order. Applicable Basin Plan amendments and resolutions are identified in Attachment IV for each TMDL listed. Compliance may include, but is not limited to, implementation of BMPs and control measures contained in TMDL implementation plans sufficient to achieve the WLA, or a demonstration that the numeric WLA has been achieved. Due to the nature of storm water discharges, and the typical lack of information on which to base numeric WQBELs, federal regulations (40 C.F.R., § 122.44, subd. (k)(2)) allow for the implementation of BMPs to control or abate the discharge of pollutants from storm water.
36. The Department reported in its 2008-09 Annual Report to the State Water Board that it is subject to over 50 TMDLs and is in the implementation phase of over 30 TMDLs. WLAs and LAs for some TMDLs are shared jointly among several dischargers, with no specific mass loads assigned to individual dischargers. In some of these cases, multiple dischargers are assigned a grouped or aggregate waste load allocation, and each discharger is jointly responsible for complying with the aggregate waste load allocation.
37. The high variance in the level of detail and specificity in the TMDLs developed by the Regional Water Boards and U.S. EPA necessitates the development of more specific permit

requirements in many cases, including deliverables and required actions, derived from each TMDL's WLA and implementation requirements. These requirements will provide clarity to the Department regarding its responsibilities for compliance with applicable TMDLs. The development of TMDL-specific permit requirements is subject to notice and a public comment period. Given the number of TMDLs that apply to the Department, it is not possible to develop TMDL-specific permit requirements for every TMDL listed in Attachment IV without severely delaying the issuance of this Order. Because most of the TMDLs were developed by the Regional Water Boards, and because some of the WLAs are shared by multiple dischargers, the development of TMDL-specific permit requirements is best coordinated initially at the Regional Water Board level.

38. Attachment IV specifies TMDL-specific permit requirements, including deliverables, actions, and compliance due dates, for the Lake Tahoe sediment and nutrients TMDL. These requirements are consistent with the assumptions and requirements of applicable WLAs assigned to the Department, and with the adopted and approved TMDL, Basin Plan, and related Lahontan Regional Water Board Orders and Resolutions.
39. For all remaining TMDLs, the Regional Water Boards, in consultation with the State Water Board and the Department, will develop TMDL-specific permit requirements where necessary within one year of the adoption date of this Order. Regional Water Board staff will also prepare supporting analyses explaining how the proposed TMDL-specific permit requirements will implement the TMDL and are consistent with the assumptions and requirements of any applicable WLA and, where a BMP-based approach to permit limitations is selected, how the BMPs will be sufficient to implement applicable WLAs. Following a notice and comment period, Attachment IV of this Order and the Fact Sheet will be reopened consistent with provision E.11.c. for incorporation of these requirements and supporting analysis into the Order.
40. This Order does not specify the requirements to be followed for TMDL-specific monitoring. TMDL monitoring requirements are found in some of the adopted and approved TMDLs. The Regional Water Boards may include specific TMDL monitoring requirements in the permit requirements developed and incorporated into this Order through the reopener as described in Finding 39, and/or may require monitoring through Regional Water Board orders pursuant to Water Code section 13383.
41. Attachment IV may additionally be reopened consistent with provision E.11.b. of this Order for incorporation of newly adopted TMDLs or amendments to existing TMDLs into the Permit.

Non-Compliance

42. NPDES regulations require the Department to notify the Regional Water Board and/or State Water Board of anticipated non-compliance with this Order (40 C.F.R., § 122.41(l)(2)); or of instances of non-compliance that endanger human health or the environment (40 C.F.R., § 122.41(l)(6)).

Regional Water Board and State Water Board Enforcement

43. The Regional Water Boards and the State Water Board will enforce the provisions and requirements of this Order.

Region Specific Requirements

Basin Plans

44. Each Regional Water Board has adopted a Basin Plan for the watersheds within its jurisdiction. Basin Plans identify the beneficial uses for each water body and the water quality objectives necessary to protect them. The Department is subject to the prohibitions and requirements of each Basin Plan.

Region Specific Requirements

45. Regional Water Boards have identified Region-specific water quality issues and concerns pertaining to discharges from the Department's properties. Region-specific requirements to address these issues are included in this Order.

Local Municipalities and Preemption

46. Storm water and non-storm water from MS4s that are owned and managed by other NPDES permitted municipalities may discharge to storm water conveyance systems owned and managed by the Department. This Order does not supersede the authority of the Department to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within its jurisdiction as allowed by State and federal law.

Storm water and non-storm water from the Department's ROW, properties, facilities, and activities may discharge to storm water conveyance systems managed by other NPDES permitted municipalities. This Order does not preempt or supersede the authority of the permitted municipalities to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within their jurisdiction as allowed by State and federal law.

Anti-Degradation Policy

47. 40 Code of Federal Regulations section 131.12 requires that state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal anti-degradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plans implement, and incorporate by reference, both the State and federal anti-degradation policies. This Order is consistent with the anti-degradation provision of 40 Code of Federal Regulations section 131.12 and State Water Board Resolution No. 68-16.

Endangered Species Act

48. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A., §§ 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the United States. The Department is responsible for meeting all requirements of the applicable Endangered Species Act.

California Environmental Quality Act (CEQA)

49. The action to adopt an NPDES Permit is exempt from the provisions of CEQA (Public Resources Code, § 21100, et. seq.), pursuant to section 13389 of the California Water Code (County of Los Angeles et al., v. California Water Boards et al., (2006), 143 Cal.App.4th 985).

Public Notification

50. The Department, interested agencies, and persons have been notified of the State Water Board's intent to reissue requirements for storm water discharges and have been provided an opportunity to submit their written comments and recommendations. State Water Board staff prepared a Fact Sheet and Response to Comments, which are incorporated by reference as part of this Order.

Public Hearing

51. The State Water Board, through public testimony in public meetings and in written form, has received and considered all comments pertaining to this Order.

Cost of Compliance

52. The State Water Board has considered the costs of complying with this Order and whether the required BMPs meet the minimum "maximum extent practicable" standard required by federal law. The MEP approach is an evolving, flexible, and advancing concept, which considers technical and economic feasibility. Because of the numerous advances in storm water regulation and management and the size of the Department's MS4, the Order does not require the Department to fully incorporate and implement all advances in a single permit term, but takes an incremental approach that allows for prioritization of efforts for the most effective use of the increased, but nevertheless limited, Department funds. This Order will have an effect on costs to the Department above and beyond the costs from the Department's prior permit. Such costs will be incurred in complying with the post-construction, hydrograph modification, Low Impact Development, and monitoring and reporting requirements of this Order. Additional costs will also be incurred in correcting non-compliant discharges.² These incremental costs are necessary to advance the controls and management of storm water by the Department and to facilitate reduction of the discharge of pollutants to the MEP.

53. This Order supersedes Order No. 99-06-DWQ.

² Although the cost of compliance with TMDL waste load allocations was considered, compliance with TMDLs is not subject to the MEP standard.

54. This Order serves as an NPDES permit pursuant to Clean Water Act section 402 or amendments thereto, and shall become effective on July 1, 2013, provided that the Regional Administrator, U.S. EPA, Region IX, expresses no objections.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code, regulations, and plans and policies adopted thereafter, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereafter, that the Department shall comply with the following:

A. GENERAL DISCHARGE PROHIBITIONS

1. Storm water discharges from the Department's Municipal Separate Storm Sewer System (MS4) containing pollutants that have not been reduced to the Maximum Extent Practicable (MEP), are prohibited. The Department shall achieve the pollutant reductions described in this Prohibition through implementation of the provisions in this Order and the approved SWMP.
2. Discharges to Areas of Special Biological Significance (ASBS)
 - a. Existing storm water discharges into an ASBS are allowed only if the discharges:
 - 1) Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;
 - 2) Are designed to prevent soil erosion;
 - 3) Occur only during wet weather; and
 - 4) Are composed of only storm water runoff, except as provided at B.6.
 - b. Discharges composed of storm water runoff shall not alter natural water quality in an ASBS.
 - c. The discharge of trash is prohibited.
 - d. Only discharges from existing storm water outfalls are allowed. Any proposed or new storm water runoff discharge shall be routed to existing storm water discharge outfalls and shall not result in any new contribution of waste to an ASBS (i.e., no additional pollutant loading). "Existing storm water outfalls" are those that were constructed or under construction prior to January 1, 2005. "New contribution of waste" is defined as any addition of waste beyond what would have occurred as of January 1, 2005. A change to an existing storm water outfall, in terms of re-location or alteration, in order to comply with these special conditions, is allowed and does not constitute a new discharge.
 - e. The discharges comply with all terms, prohibitions, and special conditions contained in sections E.2.c.2)a)i) and E.5. of this Order.

3. Discharge of material other than storm water, or discharge that is not composed entirely of storm water, to waters of the United States or another permitted MS4 is prohibited, except as conditionally exempted under Section B.2 of this Order or authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit.
4. The discharge of storm water or conditionally exempt non-storm water that causes or contributes to the violation of water quality standards or water quality objectives (collectively WQs), the California Toxics Rule (CTR), or impairs the beneficial uses established in a Water Quality Control Plan, or a promulgated policy of the State or Regional Water Boards, is prohibited. The Department shall comply with all discharge prohibitions contained in Regional Water Board Basin Plans.
5. The discharge of storm water to surface waters of the United States in a manner causing or threatening to cause a condition of pollution or nuisance as defined in Water Code section 13050 is prohibited.
6. Discharge of wastes or wastewater from road-sweeping vehicles or from other maintenance activities to any waters of the United States or to any storm drain leading to waters of the United States is prohibited unless in compliance with section E.2.h.3)c)ii) of this Order or authorized by another NPDES permit.
7. The dumping, deposition, or discharge of waste by the Department directly into waters of the United States or adjacent to such waters in any manner that may allow its being transported into the waters is prohibited unless authorized by the Regional Water Board.
8. The discharge of sand, silt, clay, or other earthen materials from any activity in quantities which cause deleterious bottom deposits, turbidity, or discoloration in waters of the United States or which unreasonably affect or threaten to affect beneficial uses of such waters, is prohibited.

B. NON-STORM WATER DISCHARGE PROHIBITIONS

Non-storm water discharges, other than those to ASBS, must comply with the following provisions:

1. The Department shall effectively prohibit non-storm water discharges into its storm water conveyance system unless such discharges are either:
 - a. Authorized by a separate NPDES permit; or
 - b. Conditionally exempt in accordance with provision B.2. of this NPDES permit

2. Conditionally Exempt Non-storm Water Discharges

The following non-storm water discharges are conditionally exempt from Prohibition B.1 unless the Department or the State Water Board Executive Director identifies them as sources of pollutants to receiving waters. For discharges identified as sources of pollutants, the Department shall either eliminate the discharge or otherwise effectively prohibit the discharge.

- a. Diverted stream flows;
- b. Rising ground waters;
- c. Uncontaminated ground water infiltration (as defined at 40 C.F.R., § 35.2005(20)) to MS4s;
- d. Uncontaminated pumped ground water;
- e. Foundation drains, including slope lateral drains;
- f. Springs;
- g. Water from crawl space pumps;
- h. Footing drains;
- i. Air conditioning condensation;
- j. Flows from riparian habitats and wetlands;
- k. Water line flushing³;
- l. Minor, incidental discharges of landscape irrigation water⁴;
- m. Discharges from potable water sources³;
- n. Irrigation water⁵;
- o. Minor incidental discharges from lawn watering;
- p. Individual residential car washing; and
- q. Dechlorinated swimming pool discharges.

3. Some Regional Water Boards have separate dewatering and/or “de minimus” NPDES discharge permits or Basin Plan requirements for some or all of these listed non-storm water discharges. The Department shall check with the appropriate Regional Water Board to determine if a specific non-storm water discharge requires coverage under a separate NPDES permit.

4. The Department is not required to prohibit emergency fire fighting flows (i.e., flows necessary for the protection of life or property). Discharges associated with emergency firefighting do not require BMPs, but they are recommended if feasible. As part of the SWMP, the Department shall develop and implement a program to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes and maintenance activities) as specified in the SWMP.

³ In order to remain conditionally exempt, discharges shall be dechlorinated prior to discharge.

⁴ In order to remain conditionally exempt, landscape irrigation systems must be designed, operated and maintained to control non-incidental runoff. See definition of incidental runoff in Attachment VIII.

⁵ Return flows from irrigated agriculture are not point-source discharges and are not prohibited from entering the Department’s MS4.

5. If the State Water Board Executive Director determines that any category of conditionally exempt non-storm water discharge is a source of pollutants, the State Water Board Executive Director may require the Department to conduct additional monitoring and submit a report on the discharges. The State Water Board Executive Director may also order the Department to cease a non-storm water discharge if it is found to be a source of pollutants.

Non-storm water discharges to ASBS must comply with the following provisions:

6. Non-storm water discharges to ASBS are prohibited except as stated in this Section.

The following non-storm water discharges are allowed, provided that the discharges are essential for emergency response purposes, structural stability, slope stability, or occur naturally:

- a. Discharges associated with emergency fire fighting operations.
- b. Foundation and footing drains.
- c. Water from crawl space or basement pumps.
- d. Hillside dewatering.
- e. Naturally occurring groundwater seepage via a storm drain.
- f. Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

Discharges from utility vaults and underground structures to a segment of the Department's MS4 with a direct discharge to an ASBS are permitted if such discharges are authorized by the General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Water, NPDES No. CAG 990002. A Regional Water Board may nonetheless prohibit a specific discharge from a utility vault or underground structure if it determines that the discharge is causing the MS4 discharge to the ASBS to alter natural ocean water quality in the ASBS.

Additional non-storm water discharges to a segment of the Department's MS4 with a direct discharge to an ASBS are allowed only to the extent the relevant Regional Water Board finds that the discharge does not alter natural ocean water quality in the ASBS.

Authorized non-storm water discharges shall not cause or contribute to a violation of the water quality objectives in Chapter II of the Ocean Plan or alter natural ocean water quality in an ASBS.

C. EFFLUENT LIMITATIONS

The Department shall reduce the discharge of pollutants from its MS4 to waters of the United States to the MEP, as necessary to achieve TMDL WLAs established for discharges by the Department, and to comply with the Special Protections for discharges to ASBS.

D. RECEIVING WATER LIMITATIONS

1. Receiving water quality objectives, as specified in the Water Quality Control Plans and promulgated policies and regulations of the State and Regional Water Boards, are applicable to discharges from the Department's facilities and properties.
2. The discharge of storm water from a facility or activity shall not cause or contribute to an exceedance of any applicable water quality standard.
3. Storm water discharges shall not cause the following conditions to create a condition of nuisance or to adversely affect beneficial uses of waters of the United States:
 - a. Floating or suspended solids, deposited macroscopic particulate matter, or foam;
 - b. Bottom deposits or aquatic growth;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin, and/or;
 - e. Toxic or deleterious substances present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
4. The Department shall comply with Sections A.4, D.2 and D.3 of this Order through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SWMP and other requirements of this Order including any modifications. The SWMP shall be designed to achieve compliance with Sections A.4, D.2 and D.3 of this Order. If exceedance(s) of WQS persist notwithstanding implementation of the SWMP and other requirements of this Order, the Department shall assure compliance with Sections A.4, D.2 and D.3 of this Order by complying with the procedure specified at Section E.2.c.6)c) of this Order.
5. Provided the Department has complied with the procedure set forth in provision E.2.c.6)c) of this Order and is implementing the revised SWMP required by provision E.1., the Department is not required to repeat the procedure called for in provision E.2.c.6)c) for continuing or recurring exceedances of the same receiving water limitations unless directed by the State Water Board's Executive Director or Regional Water Board Executive Officer to develop additional BMPs.
6. Where the Department discharges waste to a water of the State that is not a water of the United States, compliance with the prohibitions, limitations, and provisions of this Order when followed for that water of the State will constitute compliance with the requirements of the Porter-Cologne Water Quality Control Act, unless the Department is notified otherwise in writing by the State Water Board Executive Director or a Regional Water Board Executive Officer.

E. PROVISIONS

1. Storm Water Management Plan (SWMP)

a. The Department shall update, maintain and implement an effective SWMP that describes how the Department will meet requirements of this Order as outlined in E.1.b below. The Department shall submit for Executive Director approval an updated SWMP consistent with the provisions and requirements of this Order within one year of the effective date of this Order. The SWMP shall identify and describe the BMPs that shall be used. The SWMP shall be reviewed annually and modified as necessary to maintain an effective program in accordance with the procedures of this Order. The SWMP shall reflect the principles that storm water management is to be a year-round proactive program to eliminate or control pollutants at their source or to reduce them from the discharge by either structural or nonstructural means when elimination at the source is not possible.

b. The SWMP shall contain the following elements:

- 1) Overview
- 2) Management And Organization
- 3) Monitoring And Discharge Characterization Program
- 4) Project Planning And Design
- 5) BMP Development and Implementation
- 6) Construction
- 7) Compliance with the Industrial General Permit
- 8) Maintenance Program Activities, including facilities operations
- 9) Non-Departmental Activities
- 10) Non-Storm Water Activities/ Discharges
- 11) Training
- 12) Public Education and Outreach
- 13) Region Specific Activities (See provision E.6 and Attachment V)
- 14) Program Evaluation
- 15) Measurable Objectives
- 16) Reporting
- 17) References

The Department shall implement all requirements of this Order regardless of whether those requirements are addressed by an element of the SWMP.

c. The SWMP shall include all provisions and commitments in the 2003 SWMP (Department, 2003c), as revised in response to U.S. EPA's Findings of Violation and Order for Compliance (U.S. EPA Docket No. C.W.A.-09-2011-0001). The Department shall continue to implement the 2003 SWMP to the extent that it does not conflict with the requirements of this Order and until a new SWMP is approved pursuant to this Order.

- d. All policies, guidelines, and manuals referenced by the SWMP and related to storm water are intended to facilitate implementation of the SWMP, and shall be consistent with the requirements of this Order.
- e. The SWMP shall define terms in a manner that is consistent with the definitions in 40 Code of Federal Regulations section 122.2. This includes, but is not limited to, the definitions for pollutant, waters of the United States, and point source. Where there is a conflict between the SWMP and the language of this Order, the language of this Order shall govern.
- f. Unless otherwise specified in this Order, proposed revisions to the SWMP shall be submitted to the State Water Board Executive Director as part of the Annual Report. The Department shall revise all other appropriate manuals to reflect modifications to the SWMP.
- g. Revisions to the SWMP requiring Executive Director approval will be publicly noticed for thirty days on the State Water Board's website and via the storm water electronic notification list. During the public notice period, members of the public may submit written comments or request a public hearing. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised at the hearing. Upon review of the request or requests for a public hearing, the Executive Director may, in his or her discretion, schedule a public hearing prior to approval of the SWMP revision. The Executive Director shall schedule a hearing if there is a significant degree of public interest in the proposed revision. If no public hearing is conducted, the Executive Director shall consider all public comments received and may approve the SWMP revision if it meets the conditions set forth in this Order. Any SWMP revision approved by the Executive Director will be posted on the State Water Board's website.
- h. The Department shall maintain for public access on its website the latest approved version of the SWMP. The Department shall update the SWMP on its website within 30 days of approval of revisions by the State Water Board.

2. Storm Water Program Implementation Requirements

- a. Overview
The Department shall provide an overview of the storm water program in the SWMP. The overview will include:
 - 1) A statement of the SWMP purpose;
 - 2) A description of the regulatory background;
 - 3) A description of the SWMP applicability;
 - 4) A description of the relationship of the Permit, SWMP, and related Department documents; and
 - 5) A description of the permits addressed by the SWMP.

b. Management and Organization

The Department shall provide in the SWMP an overview of its management and organizational structure, roles and responsibilities of storm water personnel, a description of the role and focal point of the Department's storm water program, and a description of the Storm Water Advisory Teams. The Department shall implement the program specified in the SWMP. The Department shall also implement any additional requirements contained in this Order.

1) *Coordination with Local Municipalities*

- a) The Department is expected to comply with the lawful requirements of municipalities and other local, regional, and/or other State agencies regarding discharges of storm water to separate storm sewer systems or other watercourses under the agencies' jurisdictions.
- b) The Department shall include a **MUNICIPAL COORDINATION PLAN** in the SWMP. The plan shall describe the specific steps that the Department will take in establishing communication, coordination, cooperation, and collaboration with other MS4 storm water management agencies and their programs including establishing agreements with municipalities, flood control departments, or districts as necessary or appropriate. The Department shall report on the status and progress of interagency coordination activities in each Annual Report.

2) *Legal Authority*

- a) The Department shall establish, maintain, and certify that it has adequate legal authority through statute, permit, contract or other means to control discharges to and from the Department's properties, facilities and activities.
- b) The Department has provided a statement certified by its chief legal counsel that the Department has adequate legal authority to implement and enforce each of the key regulatory requirements contained in 40 Code of Federal Regulations sections 122.26(d)(2)(i)(A-F). The Department shall submit annually, as part of the Annual Report, a **CERTIFICATION OF THE ADEQUACY OF LEGAL AUTHORITY**.

3) *Fiscal Resources*

- a) The Department shall seek to maintain adequate fiscal resources to comply with this NPDES Permit. This includes but is not limited to:
 - i) Implementing and maintaining all BMPs;
 - ii) Implementing an effective storm water monitoring program; and
 - iii) Retaining qualified personnel to manage the storm water program.
- b) The Department shall submit a **FISCAL ANALYSIS** of the storm water program annually. At a minimum, the fiscal analysis shall show:

- i) The allocation of funds to the Districts for compliance with this Order;
 - ii) The funding for each program element;
 - iii) A comparison of actual past year expenditures with the current year's expenditures and next year's proposed expenditures;
 - iv) How the funding has met the goals specified in the SWMP and District workplans; and
 - v) Description of any cost sharing agreements with other responsible parties in implementing the storm water management program.
- c) The fourth year report shall contain a **BUDGET ANALYSIS** for the next permit cycle.

4) *Practices and Policies*

The Department shall identify in the SWMP any of the Department's practices and policies that conflict with implementation of the storm water program. The Department shall annually propose changes, including changes to implementation schedules, needed to resolve these conflicts and otherwise effectively implement the SWMP and the requirements of this Order.

5) *Inspection Program*

The Department shall have an inspection program to ensure that this Order and the SWMP are implemented, and that facilities are constructed, operated, and maintained in accordance with this Order and the SWMP. The program shall include training for inspection personnel, documentation of field activities, a reporting system that can be used to track effectiveness of control measures, enforcement procedures (or referral for enforcement) for non-compliance, procedures for taking corrective action, and responsibilities and responsible personnel of all affected functional offices and branches.

The inspection program shall also include standard operating procedures for documenting inspection findings, a system of escalating enforcement response to non-compliance (including procedures for addressing third party (i.e., contractor) non-compliance), and a system to ensure the timely resolution of all violations of this Order or the SWMP. The Department shall delegate adequate authority to appropriate personnel within all affected functional offices and branches to require corrective actions (including stop work orders).

6) *Incident Reporting - Non-Compliance and Potential/Threatened Non-Compliance*

The Department shall report all known incidents of non-compliance with this Order. Non-compliance may be emergency, field, or administrative. The Department shall electronically file a complete **INCIDENT REPORT FORM** (Attachment I) in the Storm Water Multiple Application Report and Tracking System (SMARTS)⁶ and provide verbal notifications as soon as practicable, but no later than the time frames specified in Attachment I. Submission of an Incident Report Form is not an admission by the Department of a violation of this Order.

⁶ <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>

The types of incidents requiring non-compliance reporting are discussed in Attachment I. The State Water Board or Regional Water Board may require additional information. The Department shall include in the Annual Report a summary of all incidents by type and District, and report on the status of each.

The Department shall report all potential or threatened non-compliance to the State Water Board and appropriate Regional Water Board in accordance with the "Anticipated non-compliance" provisions described in Attachment VI (Standard Provisions). The report shall describe the timing, nature and extent of the anticipated non-compliance. An Incident Report Form is not required for anticipated non-compliance. Anticipated non-compliance may be for field or administrative incidents only.

c. Monitoring and Discharge Characterization Requirements

The Department shall revise and implement the SWMP consistent with the requirements specified below.

1) *Monitoring Site Selection*

Monitoring shall be conducted in two tiers. Tier 1 consists of all sites for which monitoring is required pursuant to the requirements of the General Exception, including Special Protections, to the California Ocean Plan waste discharge prohibitions for storm water and non-point source discharges to ASBS, and sites in impaired watersheds for which the Department has been assigned a WLA and monitoring requirements pursuant to an approved TMDL. Tier 2 consists of all sites where the Department has existing monitoring data, including both storm water and non-storm water. Tier 2 sites may include locations where the Department has conducted characterization monitoring or where monitoring has been conducted for other purposes.

The Department shall conduct without limitation all Tier 1 monitoring as required under the ASBS Special Protections and under the adopted and approved TMDLs. The Department may satisfy Tier 1 monitoring requirements by participating in stakeholder groups. Retrofitting and verification monitoring under Tier 2 need not be initiated until there are less than 100 sites actively monitored under Tier 1. There shall be a minimum of 100 active monitoring sites at any one time, consisting of Tier 1, Tiers 1 and 2, or Tier 2.

Sites from Tier 2 shall be prioritized by the Department in consideration of the threat to water quality, including the pollutant and its concentration or load, the distance to receiving water, water quality objectives, and any existing impairments in the receiving waters. The prioritized list shall be submitted to the State Water Board within eight (8) months of the effective date of this Order. The State Water Board will review the prioritized list and may revise it to reflect Regional or State Water Board priorities. The revised list will be approved by the Executive Director and will become effective upon notice to the Department.

2) *Water Quality Monitoring*

a) Tier 1 Monitoring Requirements

i) Areas of Special Biological Significance

The Department's ASBS monitoring program shall include both core discharge monitoring and ocean receiving water and reference site monitoring. The State and Regional Water Boards must approve receiving water and reference site sampling locations and any adjustments to the monitoring program. All ocean receiving water and reference area monitoring must be comparable with the Water Boards' Surface Water Ambient Monitoring Program (SWAMP).

Safety concerns: Sample locations and sampling periods must be determined considering safety issues. Sampling may be postponed upon notification to the State and Regional Water Boards if hazardous conditions exist.

(1) Core Discharge Monitoring Program

(a) General Sampling Requirements for Timing and Storm Size

Runoff must be collected during a storm event that is greater than 0.1 inch and generates runoff, and at least 72 hours from the previously measurable storm event. Runoff samples shall be collected during the same storm and at approximately the same time when post-storm receiving water is sampled, and analyzed for the same constituents as receiving water and reference site samples (see section E.2.c.2)a)i)(2)) as described below.

(b) Runoff Flow Measurements

For storm water outfalls in existence as of December 31, 2007, 18 inches (457mm) or greater in diameter/width, including multiple outfall pipes in combination having a width of 18 inches, runoff flows must be measured or calculated, using a method acceptable to and approved by the State Water Board. Report measurements annually for each precipitation season to the State and Regional Water Boards.

(c) Runoff samples – storm events

(i) Outfalls equal to or greater than 18 inches (0.46m) in diameter or width

Samples of storm water runoff shall be collected during the same storm as receiving water samples and analyzed for oil and grease, total suspended solids, and, within the range of the southern sea otter indicator bacteria or some other measure of fecal contamination. Samples of storm water runoff shall be collected and analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS. If the

Department has no outfall greater than 36 inches, then storm water runoff from the applicant's largest outfall shall be further collected during the same storm as receiving water samples and analyzed for Ocean Plan Table B (shown in Attachment II) metals for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates).

- (ii) Outfalls equal to or greater than 36 inches (0.91m) in diameter or width

Samples of storm water runoff shall be collected during the same storm as receiving water samples and analyzed for oil and grease, total suspended solids, and, within the range of the southern sea otter indicator bacteria or some other measure of fecal contamination. Samples of storm water runoff shall be further collected during the same storm as receiving water samples and analyzed for Ocean Plan Table B metals for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates). Samples of storm water runoff shall be collected and analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.

- (d) If the Department does not participate in a regional monitoring program as described in provision E.2.c.2)a)i)(2)(b) in addition to (i) and (ii) above, a minimum of the two largest outfalls or 20 percent of the larger outfalls, whichever is greater, shall be sampled (flow weighted composite samples) at least three times annually during wet weather (storm event) and analyzed for all Ocean Plan Table A (shown in Attachment II) constituents, Table B constituents for marine aquatic life protection (except for toxicity, only chronic toxicity for three species shall be required), DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, and Ocean Plan indicator bacteria. For discharges to ASBS in more than one Regional Water Board, at a minimum, one (the largest) such discharge shall be sampled annually in each Region.

- (e) The Executive Director of the State Water Board may reduce or suspend core monitoring once the storm runoff is fully characterized. This determination may be made at any point after the discharge is fully characterized, but is best made after the monitoring results from the first permit cycle are assessed.

(2) Ocean Receiving Water and Reference Area Monitoring Program
In addition to performing the Core Discharge Monitoring Program in provision E.2.c.2)a)i)(1) above, the Department must perform ocean receiving water monitoring. The Department may either implement an individual monitoring program or participate in a regional integrated monitoring program.

(a) Individual Monitoring Program

If the Department elects to perform an individual monitoring program to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within the affected ASBS, in addition to Core Discharge Monitoring, the following additional monitoring requirements shall be met:

(i) Three times annually, during wet weather (storm events), the receiving water at the point of discharge from the outfalls described in provision E.2.c.2)a)i)(1)(c) above shall be sampled and analyzed for Ocean Plan Table A constituents, Table B constituents for marine aquatic life, DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, salinity, chronic toxicity (three species), and Ocean Plan indicator bacteria.

The sample location for the ocean receiving water shall be in the surf zone at the point of discharges; this must be at the same location where storm water runoff is sampled. Receiving water shall be sampled prior to (pre-storm) and during (or immediately after) the same storm (post storm). Post storm sampling shall be during the same storm and at approximately the same time as when the runoff is sampled. Reference water quality shall also be sampled three times annually and analyzed for the same constituents pre-storm and post-storm, during the same storm seasons when receiving water is sampled. Reference stations will be determined by the State Water Board's Division of Water Quality and the applicable Regional Water Board(s).

(ii) Sediment sampling shall occur at least three times during every five (5) year period. The subtidal sediment (sand or finer, if present) at the discharge shall be sampled and analyzed for Ocean Plan Table B constituents for marine aquatic life, DDT, PCBs, PAHs, pyrethroids, and OP pesticides. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed.

- (iii) A quantitative survey of intertidal benthic marine life shall be performed at the discharge and at a reference site. The survey shall be performed at least once every five (5) year period. The survey design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The results of the survey shall be completed and submitted to the State Water Board and Regional Water Board at least six months prior to the end of the permit cycle.
- (iv) Once during each permit term and in each subsequent five year period, a bioaccumulation study shall be conducted to determine the concentrations of metals and synthetic organic pollutants at representative discharge sites and at representative reference sites. The study design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The bioaccumulation study may include California mussels (*Mytilus californianus*) and/or sand crabs (*Emerita analoga* or *Blepharipoda occidentalis*). Based on the study results, the Regional Water Board and the State Water Board's Division of Water Quality, may adjust the study design in subsequent permits, or add or modify additional test organisms (such as shore crabs or fish), or modify the study design appropriate for the area and best available sensitive measures of contaminant exposure.
- (v) Marine Debris: Representative quantitative observations for trash by type and source shall be performed along the coast of the ASBS within the influence of the discharger's outfalls. The design, including locations and frequency, of the marine debris observations is subject to approval by the Regional Water Board and State Water Board's Division of Water Quality.
- (vi) The monitoring requirements of the Individual Monitoring Program in this section are minimum requirements. After a minimum of one (1) year of continuous water quality monitoring of the discharges and ocean receiving waters, the Executive Director of the State Water Board may require additional monitoring, or adjust, reduce or suspend receiving water and reference station monitoring. This determination may be made at any point after the discharge and receiving water is fully characterized, but is best made after the monitoring results from the first permit cycle are assessed.

(b) Regional Integrated Monitoring Program

The Department may elect to participate in a regional integrated monitoring program, in lieu of an individual monitoring program, to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within an ASBS. This regional approach shall characterize natural water quality, pre- and post-storm, in ocean reference areas near the mouths of identified open space watersheds and the effects of the discharges on natural water quality (physical, chemical, and toxicity) in the ASBS receiving waters, and should include benthic marine aquatic life and bioaccumulation components. The design of the ASBS stratum of a regional integrated monitoring program may deviate from the prescribed individual monitoring approach described in provision E.2.c.2)a)i)(2)(a) if approved by the State Water Board's Division of Water Quality and the Regional Water Boards.

- (i) Ocean reference areas shall be located at the drainages of flowing watersheds with minimal development (in no instance more than 10% development), and shall not be located in CWA Section 303(d) listed waterbodies or have tributaries that are 303(d) listed. Reference areas shall be free of wastewater discharges and anthropogenic non-storm water runoff. A minimum of low threat storm runoff discharges (e.g. stream highway overpasses and campgrounds) may be allowed on a case-by-case basis. Reference areas shall be located in the same region as the ASBS receiving water monitoring occurs. The reference areas for each Region are subject to approval by the participants in the regional monitoring program and the State Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean reference water samples must be collected from each station, each from a separate storm during the same storm season that receiving water is sampled. A minimum of one reference location shall be sampled for each ASBS receiving water site sampled by the Department. Because the Department discharges to ASBS in more than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.
- (ii) ASBS ocean receiving water must be sampled in the surf zone at the location where the runoff makes contact with ocean water (i.e. at "point zero"). Ocean receiving water stations must be representative of worst-case discharge conditions (i.e. co-located at a large drain greater than 36 inches, or if drains greater than 36 inches are not present in the ASBS then the

largest drain greater than 18 inches). Ocean receiving water stations are subject to approval by the participants in the regional monitoring program and the State Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean receiving water samples must be collected during each storm season from each station, each from a separate storm. A minimum of one receiving water location shall be sampled in each ASBS by the Department. At a minimum, one reference station and one receiving water station shall be sampled in each applicable Regional Water Board.

- (iii) Reference and receiving water sampling shall commence during the first full storm season following the adoption of these special conditions, and post-storm samples shall be collected during the same storm event when storm water runoff is sampled. Sampling shall occur in a minimum of two storm seasons.
 - (iv) Receiving water and reference samples shall be analyzed for the same constituents as storm water runoff samples. At a minimum, constituents to be sampled and analyzed in reference and discharge receiving waters must include oil and grease, total suspended solids, Ocean Plan Table B metals for protection of marine life, Ocean Plan PAHs, pyrethroids, OP pesticides, ammonia, nitrate, phosphates, and critical life stage chronic toxicity for three species. In addition, within the range of the southern sea otter, indicator bacteria or some other measure of fecal contamination shall be analyzed.
 - (v) Determinations of compliance with Special Protections requirements for ASBS discharges (State Water Board resolution DWQ 2012-0012) shall be made by the Executive Director of the State Water Board or his designee. When a determination is made that a site or discharge is in compliance with the Special Protections, the site will no longer be considered an active monitoring site pursuant to provision E.2.c.1). This provision applies regardless of any continued monitoring that may be required at the site pursuant to the Special Protections.
- ii) Total Maximum Daily Load Watersheds
The Department shall comply with the TMDL monitoring requirements as expressed in the approved TMDL, in the TMDL-specific permit requirements of Attachment IV, or in orders of the Regional Water Boards pursuant to Water Code section 13383 that require TMDL-related

monitoring. TMDL monitoring shall also include the constituents listed in Attachment II. If there is a conflict between this Order and the requirements of the TMDL, the TMDL requirements will apply, except that the constituents listed in Attachment II shall be monitored even if not required by the TMDL.

Determinations of compliance with the TMDL shall be made by the Executive Officer of the Regional Water Board or his designee. When a determination is made that a site or discharge is in compliance with the TMDL, the site will no longer be considered an active monitoring site pursuant to provision E.2.c.1) and monitoring of Attachment II constituents will be discontinued. This provision applies regardless of any continued monitoring that may be required at the site pursuant to the TMDL.

b) **Tier 2 Retrofit and Verification Monitoring Requirements**

Corrective actions shall be implemented at the top 15 percent of sites (rounded up) on the Tier 2 priority list, subject to the number of sites per year specified in provision E.2.c.1). Follow up monitoring shall be conducted to confirm the effectiveness of the measures implemented, as determined by the Executive Officer of the Regional Water Board or his designee. Follow up monitoring is not required where the discharge has been eliminated, or where the implemented BMP provides full retention of the 85th percentile, 24-hour rain event.

Determinations of compliance at the Tier 2 sites shall be made by the Executive Officer of the Regional Water Board or his designee. When a determination is made that a site or discharge is in compliance, the site will no longer be considered an active monitoring site pursuant to provision E.2.c.1).

3) ***Corrective Actions***

Corrective actions may include structural or non-structural BMPs. All structural BMPs must be designed according to the requirements in provisions E.2.d. and E.2.e.

4) ***Field and Laboratory Data Requirements***

The Department shall prepare, maintain, and implement a Quality Assurance Project Plan (QAPP) in accordance with the Surface Water Ambient Monitoring Program. All monitoring samples shall be collected and analyzed according to the Department's QAPP developed for the purpose of compliance with this Order. SWAMP Quality Assurance Program Plan (2008) is available at:

http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml

All samples shall be analyzed by a certified or accredited laboratory as required by Water Code section 13176. Global Positioning System (GPS) coordinates shall be recorded for all monitoring sites, including sites selected for the final Tier 2 priority list (top 15%) according to existing data.

Water quality data (receiving water and effluent) shall be uploaded to the Storm Water Multi-Application Reporting and Tracking System (SMARTS) and must conform to "CEDEN Minimum Data Templates" format. CEDEN Minimum Data Templates are available at <http://ceden.org/>.

Analytical results shall be filed electronically in SMARTS within 30 days of receipt by the Department.

5) *Monitoring Results Report*

The Department shall submit, separate from the Annual Report, a **MONITORING RESULTS REPORT (MRR)** by October 1 of each year.

- a) The MRR shall include a list of all sites in Tier 1 and Tier 2 being actively monitored, and the results of the past fiscal year's monitoring activities including effluent and receiving water quality monitoring.
- b) The Department shall specifically highlight sample values that exceed applicable WQs, including toxicity objectives. Complete sample results or lab data need not be included, but must be retained and filed electronically, and must be provided to the Regional Water Board or State Water Board as provided in provision E.2.c.4).
- c) The MRR shall include a summary of sites requiring corrective actions needed to achieve compliance with this Order, and a review of any iterative procedures (where applicable) at sites needing corrective actions.
- d) The reporting period for the MRR shall be July 1 of the prior year through June 30 of the current year.

6) *Compliance Monitoring and Reporting*

- a) The Department shall review and propose any updates, as needed, to the Non-compliance Reporting Plan for Municipal and Construction Activities in section 9.4.1 of the SWMP. The plan shall identify the staff in each District Office and Regional Water Board to send and receive **INCIDENT REPORT FORMS** (Attachment I). The Department shall continue to implement the July 2008 Construction Compliance Evaluation Plan or any updated plan as approved by the Executive Director.
- b) The Department shall summarize, by District, all non-compliance incidents, including construction, in the Annual Report. The summary shall include incident dates, types, locations, and the status of the non-compliance incidents.

- c) Receiving Water Limitations Compliance
 - i) Upon a determination by the Department or the Regional Water Board Executive Officer that a discharge is causing or contributing to an exceedance of an applicable WQS, the Department shall provide verbal notification within 5 days, and within 30 days thereafter submit a report to the appropriate Regional Water Board with a copy to the State Water Board. Verbal notification is not required where the determination is made by the Regional Water Board. An Incident Report is not required. Where the pollutant causing the exceedance is subject to a waste load allocation listed in Attachment IV of this Order, the Department shall comply with the requirements of the relevant TMDL in lieu of this provision.
 - ii) The report shall describe BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance. The report shall include an implementation schedule. The Regional Water Board Executive Officer may require modifications to the report.
 - iii) The Department shall submit any modifications to the report required by the Regional Water Board within 30 days of notification.
 - iv) The Department shall implement the revised BMPs and conduct any additional monitoring required according to the implementation schedule.

- d) Toxicity
 - i) Tests for chronic toxicity, where required, shall be estimated as specified in Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002; Table IA, 40 Code of Federal Regulations section 136 and its subsequent amendments or revisions.
 - ii) For the Department's discharges, the In-stream Waste Concentration (IWC) is 100 percent (i.e., either is 100 percent storm water or 100% non-storm water). To calculate either a Pass or Fail of the effluent concentration chronic toxicity test at the IWC, the instructions in Appendix A in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA/833-R-10-003) shall be used. A Pass result indicates no toxicity at the IWC, and a Fail result indicates toxicity at the IWC. Results shall be reported as provided in provision E.2.c.5).

- e) Toxicity Reduction Evaluations (TREs)
 - i) The Department shall include in the SWMP a TRE workplan (1-2 pages) specifying the steps that will be taken in preparing a TRE, when a TRE is required pursuant to provision E.2.c.6)e)ii). The workplan shall include, at a minimum:
 - (a) A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and BMP efficiencies.

- (b) A description of the steps that will be taken to identify effective pollutant/toxicity reduction opportunities.
- (c) If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., a Department laboratory or outside contractor).

- ii) Upon a determination that a discharge is causing or contributing to an exceedance of an applicable toxicity standard, a TRE may be required by the appropriate Regional Water Board Executive Officer on a site specific basis. The TRE shall be conducted according to the workplan in the SWMP.

d. Project Planning and Design

The Department shall describe in the SWMP how storm water management is incorporated into the project planning and design process, and how the procedures and methodologies used in the selection of Design and Construction BMPs will be used in Department projects. The Department shall implement the program specified in the SWMP, any documents incorporated into the SWMP by reference, and any additional requirements contained in this Order.

Department and Non-Department projects within the Department's ROW that are new development or redevelopment shall comply with the standard project planning and design requirements for new development and redevelopment specified below. These requirements shall apply to all new and redevelopment projects that have not completed the project initiation phase on the effective date of this Order.

1) *Design Pollution Prevention Best Management Practices*

The following design pollution prevention best management practices shall be incorporated into all projects that create disturbed soil area (DSA), including projects designed to meet the post-construction treatment requirements (Section E.2.d.2)). The SWMP shall be updated to reflect these principles.

- a) Conserve natural areas, to the extent feasible, including existing trees, stream buffer areas, vegetation and soils;
- b) Minimize the impervious footprint of the project;
- c) Minimize disturbances to natural drainages;
- d) Design and construct pervious areas to effectively receive runoff from impervious areas, taking into consideration the pervious areas' soil conditions, slope and other pertinent factors;
- e) Implement landscape and soil-based BMPs such as compost-amended soils and vegetated strips and swales;
- f) Use climate-appropriate landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes the use of pesticides and fertilizers; and

- g) Design all landscapes to comply with the California Department of Water Resources Water Efficient Landscape Ordinance.

<http://www.water.ca.gov/wateruseefficiency/landscapeordinance/technical.cfm>

Where the California Department of Water Resources Water Efficient Landscape Ordinance conflicts with a local water conservation ordinance, the Department shall comply with the local ordinance.

2) *Post-Construction Storm Water Treatment Controls*

a) Projects Subject to Post-Construction Treatment Requirements

i) Department Projects

The Department shall implement post construction treatment control BMPs for the following new development or redevelopment projects:

- (1) Highway Facility projects that create 1 acre or more of new impervious surface.
- (2) Non-Highway Facility projects that create 5,000 square feet or more of new impervious surface.

ii) Non-Department Projects within Department ROW

- (1) The Department shall exercise control or oversight over Non-Department projects through encroachment permits or other means.
- (2) Non-Department development or redevelopment projects shall be subject to the same post-construction treatment control requirements as Department projects.
- (3) For all Non-Department Projects that trigger post-construction treatment control requirements, the Department shall review and approve the design of post-construction treatment controls and BMPs prior to implementation.

iii) Waiver

Where a Regional Water Board Executive Officer finds that a project will have a minimal impact on water quality, the Executive Officer may waive the treatment control requirements, or lessen the stringency of the requirements, for a project. Waivers may not be granted for projects subject to treatment control requirements based on a waste load allocation assigned to the Department.

b) Numeric Sizing Criteria for Storm Water Treatment Control BMPs:

Treatment control BMPs constructed for Department and Non-Department projects shall be designed according to the following priorities (in order of preference):

- i) Infiltrate, harvest and re-use, and/or evapotranspire the storm water runoff;
- ii) Capture and treat the storm water runoff.

The storm water runoff volumes and rates used to size BMPs shall be based on the 85th percentile 24-hour storm event. This sizing criterion shall apply to the entire treatment train within Project Limits. Design Pollution Prevention BMPs can be used to comply with this requirement.

In the event the entire runoff volume from an 85th percentile 24-hour storm event cannot be infiltrated, harvested and re-used, or evapotranspired, the excess volume may be treated by Low Impact Development (LID)-based flow-through treatment devices. Where LID-based flow-through treatment devices are not feasible, the excess volume may be treated through conventional volume-based or flow-based storm water treatment devices.

The Department shall always prioritize the use of landscape and soil-based BMPs to treat storm water runoff. Other BMPs may be used only after landscape and soil-based BMPs are determined to be infeasible. The Department shall also consider other effective storm water treatment control methods or devices for Department approval.

c) Scope of Design Criteria Applicability for Redevelopment Projects

i) For Highway Facilities:

- (1) Where redevelopment results in an increase in impervious area that is less than or equal to 50 percent of the total post-project impervious area within Project Limits, the numeric sizing criteria shall only apply to the new impervious area and not to the entire project.

If the redeveloped impervious area cannot be hydraulically separated from the existing impervious area, the Department shall either: provide treatment for redeveloped areas and as much of the hydraulically inseparable flow as feasible, based on site conditions and constraints; or identify treatment opportunities equivalent to the redeveloped area (see Alternative Compliance, below).

If it is not possible to separate the flows from redeveloped areas from the existing impervious area, the treatment system shall be designed to treat as much of the hydraulically inseparable flow as feasible, and shall bypass or divert any excess around the treatment device. The purpose of this requirement is to prevent overloading the treatment device and impairing its performance.

- (2) Where redevelopment results in an increase in impervious area that is greater than 50 percent of the total post-project impervious area within Project Limits, the numeric sizing criteria apply to the entire project.

- ii) For Non-Highway Facilities, where redevelopment results in an increase in impervious area that is less than or equal to 50 percent of the total post-project impervious area of an existing development, the numeric sizing criteria shall only apply to the new impervious area and not to the entire project.
 - (1) If the redeveloped impervious area cannot be hydraulically separated from the existing impervious area, the Department shall either provide treatment for existing and redeveloped areas, or identify treatment opportunities equivalent to the redeveloped area (See Alternative Compliance, below).
 - (2) Where redevelopment results in an increase in impervious area that is greater than 50 percent of the total post-project impervious area of an existing development, the numeric sizing criteria apply to the entire project.

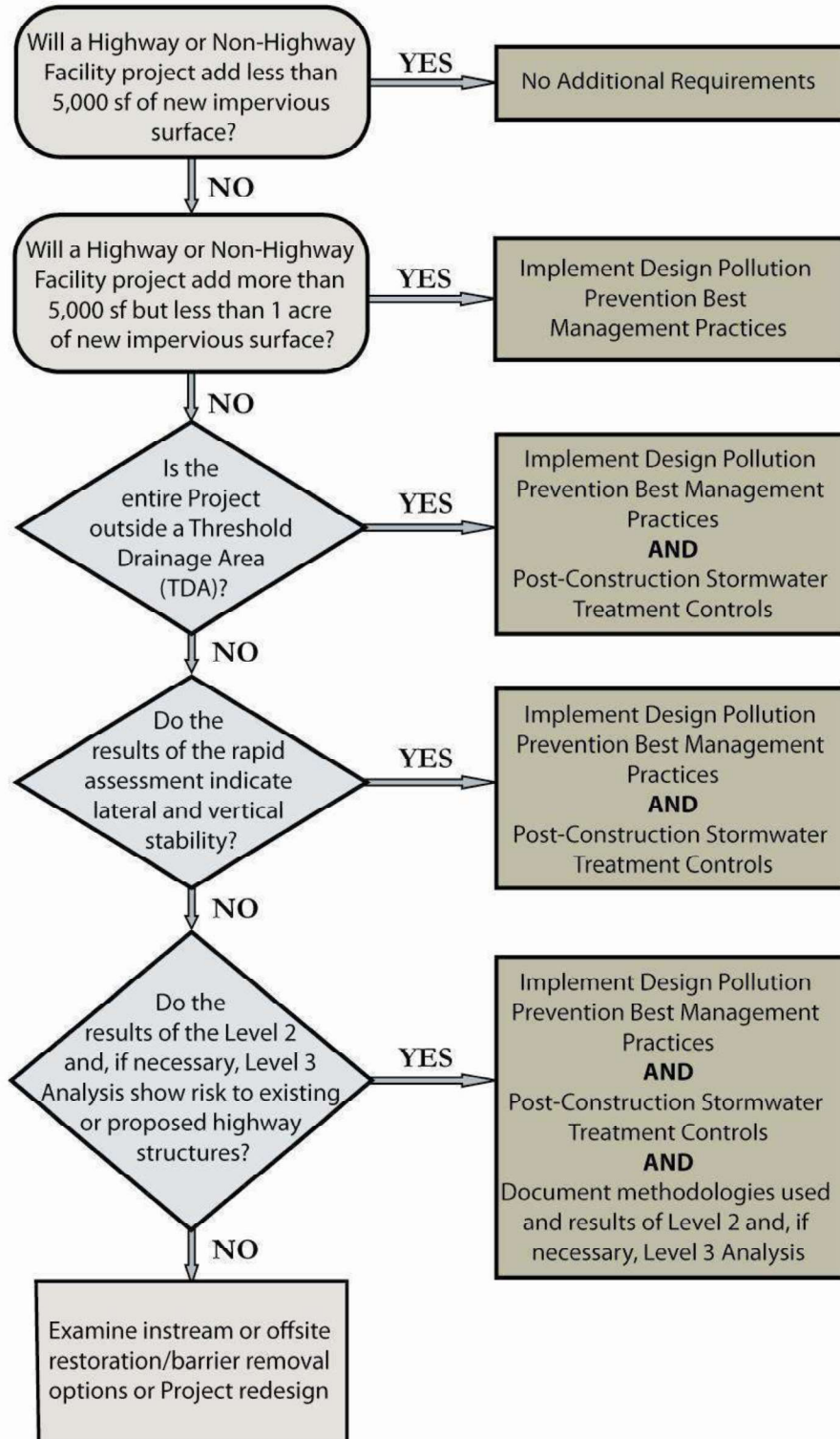
d) Alternative Compliance

If the Department determines that all or any portion of on-site treatment for a project is infeasible on-site, the Department shall prepare a proposal for alternative compliance for approval by the Regional Water Board Executive Officer or his designee until such time as a statewide process is approved by the Executive Director of the State Water Board. The proposal shall include documentation supporting the determination of infeasibility. Alternative compliance may be achieved outside Project Limits within the Department's ROW, including within another Department project. Alternative compliance to be achieved outside Project Limits shall include provisions for the long-term maintenance of such treatment facilities.

3) *Hydromodification Requirements*

The Department shall ensure that all new development and redevelopment projects do not cause a decrease in lateral (bank) and vertical (channel bed) stability in receiving stream channels. Unstable stream channels negatively impact water quality by yielding much greater quantities of sediment than stable channels. The Department shall employ the risk-based approach detailed in this permit to assess lateral and vertical stability. The approach assists the Department in assessing pre-project channel stability and implementing mitigation measures that are appropriate to protect structures and minimize stream channel bank and bed erosion. The approach is depicted in Figure 1 and described below.

FIGURE 1: Hydromodification Flowchart



- a) Highway or Non-Highway Facility projects that add between 5,000 square feet and 1 acre of new impervious surface must implement the Design Pollution Prevention Best Management Practices in Section E.2.d.1).
- b) Highway or Non-Highway Facility projects that add 1 acre or more of new impervious surface completely outside of a Threshold Drainage Area⁷ must implement the Design Pollution Prevention Best Management Practices and the Post-Construction Storm Water Treatment Controls in Section E.2.d.
- c) Highway or Non-Highway Facility projects that add 1 acre or more of new impervious surface with any impervious portion of the project located within a Threshold Drainage Area must conduct a rapid assessment of stream stability⁸ at each stream crossing (e.g., pipe, culvert, swale or bridge) within that Threshold Drainage Area. If the stream crossing is a bridge, a follow up rapid assessment of stream stability is also required and can be coordinated with the federally-mandated bridge inspection process. The assessment will be conducted within a representative channel reach to assess lateral and vertical stability. A representative reach is a length of stream channel that extends at least 20 channel widths upstream and downstream of a stream crossing. For example, a 20 foot-wide channel would require analyzing a 400 foot distance upstream and downstream of the discharge point or bridge. If sections of the channel within the 20 channel width distance are immediately upstream or downstream of steps, culverts, grade controls, tributary junctions, or other features and structures that significantly affect the shape and behavior of the channel, more than 20 channel widths should be analyzed.
- d) If the results of the rapid assessment indicate that the representative reach is laterally and vertically stable (i.e., a rating of excellent or good) the Department does not have to conduct further analyses and must implement the Design Pollution Prevention Best Management Practices and the Post-Construction Storm Water Treatment Controls in Section E.2.d.
- e) If the results of the rapid assessment indicate that the representative reach will not be laterally and vertically stable (i.e., a rating of excellent or good), the Department must determine whether the instability, in conjunction with the proposed project, poses a risk to existing or proposed highway structures by conducting appropriate Level 2 (and, if necessary, Level 3) analyses. The Department shall follow the Level 2 and 3 analysis guidelines contained in HEC-20 (FHWA, 2001) or a suitable equivalent within an accessible portion of the reach. If the results of the appropriate Level 2 (and, if necessary Level 3) analyses indicate that there is no risk to existing or proposed highway

⁷ Threshold Drainage Area is defined as the area draining to a location at least 20 channel widths downstream of a stream crossing (pipe, swale, culvert, or bridge) within Project Limits. Delineating the Threshold Drainage Area is not necessary if there is/ are no stream crossing(s) within the Project Limits.

⁸ Guidance and worksheets used for the rapid assessment of stream stability are in the Federal Highway Administration publication "Assessing Stream Channel Stability at Bridges in Physiographic Regions" (FHWA, 2006).

structures, the Department must implement the Design Pollution Prevention Best Management Practices and the Post-Construction Storm Water Treatment Controls in Section E.2.d. and document the methodologies used, the results, and the mitigation measures suggested as part of the appropriate Level 2 and, if necessary, Level 3 analyses.

- f) If the results of the Level 2 and 3 analysis indicate that the instability, in conjunction with the proposed project, poses a risk to existing or proposed highway structures, other options must be implemented, including, but not limited to, in-stream and floodplain enhancement/restoration, fish barrier removal as identified in the report required under Article 3.5 of the Streets and Highways Code (see below), regional flow control, off-site BMPs, and, if necessary, project re-design.

4) *Stream Crossing Design Guidelines to Maintain Natural Stream Processes*

The Department shall review and revise as necessary the guidance document "Fish Passage Design for Road Crossings" (Department, 2009). In reviewing and revising the guidance document, the Department shall be consistent with the latest stream crossing design, construction, and rehabilitation criteria contained in the California Salmonid Stream Habitat Restoration Manual (California Department of Fish & Game, 2010) and National Marine Fisheries Service guidance (NMFS, 2001). The review shall be completed no later than one year after the effective date of this Order. The Department shall submit in the Year 2 Annual Report a report detailing the review of the guidance document. The Year 2 Annual Report shall also report on the implementation of the road crossing guidelines.

If it is infeasible to meet any of the guidelines specified above, the Department shall prepare written documentation justifying the determination of infeasibility. Documentation shall be provided to the Regional Water Board for approval.

The Department shall submit to the State Water Board by October 1 of each year the same report required under Article 3.5 of the Streets and Highways Code requiring the Department to report on the status of its efforts in locating, assessing, and remediating barriers to fish passage.

e. BMP Development & Implementation

In the SWMP, the Department shall include a description of how BMPs will be developed, constructed and maintained. The Department shall continue to evaluate and investigate new BMPs through pilot studies. The Department shall submit updates to the **STORM WATER TREATMENT BMP TECHNOLOGY REPORT** and the **STORM WATER MONITORING AND BMP DEVELOPMENT STATUS REPORT** in the Annual Report.

1) *Vector Control*

- a) All storm water BMPs that retain storm water shall be designed, operated and maintained to minimize mosquito production, and to drain within 96 hours of the end of a rain event, unless designed to control vectors. BMPs shall be maintained at the frequency specified by the manufacturer. This limitation does not apply in the Lake Tahoe Basin and in other high-elevation regions of the Sierra Nevada above 5000 feet elevation with similar alpine climates. The Department shall operate and maintain all BMPs to prevent the propagation of vectors, including complying with applicable provisions of the California Health and Safety Code relating to vector control.
- b) The Department shall cooperate and coordinate with the California Department of Public Health (CDPH) and with local mosquito and vector control agencies on issues related to vector production in the Department's structural BMPs. The Department shall prepare and maintain an inventory of structural BMPs that retain water for more than 96 hours. The inventory need not include BMPs in the Lake Tahoe Basin or other regions of the Sierra Nevada above 5000 feet. The inventory shall be provided to CDPH in electronic format for distribution to local mosquito and vector control agencies. The inventory shall be provided in Year 2 of the permit and updated every two years.

2) *Storm Water Treatment BMPs*

- a) The Department shall inspect all newly installed storm water treatment BMPs within 45 days of installation to ensure they have been installed and constructed in accordance with approved plans. If approved plans have not been followed, the Department shall take appropriate remedial actions to bring the BMP or control into conformance with its approved design.
- b) The Department shall inspect all installed storm water treatment BMPs at least once every year, beginning one year after the effective date of this Order.
- c) The Department may drain storm water treatment BMPs to the MS4 if the discharge does not cause or contribute to exceedances of water quality standards. Retained sediments shall be disposed of properly, in compliance with all applicable local, State, and federal acts, laws, regulations, ordinances, and statutes.
- d) The Department shall develop and utilize a watershed-based database to track and inventory treatment BMPs and treatment BMP maintenance within its jurisdiction. At a minimum, the database shall include:
 - i) Name and location of BMP;
 - ii) Watershed, Regional Water Board and District where project is located;
 - iii) Size and capacity;
 - iv) Treatment BMP type and description;
 - v) Date of installation;
 - vi) Maintenance certifications or verifications;
 - vii) Inspection dates and findings;

- viii) Compliance status;
- ix) Corrective actions, if any; and
- x) Follow-up inspections to ensure compliance.

Electronic reports for each BMP inspected during the reporting period shall be submitted to each associated Regional Water Board in tabular form. A summary of the tracking system data shall be included in the Annual Report along with a report on maintenance activities for post construction BMPs. The tracking system database shall be made available to the State Water Board or any Regional Water Board upon request.

3) BMPs shall not constitute a hazard to wildlife.

4) *Biodegradable Materials.*

The Department shall utilize wildlife-friendly 100% biodegradable⁹ erosion control products wherever feasible. At any site where erosion control products containing non-biodegradable materials have been used for temporary site stabilization, the Department shall remove such materials when they are no longer needed. If the Department finds that erosion control netting or products have entrapped or harmed wildlife at any site or facility, the Department shall remove the netting or product and replace it with wildlife-friendly biodegradable products.

f. Construction

1) *Compliance with the Statewide Construction Storm Water General Permit (CGP) and Lake Tahoe Construction General Permit (TCGP)*

Construction activities that may receive coverage under the CGP or the TCGP are not covered under this MS4 Permit. The Department shall electronically file Permit Registration Documents (PRD) for coverage under the CGP or TCGP for all projects subject to the CGP or TCGP.

2) *Construction Activities not Requiring Coverage Under the CGP*

For construction activities that are not subject to the CGP or the TCGP, the Department shall implement BMPs to reduce the discharge of pollutants to the MEP in storm water discharges associated with land disturbance activities including clearing, grading and excavation activities that result in the disturbance of less than one acre of total land area. The Department shall also implement BMPs to reduce the discharge of pollutants to the MEP for construction and maintenance activities that do not involve land disturbance such as roadway and parking lot repaving and resurfacing. The Department must comply with any region-specific waste discharge requirements, including any requirements applicable to activities involving less than one acre land disturbance.

⁹ For purposes of this Order, photodegradable synthetic products are not considered biodegradable.

- 3) *Construction Projects Involving Lead Contaminated Soils*
The Department has applied for and received variances from the California Department of Toxic Substances Control (DTSC) for the reuse of some soils that contain lead. For construction projects that have received a DTSC variance, the Department shall notify the appropriate Regional Water Board in writing 30 days prior to advertisement for bids to allow a determination by the Regional Water Board of the need for development of Waste Discharge Requirements (WDRs).
 - 4) *Pavement Grindings*
The Department shall comply with the requirements of the Regional Water Boards for the management of pavement grindings as well as with all local and State regulations, including Titles 22 and 27 of the California Code of Regulations.
 - 5) *Contractor Compliance*
The Department shall require its contractors to comply with this Order and with all applicable requirements of the CGP.
 - 6) *Construction Non-Compliance Reporting*
Incidents of non-compliance with the CGP shall be reported pursuant to the provisions of the CGP. The Department shall provide in the Annual Report a summary of all construction project non-compliance (Section E.2.c.6)b)).
- g. Compliance with Statewide Industrial Storm Water General Permit (IGP)
Industrial activities are not covered under this MS4 permit. The Department shall electronically file PRDs for coverage under the IGP for all facilities subject to coverage under the IGP. The categories of industrial facilities are provided in Attachment 1 of the Industrial General Permit (NPDES Permit No. CAS000001; the current Order No. 97-03-DWQ). The Department shall require its industrial facility contractors to comply with all requirements of the IGP. The discharge of pollutants from facilities not covered by the Industrial General Permit will be reduced to the MEP through the appropriate implementation of BMPs.
- h. Maintenance Program Activities and Facilities Operations
- 1) *Implement SWMP Requirements*
The Department shall implement the program specified in the SWMP to reduce or eliminate pollutants in storm water discharges from Department maintenance facilities and maintenance activities. The Department shall also implement any additional requirements contained in this Order.
 - 2) A **FACILITY POLLUTION PREVENTION PLAN (FPPP)** describes the activities conducted at a facility and the BMPs to be implemented to reduce or eliminate the discharge of pollutants in storm water runoff from the facility.

The Department shall prepare, revise and/or update the FPPPs for all maintenance facilities by October 1 of the first year. Each facility shall be evaluated separately and assigned appropriate site specific BMPs. The FPPP shall describe the activities conducted at the facility and the BMPs to be implemented to reduce or eliminate the discharge of pollutants in storm water runoff from the facility. The FPPP shall describe the inspection program used to ensure that maintenance BMPs are implemented and maintained. The Department shall identify in each Annual Report the status of the FPPP for each Maintenance Facility by District and Region, including the date of the last update or revision and the nature of any revisions.

The Department shall evaluate all non-maintenance Facilities, excluding leased properties, for water quality problems. If the Department identifies a water quality problem at a non-maintenance facility, it shall prepare an FPPP for that facility. If Regional Water Board staff determines that a non-maintenance facility may discharge pollutants to the storm water drainage system or directly to surface waters, the Department shall prepare an FPPP for that facility.

Regional Water Board staff has the authority to require the submittal of an FPPP at any time, to require changes to a FPPP, and to require changes in the implementation of the provisions of a FPPP.

3) *Highway Maintenance Activities*

- a) The Department shall develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters. The Department shall:
 - i) Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures). Priority shall be given to sites in sensitive watersheds or where there is an existing or potential threat to water quality;
 - ii) Establish schedules for implementing appropriate controls; and
 - iii) Identify road segments with slopes that are prone to erosion and sediment discharge and stabilize these slopes to control the discharge of pollutants to the MEP. An inventory of vulnerable road segments shall be maintained in the District Work Plans. Stabilization activities shall be reported in the Annual Report. This section does not apply to landslides and other forms of mass wasting which are covered under section E.2.h.3)d).

b) Vegetation Control

The Department shall control its handling and application of chemicals including pesticides, herbicides, and fertilizers to reduce or eliminate the discharge of pollutants to the MEP. The Department shall incorporate integrated pest management and integrated vegetation management practices into its vegetation control program¹⁰. At a minimum, the Department shall:

- i) Apply herbicides and pesticides in compliance with federal, state and local use regulations and product label directions.
 - (1) Violations of regulations shall be reported to the County Agricultural Commissioners within 10 business days.
 - (2) The Annual Report shall include a summary of violations and follow-up actions to correct them.
- ii) Minimize the application of chemicals by using integrated pest management and integrated vegetation management. For example, the Department may reduce the need for application of fertilizers and herbicides by using native species and using mechanical and biological methods for control of exotic species.
- iii) Prior to chemical applications, assess site-specific and application-specific conditions to prevent discharge. The assessment shall include the following variables:
 - (1) Expected precipitation events, especially those with the potential for high intensity;
 - (2) Proximity to water bodies;
 - (3) Intrinsic mobility of the chemical;
 - (4) Application method, including any tendency for aerial dispersion;
 - (5) Fate and transport of the chemical after application;
 - (6) Effects of using combinations of chemicals; and
 - (7) Other conditions as identified by the applicator.
- iv) Apply nutrients at rates and by means necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water.
- v) Ensure that all employees or contractors who, within the scope of their duties, prescribe or apply herbicides, pesticides, or fertilizers (including over-the-counter products) are appropriately trained and licensed to comply with these provisions.
- vi) Propose SWMP provisions as appropriate.
- vii) Include the following items in the Annual Report:

¹⁰ <http://www.epa.gov/opp00001/factsheets/ipm.htm>
<http://www.ipm.ucdavis.edu/>

- (1) A summary of the Department's chemical use. Report the quantity of chemicals used during the previous reporting period by name and type of chemical, by District, and by month.
- (2) An assessment of long-term trends in herbicide usage. Include a table presenting yearly District herbicide totals by chemical type;
- (3) A comparison of the statewide herbicide use with the Department's herbicide reduction goals;
- (4) An analysis of the effectiveness of implementation of vegetation control BMPs. Improvements to BMP implementation either being used or proposed for usage shall be discussed. If no improvements are proposed, explain why;
- (5) Justification for any increases in use of herbicides, pesticides, and fertilizers;
- (6) A report on the number and percentage of employees who apply pesticides and have been trained and licensed in the Department's Pesticide and Fertilizer Pollution Control Program policies; and
- (7) Training materials, if requested by the State Water Board.

c) Storm Water Drainage System Facilities Maintenance

- i) The Department shall inspect all urban¹¹ drainage inlets and catch basins a minimum of once per year and shall remove all waste and debris from drainage inlets and catch basins when waste and debris have accumulated to a depth of 50 percent of the inlet or catch basin capacity.
- ii) Waste and debris, including sweeper and vacuum truck waste, shall be managed and reported in accordance with all applicable laws and regulations, including the Cal. Code Regs. Title 27, Division 2, Subdivision 1.
- iii) The Department shall develop a **WASTE MANAGEMENT PLAN** that includes a comprehensive inventory of waste storage, transfer, and disposal sites; the source(s) of waste and the physical and chemical characterization of the waste retained at each site; estimated annual volumes of material and existing or planned waste management practices for each waste and facility type. Waste characterization need not be conducted on a site-by-site basis but may be evaluated programmatically based upon the highway environment and associated land uses contributing to the sites, climate, and ecoregion. The Waste Management Plan shall be submitted for State Water Board review and approval within one year of the effective date of this Order.

¹¹ For purposes of this requirement, the term "urban" shall mean located within an "urbanized area" as determined by the latest Decennial Census by the Bureau of the Census (Urbanized Area).

d) Landslide Management Activities

The Department shall develop a **LANDSLIDE MANAGEMENT PLAN** that includes BMPs for Department construction and maintenance work landslide-related activities (e.g., prevention, containment, clean-up). The *Landslide Management Plan* shall address all forms of mass wasting such as slumps, mud flows, and rockfalls, and shall include BMPs specifically for burn site management activities. The Department shall submit the *Landslide Management Plan* with the Year 1 Annual Report and implement the *Landslide Management Plan* for the remainder of the Permit term.

4) *Surveillance Activities*

a) Spill Response

The Department will follow the applicable Emergency Management Agency (EMA) procedures and timelines specified in Water Code sections 13271 and 13272 for reporting spills.

b) Illegal Connection/Illicit Discharge (IC/ID) and Illegal Dumping Response

i) The Department shall implement the BMPs and other requirements of the SWMP and this Order to reduce and eliminate IC/IDs and illegal dumping.

ii) The Department shall develop an **IC/ID AND ILLEGAL DUMPING RESPONSE PLAN** that includes, at a minimum, the following:

- (a) Procedures for investigating reports or discoveries of IC/IDs or incidents of illegal dumping, for remediating or eliminating the IC/IDs, and for clean-up of illegal dump sites.
- (b) Procedures for prevention of illegal dumping at sites subject to repeat or chronic incidents of illegal dumping.
- (c) Procedures for educating the public, raising awareness and changing behaviors regarding illegal dumping, and encouraging the public to contact the appropriate local authorities if they witness illegal dumping.

Within 6 months of the effective date of this Order, the Department shall submit the **IC/ID AND ILLEGAL DUMPING RESPONSE PLAN** to the State Water Board Executive Director for approval.

iii) The Department shall report all suspected IC/IDs to the Regional Water Board.

c) Reporting Requirements for Trash and Litter

The Department shall report on the trash and litter removal activities that are currently underway or are initiated after adoption of this Order. Activities include, but are not limited to, storm drain maintenance, road sweeping, public education and the Adopt-A-Highway program. Reporting and assessment of these or future activities shall follow protocols established by the Department

and shall include estimated annual volumes of the trash and litter removed. Results shall be submitted as part of the Annual Report in a summary format by District. Prior year's data shall be included to facilitate an analysis of trends.

- d) **Department Activities Outside the Department's Right-of-Way**
The Department shall include provisions in its contracts that require the contractor to obtain and comply with applicable permits for project-related facilities and operations outside the Department's ROW. Facilities may include concrete or asphalt batch plants, staging areas, concrete slurry processing or other material recycling operations, equipment and material storage yards, material borrow areas, and access roads.

5) *Maintenance Facility Compliance Inspections*

- a) District staff shall inspect all maintenance facilities at least twice annually. Follow up inspections shall be conducted when deficiencies are noted. The inspections are to identify areas contributing to a discharge of pollutants associated with maintenance facility activities, to determine if control practices to reduce pollutant loadings identified in the Facility Pollution Prevention Plans (FPPP) are adequate and properly implemented, and to determine whether additional control practices are needed. The District shall keep a record of inspections. The record of the inspections shall include the date of the inspection, the individual(s) who performed the inspection, a report of the observations, recommendations for any corrective actions identified or needed, and a description of any corrective actions undertaken.
- b) The Regional Water Board may require the Department to conduct additional site inspections, to submit reports and certifications, or to perform additional sampling and analysis to the extent authorized by the Water Code.
- c) Records of all inspections, compliance certifications, and non-compliance reporting shall be retained for a period of at least three years. With the exception of non-compliance reporting, the Department is not required to submit these records unless requested.

6) *Operation and Maintenance of Post-Construction BMPs*

The Department shall prepare and implement long-term operation and maintenance plans for every site subject to the post-construction storm water treatment design standards. The plans must ensure the following: a) Long-term structural LID BMPs are maintained as necessary to ensure they continue to work effectively; b) Proprietary devices are maintained according to the manufacturer's directions; and c) Post-construction BMPs are replaced if they lose their effectiveness.

i. Non-Departmental Activities

The Department shall summarize its control over all non-departmental (third party) activities performed on Department ROW in the SWMP. The summary shall describe how the Department shall ensure compliance with this Order in all non-departmental activities.

The Department shall not grant or renew encroachment permits or easements benefitting any third party required to obtain coverage under the Statewide Construction and/or Industrial Storm Water General Permits unless the party has obtained coverage. In all leases, rental agreements, and all other contracts with third parties conducting activities within the ROW, the Department shall require the third party to comply with applicable requirements of the Construction General Permit, the Industrial General Permit, and this Order.

j. Non-Storm Water Activities/ Discharges

1) The Department shall describe the management activities for all non-storm water discharges in the SWMP. Management activities shall include the procedures for prohibiting illicit discharges and illegal connections, and procedures for spill response, cleanup, reporting, and follow-up.

2) *Agricultural Return Flows*

The Department shall provide reasonable support to the monitoring activities of agricultural dischargers whose runoff enters the MS4. Reasonable support includes facilitating monitoring activities, providing necessary access to monitoring sites, and cooperating with monitoring efforts as needed. It does not include actively conducting monitoring or providing funding. The Department may require agricultural dischargers to follow established Department access and encroachment procedures in establishing sites and conducting monitoring activities, and may deny access at sites that may restrict traffic flow or pose a danger to any party.

3) See Section B of this Order for the complete list of conditionally exempt non-storm water discharges and compliance requirements.

k. Training

1) The Department shall implement a training program for Department employees and construction contractors. The training program shall be described in the SWMP.

- 2) The training program shall cover:
 - a) Causes and effects of storm water pollution;
 - b) Regulatory requirements;
 - c) Best Management Practices;
 - d) Penalties for non-compliance with this Order; and
 - e) Lessons learned.

- 3) The Department shall provide a review and assessment of all training activities in the Annual Report.

I. Public Education and Outreach

The Department shall implement a Statewide Public Education Program and describe it in the SWMP. The Department shall continue to seek opportunities to participate in public outreach and education activities with other MS4 permittees.

- 1) The Statewide Public Education Program shall include the following elements:
 - a) **Research:** A plan for conducting research on public behavior that affects the quality of the Department's runoff. The information gathered will form the foundation for all the public education conducted.
 - b) **Education:** Education of the general public to modify behavior and communicate with commercial and industrial entities whose actions may add pollutants to the Department's storm water.
 - c) **Mass Media Advertising:** Continue the advertising campaign as a focal point of the public education strategy. The campaign should focus on the behaviors of concern and should be designed to motivate the public to change those behaviors. The public education campaign should be revised and updated according to the results of the research. The Department may cooperate with other organizations to implement the public education campaign.

- 2) A **PUBLIC EDUCATION PROGRAM PROGRESS REPORT** shall be submitted as part of the Annual Report.

m. Program Evaluation

- 1) The Department shall implement the program specified in the SWMP and any additional requirements contained in this Order.
- 2) **Field Activities SELF-AUDIT**
The Department will perform compliance evaluations for field activities including construction, highway maintenance, facility maintenance, and selected targeted program components. The results of the field compliance evaluations for each fiscal year will be provided in the Annual Report.

3) **OVERALL PROGRAM EFFECTIVENESS EVALUATION:**

Each year, the Department shall submit an **OVERALL PROGRAM EFFECTIVENESS EVALUATION** together with the Annual Report. The Department shall increase the scope of the evaluation each year in response to the environmental monitoring data it collects. The effectiveness evaluation shall be comparable to that outlined in CASQA's *Municipal Stormwater Program Effectiveness Assessment Guidance*¹² and shall emphasize assessment of BMPs specifically targeting primary pollutants of concern. The effectiveness evaluation shall include, but is not limited to, the following components:

- a) Assessment of program effectiveness in achieving permit requirements and measurable objectives.
- b) Assessment of program effectiveness in protecting and restoring water quality and beneficial uses.
- c) Identification of quantifiable effectiveness measurements for each BMP, including measurements that link BMP implementation with improvement of water quality and beneficial use conditions.
- d) Identification of how the Department will propose revisions to the SWMP to optimize BMP effectiveness when effectiveness assessments identify BMPs or programs that are ineffective or need improvement.

n. Measurable Objectives

The Department shall implement the program specified in the SWMP and any additional requirements contained in this Order. In the SWMP, the Department shall identify measurable objectives to meet the SWMP's goals, proposed activities and tasks to meet the objectives, and a time schedule for the proposed activities and tasks. In the Annual Report, the Department shall report on its progress in meeting the measurable objectives.

o. References

The Department shall provide references for all information, documents, and studies used in the development of the SWMP.

3. Annual Report

- a. The Department shall submit 13 copies of an **ANNUAL REPORT** to the State Water Board Executive Director by October 1 of each year. An electronic copy shall also be uploaded into SMARTS in the portable document format (PDF). The reporting period for the Annual Report shall be July 1 through June 30. The Annual Report shall contain all information and submittals required by this Order including, but not limited to:
 - 1) A District-by-District description of storm water pollution control activities conducted during the reporting period;
 - 2) A progress report on meeting the SWMP's measurable objectives;

¹² <https://www.casqa.org/store/products/tabid/154/p-7-effectiveness-assessment-guide.aspx>

- 3) An Overall Program Effectiveness Evaluation as described in section E.2.m.3);
- 4) Proposed revisions to the SWMP, including revisions to existing BMPs, along with corresponding justifications;
- 5) A report on post-construction BMP maintenance activities;
- 6) A list of non-approved BMPs that were implemented in each District during the reporting period including the type of BMP, reason for use, physical location, and description of any monitoring;
- 7) An evaluation of project planning and design activities conducted during the year;
- 8) A summary of non-compliance with this Order and the SWMP as specified in Section E.2.c.6)b). The summary shall include an assessment of the effectiveness of any Department enforcement and penalties, and as appropriate, proposed solutions to improve compliance;
- 9) An evaluation of the Monitoring Results Report, including a summary of the monitoring results;
- 10) Proposed revisions to the Department's Vegetation Control Program;
- 11) Proposals for monitoring and control of non-storm water discharges that are found to be sources of pollutants as described in Section B. of this Order;
- 12) District Workplans (See below); and
- 13) Measures implemented to meet region-specific requirements.

A partial summary of reporting requirements is contained in Attachment IX of this Order.

b. ***DISTRICT WORKPLANS***

The Department shall submit ***DISTRICT WORKPLANS*** (workplans) for each District by October 1 of each year, as part of the Annual Report. The workplans will be forwarded to the appropriate Regional Water Board Executive Officer for acceptance. Workplans are deemed accepted after 60 days after receipt by the Regional Water Board unless rejected in writing. District staff shall meet with Regional Water Board staff on an annual basis prior to submittal of the workplans to discuss alternatives and ensure that appropriate post construction controls are included in the project development process through review of the workplan and early consultation and coordination between District and Regional Water Board staff. Workplans shall conform with the requirements of applicable Regional Water Board Basin Plans and shall include, at a minimum:

- 1) A description of all activities and projects, including maintenance projects, to be undertaken by the Districts. For all projects with soil disturbing activities, this shall include a description of the construction and post construction controls to be implemented;
- 2) The area of new impervious surface and the percentage of new impervious surface to existing impervious surface for each project;
- 3) The area of disturbed soil associated with each project or activity;
- 4) A description of other permits needed from the Regional Water Boards for each project or activity;

- 5) Potential and actual impacts of the discharge(s) from each project or activity;
- 6) The proposed BMPs to be implemented in coordination with other MS4 permittees to comply with WLAs and LAs assigned to the Department for specific pollutants in specific watersheds or sub watersheds;
- 7) The elements of the statewide monitoring program to be implemented in the District;
- 8) Identification of high-risk areas (such as locations where spills or other releases may discharge directly to municipal or domestic water supply reservoirs or ground water percolation facilities);
- 9) Spill containment, spill prevention and spill response and control measures for high-risk areas; and
- 10) Proposed measures to be taken to meet Region-specific requirements included in Attachment V.
- 11) An inventory of vulnerable road segments having slopes that are prone to erosion and sediment discharge.

4. TMDL Compliance Requirements

a. Implementation

The Department shall comply with all TMDLs listed in Attachment IV.

Waste Load Allocations, Load Allocations, effluent limitations, implementation requirements, and monitoring requirements for the TMDLs listed in Attachment IV are specified in the adopted and approved Regional Water Board Basin Plans or in U.S. EPA-established TMDLs, which are incorporated herein by reference as enforceable parts of this Order. Applicable Basin Plan Amendments and resolutions are identified in Attachment IV for Regional Water Board-established TMDLs that the Department is subject to.

TMDL-specific permit requirements, including deliverables and actions with their associated due dates, are also specified in Attachment IV for the Lake Tahoe sediment and nutrients TMDL. TMDL-specific permit requirements for all other TMDLs in Attachment IV will be incorporated into Attachment IV through a reopener as described in provisions E.4.b and E.11.c. below. In addition, consistent with provision E.11.b of this Order, the State Water Board may reopen this Order to incorporate any modifications or revisions to the TMDLs in Attachment IV, or to incorporate any new TMDLs adopted during the term of this Order that assign a WLA to the Department or that identify the Department as a responsible party in the TMDL implementation plan.

b. TMDL-Specific Permit Requirements

Within six months of the adoption date of this Order, the Department shall consult with each Regional Water Board, and the State Water Board to identify the WLAs, deliverables and actions to be implemented by the Department in meeting the TMDLs identified in Attachment IV. The Regional Water Boards have been directed to propose and submit, within one year of the adoption date of this Order, specific requirements for incorporation into Attachment IV through a reopener under provision E.11.c. The submission will include:

- 1) Proposed TMDL-specific permit requirements, including deliverables, actions, and compliance due dates consistent with the TMDLs,
- 2) An explanation of how the proposed TMDL-specific permit requirements, including deliverables, actions, and compliance due dates, are consistent with the assumptions and requirements of any applicable WLA and how these will achieve the goal of the TMDL, and
- 3) Where a BMP-based approach is proposed, an explanation of how the proposed BMPs will be sufficient to implement applicable WLAs.

The State Water Board will reopen this Order consistent with provision E.11.c to incorporate into Attachment IV, the Fact Sheet, and any other Permit provisions as necessary, TMDL-specific permit requirements. Once the TMDL-specific permit requirements are adopted, the Department shall comply with the incorporated requirements in accordance with the specified compliance due dates.

Compliance due dates that have already passed are enforceable as of the effective date of the approval of the TMDL-specific permit requirements. TMDL-specific compliance due dates that exceed the term of this Order may be included for reference, and will become enforceable in the event that the Order is administratively extended.

c. Status Review Report

The Department shall prepare a **TMDL STATUS REVIEW REPORT** to be submitted with each Annual Report. The TMDL Status Review Report shall include the following information for all TMDLs listed in Attachment IV.

- 1) An analysis of the effectiveness of existing BMPs and activities in meeting existing TMDLs;
- 2) A summary update of monitoring activities for each TMDL and any monitoring needed to demonstrate compliance with an approved TMDL;
- 3) A summary of measures implemented to comply with existing TMDLs;
- 4) A summary of measures and a time schedule to meet existing TMDLs;
- 5) An update of the Department Statewide TMDLs table;

- 6) A summary of TMDLs adopted during the past year where the Department is assigned a WLA or the Department is identified as a responsible party in the implementation plan.

5. ASBS Compliance Requirements

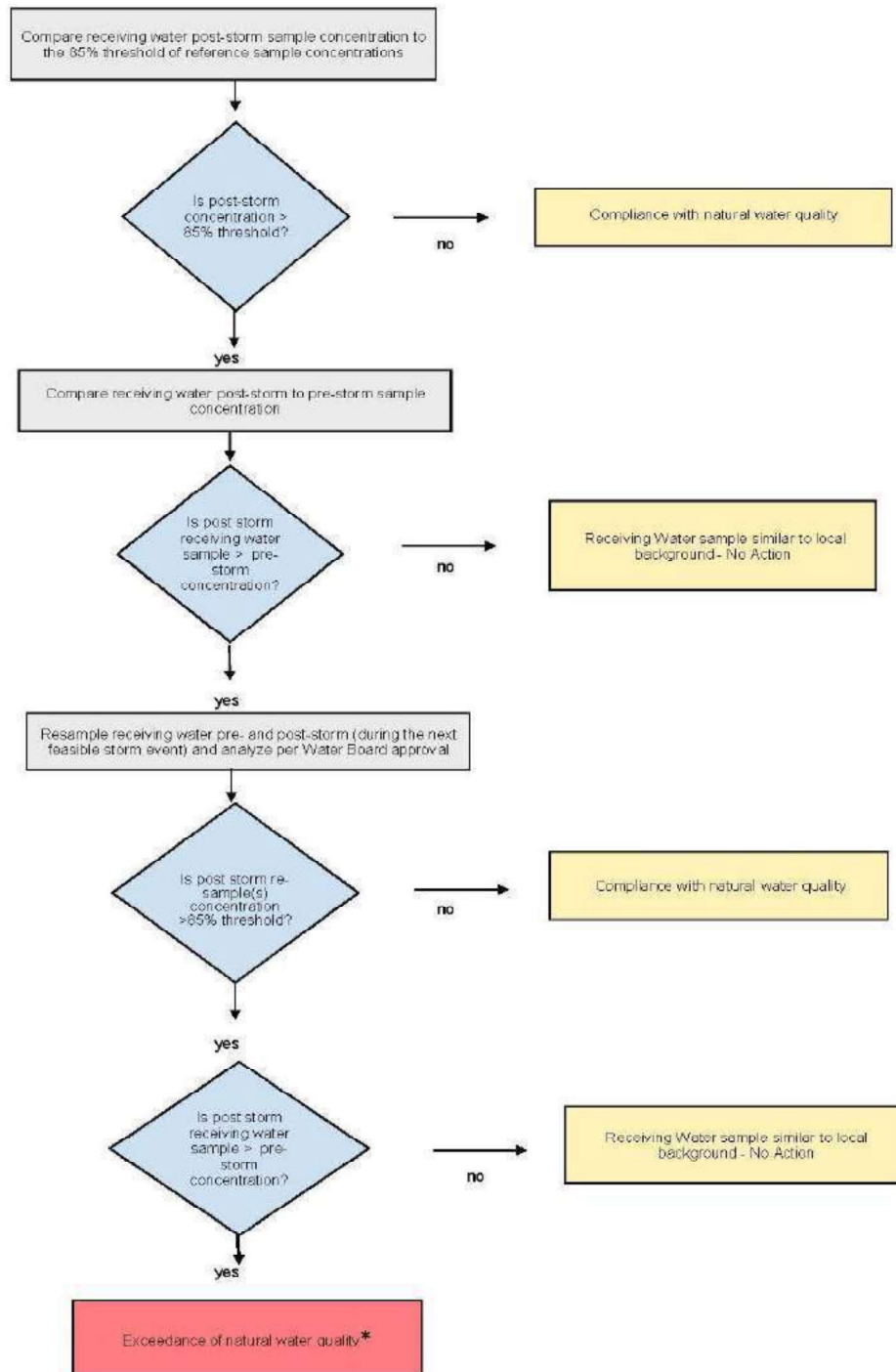
a. Priority Discharges

Attachment III identifies locations where the Department discharges to ASBS that the State Water Board has determined to have priority discharges. Priority discharges are those that pose the greatest threat to water quality in the ASBS and which the State Water Board identifies to require monitoring and installation of structural or non-structural controls.

b. Compliance Schedule

- 1) On the effective date of the Exception, all non-authorized non-storm water discharges (e.g., dry weather flow) to ASBS shall be effectively prohibited.
- 2) No later than September 20, 2013, the Department shall submit a draft written ASBS Compliance Plan to the State Water Board Executive Director that describes its strategy to comply with these provisions, including the requirement to maintain natural water quality in the affected ASBS (see provision E.5.c.). The final ASBS Compliance Plan, including a description and final schedule for structural controls based on the results of runoff and receiving water monitoring, shall be submitted no later than September 20, 2014 and shall be included in the SWMP.
- 3) Within 18 months of the effective date of the Exception, any non-structural controls that are necessary to comply with these provisions shall be implemented.
- 4) Within six (6) years of the effective date of the Exception, any structural controls identified in the ASBS Compliance Plan that are necessary to comply with these provisions shall be operational.
- 5) Within six (6) years of the effective date of the Exception, the Department must comply with the requirement that their discharges into the affected ASBS maintain natural ocean water quality. If the initial results of post-storm receiving water quality testing indicate levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, then the Department must re-sample the receiving water, pre- and post-storm. If after re-sampling, the post-storm levels are still higher than the 85th percentile threshold of reference water quality data, and the pre-storm receiving water levels, for any constituent, then natural ocean water quality is exceeded. See Figure 2.

Figure 2
ASBS Special Protections
Flowchart to Determine Compliance with Natural Water Quality



*** When an exceedance of natural water quality occurs, the Department must comply with section I.A.2.h of the Special Protections as well as the requirements of this Order. Note, when sampling data is available, end-of-pipe effluent concentrations will be considered by the Water Boards in making this determination.**

- 6) The Executive Director of the State Water Board may only authorize additional time to comply with provisions E.5.b.4) and E.5.b.5) above if good cause exists to do so. Good cause means a physical impossibility or lack of funding.

If the Department claims physical impossibility, it shall notify the Executive Director of the State Water Board in writing within thirty (30) days of the date that the discharger Department first knew of the event or circumstance that caused or would cause it to fail to meet the deadline in provisions E.5.b.4) or E.5.b.5). The notice shall describe the reason for the noncompliance or anticipated noncompliance and specifically refer to this Permit provision. The Department shall describe the anticipated length of time the delay in compliance may persist, the cause or causes of the delay as well as measures to minimize the impact of the delay on water quality, the measures taken or to be taken by the Department to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The Department shall adopt all reasonable measures to avoid and minimize such delays and their impact on water quality.

The Department may request an extension of time for compliance based on lack of funding. The request for an extension shall require a demonstration and documentation of a good faith effort to acquire funding through the Department's budgetary process, and a demonstration that funding was unavailable or inadequate.

c. ASBS Compliance Plan

The Department shall develop and submit to the Executive Director of the State Water Board a draft ASBS Compliance Plan not later than September 20, 2013. The ASBS Compliance Plan shall address all locations listed in Attachment III as follows:

- 1) Include a map of surface drainage of storm water runoff, showing areas of sheet runoff, priority discharge locations, and any structural Best Management Practices (BMPs) already employed and/or BMPs to be employed in the future. The map shall also show the storm water conveyances in relation to other features such as service areas, sewage conveyances and treatment facilities, landslides, areas prone to erosion, and waste and hazardous material storage areas, if applicable.
- 2) Describe the measures by which all non-authorized non-storm water runoff (e.g., dry weather flows) has been eliminated, how these measures will be maintained over time, and how these measures are monitored and documented.
- 3) Require minimum inspection frequencies as follows:
 - a) The minimum inspection frequency for construction sites shall be weekly during the rainy season;
 - b) The minimum inspection frequency for industrial facilities shall be monthly during the rainy season; and

- c) Storm water outfall drains equal to or greater than 18 inches (457 mm) in diameter or width shall be inspected once prior to the beginning of the rainy season and once during the rainy season, and maintained to remove trash and other anthropogenic debris.
- 4) Address storm water discharges (wet weather flows) and, in particular, describe how pollutant reductions in storm water runoff, that are necessary to comply with these special conditions, will be achieved through BMPs. Structural BMPs need not be installed if the discharger can document to the satisfaction of the State Water Board Executive Director that such installation would pose a threat to health or safety. BMPs to control storm water runoff discharges (at the end-of-pipe) during a design storm shall be designed to achieve on average the following target levels:
 - a) Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or
 - b) A 90% reduction in pollutant loading during storm events, for the Department's total discharges.

The baseline for these determinations is the effective date of the Exception, except for those structural BMPs installed between January 1, 2005 and adoption of the Special Protections.

- 5) Address erosion control and the prevention of anthropogenic sedimentation in ASBS. The natural habitat conditions in the ASBS shall not be altered as a result of anthropogenic sedimentation.
- 6) Describe the non-structural BMPs currently employed and planned in the future (including those for construction activities), and include an implementation schedule. The ASBS Compliance Plan shall include non-structural BMPs that address public education and outreach. The ASBS Compliance Plan shall also describe the structural BMPs, including any low impact development (LID) measures currently employed and planned for higher threat discharges, and shall include an implementation schedule. To control storm water runoff discharges (at the end-of-pipe) during a design storm, the Department must first consider, and use where feasible, LID practices to infiltrate, use, or evapotranspire storm water runoff on-site, if LID practices would be the most effective at reducing pollutants from entering the ASBS.
- 7) The BMPs and implementation schedule shall be designed to ensure that natural water quality conditions in the receiving water are achieved and maintained by either reducing flows from impervious surfaces or reducing pollutant loading, or some combination thereof.

d. Reporting

If the results of the receiving water monitoring described in provision E.2.c.2)a)i) indicate that the storm water runoff is causing or contributing to an alteration of natural ocean water quality in the ASBS, the discharger shall submit a report to the State Water Board and Regional Water Board within 30 days of receiving the results.

1. The report shall identify the constituents in storm water runoff that alter natural ocean water quality and the sources of these constituents.
2. The report shall describe BMPs that are currently being implemented, BMPs that are identified in the SWMP for future implementation, and any additional BMPs that may be added to the SWMP to address the alteration of natural water quality. The report shall include a new or modified implementation schedule for the BMPs.
3. Within 30 days of the approval of the report by the State Water Board Executive Director, the discharger shall revise its ASBS Compliance Plan to incorporate any new or modified BMPs that have been or will be implemented, the implementation schedule, and any additional monitoring required.
4. As long as the discharger has complied with the procedures described above and is implementing the revised SWMP, the discharger does not have to repeat the same procedure for continuing or recurring exceedances of natural ocean water quality conditions due to the same constituent.

6. Region Specific Requirements

- a. The Department shall implement the region-specific requirements specified in this Order.
- b. In the SWMP, the Department shall describe how individual Districts will address region-specific requirements in each Regional Water Board.
- c. Region specific requirements are specified in Attachment V of this Order.

7. Regional Water Board Authorities

- a. Upon the effective date of this Order, the Regional Water Boards shall enforce the requirements of this Order. Enforcement may include, but is not limited to, reviewing FPPPs, reviewing workplans and monitoring reports, conducting compliance inspections, conducting monitoring, reviewing Annual Reports and other information, and issuing enforcement orders.
- b. Regional Water Boards may require submittal of FPPPs.
- c. Regional Water Boards may require retention of records for more than three years.
- d. To the extent authorized by the Water Code, Regional Water Boards may impose additional monitoring and reporting requirements and may provide guidance on monitoring plan implementation (Water Code, § 13383).
- e. Regional Water Board staff may inspect the Department's facilities, roads, highways, bridges, and construction sites.

- f. Regional Water Boards may issue other individual storm water NPDES permits or WDRs to the Department, particularly for discharges beyond the scope of this Order.

8. Requirements of Other Agencies

This Order does not preempt or supersede the authority of other State or local agencies (such as the Department of Toxic Substances Control or the California Coastal Commission) and local municipalities to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within their jurisdictions as allowed by State and federal law.

9. Standard Provisions

The Department shall comply with the Standard Provisions (Attachment VI) and any amendments thereto.

10. Permit Compliance and Rescission of Previous Waste Discharge Requirements

This Order shall serve and become effective as an NPDES permit and the Department shall comply with all its requirements on July 1, 2013. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 99-06-DWQ, except for compliance purposes for violations occurring before the effective date of this Order.

11. Permit Re-Opener

This Order may be modified, revoked and reissued, or terminated for cause due to promulgation of amended regulations, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 Code of Federal Regulations 122.62, 122.63, 122.64, and 124.5. The State Water Board may reopen and modify this Order at any time prior to its expiration under any of the following circumstances:

- a. Present or future investigations demonstrate that the discharge(s) regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses.
- b. New or revised Water Quality Objectives come into effect, or any new TMDL is adopted or revised that assigns a WLA to the Department or that identifies the Department as a responsible party in the TMDL implementation plan. In such cases, effluent limitations and other requirements in this Order may be modified as necessary to reflect the new TMDLs or the new or revised Water Quality Objectives; or
- c. TMDL-specific permit requirements for adopted TMDLs are developed by a Regional Water Board for incorporation into this Order.

- d. The State Water Board determines, after opportunity for public comment and a public workshop, that revisions are warranted to those provisions of the Order addressing compliance with water quality standards in the receiving water and/or those provisions of the Order establishing an iterative process for implementation of management practices to assure compliance with water quality standards in the receiving water.

12. Dispute Resolution

In the event of a disagreement between the Department and a Regional Water Board over the interpretation of any provision of this Order, the Department shall first attempt to resolve the issue with the Executive Officer of the Regional Water Board. If a satisfactory resolution is not obtained at the Regional Water Board level, the Department may submit the issue in writing to the Executive Director of the State Water Board or his designee for resolution, with a copy to the Executive Officer of the Regional Water Board. The issue must be submitted to the Executive Director within ten days of any final determination by the Executive Officer of the Regional Water Board. The Executive Officer of the Regional Water Board will be provided an opportunity to respond.

13. Order Expiration and Reapplication

- a. This Order expires on June 30, 2018.
- b. If a new order is not adopted by June 30, 2018, then the Department shall continue to implement the requirements of this Order until a new one is adopted.

- c. In accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations, the Department shall file a report of waste discharge no later than 180 days before the expiration date of this Order as application for reissuance of this permit and waste discharge requirements. The application shall be accompanied by a SWMP, and a summary of all available water quality data for the discharge and receiving waters, including conventional pollutant data from at least the most recent three years, and toxic pollutant data from at least the most recent five years, in the discharge and receiving water. Additionally, the Discharger shall include the final results of any studies that may have a bearing on the limits and requirements of the next permit.

CERTIFICATION

The undersigned, Clerk to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 19, 2012.

AYE: Chairman Charles R. Hoppin
Vice Chair Frances Spivy-Weber
Board Member Tam M. Doduc
Board Member Steven Moore
Board Member Felicia Marcus

NAY: None

ABSENT: None

ABSTAIN: None



Jeanine Townsend
Clerk to the Board

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
1001 I STREET
SACRAMENTO, CA 95814

FACT SHEET
FOR
NPDES PERMIT and WASTE DISCHARGE REQUIREMENTS for
State of California
Department of Transportation
NPDES Permit No. CAS000003

ORDER No. 2012-0011-DWQ

This Fact Sheet contains information regarding the waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit for the California State Department of Transportation (Department) for discharges of storm water and certain types of non-storm water. This Fact Sheet describes the factual, legal, and methodological basis for the permit conditions, provides supporting documentation, and explains the rationale and assumptions used in deriving the limits and requirements.

BACKGROUND

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act (C.W.A.)) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful, unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the Clean Water Act added section 402(p). Section 402(p) establishes that storm water discharges are point source discharges and lays out a framework for regulating municipal and industrial storm water discharges under the NPDES program. On November 16, 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated final regulations that establish the storm water permit requirements.

Pursuant to the 1990 regulations, storm water permits are required for discharges from a municipal separate storm sewer system (MS4) serving a population of 100,000 or more. U.S. EPA defines an MS4 as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a State (40 Code of Federal Regulations (C.F.R.), § 122.26(b)(8)). The regulations also require storm water permits for 11 categories of industry, including construction activities where the construction activity: (1) disturbs more than 1 acre of land; (2) is part of a larger common plan of development; and/or (3) is found to be a significant threat to water quality.

Before July 1999, storm water discharges from Department storm water systems were regulated by individual NPDES permits issued by the Regional Water Quality Control Boards (Regional Water Boards). On July 15, 1999, the State Water Resources Control Board (State Water Board) issued a statewide permit (Order No. 99-06-DWQ), which

regulated all storm water discharges from Department owned MS4s, maintenance facilities and construction activities. The existing permit (Order No. 99-06-DWQ) will be superseded by adoption of a new permit.

Industrial activities are covered by two General Permits that have been adopted by the State Water Board. The Department's construction activities are subject to the requirements under the NPDES General Permit for Construction Activities (CGP, NPDES Permit No. CAS000002) for construction activities that are equal to or greater than 1 acre. The exception to this is in the Lake Tahoe area, where the Lahontan Regional Water Board adopted its own construction general permit (NPDES Permit No. CAG616002). The Department's industrial facility activities are subject to the requirements of the NPDES General Permit for Industrial Activities (IGP, NPDES Permit No. CAS000001).

The Department is responsible for the design, construction, management, and maintenance of the State highway system, including freeways, bridges, tunnels, the Department's facilities, and related properties. The Department's discharges consist of storm water and non-storm water discharges from State owned right-of-way (ROW).

Clean Water Act section 402(p) and 40 Code of Federal Regulations section 122.26 (a)(v) give the State authority to regulate discharges from an MS4 on a system-wide or jurisdiction-wide basis. The State Water Board considers all storm water discharges from all MS4s and activities under the Department's jurisdiction as one system. Therefore, this Order is intended to cover all of the Department's municipal storm water activities.

This Order will be implemented by the Department and enforced by the State Water Board and nine Regional Water Boards.

The Department operates highways and highway-related properties and facilities that cross through local jurisdictions. Some storm water discharges from the Department's MS4 enter the MS4s owned and managed by these local jurisdictions. This Order does not supersede the authority of local agencies to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within their jurisdiction as allowed by State and federal law. The Department is expected to comply with the lawful requirements of municipalities and other local, regional, and/or state agencies regarding discharges of storm water to separate storm sewer systems or other watercourses under the agencies' jurisdictions.

GENERAL DISCHARGE PROHIBITIONS

This Order authorizes storm water and conditionally exempt non-storm water discharges from the Department's properties, facilities and activities. This Order prohibits the discharge of material other than storm water, unless specifically authorized in this Order.

The Department owns and operates highway systems that are located adjacent to and discharge into many ASBS. This Order specifies that Department discharges to an ASBS are prohibited except in compliance with the conditions and special protections contained in the General Exception for Storm Water and Non-Point Source Discharges to ASBS, State Water Board Resolution 2012-0012. This State Water Board resolution is hereby incorporated by reference and the Department is required to comply with applicable requirements. Attachment III identifies 77 priority Department ASBS discharge locations. These locations represent sites having significant potential to impact the ASBS that are feasible to retrofit. The following locations are not included in the list:

1. Inland sites discharging indirectly to the ASBS,
2. Sites where the discharge is attenuated through vegetation,
3. Sites where it is infeasible to install a BMP, e.g. an overhanging outfall or where there is insufficient space to install a treatment control, and
4. Sites that would pose a safety hazard to motorists, or that would be unsafe to install or maintain.

Provision E.5 of the Order requires the Department to ensure that structural controls at these locations are operational within six years of the effective date of the General Exception.

NON-STORM WATER

Non-storm water discharges are subject to different requirements under the Order depending on whether they are discharged to ASBS.

Non-storm water discharges outside ASBS:

Non-storm water discharges must be effectively prohibited unless they are authorized by a separate NPDES permit or are conditionally exempt under provisions of the Order consistent with 40 CFR, §122.26 (d)(2) (iv)(B). Non-storm water discharges that are not specifically or conditionally exempted by this Order are subject to the existing regulations for point source discharges. Conditionally exempt non-storm water discharges that are found to be significant sources of pollution are to be effectively prohibited.

Discussion of Agricultural Return Flows:

The Department (2007a) indicated in its Non-Storm Water Report that agricultural irrigation water return flows carrying pollutants pass under the Department's ROW in many locations and enter its MS4. Agricultural return flows are not prohibited or conditionally exempted non-storm water discharges and are not subject to the non-storm water requirements of the Order.

The regulations conditionally exempt MS4s from the requirement to effectively prohibit "irrigation water" discharges to the MS4. The regulations also completely exempt MS4s from addressing non-storm water discharges (also called "illicit discharges") if they are regulated by an NPDES permit (40 C.F.R., §§ 122.26(b)(2); 122.26(d)(2)(iv)(B)). The

term “irrigation water” is not defined and the regulations do not clarify whether that term is intended to encompass agricultural return flows that may run on to the Department’s rights of way.

Because agricultural return flows cannot be regulated by an NPDES permit, it is unlikely that they were intended to be treated as “illicit discharges” under the federal MS4 regulations. In discussing illicit non-storm water discharges and the requirement to effectively prohibit such discharges, the preamble of the Phase I final regulations states: “The CWA prohibits the *point source* discharge of non-storm water not subject to an NPDES permit through municipal separate storm sewers to waters of the United States. Thus, classifying such discharges as illicit properly identifies such discharges as being illegal” (55 FR 47996) (emphasis added). Implicit in this statement is that illicit discharges do not include non-point source discharges, including agricultural return flows, which are statutorily excluded from the definition of a point-source discharge (C.W.A., § 502(14)).¹

Clean Water Act Section 402(l)(1) states that an NPDES permitting agency “shall not require a permit under this section for discharges composed entirely of return flows from irrigated agriculture.” Accordingly, agricultural return flows co-mingling with an illicit discharge would be treated as a point source discharge. This fact, however, does not lead the State Water Board to find that agricultural return flows should be subject to the conditional prohibition on non-storm water discharges.

First, the illicit discharge prohibition acts to prevent non-storm water discharges “into the storm sewers” (C.W.A., § 402(p)(3)(B)(ii)) (emphasis added). Based on a plain reading of the statutory language,² a determination of what constitutes an illicit discharge should be made with reference to the nature of the discharge as it enters the MS4. Unless the agricultural return flow has co-mingled with a point source discharge prior to entering the MS4, it is not subject to the discharge prohibition. Further, since certain point source discharges are conditionally exempted from the requirement for effective prohibition under 40 Code of Federal Regulations section 122.26(d)(2)(iv)(B)(1), the fact that the agricultural return flow may have co-mingled with such an exempted dry weather point source discharge prior to entering the MS4 does not render it an illicit discharge subject to the effective prohibition.³ See *Fishermen Against the Destruction of the Environment, Inc. v. Closter Farms, Inc.* (11th Cir. 2002) 300 F.3d 1294.

¹ Elsewhere in the preamble, EPA refers to the conditionally exempted non-storm water discharges as “seemingly innocent flows that are characteristic of human existence *in urban environments* and which discharge to municipal separate storm sewers” (55 F.R.48037) (emphasis added). This language further suggests that the term “irrigation water” was not intended to encompass irrigation return flows characteristic of a rural area.

² 40 C.F.R. §122.26(d)(2)(iv)(B)(1) similarly states that the MS4 is to “prevent illicit discharges *to* the municipal separate storm sewer system.” (emphasis added).

³ The Federal Register discussion clarifies that “irrigation return flows are excluded from regulation under the NPDES program,” but that “joint discharges,” i.e. discharges with a component “from activities unrelated to crop production” may be regulated (55 FR 47996).

Second, even assuming that the agricultural return flow mingling with a point source discharge *after* entering the MS4 would trigger the requirements related to non-storm water discharges, agricultural return flows are not expected to require an effective prohibition. Irrigation of agricultural fields typically occurs in dry weather, not wet weather, and therefore the State Water Board anticipates that irrigation return flows into the Department's MS4 would generally not co-mingle with discharges other than exempt non-storm water discharges.

Further, agricultural return flows entering an MS4, while not regulated by an NPDES permit, are through much of the State regulated under WDRs, waivers, and Basin Plan prohibitions. The regulations exempt MS4s from addressing non-storm water discharges that are regulated by an NPDES permit. Flows to the Department's MS4 regulated through state-law based permits are subject to regulatory oversight analogous to being subject to an NPDES permit. The appropriate regulatory mechanism for these discharges is the non-point source regulatory programs and not a municipal storm water permit.⁴

Non-Storm Water Discharges to ASBS:

Non-storm water discharges to ASBS are prohibited except as specified in the General Exception. Certain enumerated non-storm water discharges are allowed under the General Exception if essential for emergency response purposes, structural stability, slope stability, or if occur naturally.

Discussion of Utility Vault Discharges:

In addition, an NPDES permitting authority may authorize non-storm water discharges to an MS4 with a direct discharge to an ASBS to the extent the NPDES permitting authority finds that the discharge does not alter natural ocean water quality in the ASBS. This Order allows utility vault discharges to segments of the Department MS4 with a direct discharge to an ASBS, provided the discharge is authorized by the General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Water, NPDES No. CAG 990002. The State Water Board is in the process of reissuing the General NPDES Permit for Utility Vaults. As part of the renewal, the State Water Board will require a study to characterize representative utility vault discharges to an MS4 with a direct discharge to an ASBS and will impose conditions on such discharges to ensure the discharges do not alter natural ocean water quality in the ASBS. Given the limited number of utility vault discharges to MS4s that discharge directly to an ASBS, the State Water Board finds that discharges from utility vaults and underground structures to MS4s with a direct discharge to an ASBS are not expected to result in the MS4 discharge causing a substantial alteration of natural ocean water quality in the ASBS in the interim period while the General NPDES Permit for Discharges from Utility Vaults is renewed and

⁴ It should also be noted that the Department has limited control options since up gradient flows such as agricultural runoff must in many cases be allowed to flow under or alongside the roadway so as to not threaten roadway integrity.

the study is completed. However, if a Regional Water Board determines a specific discharge from a utility vault or underground structure does alter the natural ocean water quality in an ASBS, the Regional Water Board may prohibit the discharge as specified in this Order. It should also be noted that, under the California Ocean Plan Section III.E.2 (Implementation Provisions for ASBS), limited-term activities that result in temporary and short-term changes in existing water quality in the ASBS may be permitted.

EFFLUENT LIMITS

The State of California Nonpoint Source Program Five-Year Implementation Plan (SWRCB, 2003) (the Plan) describes a variety of pollutants in urban storm water and non-storm water that are carried in MS4 discharges to receiving waters. These include oil, sand, de-icing chemicals, litter, bacteria, nutrients, toxic materials and general debris from urban and suburban areas. The Plan identifies construction as a major source of sediment erosion and automobiles as primary sources of petroleum hydrocarbons.

The Natural Resources Defense Council (NRDC) also identified two main causes of storm water pollution in urban areas (NRDC, 1999). Both identified causes are directly related to development in urban and urbanizing areas:

1. Increased volume and velocity of surface runoff. There are three types of human-made impervious cover that increase the volume and velocity of runoff: (i) rooftops, (ii) transportation imperviousness, and (iii) non-porous (impervious) surfaces. As these impervious surfaces increase, infiltration will decrease, forcing more water to run off the surface, picking up speed and pollutants.
2. The concentration of pollutants in the runoff. Certain industrial, commercial, residential and construction activities are large contributors of pollutant concentrations in urban runoff. As human population density increases, it brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc.

As a result of these two causes, runoff leaving developed urban areas is significantly greater in volume, velocity, and pollutant load than pre-development runoff from the same area.

NPDES storm water permits must meet applicable provisions of sections 301 and 402 of the Clean Water Act. For discharges from an MS4, Clean Water Act section 402(p)(3)(B)(iii) requires control of pollutants to the maximum extent practicable (MEP). A permitting agency also has the discretion to require dischargers to implement more stringent controls, if necessary, to meet water quality standards (*Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159, 1166.), (discussed below under Receiving Water Limitations).

MEP is the technology-based standard established by Congress in Clean Water Act section 402(p)(3)(B)(iii) that municipal dischargers of storm water must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally achieved by emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with structural and treatment methods where appropriate. The MEP approach is an ever evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP.

In a precedential order (State Water Board Order WQ 2000-11 (In the Matter of the petitions of the Cities of Bellflower et al.)), the State Water Board has stated as follows:

While the standard of MEP is not defined in the storm water regulations or the Clean Water Act, the term has been defined in other federal rules. Probably the most comparable law that uses the term is the Superfund legislation, or CERCLA, at section 121(b). The legislative history of CERCLA indicates that the relevant factors, to determine whether MEP is met in choosing solutions and treatment technologies, include technical feasibility, cost, and state and public acceptance. Another example of a definition of MEP is found in a regulation adopted by the Department of Transportation for onshore oil pipelines. MEP is defined as to “the limits of available technology and the practical and technical limits on a pipeline operator”

These definitions focus mostly on technical feasibility, but cost is also a relevant factor. There must be a serious attempt to comply, and practical solutions may not be lightly rejected. If, from the list of BMPs, a permittee chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive. Thus while cost is a factor, the Regional Water Board is not required to perform a cost-benefit analysis.

The final determination of whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the permitting agency, and not by the discharger.

Because of the numerous advances in storm water regulation and management and the size of the Department’s MS4, this Order does not require the Department to fully incorporate and implement all advances in a single permit term. The Order allows for prioritization of efforts to ensure the most effective use of available funds.

This Order will have an impact on costs to the Department above and beyond the costs from the Department's prior permit. Such costs will be incurred in complying with the post-construction, hydrograph modification, Low Impact Development, and monitoring and reporting requirements of this Order. Additional costs will also be incurred in correcting non-compliant discharges. Recognizing that there are cost increases associated with the Order, the State Water Board has prepared a cost analysis to approximate the anticipated cost associated with implementing this permit. The resulting cost analysis is discussed later in this Fact Sheet under the section on "Cost of Compliance and Other MEP Considerations." The cost analysis has been prepared based on available data and is not a cost-benefit analysis.

The individual and collective activities required by this Order and contained in the Department's Storm Water Management Plan (SWMP) meet the MEP standard.

RECEIVING WATER LIMITATIONS

Under federal law, an MS4 permit must include "controls to reduce the discharge of pollutants to the maximum extent practicable . . . and such other provisions as . . . the State determines appropriate for the control of such pollutants." (Clean Water Act §402(p)(3)(B)(iii).) The State Water Board has previously determined that limitations necessary to meet water quality standards are appropriate for the control of pollutants discharged by MS4s and must be included in MS4 permits. (State Water Board Orders WQ 91-03, 98-01, 99-05, 2001-15; see also *Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F3d 1159.). The Proposed Order accordingly prohibits discharges that cause or contribute to violations of water quality standards.

The Proposed Order further sets out that, upon determination that a Permittee is causing or contributing to an exceedance of applicable water quality standards, the Permittee must engage in an iterative process of proposing and implementing additional control measures to prevent or reduce the pollutants causing or contributing to the exceedance. This iterative process is modeled on receiving water limitations set out in State Water Board precedential Order WQ 99-05 and required by that Order to be included in all municipal storm water permits.

The Ninth Circuit held in *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2011) 673 F.3d 880 that engagement in the iterative process does not provide a safe harbor from liability for violations of permit terms prohibiting exceedances of water quality standards. The Ninth Circuit holding is consistent with the position of the State Water Board and Regional Water Boards that exceedances of water quality standards in an MS4 permit constitute violations of permit terms subject to enforcement by the Boards or through a citizen suit. While the Boards have generally directed dischargers to achieve compliance by improving control measures through the iterative process, the Board retains the discretion to take other appropriate enforcement and the iterative process does not shield dischargers from citizen suits.

The State Water Board has received multiple comments, from the Department and from other interested parties, expressing confusion and concern about the Order provisions regarding receiving water limitations and the iterative process. The Department has commented that the provisions as currently written do not provide the Department with a viable path to compliance with the proposed Order. Other commenters, including environmental parties, support the current language.

As stated above, the provisions in this Order regarding receiving water limitations and the iterative process are based on precedential Board orders. Accordingly, substantially identical provisions are found in the proposed statewide Phase II MS4 NPDES permit, as well as the Phase I NPDES permits issued by the Regional Water Boards. In the context of the proposed Phase II MS4 permit, similar comments have been received. Because of the broad applicability of any policy decisions regarding the receiving water limitations and iterative process provisions, the State Water Board has proposed a public workshop to consider this issue and seek public input.

Rather than delay consideration of adoption of the tentative Order in anticipation of any future changes to the receiving water limitations and iterative process provisions that may result from the public workshop and deliberation, the Board has added a specific reopener clause at Section 11.d. to facilitate any future revisions as necessary.

NUMERIC EFFLUENT LIMITATIONS AND BLUE RIBBON PANEL OF EXPERTS

Under 40 Code of Federal Regulations section 122.44(k)(2)&(3); the State Water Board may impose BMPs for control of storm water discharges in lieu of numeric effluent limitations.⁵

In 2005, the State Water Board assembled a blue ribbon panel to address the feasibility of including numeric effluent limits as part of NPDES municipal, industrial, and construction storm water permits. The panel issued a report dated June 19, 2006, which included recommendations as to the feasibility of including numeric limitations in storm water permits, how such limitations should be established, and what data should be required (SWRCB, 2006).

⁵ On November 12, 2010, U.S. EPA issued a revision to a November 22, 2002 memorandum in which it had “affirm[ed] the appropriateness of an iterative, adaptive management best management practices (BMP) approach” for improving storm water management over time. In the revisions, U.S. EPA recommended that, in the case the permitting authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality excursion, the permitting authority, where feasible, include numeric effluent limitations as necessary to meet water quality standards. However, the revisions recognized that the permitting authority’s decision as to how to express water quality based effluent limitations (WQBELs), i.e. as numeric effluent limitations or BMPs, would be based on an analysis of the specific facts and circumstances surrounding the permit. U.S. EPA has since invited comment on the revisions to the memorandum and will be making a determination as to whether to “either retain the memorandum without change, to reissue it with revisions, or to withdraw it.” http://www.epa.gov/npdes/pubs/sw_tmdlwla_comments_pdf

The report concluded that “It is not feasible at this time to set enforceable numeric effluent criteria for municipal BMPs and in particular urban discharges. However, it is possible to select and design them much more rigorously with respect to the physical, chemical and/or biological processes that take place within them, providing more confidence that the estimated mean concentrations of constituents in the effluents will be close to the design target.”

Consistent with the findings of the Blue Ribbon Panel and precedential State Water Board orders (State Water Board Orders Nos. WQ 91-03 and WQ 91-04), this Order allows the Department to implement BMPs to comply with the requirements of the Order.

In 1980, the State Water Resources Control Board adopted concentration-based numeric effluent limitations for total nitrogen, total phosphate, total iron, turbidity, and grease and oil for storm water discharges in the Lake Tahoe Basin. The Lahontan Regional Water Board included revised versions of those limitations in Table 5.6-1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan). The numeric effluent limitations in Table 5.6-1 were included in previous iterations of the Department's MS4 permit. This Order does not include these referenced numeric effluent limitations. The TMDL for sediment and nutrients in Lake Tahoe, approved by U.S. EPA on August 16, 2011, removed statements from the Basin Plan requiring the effluent limitations in Table 5.6-1 to apply to municipal jurisdictions and the Department. The Lake Tahoe TMDL would constitute cause for permit revocation and reissuance in accordance with 40 Code of Federal Regulations section 122.62(a)(3), so the removal of the referenced numeric effluent limitations is consistent with 40 Code of Federal Regulations section 122.44(l)(1). Further, any water quality based effluent limitations in MS4 permits are imposed under section 402(p)(3)(B) of the Clean Water Act rather than under section 301(b)(1)(C), and are accordingly not subject to the antibacksliding requirements of section 402(o). The Order requires compliance with pollutant load reduction requirements established by the Lake Tahoe TMDL for total nitrogen, total phosphorus, and fine sediment particles.

OTHER PROVISIONS OF THIS ORDER

Storm Water Management Plan (SWMP)

The SWMP describes the procedures and practices that the Department proposes to reduce or eliminate the discharge of pollutants to storm drainage systems and receiving waters. On May 17, 2001, the State Water Board approved a Storm Water Management Plan submitted by the Department. That SWMP was updated in 2003 (Department, 2003c) and the updates were approved by the Executive Director of the State Water Board on February 13, 2003. On January 15, 2004, the Department submitted a proposed Storm Water Management Plan as part of its NPDES permit application to renew its previous statewide storm water permit (Order No. 99-06-DWQ). The State Water Board and Regional Water Board staff and the Department discussed and revised Best Management Practices (BMP) controls and many other components proposed in each section of the SWMP during numerous meetings from January 2004 to 2006. The Department submitted a revised SWMP in June 2007 (Department, 2007c). The 2004

and 2007 SWMPs have not been approved by the State Water Board and the Department has continued to implement the 2003 SWMP. The Department is in the process of revising aspects of the 2003 SWMP to address the Findings of Violation and Order for Compliance issued by U.S. EPA in 2011 (U.S. EPA Docket No. CWA-09-2011-0001).

This Order requires the Department to update, maintain and implement an effective SWMP that describes how the Department will meet requirements of this Order. Within one year of the effective date of the Order, the Department shall submit for Executive Director approval a SWMP consistent with the provisions and requirement of the Order. The SWMP is an integral and enforceable component of this Order and is required to be updated on an annual basis.

In ruling upon the adequacy of federal regulations for discharges from small municipal storm sewer systems, the court in *Environmental Defense Center v. United States EPA* (9th Cir. 2003) 344 F.3d 832 held that NPDES “notices of intent” that required the inclusion of a proposed storm water management program (SWMP) are subject to the public participation requirements of the federal Clean Water Act because they are functionally equivalent to NPDES permit applications and because they contain “substantive information” about how the operator will reduce its discharges to the maximum extent practicable. By implication, the public participation requirements of the Clean Water Act may also apply to proposals to revise the Department’s SWMP. Although the Proposed Order contains significantly more detailed and prescriptive requirements for achievement of MEP than previously adopted orders for the Department, some of the substantive information about how MEP will be achieved is arguably still set out in the SWMP. This Order accordingly provides for public participation in the SWMP revision process. However, because there may be a need for numerous revisions to the SWMP during the term of this Order, a more streamlined approach to SWMP revisions is needed to provide opportunities for public hearings while preserving the State Water Board’s ability to effectively administer its NPDES storm water permitting program. (See *Costle v. Pacific Legal Foundation* (1980) 445 U.S. 198, 216-221, *Natural Resources Defense Council v. Costle* (9th Cir. 1977) 568 F.2d 1369, 1382.)

This Order establishes that revisions to the SWMP requiring Executive Director approval will be publicly noticed for thirty days on the State Water Board’s website (except as otherwise specified). During the public notice period, a member of the public may submit a written comment or request that a public hearing be conducted. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. Upon review of the request or requests for a public hearing, the Executive Director may, in his or her discretion, schedule a public hearing to take place before approval of the SWMP revision. The Executive Director shall schedule a hearing if there is a significant degree of public interest in the proposed revision. If no public hearing is conducted, the Executive Director may approve the SWMP revision if it meets the conditions set forth in this Order. Any SWMP revision approved by the Executive Director will be posted on the State Water Board’s website.

The Department references various policies, manuals, and other guidance related to storm water in the SWMP. These documents are intended to facilitate implementation of the SWMP and must be consistent with all requirements of the Order.

In addition to the annual submittal of the proposed SWMP revisions, this Order also requires the Department to submit workplans that explain how the program will be implemented in each District. The purpose of the workplans is to bring the proposed statewide program of the SWMP to the practical and implementable level at the District, watershed, and water body level.

Legal Authority

The Department has submitted a certification of adequate legal authority to implement the program. Through implementation of the storm water program, the Department may find that the legal authority is, in fact, not adequate. This Order requires the Department to reevaluate the legal authority each year and recertify that it is adequate. The Department is required to submit the Certification of the Adequacy of Legal Authority as part of the Annual Report each year. If it becomes clear that the legal authority is not adequate to fully implement the SWMP and the requirements of this Order, the Department must seek the authority necessary for implementation of the program.

SWMP Implementation Requirements

Management and Organization

The Department must maintain adequate funding to implement an effective storm water program and must submit an analysis of the funding each year. This includes a report on the funding that is dedicated to storm water as well as an estimate of the funding that has been allocated to various program elements that are not included in the storm water program funding. An example of this would be to estimate the funding that has been made available to the Maintenance Program to implement the development of Maintenance Facility Pollution Prevention Plans (FPPP) and to implement the Best Management Practices (BMPs) that are necessary for water quality.

The Department's facilities and rights-of-way may cross or overlap other MS4s. The Department is required to coordinate their activities with other municipalities and local governments that have responsibility for storm water runoff. This Order requires the Department to prepare a Municipal Coordination Plan describing the approach that the Department will take in establishing communication, coordination, cooperation and collaboration with other storm water management programs.

Discharge Monitoring and Reporting Program

Since 1998, the Department has conducted monitoring of runoff from representative transportation facilities throughout California. The key objectives of the characterization monitoring were to produce scientifically credible data on runoff from the Department's facilities, and to provide useful information in designing effective storm water management strategies. Between 2000 and 2003, the Department conducted a three-year characterization monitoring study (Department, 2003b). The study generated over

60,000 data points from over 180 monitoring sites. Results were compared with California Toxics Rule (CTR) objectives and other relevant receiving water quality objectives (U.S. EPA, 2000b). Copper, lead, and zinc were estimated to exceed the CTR objectives for dissolved and total fractions in greater than 50% of samples. Diazinon and chlorpyrifos were also found to exceed the California Department of Fish and Game recommended chronic criteria in a majority of samples.

The discharge monitoring program has been structured to focus on the highest priority water quality problems in order to ensure the most effective use of limited funds. A tiered approach is established that gives first priority to monitoring in ASBS and TMDL watersheds. Monitoring in these locations must be conducted pursuant to the applicable requirements of the ASBS Special Protections or TMDL, without limitation as to the number of sites. The second monitoring tier requires the Department to examine and prioritize existing monitoring locations where existing data show elevated levels of pollutants. Fifteen percent of the highest priority sites must be scheduled for retrofit, with a maximum of 100 sites per year.

Monitoring constituents were chosen by the State Water Board from the results of the Department's comprehensive, multi-component storm water characterization monitoring program conducted in 2002 and 2003 and various other characterization studies.

Toxicity in storm water discharges from the Department's rights-of-way has been reported in a number of studies. A 2005 report prepared for the Department by the University of California at Davis "Toxicity of Storm Water from Caltrans Facilities" reported significant occurrences of acute and chronic toxicity (Department, 2005). Toxicity Identification Evaluations showed toxicity from a number of compounds, including heavy metals, organic compounds, pesticides and surfactants. Toxicity testing is required under the Order, and a workplan for conducting Toxicity Reduction Evaluations is required to be included in the SWMP.

Monitoring data must be filed electronically in the Storm Water Multiple Application Report and Tracking System (SMARTS). Receiving water monitoring data must be comparable⁶ with the Surface Water Ambient Monitoring Program (SWAMP), (SWAMP, 2010), and must be uploaded to the California Data Exchange Network (CEDEN).

Incident Reporting - Non-Compliance and Potential/Threatened Non-Compliance

The Department may at times be out of compliance with the requirements of this Order. Incidents of non-compliance and potential or threatened non-compliance must be reported to the State and Regional Water Boards. This Order identifies the conditions under which non-compliance reporting will be required. This Order distinguishes between emergency, field, and administrative (procedural) incidents that require notification to the

⁶ U.S. EPA defines comparability as the measure of confidence with which one data set, element, or method can be considered as similar to another. Functionally, SWAMP comparability is defined as adherence to the SWAMP Quality Assurance Program Plan and the Surface Water Ambient Monitoring Program Information Management Plan.

State and Regional Water Boards, and requires that a summary of non-compliance incidents and the subsequent actions taken by the Department to reduce, eliminate and prevent the reoccurrence of the non-compliance be included in the Annual Report.

Emergency, field and administrative incidents are defined in Attachment I and have separate reporting requirements. Generally, failure to meet any permit requirement that is local or regional in nature will be reported to the Regional Water Boards. Attachment I outlines the reporting timelines for the three categories. This reporting will be conducted through the Storm Water Multiple Application Report and Tracking System (SMARTS)⁷. Distribution of this report internally between the State Water Board and any Regional Water Boards will be conducted through this system.

Project Planning and Design

In Order WQ 2000-11, the State Water Board considered Standard Urban Storm Water Mitigation Plans (SUSMPs) related to new development and redevelopment. The SUSMPs include a list of BMPs for specific development categories, and a numeric design standard for structural or treatment control BMPs. The numeric design standard created objective and measurable criteria for the amount of runoff that must be treated or infiltrated by BMPs. While this Order does not regulate construction activities, it does regulate the post-construction storm water runoff pursuant to municipal storm water regulations. SUSMPs are addressed in this Order through the numeric sizing criteria that apply to treatment BMPs at specified new and redevelopment projects and through requirements to implement Low Impact Development through principles of source control, site design, and storm water treatment and infiltration.

The Order provides the Department with an alternative compliance method for complying with the Treatment Control BMP numeric sizing criteria for projects where on-site treatment is infeasible. Under that method, the Department may propose complying with the requirements by installing and maintaining equivalent treatment BMPs at an offsite location (meaning outside of Project Limits) within the watershed, or by contributing funds to achieve the same amount of treatment at a regional project within the watershed. This compliance method will provide some flexibility to the Department in meeting the treatment control requirements.

Hydromodification and Channel Protection

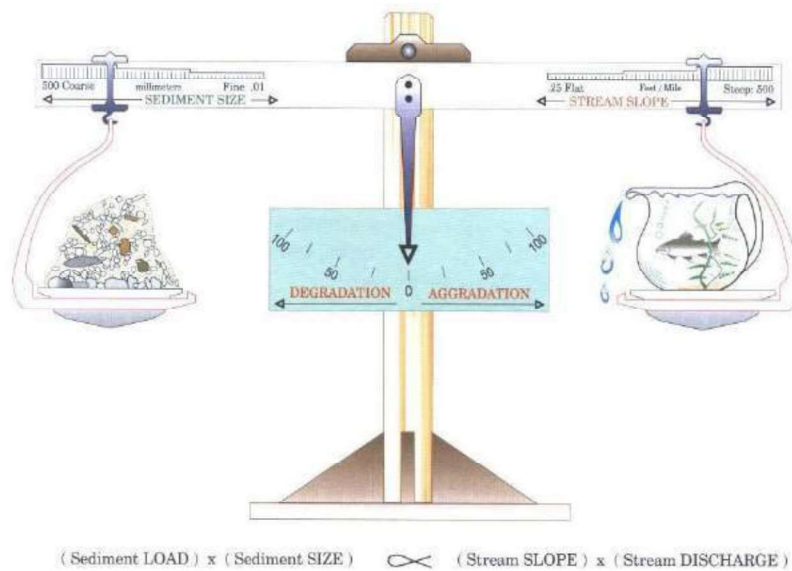
Department development and redevelopment projects have the potential to negatively impact stream channels and downstream receiving waters. The potential impacts of hydromodification by Department projects must be assessed in the project planning and design stage, and measures taken to mitigate them. This section describes the rationale and approach for the hydromodification and channel protection requirements.

A dominant paradigm in fluvial geomorphology holds that streams adjust their channel dimensions (width and depth) in response to long-term changes in sediment supply and

<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>

bankfull discharge. The bankfull stage corresponds to the discharge at which channel maintenance is the most effective, that is, the discharge at which the moving sediment, forming or removing bars, and forming or changing bends and meanders, are doing work that results in the average morphologic characteristics of channels (Finkenbine, 2000). A.W. Lane showed the generalized relationship between sediment load, sediment size, stream discharge and stream slope, as shown in Figure 1, (Rosgen, 1996). A change in any one of these variables sets up a series of mutual adjustments in the companion variables resulting in a direct change in the physical characteristics of the stream channel.

Figure 1 - Schematic of the Lane Relationship



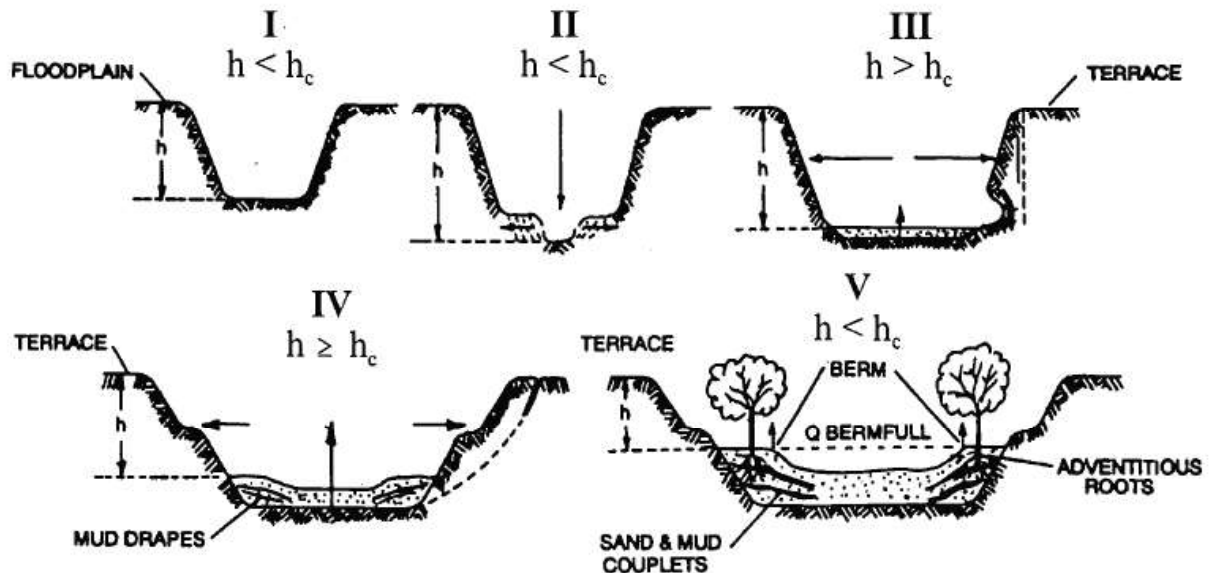
After Lane (1955) as cited in Rosgen (1996)

Stream slope times stream discharge (the right side of the scale) is an approximation of stream power, a unifying concept in fluvial geomorphology (Bledsoe, 1999). Urbanization generally increases stream power and affects the resisting forces in a channel (represented as sediment load and sediment size on the left side of the scale).

During construction, sediment loads can increase from 2 to 40,000 times over pre-construction levels (Goldman, 1986). Most of this sediment is delivered to stream channels during large, episodic rain events (Wolman, 2001). This increased sediment load leads to an initial aggradation phase where stream depths may decrease as sediment fills the channel, leading to a decrease in channel capacity and an increase in flooding and overbank deposition. A degradation phase initiates after construction is completed.

Schumm et al (Schumm, 1984) developed a channel evolution model that describes the series of adjustments from initial downcutting, to widening, to establishing new floodplains at lower elevations (Figure 2).

Figure 2 - Channel Changes Associated with Urbanization



h = bank height

h_c = critical bank height (the bank is susceptible to failure when bank heights are greater than critical bank height. Stable banks have low angles and heights)

After Incised Channel Evolution Sequence in Schumm et al. 1984

Channel incision (Stage II) and widening (Stages III and to a lesser degree, Stage IV) are due to a number of fundamental changes on the landscape. Connected impervious area and compaction of pervious surfaces increase the frequency and volume of bankfull discharges (Stein, 2005; Booth, 1997), resulting in an increase in stream power. Increased drainage density (miles of stream length per square mile of watershed) also affects receiving channels (May, 1998; SCVURPPP, 2002). Increased drainage density and hydraulic efficiency leads to an increase in the frequency and volume of bankfull discharges because the time of concentration is shortened. Flows from engineered pipes and channels are also often “sediment starved” and seek to replenish their sediment supply from the channel.

Encroachment of stream channels can also lead to an increase in stream slope, which leads to an increase in stream power. In addition, watershed sediment loads and sediment size (with size generally represented as the median bed and bank particle size,

or d_{50}) decrease during urbanization (Finkenbine, 2000; Pizzuto, 2000). This means that even if pre- and post- development stream power are the same, more erosion will occur in the post-development stage because the smaller particles are less resistant.

As shown in Stages II and III, the channel deepens and widens to accommodate the increased stream power (Hammer, 1973; Booth, 1990) and decrease in sediment load and sediment size. Channels may actually narrow as entrained sediment from incision is deposited laterally in the channel (Trimble, 1997). After incised channels begin to migrate laterally (Stage III), bank erosion begins, which leads to general channel widening (Trimble, 1997). At this point, a majority of the sediment that leaves a drainage area comes from within the channel, as opposed to the background and construction related hillslope contribution (Trimble, 1997). Stage IV is characterized by more aggradation and localized bank instability. Stage V represents a new quasi-equilibrium channel morphology in balance with the new flow and sediment supply regime. In other words, stream power is in balance with sediment load and sediment size.

The magnitude of the channel morphology changes discussed above varies along a stream network as well as with the age of development, slope, geology (sand-bedded channels may cycle through the evolution sequence in a matter of decades whereas clay-dominated channels may take much longer), watershed sediment load and size, type of urbanization, and land use history. It is also dependent on a channel's stage in the channel evolution sequence when urbanization occurs. Management strategies must take into account a channel's stage of adjustment and account for future changes in the evolution of channel form (Stein, 2005).

The hydromodification requirements in this Order are based on established Federal Highway Administration procedures for assessing stream stability at highway crossings. These procedures are geomorphically based and have historically been used to inform bridge and culvert design and to ensure that these structures are not impacted by decreased lateral and vertical stability (FHWA, 2001; FHWA, 2006). Maintaining lateral and vertical stability will not only protect highway structures but will serve the broader interest of maintaining stable stream form and function.

These hydromodification requirements are risk based and reflect the concept that stable channels (as determined from a Level 1 rapid analysis) do not have to undergo any further analysis and that hydrology-based design standards are protective.

If stream channels are determined to be laterally and or vertically unstable, the analysis procedures are much more rigorous and the mitigation measures are potentially more extensive. There is support in the literature for the type of tiered, risk-based approach taken in this Order (Booth, 1990; Watson, 2002; Bledsoe, 2002; Bledsoe et al., 2008).

California Senate Bill 857 (2006) amended Article 3.5 of the Streets and Highways Code to require the Department to assess and remediate barriers to passage of anadromous fish at stream crossings along the State Highway System. The bill also requires the Department to, among other things, prepare an annual report to the legislature on the

status of the Department's efforts in locating, assessing, and remediating barriers to fish passage. Waters of the State supporting the beneficial use of fish migration could be adversely impacted by improperly designed or maintained stream crossings, or through natural channel evolution processes. Accordingly, this Order requires the Department to also submit the annual report required under SB 857 to the State Water Board.

Low Impact Development (LID)

On January 20, 2005, the State Water Board adopted sustainability as a core value for all California Water Boards' activities and programs, and directed State Water Board staff to consider sustainability in all future policies, guidelines, and regulatory actions.

Sustainability can be achieved through appropriate implementation of the LID techniques required by this Order.

The proper implementation of LID techniques not only results in water quality protection benefits and a reduction of land development and construction costs, but also enhances property values, and improves habitat, aesthetic amenities, and quality of life (U.S. EPA, 2007). Further, properly implemented LID techniques reduce the volume of runoff leaving a newly developed or re-developed area thereby lowering the peak rate of runoff, and thus minimizing the adverse effects of hydromodification on stream habitat (SWRCB, 2007). The requirements of this Order facilitate the implementation of LID strategies to protect water quality, reduce runoff volume, and to promote sustainability.

Unlike traditional storm water management, which collects and conveys storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility, LID takes a different approach by using site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's pre-development hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. LID has been a proven approach in other parts of the country and is seen in California as an alternative to conventional storm water management.

LID is a tool that can be used to better manage natural resources and limit the pollution delivered to waterways. To achieve optimal benefits, LID needs to be integrated with watershed planning and appropriate land use programs. LID by itself will not deliver all the water quality outcomes desired; however, it does provide enhanced storm water treatment and mitigates increased volume and flow rates (SWRCB, 2007).

This Order approaches LID through source control design principles, site design principles and storm water treatment and infiltration principles. Source control and site design principles are required as applicable to provide enough flexibility such that projects are not forced to include inappropriate or impractical measures. Not all of the storm water treatment and infiltration principles identified in the Order are required to be implemented but are listed in order of preference with the most environmentally protective and effective alternatives listed first.

BMP Development and Implementation

The Department has developed a BMP program for control of pollutants from existing facilities and for new and reconstructed facilities. This BMP program includes development, construction, maintenance and evaluation of BMPs, and investigation of new BMPs. The goal of BMP implementation is to control the discharge of pollutants to the applicable standards.

While erosion control BMPs are typically used on construction sites, some are used as permanent, post-construction BMPs. Typical erosion control BMPs involve use of straw or fiber rolls and mats. These rolls and mats are often held together by synthetic mesh or netting. Synthetic materials are persistent in the environment and have been found to be a source of pollutants, trash (Brzozowski, 2009), and hazard to wildlife through entrapment (Brzozowski, 2009; Barton and Kinkead, 2005; Walley et al, 2005; Stuart et al, 2001). For erosion control products used as permanent, post-construction BMPs, this Order requires the use of biodegradable materials, and the removal of any temporary erosion control products containing synthetic materials when they are no longer needed. Biodegradable materials are required in erosion control products used by the Departments of Transportation in the states of Delaware and Iowa (Brzozowski, 2009). Use of synthetic (plastic) materials is also prohibited through a Standard Condition in Streambed Alteration Agreements by the California Department of Fish and Game, Region 1 (Van Hattem, personal communication, 2009).

Potential Unintended Public Health Concerns Associated with Structural BMPs

The Department worked collaboratively with the California Department of Public Health (CDPH) on a comprehensive, multi-component monitoring program of more than 120 structural BMPs for mosquito production (Department, 2004). The data revealed that certain BMPs may unintentionally create habitat suitable for mosquitoes and other vectors. The California Health and Safety Code prohibits landowners from knowingly providing habitat for or allowing the production of mosquitoes and other vectors, and gives local vector control agencies broad inspection and abatement powers. This Order requires the Department to comply with applicable provisions of the Health and Safety Code and to cooperate and coordinate with CDPH and local mosquito and vector control agencies on vector control issues in the Department's MS4.

Construction

The Department's construction activities were previously regulated under the MS4 permit (Order 99-06-DWQ), which required the Department to comply with the substantive provisions of the CGP but not the requirement to file separate notices of intent for each construction project. Some Regional Water Boards have had difficulty enforcing the provisions of the CGP when enrollment under that permit is not required. This Order requires the Department to file for separate coverage for each construction project under the CGP. This change is expected to increase the Department's accountability for discharges from construction sites and improve the ability of the Regional Water Boards to take enforcement actions as necessary.

Though discharges from construction activities are not regulated under this Order, any discharges from a site occurring after completion of construction (i.e. post-construction discharges) are fully subject to the requirements of this Order.

Some Department construction-related activities such as roadway and parking lot repaving and resurfacing may mobilize pollutants, even though they may not trigger coverage under the CGP. Such activity may discharge pollutants to the environment, however. BMPs for the control of such discharges are specified in the Department's Project Planning and Design Guide and Construction Site BMP Field Manual and Trouble Shooting Guide, and in the California Stormwater Quality Association (CASQA) California Stormwater BMP Handbook (Department, 2010; Department, 2003a); (CASQA, 2009). The Department is required to implement BMPs to control such discharges.

Because some Department construction projects may not involve grading or land disturbance of one acre or more, these smaller projects do not trigger requirements to enroll under the Construction General Permit. This Order requires the Department to implement BMPs to control discharges from such projects to the MEP. Failure to implement appropriate BMPs is a violation of this Order.

Maintenance Program Activities

Preservation of vegetation is an effective method for the control of pollutants in runoff; however the Department must control vegetation in its rights-of-way for purposes of traffic safety and nuisance. The Department currently implements a vegetation control program with a stated purpose of minimizing the use of agricultural chemicals and maximizing the use of appropriate native and adapted vegetation for erosion control, filtering of runoff, and velocity control.

Notwithstanding the Department's commitment to reduce the use of agricultural chemicals, the Department reported a total amount of 208,549 pounds of herbicide used in the 2008-2009 Storm Water Management Program Annual Report (Department (2010a); CTSW-RT-10-182-32.1). Reported reasons for increased herbicide usage included:

1. Local weather conditions, such as increased rainfall, leading to increased weed production.
2. The need to address new mandates for fire suppression (fuel abatement) adjacent to roadways.
3. Requests from local cities and counties.
4. Increase in or outbreaks of noxious weeds in areas adjacent to farmland.

This Order contains detailed requirements for the control of vegetation and reporting requirements for the use of agricultural chemicals.

The Department's maintenance facilities discharge pollutants to the MS4. This Order requires the Department to prepare Facility Pollution Prevention Plans (FPPPs) for all maintenance facilities. The Department is also required to implement BMP programs at each facility as necessary and periodically inspect each facility.

Spill cleanup is part of the Department's maintenance program. This Order requires the Department to ensure that spills on its rights-of-way are fully and appropriately cleaned up, and to provide appropriate notifications to local municipalities which may be affected by the spill. The Department is also required to notify the appropriate Regional Water Board of any spill with the potential to impact receiving waters.

This Order requires the Department to monitor and clean storm drain inlets when they have reached 50 percent capacity. The Department must initiate procedures contained in an Illegal Connection/Illicit Discharge (IC/ID) and Illegal Dumping Response Plan where storm water structures are found to contain excessive material resulting from illegal dumping, and it must determine if enhanced BMPs are needed at the site.

This Order requires the Department to implement the BMPs and other requirements of the SWMP and this Order to reduce and eliminate IC/IDs. It also requires the Department to prepare a Storm Drain System Survey Plan and an Illegal Dumping Response Plan.

Facilities Operations

There is potential for the discharge of pollutants from Department facilities during rain events. The discharge of pollutants from facilities not covered by the IGP will be reduced to the MEP through the appropriate implementation of BMPs.

This Order requires the Department to file an NOI for coverage under the IGP for industrial facilities as specified in Attachment 1 of the IGP. This requirement is expected to increase the Department's accountability for discharges from industrial facilities and improve the ability of the Regional Water Boards to take enforcement actions as necessary.

Department Activities Outside the Department's Right-of-Way

Facilities and operations outside the Department's ROW may support various Department activities. Facilities may include concrete or asphalt batch plants, staging areas, concrete slurry processing or other material recycling operations, equipment and material storage yards, material borrow areas, and access roads. Facilities may be operated by the Department or by a third party. The Department is required to include provisions in its contracts that require the contractor to obtain and comply with applicable permits for facilities and operations outside the Department's ROW when these facilities are active for the primary purpose of accommodating Department activities.

Non-Department Projects and Activities

Non-Department projects and activities include construction projects or other activities conducted by a third party within the Department's ROW. The Department is responsible for runoff from all non-Department projects and activities in its rights-of-way unless a separate permit is issued to the other entity. At times, local municipalities or private developers may undertake construction projects or other activities within the Department's ROW. The Department may exercise control or oversight over these third party projects or activities through encroachment permits or other means. This Order sets project planning and design requirements for non-Department projects.

Management Activities for Non-Storm Water Discharges

Non-storm water discharges are dry weather flows that do not originate from precipitation events. Non-storm water discharges are illicit discharges and are prohibited by the federal regulations (40 C.F.R., § 122.26 (d)(2)(iv)(B)(1)) unless exempted or separately permitted. Procedures for prohibiting illicit discharges and illegal connections, and for responding to illegal dumping and spills are needed to prevent environmental damage and must be described in the SWMP.

Training and Public Education

Education is an important element of municipal storm water runoff management programs. U.S. EPA (2005) finds that "An informed and knowledgeable community is crucial to the success of a storm water management program since it helps ensure the following: Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important, [and] greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters."

U.S. EPA also states "The public education program should use a mix of appropriate local strategies to address the viewpoints and concerns of a variety of audiences and communities, including minority and disadvantaged communities, as well as children."

This Order requires the Department to implement a Training and Public Education program. The Training and Public Education program focuses on three audiences: Department employees, Department contractors, and the general public. The Department must implement programs for all three audiences. The Training and Public Education program is considered a BMP and an analysis of its effectiveness is needed.

Program Evaluation

This Order requires the Department to evaluate the effectiveness and adequacy of the storm water program on an annual basis. This includes both water quality monitoring and a self-audit of the program. The audit is intended to determine the effectiveness of the storm water and non-storm water programs through the evaluation of factors and program components such as:

1. Storm water and non-storm water discharges, including pollutant concentrations from locations representative of the Department's properties, facilities, and activities;
2. Maintenance activity control measures;
3. Facility pollution prevention plans;
4. Permanent control measures; and
5. Highway operation control measures.

In addition to water quality monitoring and the self-audit, the Department must perform an Overall Program Effectiveness Evaluation each year to determine the effectiveness of the program in achieving environmental and water quality objectives. The scope of the evaluation is expected to increase each year in response to the continuing collection of environmental monitoring data.

Reporting

Comprehensive reporting is needed to determine compliance with this Order and to track the effectiveness of the Department's storm water program over time. A summary of the reports required from the Department is presented in Attachment IX of the Order. The State Water Board and Regional Water Boards have the authority under various sections of the California Water Code to request additional information as needed.

The Department must track, assess and report on program implementation to ensure its effectiveness. In addition to the individual reports referenced above, the Department is required to submit an annual report to the State Water Board by October 01 of each year. The Annual Report must evaluate compliance with permit conditions, evaluate and assess the effectiveness of BMPs, summarize the results of the monitoring program, summarize the activities planned for the next reporting cycle, and, if necessary, propose changes to the SWMP.

Total Maximum Daily Load (TMDL)

Section 303(d) of the Clean Water Act requires States to identify waters ("impaired" water bodies) that do not meet water quality standards after applying certain required technology-based effluent limits. States are required to compile this information in a list and submit the list to the U.S. EPA for review and approval. This list is known as the Section 303(d) list of impaired waters.

As part of the listing process, States are required to prioritize waters/watersheds for future development of TMDLs. A TMDL is defined as the sum of the individual waste load allocations (WLAs) for point sources of pollution, plus the load allocations (LAs) for nonpoint sources of pollution, plus the contribution from background sources of pollution and a margin of safety. The State Water Board and Regional Water Boards have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to subsequently develop TMDLs.

TMDLs are developed by either the Regional Water Boards or U.S. EPA in response to Section 303(d) listings. TMDLs developed by Regional Water Boards include implementation provisions and can be incorporated as Basin Plan amendments. TMDLs developed by U.S. EPA typically contain the total load and load allocations required by Section 303(d), but do not contain comprehensive implementation provisions. Subsequent steps after Regional Water Board TMDL development are: approval by the State Water Board, approval by the Office of Administrative Law, and ultimately, approval by U.S. EPA.

The Department has been assigned mass based and concentration based WLAs for constituents contributing to a TMDL in specific regions. The Department is subject to TMDLs in the North Coast, San Francisco Bay, Central Coast, Los Angeles, Central Valley, Lahontan, Colorado River, Santa Ana, and San Diego Regions. These TMDLs are summarized in Table 1.

Table 1. Department Statewide TMDLs

Water Body	Pollutant	U.S. EPA Approved/Established
North Coast Region		
Albion River	Sediment	December 2001
Big River	Sediment	December 2001
Eel River, Lower HA	Temperature & Sediment	December 18, 2007
Eel River, Middle Fork, Eden Valley and Round Valley HSAs	Temperature & Sediment	December 2003
Eel River, Middle Main HA	Temperature & Sediment	December 2005
Eel River, North Fork HA	Sediment & Temperature	December 30, 2002
Eel River, South Fork HA	Sediment & Temperature	December 16, 1999
Eel River, Upper Main HA	Sediment & Temperature	December 29, 2004
Garcia River	Sediment	March 16, 1998
Gualala River	Sediment	November 29, 2004
Klamath River	Temperature, Dissolved Oxygen, Nutrient, & Microcystin	December 28, 2010
Lost River	Nitrogen and Biochemical Oxygen Demand	December 30, 2008
Mad River	Sediment & Turbidity	December 21, 2007
Mattole River	Sediment & Temperature	December 21, 2003
Navarro River	Temperature & Sediment	December 27, 2000
Noyo River	Sediment	December 16, 1999
Redwood Creek	Sediment	December 30, 1998
Scott River	Sediment	August 11, 2006
Shasta River	Dissolved Oxygen & Temperature	January 26, 2007
Ten Mile River	Sediment	December 2000
Trinity River	Sediment	December 20, 2001
Trinity River, South Fork HA	Sediment	December 1998
Van Duzen River & Yager Creek	Sediment	December 16, 1999
San Francisco Bay Region		
Napa River	Sediment	January 20, 2011
Richardson Bay	Pathogens	December 18, 2009
San Francisco Bay	PCBs	March 29, 2010
San Francisco Bay	Mercury	February 12, 2008
Sonoma Creek	Sediment	September 8, 2010
Urban Creek	Diazinon & Pesticide Toxicity	May 16, 2007
Central Coast Region		
San Lorenzo River (<i>includes Carbonera Lompico, Shingle Mill Creeks</i>)	Sediment	February 19, 2004
Morro Bay (<i>includes Chorro Creek, Los Osos Creek, and the Morro Bay Estuary</i>)	Sediment	January 20, 2004

Water Body	Pollutant	U.S. EPA Approved/Established
<i>Los Angeles Region</i>		
Ballona Creek	Trash	August 1, 2002 & February 8, 2005
Legg Lake	Trash	February 27, 2008
Los Angeles River	Trash	July 24, 2008
Machado Lake	Trash	February 27, 2008
Malibu Creek Watershed	Trash	June 26, 2009
Revolon Slough and Beardsley Wash	Trash	August 1, 2002 & February 8, 2005
Ventura River Estuary	Trash	February 27, 2008
Ballona Creek, Ballona Estuary, and Sepulveda Channel	Bacteria	March 26, 2007
Harbor Beaches of Ventura County (Kiddie Beach and Hobie Beach)	Bacteria	December 18, 2008
Malibu Creek and Lagoon	Bacteria	January 10, 2006
Marina del Rey, Harbor Back Basins, Mother's Beach	Bacteria	March 18, 2004
Santa Monica Bay Beaches during Dry & Wet Weather	Bacteria	June 19, 2003
Ballona Creek	Metals	December 22, 2005 and reaffirmed on October 29, 2008
Calleguas Creek and its Tributaries and Mugu Lagoon	Metals and Selenium	March 26, 2007
Los Cerritos	Metals	March 17, 2010
Los Angeles River	Metals	December 22, 2005 and October 29, 2008
San Gabriel River	Metals	March 26, 2007
Machado Lake	Eutrophic, Algae, Ammonia, and Odors (Nutrient)	March 11, 2009
Santa Clara River Reach 3	Chloride	June 18, 2003
Ballona Creek Estuary	Toxic Pollutants	December 22, 2005
Colorado Lagoon	Organochlorine Pesticides, Polychlorinated Biphenyls, Sediment Toxicity, Polycyclic Aromatic Hydrocarbons, and Metals	June 14, 2011
Machado Lake	Pesticides and Polychlorinated Biphenyls	March 20, 2012
Marina del Rey Harbor	Toxic Pollutants	March 16, 2006
Calleguas Creek its Tributaries and Mugu Lagoon	Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation	March 14, 2006
<i>Central Valley Region</i>		
Cache Creek, Bear Creek, Sulphur Creek and Harley Gulch	Mercury	February 7, 2007
Clear Lake	Nutrients	September 21, 2007

Water Body	Pollutant	U.S. EPA Approved/Established
Sacramento – San Joaquin Delta	Methylmercury	October 20, 2011
<i>Lahontan Region</i>		
Lake Tahoe	Sediment and Nutrients	August 16, 2011
Truckee River	Sediment	September 16, 2009
<i>Colorado River Region</i>		
Coachella Valley Storm Water Channel	Bacterial Indicators	April 27, 2012
<i>Santa Ana Region</i>		
Big Bear Lake	Nutrients for Hydrological Conditions	September 25, 2007
Lake Elsinore and Canyon Lake	Nutrients	September 30, 2005
Rhine Channel Area of the Lower Newport Bay	Chromium and Mercury	June 14, 2002
San Diego Creek and New Port Bay	Metals (Cadmium, Copper, Lead, & Zinc)	June 14, 2002
San Diego Creek Watershed	Selenium	June 14, 2002
San Diego Creek Watershed and the Upper & Lower Newport Bay	Organochlorine (DDT, Chlordane, Dieldrin, PCBs, and Toxaphene)	June 14, 2002
<i>San Diego Region</i>		
Chollas Creek	Diazinon	November 3, 2003
Chollas Creek	Dissolved Copper, Lead, and Zinc	December 18, 2008
Rainbow Creek	Total Nitrogen and Total Phosphorus	March 22, 2006
Project 1 – Revised Twenty Beaches and Creek in the San Diego Region (Including Tecolote Creek)	Indicator Bacteria	June 22, 2011

Because the TMDL-based requirements of this Order have been imposed to comply with 40 Code of Federal Regulations section 122.44(d)(1)(vii)(B), the requirements are not subject to the MEP standard. The Department must implement all controls necessary to meet the WLAs or LAs included with the TMDL, or to meet the specifically assigned actions to implement the TMDL. Implementation requirements for some of the TMDLs are contained in the Regional Water Board Basin Plans and adopted orders and are incorporated into this Order by reference (see Attachment IV). TMDLs approved during the term of this Order are expected to be incorporated into this Order through a reopening.

Pursuant to 40 Code of Federal Regulations section 122.44(d)(1)(vii)(B), the effluent limitations for NPDES permits must be consistent with the assumptions and requirements of any available WLA for the discharge prepared by the state and approved by EPA. In addition, Water Code section 13263, subdivision (a), requires that waste discharge requirements implement any relevant water quality control plans. Where effluent limitations are expressed as BMPs, there should be adequate demonstration in the

administrative record of the permit that the BMPs will be sufficient to comply with the WLAs.⁸

This Order requires the Department to comply with all TMDLs listed in Attachment IV. Attachment IV identifies TMDLs adopted by the Regional Water Boards and approved by the State Water Board and U.S. EPA that assign the Department a Waste Load Allocation (WLA) or that specify the Department as a responsible party. In addition, Attachment IV identifies TMDLs established by U.S. EPA that specify the Department as a responsible party or that identify NPDES permitted storm water sources or point sources generally, or identify roads generally, as subject to the TMDL. For many of the TMDLs, WLAs, LAs, effluent limitations, implementation requirements, and monitoring requirements are specified in the adopted and approved Regional Water Board Basin Plans, which are incorporated by reference as enforceable parts of this Order. The Order additionally requires the Department to prepare a TMDL Status Review report with each Annual Report.

Where complete implementation requirements have not been specified in the TMDLs or otherwise approved by the Regional Water Boards as of the date of adoption of this Order, it is necessary that specific requirements and clear deliverables be developed to ensure consistency of this permit with assigned WLAs and to provide clear and enforceable conditions for the Department. It is expected that Regional Water Boards will develop such specific TMDL permit requirements, in consultation with the Department as necessary, within one year of the effective date of this Order and that Attachment IV will be reopened consistent with provision E.11.c. for incorporation of such requirements into the Order. In order to be incorporated into Attachment IV, TMDL specific permit requirements developed by the Regional Water Board staff must be accompanied by a statement of how the requirements implement the TMDL, how the effluent limitations and conditions are consistent with the assumptions and requirements of any applicable WLA, and, where a BMP-based approach to permit limitations is selected, how these will achieve the goal of the TMDL.

The requirements of this Order, including the implementation requirements contained in the TMDL implementation plans which are incorporated by reference, are expected to be sufficient to implement the WLAs in each TMDL for which the Department has been assigned a WLA.

⁸ On November 12, 2010, U.S. EPA issued a revision to a November 22, 2002, memorandum, recommending that “where the TMDL includes WLAs for stormwater sources that provide numeric pollutant load or numeric surrogate pollutant parameter objectives, the WLA should, where feasible, be translated into numeric WQBELs in the applicable stormwater permits.” The revision further stated, however, that the permitting authority’s decision as to how to express water quality based effluent limitations (WQBELs), i.e. as numeric effluent limitations or BMPs, would be based on an analysis of the specific facts and circumstances surrounding the permit. U.S. EPA has since invited comment on the revisions to the memorandum and will be making a determination as to whether to “either retain the memorandum without change, to reissue it with revisions, or to withdraw it.” http://www.epa.gov/npdes/pubs/sw_tmdlwla_comments_pdf

Attachment IV incorporates TMDL-specific permit requirements for the sediments and nutrients TMDL for Lake Tahoe. The TMDL requires the Department to meet pollutant load reduction requirements and to develop and implement a comprehensive Pollutant Load Reduction Plan (PLRP).

Attachment IV specifies that the Department must reduce fine sediment particle (FSP), total phosphorus (TP), and total nitrogen (TN) loads by 10%, 7%, and 8%, respectively, by September 30, 2016. It additionally specifies that the load reductions shall be measured in accordance with the processes outlined in the Lake Clarity Crediting Program Handbook. The Lahontan Regional Water Board developed the Lake Clarity Crediting Program to establish protocols for accounting and tracking pollutant load reductions within the urban environment. The Lake Clarity Crediting Handbook defines one Lake Clarity Credit as equal to 1×10^{16} fine sediment particles, providing a water quality metric that is directly related to the Lake Tahoe TMDL primary pollutant of concern.

On February 9, 2011 the Lahontan Regional Water Board Executive Officer issued the Department an Order to submit a technical report in accordance with California Water Code Section 13267 requiring the development of jurisdiction-specific baseline load estimates for the Lake Tahoe TMDL pollutants of concern. The submitted baseline pollutant load estimate provides the basis for translating percentage based pollutant load reduction requirements defined by the TMDL into jurisdiction-specific, particle and mass-based pollutant load reduction requirements. The baseline basin-wide pollutant loads for the TMDL reflect conditions as of water year 2003/2004 (October 1, 2003 – September 30, 2004), hereafter referred to as “baseline.” The Department has estimated its baseline fine sediment particle load to be 3.72×10^{19} particles. To meet the required 10% fine sediment particle load reduction, the Department must reduce its fine sediment particle load to 3.35×10^{19} fine sediment particles, a difference of 3.70×10^{18} fine sediment particles. Dividing the needed fine sediment particle reduction (3.70×10^{18}) by the Lake Clarity Credit definition (1×10^{16} fine sediment particles per Credit) results in the requirement for the Department to earn 370 Lake Clarity Credits which is reflected in Attachment IV.

Consistent with the TMDL provisions, Attachment IV also requires the Department to develop, implement, and maintain a PLRP to guide stormwater activities and project implementation. The PLRP will describe how proposed operations and maintenance activities, capital improvements, facilities retrofit projects, and other actions are expected to meet required pollutant load reduction requirements. The PLRP lays out Department Plans to achieve required pollutant load reductions for the first five year period. The PLRP will be updated in 2017 to demonstrate how the Department will achieve pollutant load reduction requirements for the second five-year TMDL implementation period. The PLRP will also describe what areas or “catchments” the Department plans to perform load reduction activities and claim Lake Clarity Credits. The process of proposing Lake Clarity Credit awards is described as “catchment registration” in the Lake Clarity Crediting Program Handbook.

Attachment IV additionally requires submission of a Progress Report documenting pollutant load reductions and the preparation and submission of a Stormwater Monitoring Plan for review and approval by the Regional Water Board.

Region Specific Requirements

The Regional Water Boards have identified specific areas within their Regions requiring special conditions (Attachment V). These special conditions are needed to account for the unique value of the resource(s) within the Region, special pollutant or pollution control issues within the Region, or storm water management and compliance issues applicable to the Region. These special requirements need not be applied statewide but are applicable only to Department discharges within the Regions as specified in Attachment V. Region specific requirements are included for the North Coast, San Francisco Bay, and Lahontan Regional Water Boards.

North Coast Region

1. **Sediment.** Region specific requirements addressing sediment discharges in sediment-impaired watersheds in the North Coast Region are based on the "Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters in the North Coast Region," as included in the Basin Plan and Resolution No. R1-2004-0087. The Policy requires the use of NPDES permits and waste discharge requirements to achieve compliance with sediment-related water quality standards. The requirements in Attachment V to systematically inventory, prioritize, control, monitor, and adapt, as well as to include a time schedule in the annual District Workplan, are consistent with region-wide excess sediment control regulations.

The sediment requirements are intended to reduce the adverse impacts of excessive sediment discharges to sediment-impaired waters, including impacts to the cold water salmonid fishery and the COLD, COMM, RARE, SPWN, and MIGR beneficial uses. The beneficial uses associated with the cold water salmonid fishery are often the most sensitive to sediment discharges. Risks to salmonids from excessive sediment are well documented in scientific literature and include:

- the filling of pools and subsequent reduction in available in-stream salmonid habitat;
- burial of spawning gravels;
- gill abrasion and death due to extremely high turbidity levels;
- reduction in macroinvertebrate populations available as food for salmonids; and
- alterations in channel geometry to a wider, shallower channel which is subject to increases in solar heating.

2. **Riparian Vegetation Requirements.** Region specific requirements to protect and restore riparian vegetation are based on the Water Quality Objective for temperature. The temperature objective states, in part, that the natural receiving water temperature shall not be altered unless it can be demonstrated that such alteration does not adversely affect beneficial uses. Removal of riparian vegetation associated with

Department activities has the potential to decrease shade, increase solar radiation, and raise water temperatures, and may therefore cause an exceedance of the temperature objective.

The requirements in Attachment V direct the Department to protect and restore riparian vegetation to the greatest extent feasible. In many cases, activities involving the removal of riparian vegetation will require a 401 water quality certification, which will contain more specific conditions regarding the removal and/or establishment of vegetation.

These requirements are intended to prevent alterations to natural receiving water temperature from Department activities. The primary mechanism in which riparian vegetation influences water temperature is through the shade. Loss of riparian vegetation and the shade that it provides can lead to increased solar radiation, hotter water temperatures, and adverse impacts to beneficial uses. The beneficial uses most sensitive to increases in water temperature are often those associated with the cold water salmonid fishery. Risks to salmonids are well documented in scientific literature and include:

- reduced feeding rates and growth rates;
- impaired development of embryos and alevins;
- changes in the timing of life history events, such as upstream migration, spawning, and seaward migration;
- increased disease infection rates and disease mortality; and
- direct mortality.

San Francisco Bay Region

The Urban Runoff Management, Comprehensive Control Program section of the Basin Plan (Chapter 4.14) requires municipalities and local agencies, including the Department, to address existing water quality problems and prevent new problems associated with urban runoff through the development and implementation of a comprehensive control program focused on reducing current levels of pollutant loading to storm drains to the maximum extent practicable.

The Highway Runoff Control Program section of the Basin Plan (Chapter 4.14.2) requires the Department to manage and monitor pollutant sources from its ROW through development and implementation of a highway runoff management plan.

The Basin Plan comprehensive and highway runoff program requirements are designed to be consistent with federal regulations (40 C.F.R., §§ 122-124) and are implemented through issuance of NPDES permits to owners and operators of MS4s. A summary of the regulatory provisions is contained in Title 23 of the California Code of Regulations at section 3912. The Basin Plan identifies beneficial uses and establishes water quality objectives for surface waters in the Region, as well as effluent limitations and discharge prohibitions intended to protect those uses. The region-specific requirements in Attachment V of this Order implement the plans, policies, and provisions of the Regional Water Board's Basin Plan.

1. Trash Load Reduction.

- a. Legal Authority. The following legal authorities apply to the trash load reduction requirements specified in Attachment V:
- Clean Water Act sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 Code of Federal Regulations sections 122.26(d)(2)(i)(B, C, D, E, and F) and 40 Code of Federal Regulations section 122.26(d)(2)(iv).
 - Federal NPDES regulations 40 Code of Federal Regulations section 122.26(d)(2)(iv)(B) requires, “shall be based on a description of a program, including a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”
 - Federal NPDES regulation 40 Code of Federal Regulations section 122.26(d)(2)(iv)(B)(2) requires, “a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens.”
 - Federal NPDES regulation 40 Code of Federal Regulations section 122.26(d)(2)(iv)(B)(3) requires, “a description of procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water.”
 - Federal NPDES regulations 40 Code of Federal Regulations section 122.26(d)(2)(iv)(B)(4) requires, “a description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer.”
 - San Francisco Bay Basin Plan, Chapter 4 – Implementation, Table 4-1 Prohibitions, Prohibition 7, which is consistent with the State Water Board’s Enclosed Bays and Estuaries Policy, Resolution 95-84, prohibits the discharge of rubbish, refuse, bark, sawdust, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plain areas. This prohibition was adopted by the Regional Water Board in the 1975 Basin Plan, primarily to protect recreational uses such as boating.
- b. Extent, Impacts, and Conclusions. Trash⁹ and litter are a pervasive problem near and in creeks and in San Francisco Bay having major impacts on the environment, including aquatic life and habitat in those waters. Ubiquitous, unacceptable levels of trash in waters of the San Francisco Bay Region warrant a comprehensive and

⁹ For the purposes of this provision, trash is defined to consist of litter and particles of litter. Man made litter is defined in California Government Code section 68055.1 (g): *Litter* means all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

progressive program of education, warning, and enforcement, and certain areas warrant consideration of structural controls and treatment. Trash in urban waterways of coastal areas can become *marine debris*, known to harm fish and wildlife and cause adverse economic impacts.¹⁰ It accumulates in streams, rivers, bays, and ocean beaches throughout the San Francisco Bay Region, particularly in urban areas.

Trash adversely affects numerous beneficial uses of waters, particularly recreation and aquatic habitat. Not all litter and debris delivered to streams are of equal concern with regard to water quality. Besides the obvious negative aesthetic effects, most of the harm of trash in surface waters is to wildlife in the form of entanglement or ingestion.^{11,12} Some elements of trash exhibit significant threats to human health, such as discarded medical waste, human or pet waste, and broken glass.¹³ Also, some household and industrial wastes can contain toxic batteries, pesticide containers, and fluorescent light bulbs containing mercury. Large trash items such as discarded appliances can present physical barriers to natural stream flow, causing physical impacts such as bank erosion. From a management perspective, the persistent accumulation of trash in a waterbody is of particular concern, and signifies a priority for prevention of trash discharges. Also of concern are trash *hotspots* where illegal dumping, littering, and/or accumulation of trash occur.

The narrative water quality objectives applicable to trash are Floating Material (Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses), Settleable Material (Waters shall not contain substances in concentrations that result in the deposition of material that cause nuisance or adversely affect beneficial uses), and Suspended Material (Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses).

The Regional Water Board, at its February 11, 2009 hearing, adopted a resolution proposing that 26 waterbodies be added to the 303(d) list for trash. The adopted Resolution and supporting documents are contained in Attachment 10.1 – 303(d) Trash Resolution and Staff Report, Feb 2009.

¹⁰ Moore, S.L., and M.J. Allen. 2000. Distribution of anthropogenic and natural debris on the mainland shelf of the Southern California Bight. *Mar. Poll. Bull.* 40:83-88.

¹¹ Laist, D. W. and M. Liffmann. 2000. *Impacts of marine debris: research and management needs*. Issue papers of the International Marine Debris Conference, Aug. 6-11, 2000. Honolulu, HI, pp. 16–29.

¹² McCauley, S.J. and K.A. Bjorndahl. 1998. Conservation implications of dietary dilution from debris ingestion: sublethal effects in post-hatchling loggerhead sea turtles. *Conserv. Biol.* 13(4):925-929.

¹³ Sheavly, S.B. 2004. *Marine Debris: an Overview of a Critical Issue for our Oceans*. 2004 International Coastal Cleanup Conference, San Juan, Puerto Rico. The Ocean Conservancy.

Data collected by Regional Water Board staff using the SWAMP Rapid Trash Assessment (RTA) Protocol,¹⁴ over the 2003–2005 period,¹⁵ suggest that the current approach to managing trash in waterbodies is not reducing the adverse impact on beneficial uses. The levels of trash in the waters of the San Francisco Bay Region are high, even with the Basin Plan prohibitions and potentially large fines. During dry weather conditions, a significant quantity of trash, particularly plastic, is making its way into storm drains and being transported downstream to San Francisco Bay and the Pacific Ocean. On the basis of 85 surveys conducted at 26 sites throughout the Bay Area, staff have found an average of 2.93 pieces of trash for every foot of stream, and all the trash was removed when it was surveyed, indicating high return rates of trash over the 2003–2005 study period.

A number of key conclusions can be made from the RTA study:

- Lower watershed sites have higher densities of trash.
 - All watersheds studied in the San Francisco Bay Region have high levels of trash.
 - There are trash source hotspots, usually associated with parks, schools, or poorly kept commercial facilities.
 - Dry season deposition of trash, associated with wind and dry season runoff, contributes measurable levels of trash to downstream locations.
 - The majority of trash is plastic at lower watershed sites where trash accumulates in the wet season. This suggests that urban runoff is a major source of floatable plastic found in the ocean and on beaches as marine debris.
 - Parks that have more evident management of trash by city staff and local volunteers, including cleanup within the creek channel, have measurably less trash and higher RTA scores.
- c. Short-Term Trash Load Reduction Plan. The Short-Term Trash Load Reduction Plan is intended to describe actions to incrementally reduce trash loads toward the 2016 requirement of a 40% reduction and eventual abatement of trash loads to receiving waters.
- d. Baseline Trash Load and Trash Load Reduction Tracking Method. In order to achieve the incremental trash load reductions in an accountable manner, the Department will propose Baseline Trash Loads and a Trash Load Reduction Tracking Method. The Tracking will account for additional trash load reducing actions and BMPs implemented by the Department. The Department is also able to propose, with documentation, areas for exclusion from the Tracking Method accounting, by demonstrating that these areas already meet Discharge Prohibition A.3 and have no trash loads.

¹⁴ SWAMP Rapid Trash Assessment Protocol, Version 8

¹⁵ SWAMP S.F. Bay Region Trash Report, January 23, 2007

- e. Minimum Full Trash Capture. Installation of full trash capture systems is MEP as demonstrated by the significant implementation of these systems in the Los Angeles region. The minimum full trash capture requirements in Attachment V of this Order represent a moderate initial step toward employing this tool for trash load reduction.
- f. Long Term Trash Load Reduction. The Department will submit a plan to achieve a long term trash load reduction of 70% by 2019 and 100% reduction by 2024.
- g. Costs of Trash Control. Costs for either enhanced trash management measure implementation or installation and maintenance of trash capture devices are significant, but when spread over several years, and when viewed on a per-capita basis, are reasonable. To meet Basin Plan and local MS4 requirements, trash capture devices have already been installed by other municipalities in the Bay Area.

Cost information on various trash capture devices is included in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) BMP Trash Toolbox (July 2007). The Toolbox contains cost information for both trash capture devices and enhanced trash management measure implementation, covers a broad range of options, and also discusses operation and maintenance costs.

- 2. Storm Water Pump Stations. In late 2005, Regional Water Board staff investigated an occurrence of low salinity and dissolved oxygen conditions in Old Alameda Creek (Alameda County) and Alviso Slough (Santa Clara County). In the case of Old Alameda Creek, discharge of black-colored water from the Alvarado pump station to the slough was observed at the time of the data collection on September 7, 2005, confirming dry weather urban runoff as the source of the violations of the 5 mg/L dissolved oxygen water quality objective. Such conditions were measured again on September 21, 2005.

On October 17, 2005, waters in Alviso Slough were much less saline than the salt ponds and had the lowest documented dissolved oxygen of the summer, suggesting a dry weather urban runoff source. The dissolved oxygen sag was detected surface to bottom at 2.3 mg/L at a salinity of less than 1 part per thousand (ppt), mid-day, when oxygen levels should be high at the surface. The sloughs have a typical depth of 6 feet.

Board staff's investigations of these incidents, documented in a memorandum,¹⁶ found that "storm water pump stations, universally operated by automatic float triggers, have been confirmed as the cause in at least one instance, and may represent an overlooked source of controllable pollution to the San Francisco Bay

¹⁶ Internal Water Board Memo dated December 2, 2005: "Dry Weather Urban Weather Urban Runoff Causing or Contributing to Water Quality Violations: Low Dissolved Oxygen (DO) in Old Alameda Creek and Alviso Slough"

Estuary and its tidal sloughs... [that] discharges of dry weather urban runoff from these pump stations are not being managed to protect water quality, and [that] surveillance monitoring has detected measurable negative water quality consequences of this current state of pump station management.”

Pump station discharges of dry weather urban runoff can cause violations of water quality objectives. These discharges are controllable point sources of pollution that are virtually unregulated. The Regional Water Board has determined that the measures included in Attachment V are necessary to address these discharges and water quality problems.

Lahontan Region

1. The Lahontan Basin Plan encourages the infiltration of storm water runoff to treat pollutants in discharges and mitigate the effects of increased runoff to surface waters from the addition of impervious surfaces. The 20-year, 1-hour design storm has been historically applied and accepted as an effective requirement to mitigate discharges of storm water to surface waters in the sensitive high mountain watersheds of the Lahontan Region. Water Board staff has estimated that facilities designed to treat or infiltrate the 20-year, 1-hour storm event effectively capture approximately 85 percent of the average annual runoff volume in the Lake Tahoe Basin. However, it is recognized that the natural environment provides adequate infiltration and/or treatment in areas where there is little or no connectivity to surface waters. Therefore the Lahontan Water Board encourages the Department to focus implementation of storm water treatment facilities in those areas that discharge directly to surface waters to maximize water quality benefits. This requirement is applicable to existing highways and facilities in the Mammoth Lakes Area Hydrologic Unit.
2. The Natural Environment as Treatment (NEAT) study has helped identify the priority areas within the Lake Tahoe Hydrologic Unit where storm water treatment and control measure implementation has the most benefit for water quality protection. Similarly, the NEAT study has helped identify those areas where there may be limited water quality benefits associated with implementing structural treatment and control measures. The NEAT approach is also applicable in other areas. This provision is needed to focus available resources on the areas where the most water quality benefit can be achieved.
3. The October 15 to May 1 grading prohibition is necessary to reduce erosion and sedimentation from disturbed areas within the sensitive high elevation areas within the Lahontan Region. These are areas where snow fall restricts the ability to control storm water pollution through the winter months. This requirement mitigates winter erosion issues by requiring disturbed soil areas to be winterized prior to the onset of snow, and allows for exceptions where there is a compelling need.

Regional Water Board Authorities

Regional Water Boards and their staff will oversee implementation and compliance with this Order. As appropriate, they will review reports, conduct inspections, and take enforcement actions on violations of this Order.

Cost of Compliance and Other MEP Considerations

General Cost Considerations in Storm Water Regulation and Management

The Department will incur incremental costs in implementing this Order, such as the cost of complying with the Order's storm water treatment BMP, post-construction, hydromodification, Low Impact Development, and monitoring and reporting requirements. The Department will also incur additional costs in following the iterative process as required by the Order. The cost of complying with TMDL waste load allocations is not considered since TMDLs are not subject to the MEP standard.

In adopting Order WQ 2000-11, the State Water Board found that cost is a relevant factor, among others such as feasibility and public acceptance, that should be considered in determining MEP. The State Water Board considered the costs in preparing this Order and has determined that the costs reflect the MEP standard. The State Water Board further found in adopting Order WQ 2000-11 that in considering the cost of compliance, it is also important to consider the costs of impairment; that is, the negative impact of pollution on the economy and the positive impact of improved water quality. So, while it is appropriate and necessary to consider the cost of compliance, it is also important to consider the larger economic impacts of implementation of the storm water management program.

Many studies have been undertaken to assess the cost of compliance with storm water permits. Most studies have focused on municipal programs as opposed to "linear MS4s" or Departments of Transportation. A study by the Los Angeles Regional Water Board reported wide variability in the cost of compliance among municipal permit holders which was not easily explained (LARWQCB, 2003).

In 1999, United States Environmental Protection Agency (U.S. EPA) reported on multiple studies it conducted to determine the cost of urban runoff management programs. A study of Phase II municipalities determined that the annual cost of the Phase II program was expected to be \$9.16 per household. U.S. EPA also studied 35 Phase I municipalities, finding costs to be similar to those anticipated for Phase II municipalities, at \$9.08 per household annually (U.S. EPA, 1999a).

A program cost study was also conducted by the Los Angeles Regional Water Board, where program costs reported in the municipalities' annual reports were assessed. The Water Board estimated the average per household cost to implement the MS4 program in Los Angeles County was \$12.50.

The State Water Board also commissioned a study by California State University, Sacramento to assess costs of the Phase I MS4 program. This study is current and includes an assessment of costs incurred by the City of Encinitas in implementing its program. Annual cost per household ranged from \$18-46, with the City of Encinitas representing the upper end of the range (SWRCB, 2005). The cost of the City of Encinitas' program is understandable, given the city's coastal location, reliance on tourism, and additional costs resulting from a consent decree with environmental groups regarding its program. For these reasons, as well as the general recognition the city receives for implementing a superior program, the city's program cost can be considered as the high end of the spectrum for municipal storm water management program costs.

The California Department of Finance (Finance, 2003) conducted a comprehensive review of the Department's storm water program. Finance noted widely divergent compliance cost estimates produced by regulators and environmental organizations versus consultant's estimates. Finance also had difficulty identifying compliance costs because of the way storm water activities are integrated with other functions and allocated among the different divisions within the Department, and because they are funded from different sources. Finance made three findings related to cost:

1. The projected costs of compliance are escalating.
2. Storm water compliance costs are integrated into many of the Department's business processes and are not accurately tracked.
3. As storm water compliance costs increase, the amount of funding available for highway projects decreases, which reduces the number of projects that can be constructed.

The review concluded that balancing costs and benefits is a difficult policy decision and there should be a recognition of the trade-offs associated with resource allocation decisions given the Department's limited resources.

It is important to note that storm water program costs are not all attributable to compliance with MS4 permits. Many program components and their associated costs existed before any MS4 permits were issued. For example, for the Department, storm drain maintenance, street sweeping and trash/litter collection costs cannot be solely or even principally attributable to MS4 permit compliance since these practices have long been implemented before the MS4 permit was issued. Even many structural BMPs (erosion protection, energy dissipation devices, detention basins etc.) are standard engineering practice for many projects and are not implemented solely to comply with permit provisions. Therefore, the true cost resulting from MS4 permit requirements is some fraction of the cost to operate and maintain the highway system.

The California State University, Sacramento study found that only 38% of program costs are new costs fully attributable to MS4 permits. The remainder of program costs was either pre-existing or resulted from enhancement of pre-existing programs (SWRCB, 2005). The County of Orange found that even lesser amounts of program costs are solely attributable to MS4 permit compliance, reporting that the amount attributable to

implement its Drainage Area Management Plan is less than 20% of the total budget. The remaining 80% is attributable to pre-existing programs (County of Orange, 2007). Any increase in cost to the Department by the requirements of this Order will be incremental in nature.

Storm water management programs cannot be considered solely in terms of their costs. The programs must also be viewed in terms of their value to the public. For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by U.S. EPA to be \$158-210 per household (U.S. EPA, 1999a). This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study corroborates U.S. EPA's estimates, reporting annual household willingness to pay for statewide clean water to be \$180 (SWRCB, 2005). Though these costs may be assessed differently at the state level (for the Department) than at the municipal level, the results indicate that there is public support for storm water management programs and that costs incurred by the Department to implement its storm water management program remain reasonable.

It is also important to consider the cost of not implementing a storm water management program. Urban runoff in southern California has been found to cause illness in people bathing near storm drains (Haile et al., 1996). A study of south Huntington Beach and north Newport Beach found that an illness rate of about 0.8% among bathers at those beaches resulted in about \$3 million annually in health-related expenses (Lin, 2005). Extrapolation of such numbers to the beaches and other water contact recreation areas in the state would increase these numbers significantly.

Storm water runoff and its impact on receiving waters also impacts the tourism industry. The California Travel and Tourism Commission (2009) estimated that in 2008 direct travel spending in California was \$97.6 billion directly supporting 924,000 jobs, with earnings of \$30.6 billion. Travel spending in 2008 generated \$1.6 billion in local taxes and \$2.8 billion in state taxes. Impacts on tourism from storm water runoff (e.g. beach closures) can have a significant impact on the economy. The experience of Huntington Beach provides an example of the potential economic impact of poor water quality. Approximately 8 miles of Huntington Beach were closed for two months in the middle of summer of 1999, impacting beach visitation and the local economy.

Cost Considerations Relative to the Department

In written comments and before the Board, the Department has stated that the requirements of the first public drafts would impose prohibitive costs on the Department at a time of economic difficulty and limited resources. State Water Board staff has carefully considered the Department's comments and revised the draft Tentative Order to continue to address critical water quality problems in consideration of the cost of compliance.

State Water Board staff completed a Draft Tentative Order and submitted it to the Department, U.S. EPA, and the Natural Resources Defense Council for informal stakeholder review in the fall of 2010. Further review was provided by the Regional Water Boards. Staff revised the Draft Tentative Order to address the informal comments received and released it for public review on January 7, 2011 (Draft Tentative Order). Approximately 330 comments from 16 commenters were received on the Draft Tentative Order, and a public hearing was held on July 19, 2011. Staff further revised the Draft Tentative Order and released a Revised Draft Tentative Order on August 18, 2011 (Revised Draft Tentative Order). Approximately 220 comments from 33 commenters were received on the Revised Draft Tentative Order, and a State Water Board workshop was held on September 21, 2011. In each set of comments and before the Board, the Department expressed significant concerns with the cost of compliance with the Tentative Orders.

On October 6, 2011, the California Senate Select Committee on California Job Creation and Retention held a hearing on the economic impacts of the State Water Board's three general or statewide storm water permits that were under renewal: the Phase II Small MS4 permit, the Industrial General Permit, and the Department's MS4 permit. The Executive Director of the State Water Board testified at the hearing that the comments regarding cost of compliance with the permits were being considered carefully and that the three permits required substantial revision to address the comments. State Water Board staff held bi-weekly meetings with the Department in October through December 2011 to discuss their concerns. Revisions resulting from these meetings are contained in the Second Revised Draft Tentative Order which was released for public review on April 27, 2012 (Second Revised Draft Tentative Order).

This section is a general discussion of the cost of compliance with the Second Revised Draft Tentative Order and of current expenditures by the Department to comply with the existing permit (Order 99-06-DWQ) (Existing Permit). It also discusses the more significant changes between the Revised Draft and Second Revised Draft Tentative Orders.

It is very difficult to precisely determine the true cost of implementation of the Department's storm water management program as affected by this Order. Due to the extensive, distributed nature of the Department's MS4, permit requirements that involve an unknown level of implementation or that depend on environmental variables that are as yet undefined, and the difficulty in isolating program costs attributable to permit compliance, only general conclusions can be drawn from this information.

The Department has made a number of estimates of the cost of complying with the Draft and Revised Draft Tentative Orders. Generally, the Department's estimates are based on worst-case scenarios or the most restrictive interpretation of the Tentative Orders. In a presentation to a meeting of the American Association of State Highway and

Transportation Officials (AASHTO) on June 22, 2011,¹⁷ the Department's Chief Environmental Engineer, Scott McGowen estimated the annual cost of compliance at \$281 million. This estimate was based on the January 7, 2011 Draft Tentative Order. At the July 19, 2011 public hearing, the Department estimated the annual compliance cost at approximately \$450 million, based on the same January 7, 2011 Draft Tentative Order. At the September 21, 2011 State Water Board workshop, the Department estimated an annual compliance cost of \$904 million, based on the requirements of the August 18, 2011 Revised Draft Tentative Order. It should be noted that the August 18 draft removed or modified a number of provisions that were expected to reduce the cost of compliance.

Annual expenditures for the Department's storm water management program under the Existing Permit (DWQ 99-06) are provided in the Department's annual reports. For fiscal years 2007-08 through 2010-11, the Department reported annual personal services and operating expenses of \$93.8 million, \$93.6 million, \$75.2 million, and \$89.2 million. These figures do not include the cost of capital improvements needed to comply with the permit.

State Water Board staff estimated the capital expenditures for the Existing Permit in two ways. First, the Department provided the number of post-construction storm water treatment BMPs installed in 2009-10 and 2010-11 along with typical unit costs for each BMP. In 2007-08, the Department spent approximately \$74.7 million for 396 treatment BMPs, \$104.5 million in 2009-10 for 667 treatment BMPs, and \$75.7 million in 2010-11 for 506 treatment BMPs. The Department indicated that anomalies in the data for 2008-09 make them unreliable and they are therefore not included. The Department also indicated that the unit cost factors do not include costs for design, ROW and other related elements. The estimates therefore can be considered on the low side.

Second, capital expenditures were estimated from budget appropriations from the Department's State Highway Operation and Protection Program (SHOPP) as reported in the 2008-09 annual report. The SHOPP account is the primary source of funding for storm water-related capital expenses. Storm water compliance costs are not consistently reported in the annual reports; however, the 2008-09 annual report contains sufficient information to make an estimate. The capital value of the SHOPP "storm water mitigation element" for fiscal years 2009-10 through 2012-13 is \$640 million, including capital outlay support, or about \$160 million per year.

Using average personal services and operating expenses for the last four years (\$88 million) and average annual programmed SHOPP funding, the Department's expenditures to comply with the Existing Permit amount to approximately \$248 million.

¹⁷ Caltrans NPDES Tentative Order, Natural Systems and Ecological Communities Subcommittee at the National Planning and Environmental Practitioners Meeting. AASHTO, June 22, 2011.

As stated above, the Department has estimated cost of compliance with the Draft Tentative and Revised Draft Tentative Orders variously at \$281 to \$904 million. These estimates are based on “worst case scenarios” and on the most restrictive interpretations of the Orders’ requirements. In preparing the Second Revised Tentative Order, staff worked to provide greater clarity and certainty to the Department on the scope of permit obligations and to eliminate compliance costs that were not expected to yield significant water quality benefits. With the exception of a lowering of the post-construction treatment threshold for non-highway facility projects from 10,000 square feet of new impervious surface to 5,000 square feet¹⁸, no requirements have been added to the Second Revised Draft Tentative Order that would materially increase the cost of compliance over the Revised Draft Tentative Order. In contrast, a number of substantive requirements have been removed, replaced or modified from the Revised Draft Tentative Order with the goal of focusing the Department’s limited resources on the most significant water quality issues. These changes are expected to result in a lower cost of compliance with the Second Revised Draft Tentative Order as compared to the Revised Tentative Order. These include:

1. Water quality monitoring program
 - a. Replaced random compliance-driven monitoring approach with a tiered approach focusing on ASBS and TMDL watersheds, and deferring to the monitoring requirements specified in the ASBS Special Protections and TMDLs
 - b. Deleted sampling pool, water quality action levels, and response process flow chart
 - c. Removed 29 constituents from the monitoring constituent list
 - d. Limited the monitoring for new constituents to TMDL watersheds
 - e. For sites with existing monitoring data, limited BMP retrofits to 15 percent of the highest priority sites
 - f. Deleted the long-term monitoring program
 - g. Deleted maintenance facility compliance monitoring
2. Project Planning and Design
 - a. Raised the treatment threshold for highway projects from 5,000 square feet of new impervious surface to one acre
 - b. Deleted the requirement for pilot Low Impact Development retrofits and effectiveness evaluations
3. Hydromodification
 - a. Removed requirement for programmatic stream stability assessments and a retrofit implementation schedule
 - b. Raised the risk assessment threshold for non-highway facility projects from 10,000 square feet of new impervious surface to one acre

¹⁸ The threshold was lowered for consistency with the draft statewide Phase II Small MS4 General Permit and with regional MS4 permits.

4. Region Specific Requirements – removed, modified or scaled back requirements for the San Francisco Bay, Los Angeles, Central Valley, Lahontan, and San Diego Regional Water Boards with the goal of maximizing statewide consistency of requirements for the Department.
5. Construction Program – replaced requirement to inspect contractor operations outside the ROW with a requirement to include compliance language in its construction contracts
6. TMDLs – Revised Attachment IV to more precisely identify the TMDLs applicable to the Department and shifted responsibility to prepare TMDL implementation plans from the Department to the Regional Water Boards.
7. ASBS – Added Attachment III to identify priority Department ASBS outfalls for installation of controls
8. Maintenance Program
 - a. Deleted the requirement to report the amount of waste and debris removed from drainage inlets
 - b. Replaced the site-by-site characterization of waste management sites with a programmatic characterization
 - c. Deleted the requirement to prepare and implement a storm drain system survey plan
 - d. Replaced quantitative measurements of trash and litter removal with estimated annual volumes
9. Non-Storm Water
 - a. Deleted surveillance monitoring of agricultural return flows
 - b. Deleted characterization monitoring of slope lateral drains

Though no firm conclusions or precise estimates can be drawn from this analysis, it is expected that the revisions to the Revised Draft Tentative Order will significantly reduce the cost of compliance.

ATTACHMENT I Incident Report Form

Type of incident: <input type="checkbox"/> Field <input type="checkbox"/> Administrative	
Name of person completing this form:	Person's agency name and address:
	Person's phone and e-mail:

For Field incidents complete Sections 1 and 3. For Administrative incidents complete Section 2. See Non-Compliance Notification Schedule on Page 2.

SECTION 1: Field incidents

Date(s) and time(s) of incident:	1. Start date / time:
	2. End date / time:
Location of Incident:	3. Nearest city / town:
	4. Street address / nearest cross street:
County: _____	5. Latitude / Longitude:
	6. Additional location detail:
Materials involved in the incident: (use Comments Section below if necessary):	6. Name(s) of material(s) discharged:
	7. Approximate quantity discharged (specify units):
	8. Approximate concentration of material:
Discharge to surface water? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, answer questions 9-11	9. Name of waterbody:
	10. Apparent effects (if any) on waterbody:
	11. Estimated extent of impacts to waterbody:
Was CalEMA notified? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, answer questions 12-14	12. Date and time of notification:
	13. Name of person making the notification:
	14. Phone number of person making the notification:
Was the Regional Water Board (RWB) notified? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, answer questions 15-17	15. Name of RWB contact:
	16. RWB contact's phone / e-mail:
	17. Name of person making the notification:
Were downgradient communities / people notified? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, answer questions 18 - 20	18. Date and time of notification:
	19. Name of person making the notification:
	20. Phone number of person making the notification:
	21. Name of downgradient community/ person:
Field Non-Compliance (check all that apply)	
<input type="checkbox"/>	Lack of BMP(s), ineffective implementation of BMP(s), or failure of BMP(s) resulted in a discharge of pollutants to surface water.
<input type="checkbox"/>	Monitoring data indicates an exceedance of a defined standard. Defined standards include TMDL Waste Load Allocations, and water quality standards in the Water Quality Control Plans and promulgated policies and regulations of the State and Regional Water Boards, including California Ocean Plan limitations and prohibitions.
<input type="checkbox"/>	Discharge of prohibited non-storm water.
<input type="checkbox"/>	Failure to comply with Facility Pollution Prevention Plan (FPPP) requirements.
<input type="checkbox"/>	Failure to comply with inspection, monitoring, and reporting requirements and protocols.
<input type="checkbox"/>	Other (describe - use Comments Section below if needed):

SECTION 2: Administrative Non-Compliance (check all that apply)

<input type="checkbox"/>	Failure to submit reports or documents required by the Permit and/or SWMP, failure of timely submittal, and/or failure to submit required information.
<input type="checkbox"/>	Failure to develop and/or maintain a site-specific FPPP or to implement any other procedural requirement of the Permit.
<input type="checkbox"/>	Other (describe - use Comments Section below if needed):

SECTION 3: Description of Incident

Activities in the area prior to the incident (If any):
Initial assessment of any impact caused by the discharge (If any):
Samples collected and analyses requested (If any):
Steps taken to mitigate damage and prevent reoccurrence (If any):
Current Status:
Schedule for proposed mitigation/abatement (If any):
Other Comments:

Non-Compliance Notification Schedule

Type of Incident	Within 5 Working Days (Verbal)	Within 10 Working Days (Written)	Within 30 Calendar Days (Written)	In Annual Report
Emergency Incidents ¹	—	—	—	Chronological summary and status of all incidents
Field ²	Notify RWB Executive Officer	To RWB Executive Officer and copies to Dept. HQ	—	Chronological summary and status of all incidents
Administrative ³	Notify RWB Executive Officer or SWB Contact ³	—	To RWB Executive Officer, SWB Executive Director, and copies to Dept. HQ.	Chronological summary and status of all incidents

¹ Sudden, unexpected, unpreventable incidents that threaten public health, public safety, property, or the environment that pose a clear and imminent danger requiring immediate action to prevent or mitigate the damage or threat, and that result in a discharge or potential discharge.

² Failure to meet any non-administrative requirement of the SWMP or Permit or to meet any applicable water quality standard. This includes failure to install required BMPs or conduct required monitoring or maintenance. It also includes discharges or prohibited non-storm water that do not meet the definition of emergency incidents. It does not include determinations by the Department or a Regional Water Board Executive Officer that a discharge is causing or contributing to an exceedance of an applicable WQS. See provision E.2.c.6)c).

³ Failure to meet any administrative or procedural requirement of the SWMP or Permit including submission of required reports, notifications and certifications. The report of non-compliance shall be submitted to the same organization (State or Regional Water Board) to which the required report was originally due.

<i>Certification – I certify that under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>			
Signature of Contractor (if applicable)	Title	Telephone	Date:
Signature of Department Representative	Title	Telephone	Date:

ATTACHMENT II

Monitoring Constituent List (Not Applicable to ASBS Discharges)

Constituent	Analytical Method	Reporting Limit ¹	Units
<i>WATER COLUMN CHEMISTRY</i>			
Conventional Pollutants			
Hardness as CaCO ₃	SM 2340 B or C	5	mg/L
pH	Calibrated Field Instrument		pH Units
Temperature	Calibrated Field Instrument		C +/-
Flow Rate	Calibrated Field Instrument		ft ³ /s
Total Dissolved Solids	EPA 160.1	1	mg/L
Total Suspended Solids	EPA 160.2	1	mg/L
Hydrocarbons			
Oil & Grease	EPA 1664B	1.4	mg/L
Polycyclic Aromatic Hydrocarbons (Total)	EPA 8310	0.05	µg/L
Nutrients			
Total Kjeldahl Nitrogen (TKN)	EPA 351.3	100	µg/L
Nitrate as Nitrogen (NO ₃ -N)	EPA 300.0	100	µg/L
Phosphorous (Total)	EPA 365.2	30	µg/L
Metals			
Aluminum (Total)	EPA 200.8	25	µg/L
Chromium (Total)	EPA 200.8	1	µg/L
Copper (Total)	EPA 200.8	1	µg/L
Iron (Total)	EPA 200.8	1	µg/L
Lead (Total)	EPA 200.8	1	µg/L
Zinc (Total)	EPA 200.8	5	µg/L
Microbiological			
Fecal Coliform	SM 9221 C E	2	MPN/100 mL
Enterococcus ²	EPA 1600	2	CFU/100 mL
<i>WATER COLUMN TOXICITY</i>			
Chronic ³	EPA 821-R-02-013	Pass/Fail	

¹ Reporting limits should be sufficient enough to detect the presence of a constituent based on the applicable Regional Water Board Basin Plan. If no limit is specified in the Basin Plan, the reporting limit specified in this table will be used. If no limit is specified in this table, then the Regional Boards shall be consulted.

² Only applicable for direct discharges to marine waters. See definition of direct discharges and indirect discharges in Attachment VIII (glossary).

³ To calculate either a Pass or Fail of the effluent concentration chronic toxicity test at the IWC, the instructions in Appendix A in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA/833-R-10-003) shall be used.

ATTACHMENT II

ASBS Monitoring

TABLE A
Monitoring Constituent List
(excerpted from California Ocean Plan dated 2009)

Constituent	Units
Grease and Oil	mg/L
Suspended Solids	mg/L
Settleable Solids	mL/L
Turbidity	NTU
PH	

TABLE B
Monitoring Constituent List
(excerpted from California Ocean Plan dated 2009)

Constituent	Units
Arsenic	µg/L
Cadmium	µg/L
Chromium	µg/L
Copper	µg/L
Lead	µg/L
Mercury	µg/L
Nickel	µg/L
Selenium	µg/L
Silver	µg/L
Zinc	µg/L
Cyanide	µg/L
Total Chlorine Residual	µg/L
Ammonia (as N)	µg/L
Acute Toxicity	TUa
Chronic Toxicity	TUc
Phenolic Compounds (non-chlorinated)	µg/L
Chlorinated Phenolics	µg/L
Endosulfan	µg/L
Endrin	µg/L
HCH	µg/L

Analytical Chemistry Methods: All constituents shall be analyzed using the lowest minimum detection limits comparable to the Ocean Plan water quality objectives. For metal analysis, all samples, including storm water effluent, reference samples, and ocean receiving water samples, shall be analyzed by the approved analytical method with the lowest minimum detection limits (currently Inductively Coupled Plasma/Mass Spectrometry) described in the Ocean Plan.

ATTACHMENT III
ASBS Priority Discharge Locations

SampleID	Regional Board	ASBS Name	Longitude	Latitude
SAU020	1	Saunders Reef	-123.65329	38.86177
SAU019	1	Saunders Reef	-123.65328	38.86161
SAU016	1	Saunders Reef	-123.65178	38.85683
SAU017	1	Saunders Reef	-123.65164	38.85692
SAU012	1	Saunders Reef	-123.65019	38.8543
SAU011	1	Saunders Reef	-123.64983	38.85387
SAU021	1	Saunders Reef	-123.64868	38.85176
SAU008	1	Saunders Reef	-123.6478	38.8521
SAU006	1	Saunders Reef	-123.64727	38.85041
SAU002	1	Saunders Reef	-123.64709	38.84988
RED026	1	Redwoods National Park	-124.10221	41.59516
RED027	1	Redwoods National Park	-124.10126	41.59657
RED028	1	Redwoods National Park	-124.10101	41.59729
RED029	1	Redwoods National Park	-124.10046	41.59976
RED030	1	Redwoods National Park	-124.1003	41.60084
RED031	1	Redwoods National Park	-124.10026	41.6013
RED065	1	Redwoods National Park	-124.09299	41.28217
FIT011	2	James V. Fitzgerald	-122.51771	37.53154
ANO030	3	Ano Nuevo	-122.30121	37.11334
ANO033	3	Ano Nuevo	-122.29881	37.11202
ANO032	3	Ano Nuevo	-122.29764	37.1113
ANO034	3	Ano Nuevo	-122.297	37.11084
ANO035	3	Ano Nuevo	-122.29297	37.10714
MUG002	4	Laguna Point to Latigo Point	-119.0618833	34.08635
MUG005	4	Laguna Point to Latigo Point	-119.0382833	34.08393
MUG009	4	Laguna Point to Latigo Point	-119.0367000	34.08367
MUG007	4	Laguna Point to Latigo Point	-119.0363667	34.08378
MUG008	4	Laguna Point to Latigo Point	-119.0363667	34.08378
MUG010	4	Laguna Point to Latigo Point	-119.0149833	34.07098
MUG013	4	Laguna Point to Latigo Point	-118.9931667	34.06530
MUG016	4	Laguna Point to Latigo Point	-118.9869833	34.06287
MUG017	4	Laguna Point to Latigo Point	-118.9867500	34.06268
MUG028	4	Laguna Point to Latigo Point	-118.9740500	34.05890
MUG029	4	Laguna Point to Latigo Point	-118.9730167	34.05835
MUG031	4	Laguna Point to Latigo Point	-118.9683000	34.05622
MUG041	4	Laguna Point to Latigo Point	-118.9645	34.0534833
MUG046	4	Laguna Point to Latigo Point	-118.9608500	34.05205
MUG048	4	Laguna Point to Latigo Point	-118.9594833	34.05172
MUG049	4	Laguna Point to Latigo Point	-118.9594333	34.05165
MUG051	4	Laguna Point to Latigo Point	-118.9581000	34.05033
MUG052	4	Laguna Point to Latigo Point	-118.9574333	34.04982
MUG053	4	Laguna Point to Latigo Point	-118.9564500	34.04943
MUG059	4	Laguna Point to Latigo Point	-118.9514167	34.04738

ATTACHMENT III
ASBS Priority Discharge Locations

SampleID	Regional Board	ASBS Name	Longitude	Latitude
MUG058	4	Laguna Point to Latigo Point	-118.9506000	34.04778
MUG060	4	Laguna Point to Latigo Point	-118.9499000	34.04728
MUG061	4	Laguna Point to Latigo Point	-118.9498500	34.04723
MUG077	4	Laguna Point to Latigo Point	-118.9345833	34.04513
MUG078	4	Laguna Point to Latigo Point	-118.9341	34.0451333
MUG070	4	Laguna Point to Latigo Point	-118.9320000	34.04600
MUG066	4	Laguna Point to Latigo Point	-118.9252333	34.04612
MUG073	4	Laguna Point to Latigo Point	-118.9236833	34.04577
MUG135	4	Laguna Point to Latigo Point	-118.89858	34.0401
MUG147	4	Laguna Point to Latigo Point	-118.89558	34.03921
MUG150	4	Laguna Point to Latigo Point	-118.8919800	34.03906
MUG187	4	Laguna Point to Latigo Point	-118.87051	34.0369
SAD0950	4	Laguna Point to Latigo Point	-118.8385500	34.02699
SAD0960	4	Laguna Point to Latigo Point	-118.8375000	34.02619
SAD0970	4	Laguna Point to Latigo Point	-118.8364600	34.02535
SAD0980	4	Laguna Point to Latigo Point	-118.8348600	34.02435
MUG318	4	Laguna Point to Latigo Point	-118.8342000	34.02389
SAD0990	4	Laguna Point to Latigo Point	-118.8326600	34.02302
SAD1000	4	Laguna Point to Latigo Point	-118.8303400	34.02123
MUG355	4	Laguna Point to Latigo Point	-118.8292000	34.02056
SAD1030	4	Laguna Point to Latigo Point	-118.8263200	34.01810
SAD1040	4	Laguna Point to Latigo Point	-118.8256600	34.01748
SAD1050	4	Laguna Point to Latigo Point	-118.8249200	34.01700
SAD1060	4	Laguna Point to Latigo Point	-118.8225400	34.01559
MUG347	4	Laguna Point to Latigo Point	-118.7834300	34.02196
MUG346	4	Laguna Point to Latigo Point	-118.7831400	34.02207
MUG283	4	Laguna Point to Latigo Point	-118.7658600	34.02550
IRV020	8	Irvine Coast	-117.8402333	33.5740167
IRV009	8	Irvine Coast	-117.8312	33.5653
IRV007	8	Irvine Coast	-117.8281667	33.5645
IRV003	8	Irvine Coast	-117.823917	33.56195
IRV002	8	Irvine Coast	-117.8221	33.5606
CAR007	3	Carmel Bay	-121.9247	36.52453
CAR006	3	Carmel Bay	-121.92457	36.52469

Attachment IV TMDL Requirements

Attachment IV identifies TMDLs adopted by the Regional Water Boards and approved by the State Water Board and U.S. EPA which assign the Department a Waste Load Allocation (WLA) or which specify the Department as a responsible party. In addition, Attachment IV identifies TMDLs established by U.S. EPA which specify the Department as a responsible party or which identify NPDES permitted storm water sources or point sources generally, or identify roads generally, as subject to the TMDL.

The Department is obligated to consult each TMDL and to comply with all applicable allocations and other provisions. Applicable Regional Water Board Basin Plan Amendments, orders and resolutions are listed in the first column in Attachment IV. Compliance with all TMDLs must be demonstrated to the satisfaction of the appropriate Regional Water Board.

Attachment IV also contains TMDL-specific permit requirements for the Lake Tahoe Sediment and Nutrients TMDL. These requirements are directly enforceable through this Order. Consistent with provision E.4.b, within one year of the adoption date of this Order, the State Water Board will re-open Attachment IV for incorporation of specific permit requirements implementing the remainder of the TMDLs listed in Attachment IV. Once the TMDL-specific permit requirements are adopted, the Department shall comply with the incorporated requirements in accordance with the specified compliance due dates.

**Attachment IV
TMDL Requirements**

TMDL	Implementation Requirements
<i>R1 – North Coast Region</i>	
Albion River * <i>Sediment</i> Effective Date: December 2001 BPA: Resolution:	
Big River * <i>Sediment</i> Effective Date: December 2001 BPA: Resolution:	
Eel River, Lower HA* <i>Temperature and Sediment</i> Effective Date: December 18, 2007 BPA: Resolution:	
Eel River, Middle Fork, Eden Valley and Round Valley HSAs * <i>Temperature and Sediment</i> Effective Date: December 2003 BPA: Resolution:	
Eel River, Middle Main HA * <i>Temperature and Sediment</i> Effective Date: December 2005	

TMDL	Implementation Requirements
BPA: Resolution:	
Eel River, North Fork HA* <i>Sediment and Temperature</i> Effective Date: December 30, 2002 BPA: Resolution:	
Eel River, South Fork HA* <i>Sediment and Temperature</i> Effective Date: December 16, 1999 BPA: Resolution:	
Eel River, Upper Main HA * <i>Sediment and Temperature</i> Effective Date: December 29, 2004 BPA: Resolution:	
Garcia River <i>Sediment</i> Effective Date: March 16, 1998 BPA: Action Plan for the Garcia River Watershed Resolution:	
Gualala River * <i>Sediment</i> Effective Date: November 29, 2004 BPA:	

TMDL	Implementation Requirements
Resolution:	
<p>Klamath River in California <i>Temperature, Dissolved Oxygen, Nutrient, & Microcystin</i></p> <p>Effective Date: December 28, 2010</p> <p>BPA: Action Plan for Klamath River TMDLs</p> <p>Resolution: R1-2010-0026</p>	
<p>Lost River <i>Nitrogen and Biochemical oxygen Demand to address Dissolved Oxygen and pH Impairments</i></p> <p>Effective Date: December 30, 2008</p> <p>BPA: Action Plan for Lost River TMDL</p> <p>Resolution: R1-2010-0026</p>	
<p>Mad River * <i>Sediment and Turbidity</i></p> <p>Effective Date: December 21, 2007</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Mattole River * <i>Sediment & Temperature</i></p> <p>Effective Date: December 30, 2003</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Navarro River * <i>Temperature & Sediment</i></p>	

TMDL	Implementation Requirements
<p>Effective Date: December 27, 2000</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Noyo River * <i>Sediment</i></p> <p>Effective Date: December 16, 1999</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Redwood Creek * <i>Sediment</i></p> <p>Effective Date: December 30, 1998</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Scott River <i>Sediment and Temperature</i></p> <p>Effective Date: August 11, 2006</p> <p>BPA: Action Plan for Scott River.</p> <p>Resolutions: R1-2005-0113 & R-2010-0026</p>	
<p>Shasta River <i>Dissolved Oxygen & Temperature</i></p> <p>Effective Date: January 26, 2007</p> <p>BPA: Action Plan for the Shasta River Watershed</p> <p>Resolution: R1-2006-0052</p>	
<p>Ten Mile River * <i>Sediment</i></p>	

TMDL	Implementation Requirements
Effective Date: December 2000 BPA: Resolution:	
Trinity River* <i>Sediment</i> Effective Date: December 20, 2001 BPA: Resolution:	
Trinity River, South Fork HA* <i>Sediment</i> Effective Date: December 1998 BPA: Resolution:	
Van Duzen River and Yager Creek * <i>Sediment</i> Effective Date: December 16, 1999 BPA: Resolution:	
R2 - San Francisco Region	
Napa River <i>Sediment</i> Effective Date: January 20, 2011 BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs Resolution: R2-2009-0064	
Richardson Bay <i>Pathogens</i> Effective Date: December 18, 2009	

TMDL	Implementation Requirements
<p>BPA – Pathogens in Richardson Bay</p> <p>Resolution: R2-2008-0061</p>	
<p>San Francisco Bay PCBs</p> <p>Effective Date: March 29, 2010</p> <p>BPA: Exhibit A & TMDL & Implementation Plan for PCBs</p> <p>Resolution: R1-2008-0012</p>	
<p>San Francisco Bay Mercury</p> <p>Effective Date: February 12, 2008</p> <p>BPA – Chapter 7, SF Bay Mercury TMDL</p> <p>Resolution: R2-2006-0052</p>	
<p>Sonoma Creek Sediment</p> <p>Effective Date: September 8, 2010</p> <p>BPA: Exhibit A & Implementation Plan</p> <p>Resolutions: R2-2008-0103 and 2010-0016</p>	
<p>Urban Creek Diazinon & Pesticide Toxicity</p> <p>Effective Date: May 16, 2007</p> <p>BPA: BPA – Chapter 3, Toxicity</p> <p>Resolution: R2-2005-0063</p>	

TMDL	Implementation Requirements
R3 - Central Coast Region	
<p>San Lorenzo River (includes Carbonera Lompico, and Shingle Mill Creeks) <i>Sediment</i></p> <p>Effective Date: February 19, 2004</p> <p>BPA: Attachment to R3-2002-0063</p> <p>Resolution: R3-2002-0063</p>	
<p>Morro Bay (includes Chorro Creek, Los Osos Creek, and the Morro Bay Estuary) <i>Sediment</i></p> <p>Effective Date: January 20, 2004</p> <p>BPA: Attachment A to R3-2002-0051</p> <p>Resolution: R3-2003-0051</p>	
R4 - Los Angeles Region	
<p>Ballona Creek <i>Trash</i></p> <p>Effective Date: August 1, 2002 & February 8, 2005</p> <p>BPA: Attachment A, Chapter 7-3.</p> <p>Resolution: 2004-0023</p>	
<p>Legg Lake <i>Trash</i></p> <p>Effective Date: February 27, 2008</p>	

TMDL	Implementation Requirements
<p>BPA: Attachment A Chapter 7-27</p> <p>Resolution: R4-2007-10</p>	
<p>Los Angeles River Trash</p> <p>Effective Date: July 24, 2008</p> <p>BPA: Attachment A, Chapter 7-2</p> <p>Resolution: R4-2007-012</p>	
<p>Machado Lake Trash</p> <p>Effective Date: February 27, 2008</p> <p>BPA: Attachment A Chapter 7-26</p> <p>Resolution: R4-2007-06</p>	
<p>Malibu Creek Watershed Trash</p> <p>Effective Date: June 26, 2009</p> <p>BPA: Attachment A, Chapter 7-31</p> <p>Resolution: R4-2008-007</p>	
<p>Revolon Slough and Beardsley Wash Trash</p> <p>Effective Date: August 1, 2002 & February 8, 2005</p> <p>BPA: Attachment A, Chapter 7-3.</p> <p>Resolution: 2004-0023</p>	
<p>Ventura River Estuary Trash</p>	

TMDL	Implementation Requirements
<p>Effective Date: February 27, 2008</p> <p>BPA: Attachment A, Chapter 7-25</p> <p>Resolution: R4-2007-008</p>	
<p>Ballona Creek, Ballona Estuary, and Sepulveda Channel <i>Bacteria</i></p> <p>Effective Date: March 26, 2007</p> <p>BPA: Attachment A, Chapter 7-21</p> <p>Resolution: R4-2006-011</p>	
<p>Harbor Beaches of Ventura County (Kiddie Beach and Hobie Beach) <i>Bacteria</i></p> <p>Effective Date: December 18, 2008</p> <p>BPA: Attachment A, Chapter 7-28</p> <p>Resolution: R2007-017</p>	
<p>Malibu Creek and Lagoon <i>Bacteria</i></p> <p>Effective Date: January 10, 2006</p> <p>BPA: Attachment A, Chapter 7-10</p> <p>Resolution: 2004-019R</p>	
<p>Marina del Rey, Harbor Back Basins, Mother's Beach <i>Bacteria</i></p> <p>Effective Date: March 18, 2004</p>	

TMDL	Implementation Requirements
<p>BPA: Attachment A, Chapter 7-5</p> <p>Resolution: 2003-012</p>	
<p>Santa Monica Bay Beaches during Dry & Wet Weather Bacteria</p> <p>Effective Date: June 19, 2003</p> <p>BPA: Attachment A, Chapter 7-5</p> <p>Resolution: 2003-012</p>	
<p>Ballona Creek Metals</p> <p>Effective Date: December 22, 2005 and reaffirmed on October 29, 2008</p> <p>BPA: Attachment A, Chapter 7-12</p> <p>Resolution: R2007-015</p>	
<p>Calleguas Creek and its Tributaries and Mugu Lagoon Metals and Selenium</p> <p>Effective Date: March 26, 2007</p> <p>BPA: Attachment A, Chapter 7-19</p> <p>Resolution: R4-2006-012</p>	
<p>Los Cerritos Channel * <i>Metals</i></p> <p>Effective Date: March 17, 2010</p> <p>BPA:</p> <p>Resolution:</p>	

TMDL	Implementation Requirements
<p>Los Angeles River Metals</p> <p>Effective Date: December 22, 2005 and October 29, 2008</p> <p>BPA: Attachment A, Chapter 7-13 and Attachment B.</p> <p>Resolution: R2007-014</p>	
<p>San Gabriel River * Metals</p> <p>Effective Date: March 26, 2007</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Machado Lake Eutrophic, Algae, Ammonia, and Odors (Nutrient)</p> <p>Effective Date: March 11, 2009</p> <p>BPA: Attachment A to R08-006</p> <p>Resolution: R08-006</p>	
<p>Santa Clara River Reach 3 * Chloride</p> <p>Effective Date: June 18, 2003</p> <p>BPA:</p> <p>Resolution:</p>	
<p>Ballona Creek Estuary Toxic Pollutants</p> <p>Effective Date: December 22, 2005</p> <p>BPA: Attachment A, Chapter 7-14</p>	

TMDL	Implementation Requirements
Resolution: R4-2005-008	
Colorado Lagoon <i>Organochlorine Pesticides, Polychlorinated Biphenyls, Sediment Toxicity, Polycyclic Aromatic Hydrocarbons, and Metals</i> Effective Date: June 14, 2011 BPA: Attachment A, Chapter 7-30 Resolution: No. R09-005	
Machado Lake <i>Pesticides and Polychlorinated Biphenyls</i> Effective Date: March 20, 2011 BPA: Attachment A, Chapter 7-38 Resolution: Resolution No. R10-008	
Marina del Rey Harbor <i>Toxic Pollutants</i> Effective Date: March 16, 2006 BPA: Attachment A, Chapter 7-18 Resolution: R4-2005-012	

TMDL	Implementation Requirements
<p>Calleguas Creek its Tributaries and Mugu Lagoon <i>Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation</i></p> <p>Effective Date: March 14, 2006</p> <p>BPA: Attachment A, Chapter 7-17</p> <p>Resolution: R4-2005-010</p>	
R5 – Central Valley Region	
<p>Cache Creek, Bear Creek, Sulphur Creek, and Harley Gulch <i>Mercury</i></p> <p>Effective Date: February 7, 2007</p> <p>BPA: Attachment 1 to R5-2005-0146</p> <p>Resolution: R5-2005-0146</p>	
<p>Clear Lake <i>Nutrients</i></p> <p>Effective Date: September 21, 2007</p> <p>BPA: Attachment 1 to R5-2006-0060</p> <p>Resolution: R5-2006-0060</p>	
<p>Sacramento-San Joaquín River Delta Estuary <i>Methyl mercury</i></p> <p>Effective Date: October 20, 2011</p> <p>BPA: Sacramento River and San Joaquin River</p>	

TMDL	Implementation Requirements
<p>Basins for the Control of Methylmercury and Total Mercury in the Sacramento –San Joaquin River Delta Estuary</p> <p>Resolution: R5-2010-0043</p>	
R6 – Lahontan Region	
<p>Lake Tahoe Sediment and Nutrients</p> <p>Effective Date: August 16, 2011</p> <p>BPA: WQ Amendment May 2008</p> <p>Resolution: 2009-0028</p>	<p><u>IMPLEMENTATION REQUIREMENTS</u></p> <p>A. Pollutant Load Reduction Requirements</p> <p>The Department must reduce fine sediment particle (FSP), total phosphorus (TP), and total nitrogen (TN) loads by 10%, 7%, and 8%, respectively, by September 30, 2016.</p> <p>Pollutant load reductions shall be measured in accordance with the processes outlined in the most recent version of Lake Clarity Crediting Program Handbook. To demonstrate compliance with the average annual fine sediment particle pollutant load reduction requirements, the Department must earn and maintain 361 Lake Clarity Credits for the water year October 1, 2015 to September 30, 2016, and for subsequent water years.</p> <p>B. Pollutant Load Reduction Plans</p> <p>The Department shall prepare a Pollutant Load Reduction Plan (PLRP) describing how it expects to meet the pollutant load reduction requirements described in Section A above. The Department shall submit a plan no later than September 15, 2013 that shall include, at a minimum, the following elements:</p> <ol style="list-style-type: none"> 1. <i>Catchment registration schedule</i> <p>The PLRP shall include a list of catchments that the Department plans to register pursuant to the approved Lake Clarity Crediting Program to meet load reduction requirements. The list shall include catchments where capital improvement projects have been constructed since May 1, 2004 that the Department expects to claim credit for, and catchments where projects will be constructed and other load reduction activities (capital improvements, institutional controls, and other measures/practices implement) taken during the term of this Order.</p> 2. <i>Proposed pollutant control measures</i> <p>The PLRP shall generally describe storm water program activities to reduce fine sediment particle, total phosphorus, and total nitrogen loading that the Department will implement in identified catchments.</p> 3. <i>Pollutant load reduction estimates</i> <p>The Department shall conduct pollutant load reduction analyses on a representative catchment subset to demonstrate that proposed implementation actions are expected to achieve the pollutant load reduction requirements specified in Section A above. For representative catchments, the analysis shall include detailed estimates of both baseline pollutant loading and expected pollutant loading resulting from implementation actions and provide justification why the conducted load reduction analysis is adequate for extrapolation to other catchments.</p>

TMDL	Implementation Requirements
	<p>The pollutant loading estimates shall differentiate between estimates of pollutant load reductions achieved since May 1, 2004 and pollutant load reductions from actions not yet taken.</p> <p>4. <i>Load reduction schedule</i></p> <p>The PLRP shall describe a schedule for achieving the pollutant load reduction requirements described in Section A above. The schedule shall include an estimate of expected pollutant load reductions for each year of this Permit term based on preliminary numeric modeling results. The schedule shall also describe which catchments the Department anticipates it will register for each year of this Permit term.</p> <p>5. <i>Annual adaptive management</i></p> <p>The PLRP shall include a description of the processes and procedures to annually assess storm water management activities and associated load reduction progress. The plan shall describe how the Department will use information from the monitoring and implementation or other efforts to improve operational effectiveness and for achieving the pollutant load reduction requirements specified in Section A.</p> <p>6. <i>Pollutant Load Reduction Plan Update</i></p> <p>By March 15, 2017, the Department shall update its Pollutant Load Reduction Plan to describe how it will achieve the pollutant load reduction requirements for the second five-year TMDL implementation period, defined as the ten-year load reduction milestone in the Lake Tahoe TMDL.</p> <p>Specifically, the update Pollutant Load Reduction Plan shall demonstrate how the Department will reduce baseline fine sediment particle, total nitrogen, and total phosphorus loads by 21 percent, 14 percent, and 14 percent, respectively, by water year 2021.</p> <p>C. Pollutant Load Reduction Progress</p> <p>To demonstrate pollutant load reduction progress, the Department shall submit a Progress Report by March 15, 2014 documenting pollutant load reductions accomplished between May 1, 2004 (baseline year) and October 15, 2011.</p> <p>D. Pollutant Load Reduction Monitoring and Water Quality Monitoring Requirements</p> <p>Caltrans shall prepare and submit a Stormwater Monitoring Plan for review and approval by the Regional Board by July 15, 2013 and implement the approved plan.</p>

TMDL	Implementation Requirements
<p>Truckee River Sediment</p> <p>Effective Date: September 16, 2009</p> <p>BPA: WQ Amendment May 2008</p> <p>Resolution: 2009-0028</p>	
R7 - Colorado River Region	
<p>Coachella Valley Storm Water Channel Bacterial Indicators</p> <p>Effective Date: <i>April 27, 2012</i></p> <p>BPA: Attachment 1: Final CVSC Bacteria TMDL</p> <p>Resolution: R7-2010-0028</p>	
R8 - Santa Ana Region	
<p>Big Bear Lake Nutrients for Dry Hydrological Conditions</p> <p>Effective Date: September 25, 2007</p> <p>BPA: Attachment to R8-2006-0023</p> <p>Resolutions: R8-2006-0023, and R8-2008-0070</p>	
<p>Lake Elsinore and Canyon Lake Nutrients</p> <p>Effective Date: September 30, 2005</p> <p>BPA: Attachment to. R8-2004-0037 & R8-2006- 0031</p>	

TMDL	Implementation Requirements
Resolution: R8-2007-0083	
Rhine Channel Area of the Lower Newport Bay* <i>Chromium and Mercury</i> Effective Date: June 14, 2002 BPA: Resolution:	
San Diego Creek and Newport Bay* <i>Metals (Cadmium, Copper, Lead, & Zinc)</i> Effective Date: June 14, 2002 BPA: Resolution:	
San Diego Creek Watershed* <i>Selenium</i> Effective Date: June 14, 2002 BPA: Resolution:	
San Diego Creek Watershed and the Upper & Lower Newport Bay* <i>Organochlorine Compounds (DDT, Chlordane, Dieldrin, PCBs, & Toxaphene</i> Effective Date: June 14, 2002 BPA: Resolution:	

TMDL	Implementation Requirements
R9 – San Diego Region	
<p>Chollas Creek <i>Diazinon</i></p> <p>Effective Date: November 3, 2003</p> <p>BPA: Attachment A to R9-2002-0123</p> <p>Resolution: Investigation Order R9-2004-0277</p>	
<p>Chollas Creek <i>Dissolved Copper, Lead and Zinc</i></p> <p>Effective Date: December 18, 2008</p> <p>BPA: Attachment A to Resolution No. R9-2007-0043</p> <p>Resolution: R9-2007-0036</p>	
<p>Rainbow Creek <i>Total Nitrogen and Total Phosphorus</i></p> <p>Effective Date: March 22, 2006</p> <p>BPA: Attachment A to R9-2005-0036</p> <p>Resolution: R9-2007-0036</p>	
<p>Project 1- Revised Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek) <i>Indicator Bacteria</i></p> <p>Effective Date: June 22, 2011</p> <p>BPA: Attachment A to Resolution R9- 2010-001</p>	

TMDL	Implementation Requirements
Resolution: R9-2010-0001	

* U.S. EPA Established TMDLs

ATTACHMENT V—REGION SPECIFIC REQUIREMENTS

PART 1 NORTH COAST REGION

1. North Coast Regional Water Board Resolution R1-2004-0087 directs its staff to utilize existing regulatory programs to address sources of sediment within sediment impaired watersheds. The Department owns road right-of-way and other property within watersheds that are listed as impaired for sediment. Some of these facilities have sources of sediment (eroding shoulders, failed culverts, unstabilized cut and fill slopes, etc) that discharge into sediment impaired waterbodies. Consistent with Resolution R1-2004-0087 and the Water Quality Control Plan for the North Coast Region, the Department shall take the following steps in watersheds listed for sediment to identify, prioritize and control sources of sediment that discharge anthropogenic amounts of sediment into impaired waters. These requirements are in addition to any watershed-specific TMDL implementation requirements listed in Attachment IV of this Order. Steps to be taken include:
 - a. Inventory: Identify sources of excess sediment or threatened discharge, and quantify the discharge or threatened discharges from the source(s).
 - b. Prioritize: Prioritize efforts to control discharge of excess sediment based on, but not limited to, severity of threat to water quality and beneficial uses, the feasibility of source control, and source site accessibility. The inventory and prioritized steps shall be completed within two (2) years of the adoption of this Order and updated annually.
 - c. Implement: Develop and implement feasible sediment control practices to prevent, minimize, and control the discharge.
 - d. Monitor and Adapt: Use monitoring results to direct adaptive management measures in order to refine and adjust erosion control practices and implementation schedules, until sediment discharge is reduced and no longer causes a violation of any sediment related narrative or numeric objective.

Each District within the North Coast Region shall include a time schedule for the above-referenced activities within the District Workplan for Regional Water Board approval. The time schedule shall implement the required activities as quickly as feasible. An annual update on activities and compliance with the projected time schedule shall be included in each subsequent annual report.

2. Removal of riparian vegetation may result in a threatened discharge or an exceedance of a water quality objective. The North Coast Region has many watersheds that are impaired for excess sediment and temperature. Riparian vegetation shall be protected and restored to the greatest extent feasible and removal may require permitting by the Regional Water Board.

PART 2
SAN FRANCISCO BAY REGION

1. Trash Load Reduction

a. The Department shall demonstrate compliance with Discharge Prohibition 7, Table 4-1 of the San Francisco Bay Regional Water Board Basin Plan¹ through the timely implementation of control measures to achieve the following target levels to reduce trash loads from the Department's MS4 by 40% by 2017, 70% by 2020, and 100% by 2025.

b. Trash Load Reduction Plans

- i. **Short-Term Trash Loading Reduction** – The Department shall submit a Short-Term Trash Load Reduction Plan, including an implementation schedule, to the Regional Water Board by July 1, 2013. The Plan shall describe control measures and best management practices that are currently being implemented and the current level of implementation and additional control measures and best management practices that will be implemented, and/or an increased level of implementation designed to attain a 40 percent trash load reduction from its MS4 by July 1, 2017. The Plan shall account for the Minimum Full Trash Capture requirement of subsection 2.b.iii of this Part.
- ii. **Long-Term Trash Load Reduction** - The Department shall submit a Long-Term Trash Load Reduction Plan, including an implementation schedule, to the Regional Water Board by October 1, 2017. The Plan shall describe control measures and best management practices that are being implemented and the level of implementation and additional control measures and best management practices that will be implemented and/or increased level of implementation designed to attain a 70 percent trash load reduction from its MS4 by July 1, 2020, and 100 percent trash load reduction by July 1, 2025.

The Department may choose to establish a municipal-coordination plan to design, build, operate, or maintain controls in conjunction with other watershed stakeholders. The Short-Term Trash Load Reduction Plan goal may be met with Department specific activities and devices, or from load reduction resulting from municipal-coordination implementation or any combination thereof.

¹ San Francisco Bay Basin Plan, Chapter 4 – Implementation, Table 4-1 Prohibitions, Prohibition 7, which is consistent with the State Water Board's Enclosed Bays and Estuaries Policy, Resolution 95-84, prohibits the discharge of rubbish, refuse, bark, sawdust, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plain areas.

- iii. **Baseline Trash Load and Trash Load Reduction Tracking Method** – The Department shall determine the baseline trash load from its MS4 to establish the basis for trash load reductions from its MS4 and submit the determined baseline trash load level to the Regional Water Board by July 1, 2013, along with documentation of methodology used to determine the load level. The submittal shall also include a description of the trash load reduction tracking method that will be used to account for trash load reduction actions and to demonstrate progress toward and attainment of trash load reduction levels. The submittal shall account for the drainage areas in the Department's jurisdiction that are associated with the baseline trash load from its MS4, and the baseline trash load level per unit drainage area characteristics used to derive the total baseline trash load level.

In the determination of applicable areas that generate trash loads for inclusion in the Baseline Trash Load, the Department may propose areas for exclusion, with supporting documentation that the areas demonstrate no material trash presence.

- iv. **Minimum Full Trash Capture** – The Department shall install and maintain controls to capture and treat runoff from an area that cumulatively totals at least ten percent of the Department's right-of-way by July 1, 2017.

All installed devices that meet the following full trash capture definition may be counted toward this requirement regardless of date of installation. A full capture system or device is any single device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate Q resulting from a one-year, one-hour, storm in the subdrainage area.

The Department may choose to establish a municipal coordination plan to design, build, operate, and/or maintain controls in conjunction with other watershed stakeholders. The minimum trash capture requirement may be met with Department specific activities and devices, or from load reduction resulting from municipal coordination implementation, or any combination thereof, so long as the municipal coordination is a full capture device.

c. **Trash Reduction Reporting**

In each Annual Report, the Department shall provide a summary of its trash load reduction actions (control measures and best management practices) including the types of actions and levels of implementation, and the total trash loads by volume removed. Beginning with the 2014 Annual Report, the Department shall also report its percent annual trash load reduction relative to its Baseline Trash Load.

2. Storm Water Pump Stations

The Department shall comply with the following implementation measures to reduce polluted water discharges from its pump stations:

- a. Complete an inventory of pump stations within the Department's jurisdiction in Region 2, including locations and key characteristics² and submit to the Regional Water Board within one year of permit adoption.
- b. Inspect and collect dissolved oxygen (DO) data from 20 percent of the pump stations once a year (100 percent in five years) after a minimum of a two week antecedent period with no precipitation. DO monitoring is exempted where all discharge from a pump station remains in the storm water collection system or infiltrates into a dry creek immediately downstream.
- c. If DO levels are at or below 3 milligrams per liter (3 mg/L), apply corrective actions, such as continuous pumping at a low flow rate, aeration, or other appropriate methods to maintain DO concentrations of the discharge above 3 mg/L.
- d. Report inspection and monitoring results in the Annual Report.

² Characteristics include name of pump station, latitude and longitude in NAD83, number of pumps, drainage area in acres, dominant land use(s), first receiving water body, maximum pumping capacity of station in gallons per minute (gpm), flow measurement capability (Y or N), flow measurement method, average wet season discharge rate in gpm, dry season discharge (Y, N, or unknown), nearest municipal wastewater treatment plant, wet well storage capacity in gallons, trash control (Y or N), trash control measure, and date built or last updated.

PART 3 LAHONTAN REGION

The Water Quality Control Plan for the Lahontan Region (Basin Plan) has additional requirements which have been historically applied to the Department's permits and which apply to this NPDES Permit in the Lahontan Region. These requirements include:

1. For projects meeting the criteria specified in Provision E.2.d. of the permit (Project Planning and Design), the following numeric sizing criteria for storm water treatment control BMPs apply:

Where storm water runoff is determined to have connectivity to surface waters and/or is not adequately infiltrated or treated by the natural environment, storm water/urban runoff collection, treatment, and/or infiltration disposal facilities shall be designed, installed, and maintained for the discharge of storm water runoff from all impervious surfaces generated by the 20-year, one-hour design storm (1) within the Truckee River Hydrologic Unit (3/4- inch of rain), (2) within the East Fork Carson River and West Fork Carson River Hydrologic Units (one inch of rain), and (3) within the Mammoth Creek Hydrologic Unit above 7,000-foot elevation (one inch of rain). Hydrologic evaluations may be required or may be conducted consistent with the NEAT study described in item No. 2 below to help determine areas where infiltration of the 20-year, 1-hour storm is required.

2. In 2009, the Department completed the Natural Environment as Treatment (NEAT) study and report for 38 miles of roadway within the Lake Tahoe Hydrologic Unit. The NEAT approach is consistent with the strategic approach required by this permit. Projects developed within the NEAT study area shall be designed and constructed based on the priority areas identified by the study.
3. Unless granted a variance by the Lahontan Regional Water Board Executive Officer, there shall be neither removal of vegetation nor disturbance of existing ground surface conditions between October 15 of any year and May 1 of the following year, except when there is an emergency situation that threatens the public health or welfare. This prohibition period applies to the Lake Tahoe, Truckee River, East Fork Carson River, and West Fork Carson River Hydrologic Units and above the 5,000-foot elevation in the portions of Mono and Inyo Counties within the Lahontan Region.
4. Project Review Requirements
 - a. The Department shall participate in early project design consultation for all projects within the Lake Tahoe, Truckee River, East and West Forks Carson River and Mammoth Creek Hydrologic Units.
 - b. The Department must solicit Lahontan Regional Water Board staff review when project development/design is at the 20 to 30 percent design level (prior to Project "Approval" and Environmental Document), 60 percent design level, and 90 percent design level (Plans, "Specifications" and Estimates).

ATTACHMENT VI — STANDARD PROVISIONS

1. **Duty to Comply.** The Department shall comply with all of the conditions of this Order. Any permit noncompliance constitutes a violation of the CWA and the Porter-Cologne Water Quality Control Act, which may be grounds for enforcement action or denial of permit coverage. [40 C.F.R. § 122.41(a)]

The Department shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. [40 C.F.R. § 122.41(a)(1)]

2. **Modification, Revocation and Reissuance, or Termination.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Department for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any General Permit condition.

3. **Enforcement**

- a. The provision contained in this enforcement section shall not act as a limitation on the statutory or regulatory authority of the State and Regional Water Board.
- b. Any violation of the Order constitutes violation of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act, and is the basis for enforcement action, permit termination, permit revocation and reissuance, denial of an application for permit reissuance; or a combination thereof.
- c. The State and Regional Water Boards may impose administrative civil liability may refer a discharger to the State Attorney General to seek civil monetary penalties, may seek injunctive relief or take other appropriate enforcement action as provided in the California Water Code or federal law.
- d. All applications, reports, or information submitted to the State Water Board or Regional Water Boards shall be signed and certified. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both. [40 C.F.R. § 122.41(k)]

4. **Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for the Department in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. [40 C.F.R. § 122.41(c)]
5. **Duty to Mitigate.** The Department shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. [40 C.F.R. § 122.41(d)]
6. **Proper Operation and Maintenance.** The Department at all times shall properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Department to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems installed by the Department only when necessary to achieve compliance with the conditions of this Order. [40 C.F.R. § 122.41(e)]
7. **Property Rights.** This Order does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, State, or local laws or regulations. [40 C.F.R. § 122.41(g)]
8. **Duty to Provide Information.** Within a reasonable time specified by the State Water Board, Regional Water Boards, or U.S. EPA, the Department shall furnish records, reports, or information required to be kept by this Order, and shall furnish any information requested to determine whether cause exists for modifying, revoking, and reissuing, or terminating this Order or to determine compliance with this Order. [40 C.F.R. § 122.41(h)]
9. **Inspection and Entry.** [40 C.F.R. § 122.41(i)] Upon the presentation of credentials and other documents as may be required by law, the Department shall allow the State and Regional Water Boards, or U.S. EPA to:
 - a. Enter upon the Department's premises where a regulated facility or activity is located or conducted or where records are required to be kept under the conditions of this Order;
 - b. Have access to and copy at reasonable times any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

- d. Sample or monitor at reasonable times for the purposes of assuring ensuring permit compliance, or as otherwise authorized by the Clean Water Act.

10. Monitoring and Records. [40 C.F.R. § 122.41(j)]

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The Department shall retain records of all monitoring information for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the State Water Board's Executive Director or Regional Water Board's Executive Officer at any time.
- c. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
- d. Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. subchapters N or O.
- e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both.

11. Signatory Requirements. All reports, certifications, and records required by this Order or requested by the State Water Board and Regional Water Boards or U.S. EPA shall be signed by either a principal executive officer or by a duly authorized representative. A person is a duly authorized representative only if [40 C.F.R. §§ 122.22 & 122.41(k)]:

- a. The authorization is made in writing by the principal executive officer; and
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for

environmental matters for the Department. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, the Department shall provide a new authorization prior to submittal of any reports, certifications, or records signed by the newly authorized representative.

12. **Certification.** Any person signing documents under Provision 11 above shall make the following certification [40 C.F.R. § 122.22(d)]:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

13. **Reporting Requirements.**

- a. *Planned changes.* The Department shall give advance notice to the State Water Board and the appropriate Regional Water Board of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged; [40 C.F.R. § 122.41(l)(1)]
- b. *Anticipated noncompliance.* The Department shall give advance notice to the appropriate Regional Water Board of any planned changes at the permitted facility or activity which may result in noncompliance with Permit requirements; [40 C.F.R. § 122.41(l)(2)]
- c. *Compliance Schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following each scheduled date; [40 C.F.R. § 122.41(l)(5)]
- d. *Other Information.* Where the Department becomes aware that it failed to submit any relevant facts, or submitted incorrect information in a permit application or in any required report, it shall promptly submit such facts or information [40 C.F.R. § 122.41(l)(8)].

- e. The Department shall submit, except for the Annual Report, one copy of each report required by the permit to the State Water Board. The Department shall also submit one copy to each of the appropriate Regional Water Boards. The Department may choose to submit its properly signed reports electronically into SMARTS in the Portable Document Format (PDF) and submit hard copies only upon request of the State or Regional Water Board staff.

14. **Oil and Hazardous Substance Liability.** Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Department from any responsibilities, liabilities, or penalties to which the Department is or may be subject to under Section 311 of the CWA.

15. **Severability.** The provisions of this Order are severable; and if any provision of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

16. **Availability.** A copy of this Order shall be maintained at the facility and be available at all times to the appropriate facility personnel and to representatives of the Regional Water Boards, State Water Board, or U.S. EPA.

17. **Education.** The Department shall ensure that all personnel whose decisions or activities could affect storm water quality are familiar with the requirements of this NPDES Permit.

ATTACHMENT VII — LIST OF ACRONYMS & ABBREVIATIONS

ASBS	Areas of Special Biological Significance
BAT	Best Available Technology Economically Achievable
Basin Plans	Regional Water Quality Control Plans
BCT	Best Conventional Pollutant Control Technology
BMPs	Best Management Practices
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGP	Construction General Permit - NPDES General Permit for Storm Water Discharges Associated with Construction Activities
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
Department	California Department of Transportation (Caltrans)
EC	Electrical Conductivity
EMA	Emergency Management Agency
ESA	Environmentally Sensitive Area
FPPP	Facility Pollution Prevention Plan
GPS	Global Positioning System
Hydromodification	Hydrograph Modification
IC/ID	Illegal Connection/ Illicit Discharge
IGP	Industrial General Permit - NPDES General Permit for Discharges Associated with Industrial Activities Excluding Construction Activities
LA	Load Allocation
LID	Low Impact Development
MEP	Maximum Extent Practicable
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
NCIR	Non-Compliance Incident Report
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
Ocean Plan	California Ocean Plan
PAHs	Polycyclic Aromatic Hydrocarbons
POTW	Publicly Owned Treatment Works
Regional Water Board	Regional Water Quality Control Board
ROW	Department Right-of-Way
State Water Board	State Water Resources Control Board
SUSMP	Standard Urban Storm Water Mitigation Plan
SWAMP	Surface Water Ambient Monitoring Program
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TCGP	Tahoe Construction General Permit
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TPH	Total Petroleum Hydrocarbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WDRs	Waste Discharge Requirements
WLA	Waste Load Allocation
WQBEL	Water Quality-Based Effluent Limitation
WQO	Water Quality Objective
WQS	Water Quality Standard
Workplans	District Workplans

ATTACHMENT VIII - GLOSSARY

Acute Toxicity. A chemical stimulus severe enough to rapidly induce an effect; in aquatic toxicity tests, an effect observed within 96 hours or less is considered acute. When expressed as toxic units acute (TUa), $TUa=100/96\text{-hour LC } 50\%$. Acute toxicity can also be expressed as lethal concentration 50% (LC 50).

Administrative Noncompliance. Failure to comply with the procedural requirements of this Order. Examples include but are not limited to: failure to submit required reports or documents required by the Permit and/or SWMP, missed deadlines or late submittal, and/or failure to submit required information, failure to develop and/or maintain site-specific FPPP or to implement any other procedural requirement of the Permit.

Areas of Special Biological Significance (ASBS). Ocean or estuarine areas designated by the State Water Board that require special protection of species or biological communities to the extent where alteration of natural water quality is undesirable. The California Ocean Plan describes ASBSs as "those areas containing biological communities of such extraordinary value that no risk of change in their environment as the result of man's activities can be entertained". ASBSs are a subset of State Water Quality Protection Areas.

Basin Plans. Basin Plans (regional water quality control plans) are the principal regulatory mechanisms for protection of water quality in California. Basin plans describe the beneficial uses that each water body supports, e.g. drinking, swimming, fishing, and agricultural irrigation; the water quality objectives necessary to protect those uses; and the program implementation needed to achieve the objectives, such as waste discharge permits and enforcement actions.

Batch Plant. A processing plant where concrete or asphalt is mixed before transport to a construction site. Batch plants are considered to be industrial activities as defined in 40 CFR 122.26(b)(14) (iii) and are regulated under the Industrial General Permit.

Beneficial Uses. The uses of the water protected against degradation including, but not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Best Available Technology Economically Achievable (BAT). Technology-based compliance standard established by the Clean Water Act. BAT is based on consideration of the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements) and other factors as deemed appropriate. BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Best Conventional Pollutant Control Technology (BCT). Technology-based compliance standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, oil and grease. BCT is established by a two-part “cost reasonableness” test, which compares the cost for an industry to reduce its pollutant discharge with the cost to a POTW for similar levels of reduction of a pollutant loading. The second test examines the cost-effectiveness of additional industrial treatment beyond BCT. Limits must be reasonable under both tests.

Best Management Practices (BMPs). Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs include structural and nonstructural controls, treatment requirements, operation and maintenance procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Non-Approved BMP. Any BMP for maintenance, construction, design pollution prevention, and treatment that are not in the Department’s SWMP (CTSW-RT-02-008) or Statewide Storm Water Quality Practice Guidelines (CTSW-RT-02-009) approved for statewide use.

Post-Construction BMPs. Any structural or non-structural controls that detain, retain, or filter storm water to prevent the release of pollutants to receiving waters after final site stabilization is attained.

Structural BMPs. Any structural facility designed and constructed to mitigate the adverse impacts of storm water runoff (e.g. canopy, structural enclosure). The category may include both Treatment Control BMPs and Source Control BMPs.

Source Control BMPs. Any schedules of activities, prohibitions of practices, maintenance procedures, managerial practices or operational practices that aim to prevent storm water pollution by reducing the potential for contamination at the source. Examples include treatment techniques that use natural measures to reduce pollution levels, do not require extensive construction efforts, and/or promote pollutant reduction by controlling the pollutant source.

Treatment Control BMPs. Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

California Ocean Plan (Ocean Plan). The water quality control plan for California near-coastal waters, first adopted by the State Water Resources Control Board in 1972. The purpose of the Ocean Plan is to protect the beneficial uses of the State's ocean waters by identifying water quality objectives, setting general waste discharge requirements, and listing discharge prohibitions. In addition, the Ocean Plan is used to develop and update statewide water quality control plans, policies, and standards involving marine waters.

California Toxics Rule. The Federal regulation, found at 40 CFR § 131.38. Establishes water quality criteria (limits) for heavy metals and other toxic compounds for the protection of beneficial uses of surface waters in California.

Catch Basins. A storm drain inlet having a sump below the outlet to capture settled solids, debris, sediment, and prevent clogging.

Chronic Toxicity. The ability of a substance or a mixture of substances to cause harmful effects over an extended period of time. Expressed as toxic units chronic (TUc), $TUc=100/NOEL$, where NOEL is the No Observed Effect Level.

Construction Activity. Any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in a land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

Cut and Fill. The process of moving earth by excavating part of an area and using the excavated material for adjacent embankment of fill areas.

Department Airspaces. Any area within the Department's operating right-of-way that can safely accommodate a privately managed use such as: parking lots, self storage units, commercial businesses, light industry, and cellular telephone towers. The Department executes airspace leases with third parties for these uses.

Department Facility. A Maintenance Facility, Non-maintenance Facility, Highway Facility, Industrial Facility, or Vehicle Maintenance.

Maintenance Facility. A facility under Department ownership or control that contains fueling areas, maintenance stations/yards, waste storage or disposal facilities, wash racks, equipment or vehicle storage and materials storage areas.

Non-maintenance Facility. Laboratories or office buildings used exclusively for administrative functions.

Highway Facility. Highways are linear facilities designed to carry vehicular and pedestrian traffic. These include freeways, highways, and expressways as designated by the California Streets and Highway Code and the California legislature. These facilities also include all support infrastructure associated with these freeways, including bridges, toll plazas, inspection and weigh stations, sound walls, retaining walls, culverts, vegetated slopes, shoulders, intersections, off ramps, on ramps, over passes, lights, signal lights, gutter, guard rail, and other support facilities. The support infrastructure is considered a Highway Facility only when accompanied by an increase in highway impervious surface. Otherwise, it is considered a non-highway .

Industrial Facility. A collection of industrial processes discharging storm water associated with industrial activity within the property boundary or operational unit.

Non-Highway Facility. For purposes of this permit, a Non-Highway Facility is any facility not meeting the definition of a Highway Facility, including but not limited to rest stops, park and ride facilities, maintenance stations, vista points, warehouses, laboratories, and office buildings.

Discharge. When used without qualification means the discharge of a pollutant.

Direct Discharge. Any discharge from the MS4 that does not meet the definition of an indirect discharge.

Indirect Discharge. Any discharge from the MS4 that is conveyed to the receiving water through 300 feet or more of an unlined ditch or channel as measured between the discharge point from the MS4 and the receiving water.

Discharge of a Pollutant. The addition of any pollutant or combination of pollutants to waters of the United States from any point source, or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term includes additions of pollutants to waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

District Workplans (DWPs). Annual workplans prepared by each District containing descriptions of all activities and projects to be undertaken in the District that are necessary to implement the SWMP and comply with the requirements of this Order. DWPs are submitted annually with the Annual Report. Formerly known as the Regional Work Plans.

Drainage Inlet. A location where water runoff enters a storm water drainage system that includes streets, gutters, conduits, natural or artificial drains, channels and watercourses, or other facilities that are owned, operated, maintained and used for the purpose of collecting, storing, transporting or disposing of storm water

Effluent. Any discharge from the MS4.

Emergency. Any sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. "Emergency" includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

Erosion. The diminishing or wearing away of land due to wind, or water. Often the eroded material (silt or sediment) becomes a pollutant via stormwater runoff. Erosion occurs naturally, but can be intensified by land disturbing and grading activities such as farming, development, road building, and timber harvesting.

Facility Pollution Prevention Plan (FPPP). A plan that identifies the functional activities specific to the maintenance facility and the applicable BMPs and other procedures utilized by facility personnel to control the discharge of pollutants in storm water. Facilities subject to FPPPs include: maintenance yards/stations; material storage facilities/permanent stockpile locations (if not totally enclosed); equipment storage and repair facilities, roadside rest areas, agricultural and highway patrol weigh stations, decant storage or disposal locations, and permanent and temporary solid and liquid waste management sites.

FPPPs are not required for temporary stockpile locations (in continuous use for less than one year). All temporary stockpile locations shall implement the applicable best management practices defined in the Caltrans Stormwater Quality Handbook Maintenance Staff guide. Any stockpile location in continuous use for more than one year is deemed permanent and requires a Facility Pollution Prevention Plan.

Hydrograph Modification (Hydromodification). The alteration of the hydrologic characteristics of surface waters through watershed development. Under past practices, new and re-development construction activities resulted in urbanization, which in turn modified natural watershed and stream processes. The impacts of hydromodification include, but are not limited to, increased bed and bank erosion, loss of habitat, increased sediment transport and deposition, and increased flooding. Urbanization does this by altering the terrain, modifying the vegetation and soil characteristics, introducing impervious surfaces such as pavement and buildings, and altering the condition of stream channels through straightening, deepening, and armoring. These changes affect hydrologic characteristics in the watershed and affect the supply and transport of sediment in the stream system.

Hydromodification Management Plan. A plan to control and reduce the impacts of hydrograph modification from development activities in a watershed.

Illegal Connection/Illicit Discharge (IC/ID).

Illegal Connection. An engineered conveyance that is connected to an MS4 without authorization by local, state, or federal statutes, ordinances, codes, or regulations.

Illicit Discharge. Any discharge to an MS4 that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. It includes all non-storm water discharges except conditionally exempt non-storm water discharges.

Illegal Dumping. Discarding or disposal within the Department's right-of-way, properties or facilities, either intentionally or unintentionally, of trash and other wastes in non-designated areas that may contribute to storm water pollution.

Impervious Cover. Any surface in the landscape that cannot effectively absorb or infiltrate rainfall; for example, sidewalks, rooftops, roads, and parking lots.

Incidental Runoff. Unintended small amounts (volume) of runoff from landscape irrigation, such as minimal over-spray from sprinklers that escapes the irrigated area. Water leaving an irrigated area is not considered incidental if it is due to improper (e.g. during a precipitation event) or excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Leaks and other discharges (e.g. broken sprinkler heads) are not considered incidental if not corrected within 72 hours of learning of the discharge or if the discharge exceeds 1000 gallons.

Land Use. How land is managed or used by humans (e.g., residential and industrial development, roads, mining, timber harvesting, agriculture, grazing, etc.). Land use is generally regulated at the local level in the U.S. based on zoning and other regulations. Land use mapping differs from land cover mapping in that it is not always obvious what the land use is from visual inspection.

Load Allocation. The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which can range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading (40 CFR 130.2(g)).

Low Impact Development (LID). An approach to land development with the goal of mimicking or replicating the pre-project hydrologic regime through the use of design techniques to create a functionally equivalent hydrologic site design. Hydrologic functions of storage, infiltration and ground water recharge, as well as the volume and frequency of discharges are maintained through the use of integrated and distributed micro-scale storm water retention and detention areas, reduction of impervious surfaces, and the lengthening of runoff flow paths and flow time. Other strategies include the preservation/protection of environmentally sensitive site features such as riparian buffers, wetlands, steep slopes, mature trees, flood plains, woodlands, and highly permeable soils.

Maximum Extent Practicable (MEP). The minimum required performance standard for implementation of municipal storm water management programs to reduce pollutants in storm water. Clean Water Act § 402(p)(3)(B)(iii) requires that municipal permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." MEP is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. To achieve the MEP standard, municipalities must employ whatever BMPs are technically feasible and are not cost-prohibitive. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the costs would be prohibitive. A final determination of whether a municipality has reduced pollutants to the MEP can only be made by the State or Regional Water Boards.

Municipal Separate Storm Sewer System (MS4). A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is: (1) Owned or operated by a state, city, town, village, or other public entity that discharges to waters of the U.S.; (2) Designed or used to collect or convey storm water; (3) Not a combined sewer; and (4) Not part of a Publicly Owned Treatment Works.

Natural Ocean Water Quality. The water quality (based on selected physical, chemical and biological characteristics) that is required to sustain marine ecosystems, and which is without apparent human influence, i.e., an absence of significant amounts of: (a) man-made constituents (e.g., DDT); (b) other chemical (e.g., trace metals), physical (temperature/thermal pollution, sediment burial), and biological (e.g., bacteria) constituents at concentrations that have been elevated due to man's activities above those resulting from the naturally occurring processes that affect the area in question; and (c) non-indigenous biota (e.g., invasive algal bloom species) that have been introduced either deliberately or accidentally by man. Discharges "shall not alter natural ocean water quality" as determined by a comparison to the range of constituent concentrations in reference areas agreed upon via the regional monitoring program(s). If monitoring information indicates that natural ocean water quality is not maintained, but there is sufficient evidence that a discharge is not contributing to the alteration of natural water quality, then the Regional Water Board may make that determination. In this case, sufficient information must include runoff sample data that has equal or lower concentrations for the range of constituents at the applicable reference area(s).

New Development. Any newly constructed facility, street, road, highway or contiguous road surface installed as part of a street, road or highway project within the Department's right-of-way.

Non-Department Activities. Third party activities that are primarily controlled by encroachment permits, leases, and rental agreements. They include both construction activities and non-construction activities.

Non-Department Projects. Same as Non-Department Activities.

Non-storm Water. Discharges that are not induced by precipitation events and are not composed entirely of storm water. These discharges include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, concrete washout water, paint wash water, irrigation water, pipe testing water, lawn watering overspray, hydrant flushing, and fire fighting activities.

Nonpoint Source. Pollution that is not released through a discrete conveyance but rather originates from multiple sources over a relatively large area. Nonpoint sources can be divided into source activities related to either land or water use, including failing septic tanks, animal agriculture, forest practices, and urban and rural runoff.

Nuisance. Anything that meets all of the following requirements: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; (3) occurs during, or as a result of, the treatment or disposal of wastes.

Perennial Stream. Any stream shown as a solid blue line on the latest version of the U.S. Geological Survey (USGS) 7.5 minute series quadrangle map (sometimes referred to as a blue-line stream). Where 7.5 minute series maps have not been prepared by USGS, 15 minute series maps are used.

Pesticide. Substances intended to repel, kill, or control any species designated a "pest" including weeds, insects, rodents, fungi, bacteria, or other organisms. The family of pesticides includes herbicides, insecticides, rodenticides, fungicides, algicides, and bactericides.

Algicide. A pesticide that controls algae in swimming pools and water tanks.

Herbicide. A pesticide designed to control or kill plants, weeds, or grasses.

Insecticide. A pesticide compound specifically used to kill or prevent the growth of insects.

Rodenticide. A pesticide or other agent used to kill rats and other rodents or to prevent them from damaging food, crops, or forage

Fungicide. A pesticide used to control or destroy fungi on food or grain crops.

Bactericide. A pesticide used to control or destroy bacteria, typically in the home, schools, or on hospital equipment.

pH. A measure of the degree of acidity or alkalinity in a water sample. The pH of natural waters tends to range between 6 and 9, with neutral being 7. Extremes of pH can have deleterious effects on aquatic systems.

Point source. Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.

Pollutant. Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollutants of Concern. Pollutants in a discharge with potential to cause a condition of pollution or nuisance due to the discharge of excessive amounts, proximity to receiving waters, or the properties of the pollutant. Pollutants that impair waterbodies listed under CWA section 303(d) are also Pollutants of Concern. Pollutants in the Department's discharge that may be Pollutants of Concern include, but are not limited to, total suspended solids; sediment; pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc, and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers); oxygen-demanding substances (e.g., decaying vegetation and animal waste), and litter and trash.

Pollution. An alteration of the quality of the waters of the state by waste to a degree which unreasonably affects the beneficial uses of the water or facilities which serve those beneficial uses (Porter-Cologne Water Quality Control Act, section 13050(l)(1)).

Redevelopment. The creation, addition, and/or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, road widening, the addition or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that removes impervious materials and exposes the underlying soil or pervious subgrade. Redevelopment does not include trenching and resurfacing associated with utility work; pavement grinding and resurfacing of existing roadways; construction of new sidewalks, pedestrian ramps, or bike lanes on existing roadways; or routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway. Redevelopment does include replacement of existing roadway surfaces where the underlying soil or pervious subgrade is exposed during construction. Replaced impervious surfaces of this type shall be considered "new impervious surfaces" for purposes of determining the applicability of post-construction treatment controls as provided in provision E.2.d.2).

Roadway. Any road within the Department's right-of-way.

Routine Maintenance. Activities intended to maintain the original line and grade, hydraulic capacity, or original purpose of a facility. Routine maintenance does not include replacement of existing roadway surfaces where the underlying soil or pervious subgrade is exposed.

Right-of-Way (ROW). Real property that is either owned or controlled by the Department or subject to a property right of the Department. Right-of-way that is in current use is referred to as operating ROW.

Sediment. Soil, sand, and minerals washed from land into water, usually after rain.

Slope Lateral Drainage. Horizontal drains placed in hillside embankments to intercept groundwater and direct it away from slopes to provide stability.

Spill. The sudden release of a potential pollutant to the environment.

Storm Water. Storm water runoff, snowmelt runoff, and surface runoff and drainage, as defined in 40 CFR 122.26 (b)(13).

Storm Water Runoff. The portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels or pipes.

Standard Urban Storm Water Mitigation Plan (SUSMP). Plans designating the Best Management Practices that must be used in specified categories of development and redevelopment. The State Water Board adopted a precedential decision (Order WQ 2000-11) upholding a SUSMP requirement imposed under a Phase I MS4 permit and requiring SUSMPs in all MS4 permits.

Storm Water Management Plan (SWMP). Description of the procedures and practices used to reduce or eliminate the discharge of pollutants to storm drain systems and receiving waters.

Surface Water Ambient Monitoring Program (SWAMP). The State Water Board's monitoring, assessment, and reporting program for ambient surface water.

Threshold Drainage Area (TDA). The area draining to a location 20 channel widths downstream (representative reach) of a stream crossing (pipe, swale, culvert, or bridge) within Project Limits.

Threatened Non-compliance. Any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

Total Dissolved Solids (TDS). A quantitative measure of the residual minerals dissolved in water that remain after evaporation of a solution and used to evaluate the quality of freshwater systems.

Total Kjeldahl Nitrogen (TKN). The sum of organic nitrogen and total ammonia nitrogen.

Total Maximum Daily Load (TMDL). The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs (40 CFR 130.2(i)).

Total Petroleum Hydrocarbon (TPH). A measure of the concentration or mass of petroleum hydrocarbons in a given amount of soil or water. TPH is a mixture of different compounds from different sources.

Total Suspended Solids (TSS). Suspended particulate matter: Fine material or soil particles that remain suspended by the water column. They create turbidity and, when deposited, can smother fish eggs or alevins.

Toxicity. The adverse response(s) of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Trash. All improperly discarded waste material associated with human habitation, of human origin; or from any producing, manufacturing, or processing operation including, but not limited to, product packaging or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials that are thrown or deposited in waters or where it could be transported, as floating, suspended, and/or settleable materials, to waters of the State, including watersheds. (SWRCB Trash Policy).

Turbidity. Murkiness or cloudiness of water, indicating the presence of suspended solids.

United States Environmental Protection Agency (U.S. EPA). U.S. EPA works to develop and enforce regulations that implement environmental laws enacted by the United States Congress. U.S. EPA is responsible for researching and setting national standards for the Storm Water Program.

Waste. Includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Wasteload Allocation (WLA). The portion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution. Waste load allocations constitute a type of water quality-based effluent limitation.

Water Quality Objectives (WQO). The limits or levels of water quality elements or biological characteristics established to reasonably protect the beneficial uses of water or to prevent nuisance within a specific area. Water quality objectives may be numeric or narrative.

Water Quality Standards (WQS). State-adopted and U.S. EPA-approved water quality standards for surface water bodies. The standards prescribe the beneficial uses (swimmable, fishable, drinkable, etc.) of the water body and establish the WQOs that must be met to protect designated uses.

Waters of the State. Any surface water or groundwater, including saline waters, within boundaries of the state, as defined in CWC 13050(e). This Order contains requirements to protect the beneficial uses of waters of the State.

Waters of the United States. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide. Waters of the United States [as defined in 40 CFR 230.3(s)] include all interstate waters and intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use of which would affect or could affect interstate or foreign commerce. The definition also applies to tributaries of the aforementioned waters. See 40 CFR 122.2 for the complete definition, which is hereby incorporated by reference.

Watershed. A drainage area or basin in which all water drains or flows toward a central collector such as a stream, river, or lake at a lower elevation.

Wetlands. Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Workplans. See District Workplans

Attachment IX: Reporting Requirements

Reporting Requirement	Permit Section	Page #	Due Date	Frequency
Annual Report	E.3.	54	October 1, 2013	Annually
Draft ASBS Compliance Plan	E.5.b.2)	58	September 20, 2013	18 months after the General Exception effective date
Final ASBS Compliance Plan	E.5.b.2)	58	September 20, 2014	30 months after the General Exception effective date
Budget Analysis	E.2.b.3)c)	26	October 1, 2017	Year 4 of Permit Cycle
Certification of the Adequacy of Legal Authority	E.2.b.2)b)	25	October 1, 2013	Annually as part of the Annual Report
District Workplans	E.3.b.	55	October 1, 2013	Annually as part of the Annual Report
Facility Pollution Prevention Plan (FPPP)	E.2.h.2)	46	October 1, 2013	Annually as part of the Annual Report and as required by the Regional Water Board
Fiscal Analysis	E.2.b.3)b)	25	October 1, 2013	Annually as part of the Annual Report
IC/ID & Illegal Dumping Response Plan	E.2.h.4)b)ii)	50	December 31, 2013	Update as needed annually
Incident Report Form	E.2.b.6)and Attachment I	26	October 1, 2013	As Needed
Landslide Management Plan	E.2.h.3)d)	50	October 1, 2013	Year 1 Annual Report
Monitoring Results Report (MRR)	E.2.c.5)	35	October 1, 2013	Annually
Monitoring Site Prioritization (Tier 2)	E.2.c.1)	27	March 1, 2014	Within 8 months of the effective date
Municipal Coordination Plan	E.2.b.1)b)	25	October 1, 2013	To be Included in the SWMP and Progress Report as part of the Annual Report
Overall Program Effectiveness Evaluation	E.2.m.3)	54	October 1, 2013	Annually as part of the Annual Report
Public Education Program Progress Report	E.2.l.2)	53	October 1, 2013	Annually as part of the Annual Report
Self-Audit - (includes construction activities)	E.2.m.2)	53	October 1, 2013	Annually as part of the Annual Report
Stormwater Monitoring & BMP Development Status Report	E.2.e.	43	October 1, 2013	Annually as part of the Annual Report
Stormwater Treatment BMP Technology Report	E.2.e.	43	October 1, 2013	Annually as part of the Annual Report
TMDL Status Review Report	E.4.c.	57	October 1, 2014	Annually as part of the Annual Report
Updated Stormwater Management Plan (SWMP)	E.1.a.	23	October 1, 2013	Revisions as part of the Annual Report
Waste Management Plan	E.2.h.3)c)iii)	49	July 1, 2014	Within 1 year of the Effective Date

Note: This table is a partial list of reporting requirements. The Department shall submit all required reports as provided in the Order. Any discrepancy between the text of the NPDES Permit and this table will be resolved in favor of the Permit.

Effective Date of this Order is July 1, 2013

Effective Date of the ASBS Special Protections (General Exception) is March 20, 2012

ATTACHMENT X — REFERENCES

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ATTACHMENT D RISK LEVEL 2 REQUIREMENTS

A. Effluent Standards

[These requirements are the same as those in the General Permit order.]

1. Narrative – Risk Level 2 dischargers shall comply with the narrative effluent standards listed below:
 - a. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.
 - b. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.
2. Numeric – Risk level 2 dischargers are subject to a pH NAL of 6.5-8.5, and a turbidity NAL of 250 NTU.

B. Good Site Management "Housekeeping"

1. Risk Level 2 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, Risk Level 2 dischargers shall implement the following good housekeeping measures:
 - a. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).
 - b. Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

- c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).
 - d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).
 - e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.
2. Risk Level 2 dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:
- a. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.
 - b. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.
 - c. Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.
 - d. Cover waste disposal containers at the end of every business day and during a rain event.
 - e. Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.
 - f. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.
 - g. Implement procedures that effectively address hazardous and non-hazardous spills.
 - h. Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require:
 - i. Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly.

- ii. Appropriate spill response personnel are assigned and trained.
 - i. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.
3. Risk Level 2 dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:
 - a. Prevent oil, grease, or fuel to leak in to the ground, storm drains or surface waters.
 - b. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.
 - c. Clean leaks immediately and disposing of leaked materials properly.
4. Risk Level 2 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:
 - a. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.
 - b. Contain all fertilizers and other landscape materials when they are not actively being used.
 - c. Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.
 - d. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.
 - e. Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.
5. Risk Level 2 dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify

all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, Risk Level 2 dischargers shall do the following:

- a. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.
 - b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.
 - c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.
 - d. Ensure retention of sampling, visual observation, and inspection records.
 - e. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.
6. Risk Level 2 dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.
7. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall document all housekeeping BMPs in the SWPPP and REAP(s) in accordance with the nature and phase of the construction project. Construction phases at traditional land development projects include Grading and Land Development Phase, Streets and Utilities, or Vertical Construction for traditional land development projects.

C. Non-Storm Water Management

1. Risk Level 2 dischargers shall implement measures to control all non-storm water discharges during construction.
2. Risk Level 2 dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.

3. Risk Level 2 dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

D. Erosion Control

1. Risk Level 2 dischargers shall implement effective wind erosion control.
2. Risk Level 2 dischargers shall provide effective soil cover for inactive¹ areas and all finished slopes, open space, utility backfill, and completed lots.
3. Risk Level 2 dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

E. Sediment Controls

1. Risk Level 2 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.
2. On sites where sediment basins are to be used, Risk Level 2 dischargers shall, at minimum, design sediment basins according to the method provided in CASQA's Construction BMP Guidance Handbook.
3. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active² construction.
4. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths³ in accordance with Table 1.

¹ Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.

² Active areas of construction are areas undergoing land surface disturbance. This includes construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage.

³ Sheet flow length is the length that shallow, low velocity flow travels across a site.

Table 1 - Critical Slope/Sheet Flow Length Combinations

Slope Percentage	Sheet flow length not to exceed
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

5. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall ensure that construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent offsite tracking of sediment.
6. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall ensure that all storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire washoff locations) are maintained and protected from activities that reduce their effectiveness.
7. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall inspect on a daily basis all immediate access roads daily. At a minimum daily (when necessary) and prior to any rain event, the discharger shall remove any sediment or other construction activity-related materials that are deposited on the roads (by vacuuming or sweeping).

F. Run-on and Run-off Controls

Risk Level 2 dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this General Permit.

G. Inspection, Maintenance and Repair

1. Risk Level 2 dischargers shall ensure that all inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all of these activities to an employee appropriately trained to do the task(s).
2. Risk Level 2 dischargers shall perform weekly inspections and observations, and at least once each 24-hour period during extended storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.

3. Upon identifying failures or other shortcomings, as directed by the QSP, Risk Level 2 dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.
4. For each inspection required, Risk Level 2 dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format.
5. Risk Level 2 dischargers shall ensure that checklists shall remain onsite with the SWPPP and at a minimum, shall include:
 - a. Inspection date and date the inspection report was written.
 - b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.
 - c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.
 - d. A description of any BMPs evaluated and any deficiencies noted.
 - e. If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.
 - f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.
 - g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.
 - h. Photographs taken during the inspection, if any.
 - i. Inspector's name, title, and signature.

H. Rain Event Action Plan

1. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop a Rain Event Action Plan (REAP) 48 hours prior to any

likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The discharger shall ensure a QSP obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at <http://www.srh.noaa.gov/forecast>).

2. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop the REAPs for all phases of construction (i.e., Grading and Land Development, Streets and Utilities, Vertical Construction, Final Landscaping and Site Stabilization).
3. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP ensure that the REAP include, at a minimum, the following site information:
 - a. Site Address
 - b. Calculated Risk Level (2 or 3)
 - c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number
 - d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number
 - e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number
4. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP include in the REAP, at a minimum, the following project phase information:
 - a. Activities associated with each construction phase
 - b. Trades active on the construction site during each construction phase
 - c. Trade contractor information
 - d. Suggested actions for each project phase
5. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop additional REAPs for project sites where construction activities are indefinitely halted or postponed (Inactive Construction). At a minimum, Inactive Construction REAPs must include:
 - a. Site Address
 - b. Calculated Risk Level (2 or 3)
 - c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number

- d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number
 - e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number
 - f. Trades active on site during Inactive Construction
 - g. Trade contractor information
 - h. Suggested actions for inactive construction sites
6. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP begin implementation and make the REAP available onsite no later than 24 hours prior to the likely precipitation event.
7. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP maintain onsite a paper copy of each REAP onsite in compliance with the record retention requirements of the Special Provisions in this General Permit.

I. Risk Level 2 Monitoring and Reporting Requirements

Table 2- Summary of Monitoring Requirements

Risk Level	Visual Inspections					Sample Collection	
	Quarterly Non-storm Water Discharge	Pre-storm Event		Daily Storm BMP	Post Storm	Storm Water Discharge	Receiving Water
		Baseline	REAP				
2	X	X	X	X	X	X	

1. Construction Site Monitoring Program Requirements

- a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this section. The CSMP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMP shall be a part of the Storm Water Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.
- b. Existing dischargers registered under the State Water Board Order No. 99-08-DWQ shall make and implement necessary revisions to their Monitoring Program to reflect the changes in this General Permit in a timely manner, but no later than July 1, 2010. Existing dischargers shall continue to implement their existing Monitoring Programs in compliance with State Water Board Order No. 99-08-DWQ until the necessary revisions are completed according to the schedule above.
- c. When a change of ownership occurs for all or any portion of the construction site prior to completion or final stabilization, the new discharger shall comply with these requirements as of the date the ownership change occurs.

2. Objectives

The CSMP shall be developed and implemented to address the following objectives:

- a. To demonstrate that the site is in compliance with the Discharge Prohibitions and applicable Numeric Action Levels (NALs).

- b. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives.
 - c. To determine whether immediate corrective actions, additional Best Management Practice (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges.
 - d. To determine whether BMPs included in the SWPPP/Rain Event Action Plan (REAP) are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.
- 3. Risk Level 2 – Visual Monitoring (Inspection) Requirements for Qualifying Rain Events**
- a. Risk Level 2 dischargers shall visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.
 - b. Risk Level 2 dischargers shall visually observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during operating hours.
 - c. Risk Level 2 dischargers shall conduct visual observations (inspections) during business hours only.
 - d. Risk Level 2 dischargers shall record the time, date and rain gauge reading of all qualifying rain events.
 - e. Within 2 business days (48 hours) prior to each qualifying rain event, Risk Level 2 dischargers shall visually observe (inspect):
 - i. all storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.
 - ii. all BMPs to identify whether they have been properly implemented in accordance with the SWPPP/REAP. If needed, the discharger shall implement appropriate corrective actions.

- iii. any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.
- f. For the visual observations (inspections) described in c.i and c.iii above, Risk Level 2 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.
- g. Within two business days (48 hours) after each qualifying rain event, Risk Level 2 dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.
- h. Risk Level 2 dischargers shall maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

4. Risk Level 2 – Water Quality Sampling and Analysis

- a. Risk Level 2 dischargers shall collect storm water grab samples from sampling locations, as defined in Section I.5. The storm water grab sample(s) obtained shall be representative of the flow and characteristics of the discharge.
- b. At minimum, Risk Level 2 dischargers shall collect 3 samples per day of the qualifying event.
- c. Risk Level 2 dischargers shall ensure that the grab samples collected of stored or contained storm water are from discharges subsequent to a qualifying rain event (producing precipitation of $\frac{1}{2}$ inch or more at the time of discharge).

Storm Water Effluent Monitoring Requirements

- d. Risk Level 2 dischargers shall analyze their effluent samples for:
 - i. pH and turbidity.
 - ii. Any additional parameters for which monitoring is required by the Regional Water Board.

5. Risk Level 2 – Storm Water Discharge Water Quality Sampling Locations

Effluent Sampling Locations

- a. Risk Level 2 dischargers shall perform sampling and analysis of storm water discharges to characterize discharges associated with construction activity from the entire project disturbed area.
- b. Risk Level 2 dischargers shall collect effluent samples at all discharge points where storm water is discharged off-site.
- c. Risk Level 2 dischargers shall ensure that storm water discharge collected and observed represent⁴ the effluent in each drainage area based on visual observation of the water and upstream conditions.
- d. Risk Level 2 dischargers shall monitor and report site run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.
- e. Risk Level 2 dischargers who deploy an ATS on their site, or a portion on their site, shall collect ATS effluent samples and measurements from the discharge pipe or another location representative of the nature of the discharge.
- f. Risk Level 2 dischargers shall select analytical test methods from the list provided in Table 3 below.
- g. All storm water sample collection preservation and handling shall be conducted in accordance with Section I.7 “Storm Water Sample Collection and Handling Instructions” below.

6. Risk Level 2 – Visual Observation and Sample Collection Exemptions

- a. Risk Level 2 dischargers shall be prepared to collect samples and conduct visual observation (inspections) until the minimum requirements of Sections I.3 and I.4 above are completed. Risk Level 2 dischargers are not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

⁴ For example, if there has been concrete work recently in an area, or drywall scrap is exposed to the rain, a pH sample shall be taken of drainage from the relevant work area. Similarly, if sediment laden water is flowing through some parts of a silt fence, samples shall be taken of the sediment-laden water even if most water flowing through the fence is clear.

- i. During dangerous weather conditions such as flooding and electrical storms.
 - ii. Outside of scheduled site business hours.
- b. If no required samples or visual observation (inspections) are collected due to these exceptions, Risk Level 2 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the sampling or visual observation (inspections) were not conducted.
- 7. Risk Level 2 – Storm Water Sample Collection and Handling Instructions**

- a. Risk Level 2 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.
- b. Risk Level 2 dischargers shall ensure that testing laboratories will receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory), and shall use only the sample containers provided by the laboratory to collect and store samples.
- c. Risk Level 2 dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program's (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).⁵

8. Risk Level 2 – Monitoring Methods

- a. Risk Level 2 dischargers shall include a description of the following items in the CSMP:
 - i. Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.
 - ii. Sampling locations, and sample collection and handling procedures. This shall include detailed procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained. Dischargers shall attach to the monitoring program

⁵ Additional information regarding SWAMP's QAPrP can be found at http://www.waterboards.ca.gov/water_issues/programs/swamp/.
QAPrP:http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/swamp_qapp_master090108a.pdf.

an example Chain of Custody form used when handling and shipping samples.

- iii. Identification of the analytical methods and related method detection limits (if applicable) for each parameter required in Section I.4 above.
- b. Risk Level 2 dischargers shall ensure that all sampling and sample preservation are in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a discharger's own field instruments for measuring pH and turbidity) should be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. Risk Level 2 dischargers shall ensure that all laboratory analyses are conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. With the exception of field analysis conducted by the discharger for turbidity and pH, all analyses should be sent to and conducted at a laboratory certified for such analyses by the State Department of Health Services. Risk Level 2 dischargers shall conduct their own field analysis of pH and may conduct their own field analysis of turbidity if the discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

9. Risk Level 2 – Analytical Methods

- a. Risk Level 2 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.
- b. **pH:** Risk Level 2 dischargers shall perform pH analysis on-site with a calibrated pH meter or a pH test kit. Risk Level 2 dischargers shall record pH monitoring results on paper and retain these records in accordance with Section I.14, below.
- c. **Turbidity:** Risk Level 2 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable test methods include Standard Method 2130 or USEPA Method 180.1. The results will be recorded in the site log book in Nephelometric Turbidity Units (NTU).

10. Risk Level 2 - Non-Storm Water Discharge Monitoring Requirements

- a. Visual Monitoring Requirements:
- i. Risk Level 2 dischargers shall visually observe (inspect) each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.
 - ii. Risk Level 2 dischargers shall conduct one visual observation (inspection) quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).
 - iii. Risk Level 2 dischargers shall ensure that visual observations (inspections) document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 2 dischargers shall maintain on-site records indicating the personnel performing the visual observation (inspections), the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.
- b. Effluent Sampling Locations:
- i. Risk Level 2 dischargers shall sample effluent at all discharge points where non-storm water and/or authorized non-storm water is discharged off-site.
 - ii. Risk Level 2 dischargers shall send all non-storm water sample analyses to a laboratory certified for such analyses by the State Department of Health Services.
 - iii. Risk Level 2 dischargers shall monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

11. Risk Level 2 – Non-Visible Pollutant Monitoring Requirements

- a. Risk Level 2 dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual

inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.

- b. Risk Level 2 dischargers shall ensure that water samples are large enough to characterize the site conditions.
- c. Risk Level 2 dischargers shall collect samples at all discharge locations that can be safely accessed.
- d. Risk Level 2 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.
- e. Risk Level 2 dischargers shall analyze samples for all non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required (Risk Level 2 dischargers shall modify their CSMPs to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).
- f. Risk Level 2 dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.
- g. Risk Level 2 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.⁶
- h. Risk Level 2 dischargers shall keep all field /or analytical data in the SWPPP document.

12. Risk Level 2 – Watershed Monitoring Option

Risk Level 2 dischargers who are part of a qualified regional watershed-based monitoring program may be eligible for relief from the requirements in Sections I.5. The Regional Water Board may approve proposals to substitute an acceptable watershed-based monitoring program by determining if the watershed-based monitoring program will provide substantially similar monitoring information in evaluating discharger compliance with the requirements of this General Permit.

⁶ For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed.

13. Risk Level 2 – Particle Size Analysis for Project Risk Justification

Risk Level 2 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

14. Risk Level 2 – Records

Risk Level 2 dischargers shall retain records of all storm water monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 2 dischargers shall retain all records on-site while construction is ongoing. These records include:

- a. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation.
- b. The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements.
- c. The date and approximate time of analyses.
- d. The individual(s) who performed the analyses.
- e. A summary of all analytical results from the last three years, the method detection limits and reporting units, the analytical techniques or methods used, and the chain of custody forms.
- f. Rain gauge readings from site inspections;
- g. Quality assurance/quality control records and results.
- h. Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Sections I.3 and I.10 above).
- i. Visual observation and sample collection exception records (see Section I.6 above).
- j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

15. Risk Level 2 – NAL Exceedance Report

- a. In the event that any effluent sample exceeds an applicable NAL, Risk Level 2 dischargers shall electronically submit all storm event sampling results to the State Water Board no later than 10 days after the conclusion of the storm event. The Regional Boards have the authority to require the submittal of an NAL Exceedance Report.
- b. Risk Level 2 dischargers shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity.
- c. Risk Level 2 dischargers shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the annual report is filed.
- d. Risk Level 2 dischargers shall include in the NAL Exceedance Report:
 - i. The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as “less than the method detection limit”).
 - ii. The date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation.
 - iii. A description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.

Table 3 – Risk Level 2 Test Methods, Detection Limits, Reporting Units and Applicable NALs/NELs

Parameter	Test Method / Protocol	Discharge Type	Min. Detection Limit	Reporting Units	Numeric Action Level
pH	Field test with calibrated portable instrument	Risk Level 2 Discharges	0.2	pH units	lower NAL = 6.5 upper NAL = 8.5
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	Risk Level 2 Discharges other than ATS	1	NTU	250 NTU
		For ATS discharges	1	NTU	N/A

U.S. ARMY CORPS OF ENGINEERS 404 PERMIT



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
60 S CALIFORNIA STREET, SUITE 201
VENTURA, CA 93001-2598

February 26, 2020

SUBJECT: Nationwide Permit (NWP) Verification

Margery Lazarus
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Dear Ms. Lazarus:

I am responding to your request (SPL-2019-00862-EBR) for a Department of the Army permit for your proposed project, Caltrans State Route 60/Moreno Beach Interchange Project (City of Moreno Beach). The proposed project is located within Riverside County, California (lat.: 33.93975, long: -117.17692).

Because this project would result in a discharge of dredged and/or fill material into waters of the U.S., a Department of the Army permit is required pursuant to Section 404 of the Clean Water Act (33 USC 1344; 33 CFR parts 323 and 330).

I have determined construction of your proposed project, if constructed as described in your application, would comply with NWP 14 *Linear Transportation Projects*. Specifically, and as shown in the enclosed figure, you are authorized to:

1. Permanently impact 0.06 acres (146.27 linear feet) of non-wetland waters of the U.S. to displace and grade soil and install road/fill and appurtenances; and
2. Temporarily impact 0.14 acres (280.79 linear feet) of non-wetland waters of the U.S. to displace and grade soil, and install temporary ramps/structures.

For this NWP verification letter to be valid, you must comply with all of the terms and conditions in Enclosure 1. Furthermore, you must comply with the non-discretionary Special Conditions listed below:

1. This permit is contingent upon the issuance of a Section 401 Water Quality Certification (WQC) from the Santa Ana Regional Water Quality Control Board (RWQCB). The Permittee shall abide by the terms and conditions of the Clean Water Act Section 401 WQC. The Permittee shall submit the Section 401 WQC to the Corps Regulatory Division (preferably via email) within two weeks of receipt from the issuing state agency. The Permittee shall not proceed with construction until receiving an email or other written notification from Corps Regulatory Division acknowledging the Clean Water Act 401 WQC has been received, reviewed, and determined to be acceptable. If the RWQCB fails to act on a request for certification within 60 days after receipt of a complete application, please

notify the Corps so we may consider whether a waiver of water quality certification is warranted pursuant to 33 CFR 325.2(b)(1)(ii).

2. Within 45 calendar days of completion of authorized work in waters of the U.S., the Permittee shall submit to the Corps Regulatory Division a post-project implementation memorandum including the following information:
 - A. Date(s) work within waters of the U.S. was initiated and completed;
 - B. Summary of compliance status with each special condition of this permit (including any noncompliance that previously occurred or is currently occurring and corrective actions taken or proposed to achieve compliance);
 - C. Color photographs (including map of photopoints) taken at the project site before and after construction for those aspects directly associated with permanent impacts to waters of the U.S. such that the extent of authorized fills can be verified;
 - D. One copy of "as built" drawings for the entire project. Electronic submittal (Adobe PDF format) is preferred. All sheets must be signed, dated, and to-scale. If submitting paper copies, sheets must be no larger than 11 x 17 inches; and
 - E. Signed Certification of Compliance (attached as part of this permit package).

This verification is valid through March 18, 2022. If on March 18, 2022 you have commenced or are under contract to commence the permitted activity you will have an additional twelve (12) months to complete the activity under the present NWP terms and conditions. However, if I discover noncompliance or unauthorized activities associated with the permitted activity I may request the use of discretionary authority in accordance with procedures in 33 CFR part 330.4(e) and 33 CFR part 330.5(c) or (d) to modify, suspend, or revoke this specific verification at an earlier date. Additionally, at the national level the Chief of Engineers, any time prior to March 18, 2022, may choose to modify, suspend, or revoke the nationwide use of a NWP after following procedures set forth in 33 CFR part 330.5. It is incumbent upon you to comply with all of the terms and conditions of this NWP verification and to remain informed of any change to the NWPs.

A NWP does not grant any property rights or exclusive privileges. Additionally, it does not authorize any injury to the property, rights of others, nor does it authorize interference with any existing or proposed Federal project. Furthermore, it does not obviate the need to obtain other Federal, state, or local authorizations required by law.

Thank you for participating in the Regulatory Program. If you have any questions, please contact Emma Ross at (805) 585-2149 or via email at Emma.B.Ross@usace.army.mil. Please help me to evaluate and improve the regulatory experience for others by completing the [customer survey](http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey) form at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

Sincerely,

ALLEN.AARON.
O.1232270795

Digitally signed by
ALLEN.AARON.O.1232270795
Date: 2020.02.26 11:30:35
-08'00'

Aaron O. Allen, Ph.D.
Chief, North Coast Branch
Regulatory Division



**LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS**

**CERTIFICATE OF COMPLIANCE WITH
DEPARTMENT OF THE ARMY NATIONWIDE PERMIT**

Permit Number: *SPL-2019-00862-EBR*

Name of Permittee: *Margery Lazarus, City of Moreno Valley*

Date of Issuance: *February 26, 2020*

Upon completion of the activity authorized by this permit and the mitigation required by this permit, sign this certificate, and return it by **ONE** of the following methods;

1) Email a digital scan of the signed certificate to Emma.B.Ross@usace.army.mil

OR

2) Mail the signed certificate to

U.S. Army Corps of Engineers
ATTN: Regulatory Division SPL-2019-00862-EBR
60 S California Street, Suite 201
Ventura, CA 93001-2598

I hereby certify that the authorized work and any required compensatory mitigation has been completed in accordance with the NWP authorization, including all general, regional, or activity-specific conditions. Furthermore, if credits from a mitigation bank or in-lieu fee program were used to satisfy compensatory mitigation requirements I have attached the documentation required by 33 CFR 332.3(l)(3) to confirm that the appropriate number and resource type of credits have been secured.

Signature of Permittee

Date

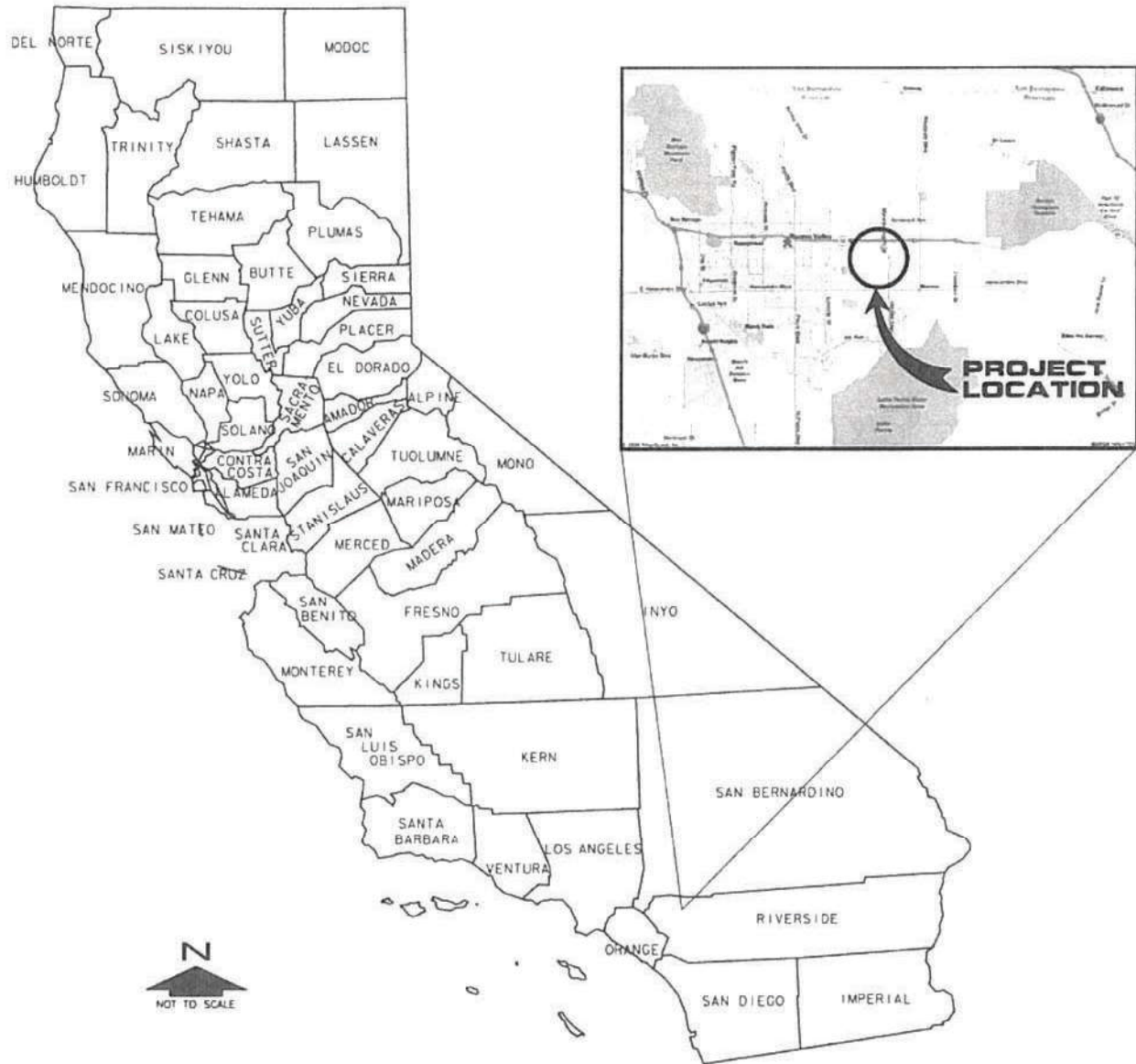


Figure 1
REGIONAL MAP

STATE ROUTE 60 / MORENO BEACH DRIVE INTERCHANGE
 AND NASON STREET OVERCROSSING IMPROVEMENTS

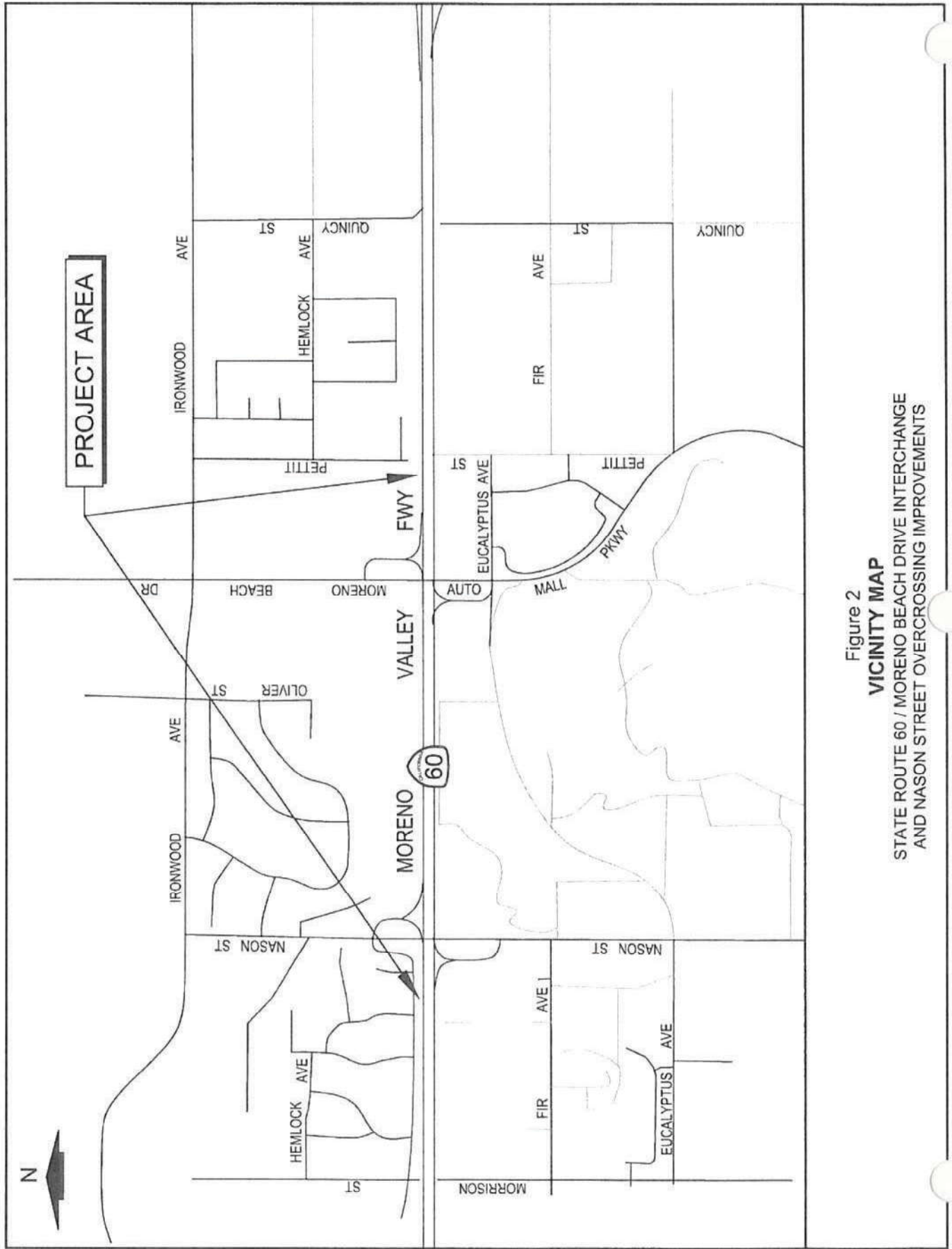
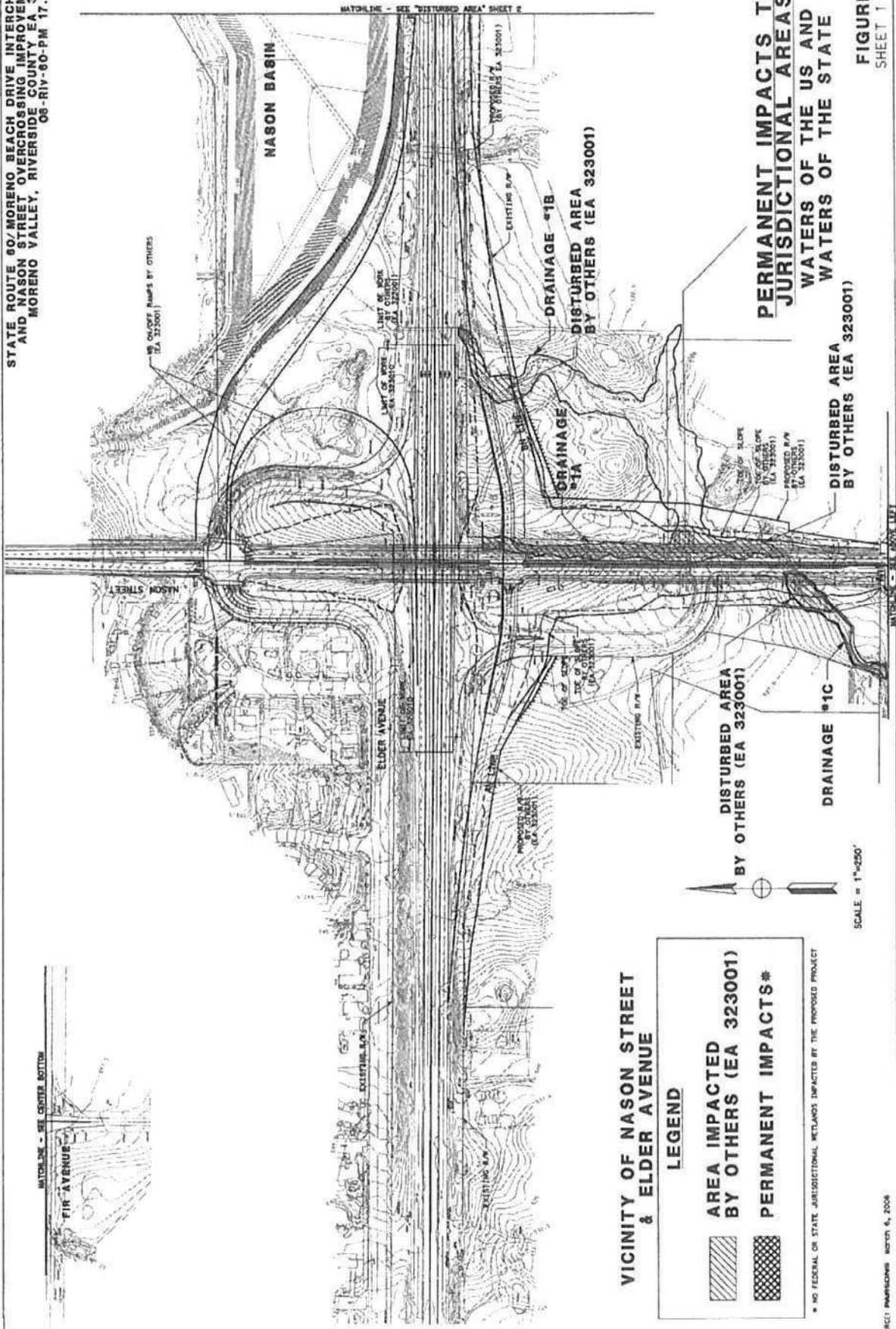


Figure 2
VICINITY MAP
 STATE ROUTE 60 / MORENO BEACH DRIVE INTERCHANGE
 AND NASON STREET OVERCROSSING IMPROVEMENTS

STATE ROUTE 60 / MORENO BEACH DRIVE INTERCHANGE AND NASON STREET OVERCROSSING IMPROVEMENTS



STATE ROUTE 60/MORENO BEACH DRIVE INTERCHANGE
AND NASON STREET OVERCROSSING IMPROVEMENTS
MORENO VALLEY, RIVERSIDE COUNTY EA 323001
08-RIV-60-PM 17.9-19.8



**PERMANENT IMPACTS TO
JURISDICTIONAL AREAS
WATERS OF THE US AND
WATERS OF THE STATE**

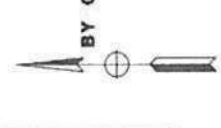
FIGURE 4
SHEET 1 OF 4

**VICINITY OF NASON STREET
& ELDER AVENUE**

LEGEND

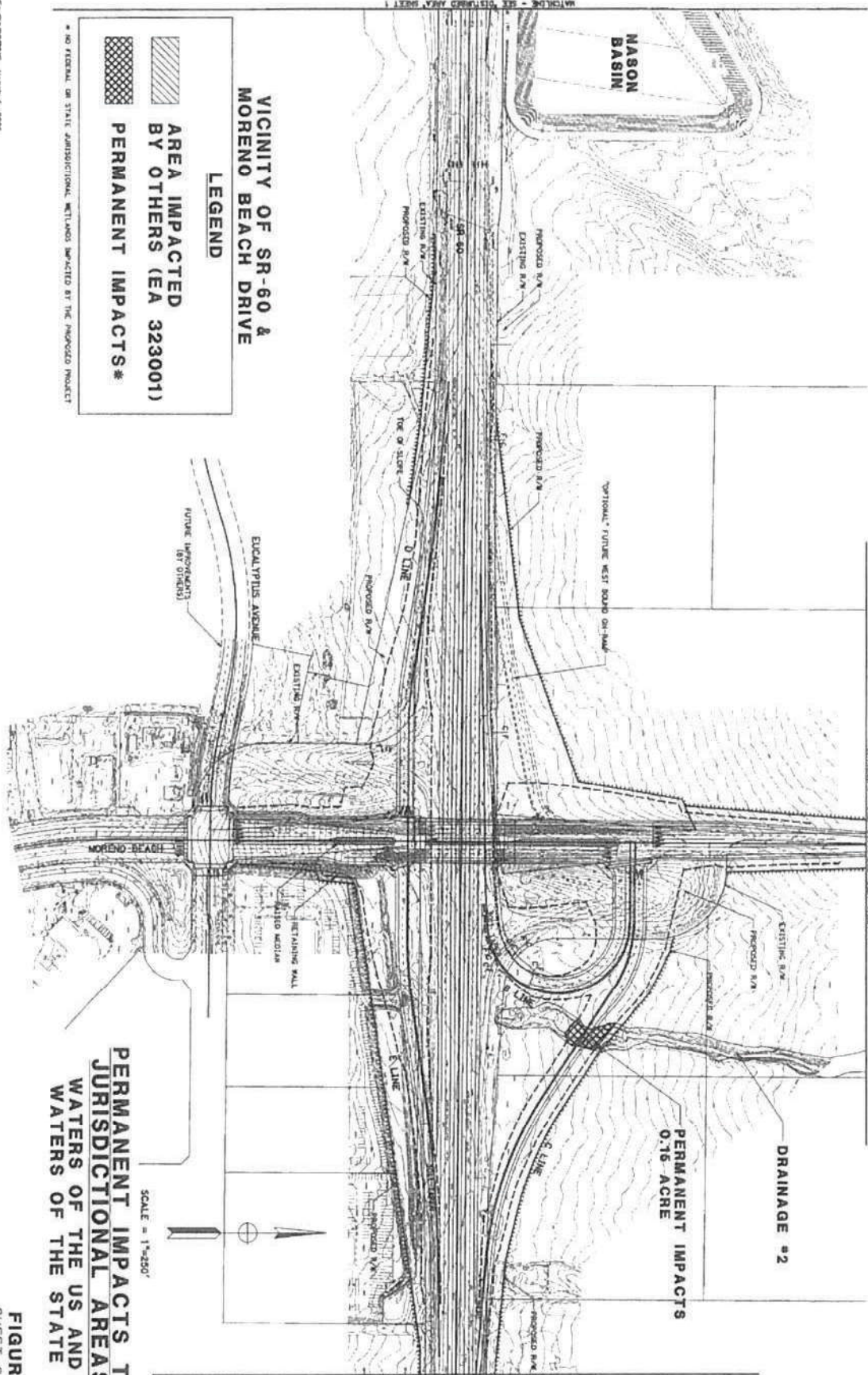
-  AREA IMPACTED BY OTHERS (EA 323001)
-  PERMANENT IMPACTS #

* NO FEDERAL OR STATE JURISDICTIONAL WETLANDS IMPACTED BY THE PROPOSED PROJECT



SCALE = 1"=250'

STATE ROUTE 60/MORENO BEACH DRIVE INTERCHANGE
 AND NASON STREET OVERCROSSING IMPROVEMENTS
 MORENO VALLEY, RIVERSIDE COUNTY EA 323010
 08-RIV-60-PM 17.9-19.8



**VICINITY OF SR-60 &
 MORENO BEACH DRIVE**

LEGEND

AREA IMPACTED BY OTHERS (EA 323001)

PERMANENT IMPACTS*

* NO FEDERAL OR STATE JURISDICTIONAL WETLANDS IMPACTED BY THE PROPOSED PROJECT

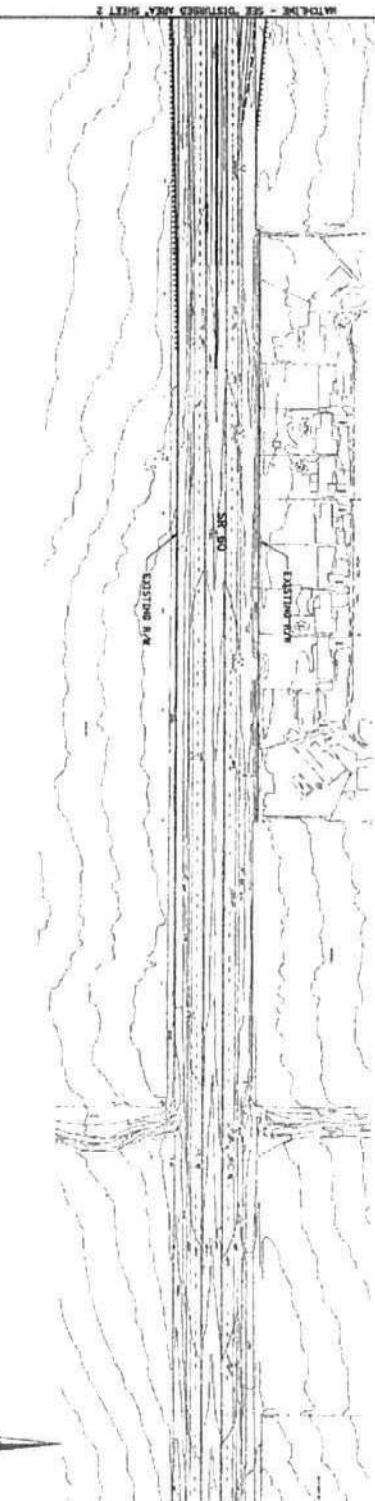
**PERMANENT IMPACTS TO
 JURISDICTIONAL AREAS
 WATERS OF THE US AND
 WATERS OF THE STATE**

SCALE = 1"=250'

FIGURE 4
 SHEET 2 OF 4



SOURCE: PARSONS MARCH 6, 2008

STATE ROUTE 60/MORENO BEACH DRIVE INTERCHANGE
 AND NASON STREET OVERCROSSING IMPROVEMENTS
 MORENO VALLEY, RIVERSIDE COUNTY EA 323010
 08-RIV-60-PM 17.9-16.8



VICINITY OF SR-60,
 EAST OF MORENO BEACH DRIVE

LEGEND

-  AREA IMPACTED BY OTHERS (EA 323001)
-  PERMANENT IMPACTS*

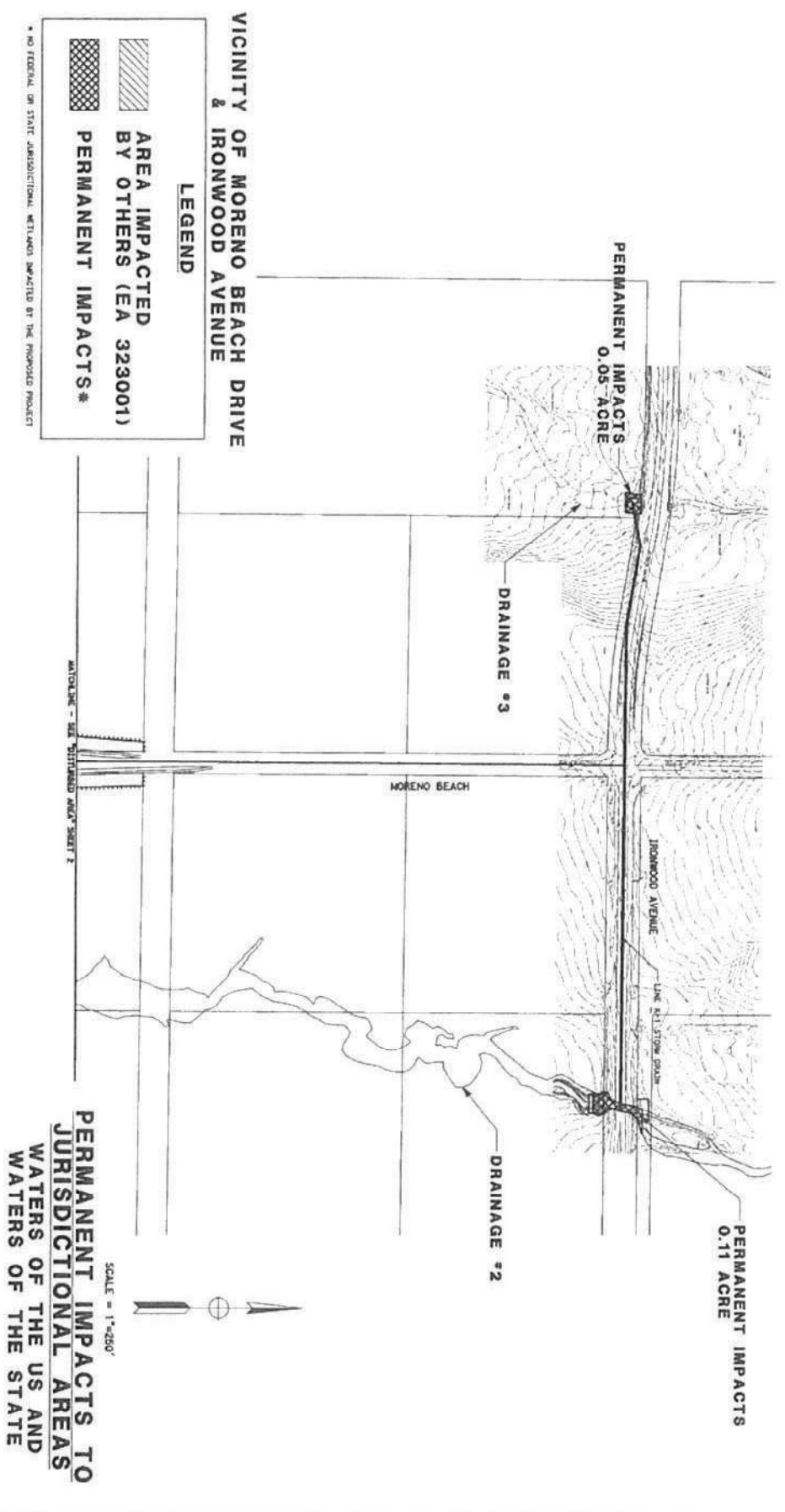
* NO FEDERAL OR STATE JURISDICTIONAL WATERS IMPACTED BY THE PROPOSED PROJECT

PERMANENT IMPACTS TO
 JURISDICTIONAL AREAS
 WATERS OF THE US AND
 WATERS OF THE STATE

SCALE = 1"=250'

SOURCE: MARCHIONIS, MARCHIONIS & ASSOCIATES, INC. 11/2008

STATE ROUTE 90/MORENO BEACH DRIVE INTERCHANGE
 AND NASON STREET OVERCROSSING IMPROVEMENTS
 MORENO VALLEY, RIVERSIDE COUNTY EA 323010
 08-RIV-60-PM 17.9-19.8



PERMANENT IMPACTS TO JURISDICTIONAL AREAS WATERS OF THE US AND WATERS OF THE STATE

FIGURE 4
 SHEET 4 OF 4

* NO FEDERAL OR STATE JURISDICTIONAL WATERS IMPACTED BY THE PROPOSED PROJECT

DATE: 10/15/08

Enclosure 1: NATIONWIDE PERMIT NUMBER(S) NWP 14 Linear Transportation Projects

1. Nationwide Permit(s) NWP 14 Linear Transportation Projects Terms:

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project. This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate. This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars. Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404) Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d). Note 2: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4). Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, District Engineer's Decision. The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

2. General Conditions: The following general conditions must be followed in order for any authorization by an NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for

such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that

issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based

on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWP only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where

riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWP, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner

by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project,

and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse

environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation

recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

3. Regional Conditions for the Los Angeles District:

1. For all activities in waters of the U.S. that are suitable habitat for federally listed fish species, including designated critical habitat for such species, the permittee shall design all new or substantially reconstructed linear transportation crossings (e.g. roads, highways, railways, trails, bridges, culverts) to ensure that the passage and/or spawning of fish is not hindered. In these areas, the permittee shall employ bridge designs that span the stream or river, including pier- or pile-supported spans, or designs that use a bottomless arch culvert with a natural stream bed, unless determined to be impracticable by the Corps.
2. Nationwide Permits (NWP) 3, 7, 12-15, 17-19, 21, 23, 25, 29, 35, 36, or 39-46, 48-54 cannot be used to authorize structures, work, and/or the discharge of dredged or fill material that would result in the "loss" of wetlands, mudflats, vegetated shallows or riffle and pool complexes as defined at 40 CFR Part 230.40-45. The definition of "loss" for this regional condition is the same as the definition of "loss of waters of the United States" used for the Nationwide Permit Program. Furthermore, this regional condition applies only within the State of Arizona and within the Mojave and Sonoran (Colorado) desert regions of California. The desert regions in California are limited to four USGS Hydrologic Unit Code (HUC) accounting units (Lower Colorado -150301, Northern Mojave-180902, Southern Mojave-181001, and Salton Sea-181002).
3. When a pre-construction notification (PCN) is required, the Los Angeles District shall be notified in accordance with General Condition 32 using either the South Pacific Division PCN Checklist or a signed application form (ENG Form 4345) with an attachment providing information on compliance with all of the General and Regional Conditions. The PCN Checklist and application form are available at: <http://www.spl.usace.army.mil/Missions/Regulatory/PermitProcess.aspx>. In addition, unless specifically waived by the Los Angeles District, the PCN shall include:
 - a. A written statement describing how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States;
 - b. Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity as well as the location of delineated waters of the U.S. on the site. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and area (in acres) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the mean high water mark and high tide line, should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation. All drawings shall follow the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (Feb 2016), or most recent update (available at the South Pacific Division website at: <http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences.aspx/>);

- c. Numbered and dated pre-project color photographs showing a representative sample of waters proposed to be impacted on the project site, and all waters proposed to be avoided on and immediately adjacent to the project site. The compass angle and position of each photograph shall be documented on the plan-view drawing required in subpart b of this regional condition.
 - d. Delineation of aquatic resources in accordance with the current Los Angeles District's Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (available at: <http://www.spl.usace.army.mil/Missions/Regulatory/Jurisdictional-Determination/>).
4. Submission of a PCN pursuant to General Condition 32 and Regional Condition 3 shall be required for specific regulated activities in the following locations:
- a. All perennial waterbodies and special aquatic sites throughout the Los Angeles District as well as intermittent waters within the State of Arizona for any regulated activity that would result in a loss of waters of the United States. The definition of "loss of waters of the United States" for this regional condition is the same as the definition used for the Nationwide Permit Program.
 - b. All areas designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council, and that would result in an adverse effect to EFH, in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. EFH Assessment Guidance and other supporting information can be found at: http://www.westcoast.fisheries.noaa.gov/habitat/fish_habitat/efh_consultations_go.html.
 - c. All watersheds in the Santa Monica Mountains in Los Angeles and Ventura counties bounded by Calleguas Creek on the west, by Highway 101 on the north and east, and by Sunset Boulevard and Pacific Ocean on the south.
 - d. The Santa Clara River watershed in Los Angeles and Ventura counties, including but not limited to Aliso Canyon, Agua Dulce Canyon, Sand Canyon, Bouquet Canyon, Mint Canyon, South Fork of the Santa Clara River, San Francisquito Canyon, Castaic Creek, Piru Creek, Sespe Creek and the main-stem of the Santa Clara River.
 - e. The Murrieta and Temecula Creek watersheds in Riverside County, California for any regulated activity that would result in a loss of waters of the U.S. The definition of "loss of waters of the United States" for this regional condition is the same as the definition used for the Nationwide Permit Program.
 - f. All waterbodies designated by the Arizona Department of Environmental Quality as Outstanding Arizona Waters (OAWs), within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of a designated OAW, and on tributaries to OAWs within 1600 meters of the OAW (see <http://www.azdeq.gov/index.html>).

- g. All waterbodies designated by the Arizona Department of Environmental Quality as 303(d)-impaired surface waters, within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of a designated impaired surface water, and on tributaries to impaired waters within 1600 meters of the impaired water (see <http://www.azdeq.gov/index.html>).
5. Individual Permits shall be required for all discharges of fill material in jurisdictional vernal pools, with the exception that discharges for the purpose of restoration, enhancement, management or scientific study of vernal pools may be authorized under NWP 5, 6, and 27 with the submission of a PCN in accordance with General Condition 32 and Regional Condition 3.
6. Within the Murrieta Creek and Temecula Creek watersheds in Riverside County the use of NWP 29, 39, 42 and 43, and NWP 14 combined with any of those NWP shall be restricted. The loss of waters of the U.S. cannot exceed 0.25 acre. The definition of “loss of waters of the United States” for this regional condition is the same as the definition used for the Nationwide Permit Program.
7. Individual Permits (Standard Individual Permit or 404 Letter of Permission) shall be required in San Luis Obispo Creek and Santa Rosa Creek in San Luis Obispo County for bank stabilization projects, and in Gaviota Creek, Mission Creek and Carpinteria Creek in Santa Barbara County for bank stabilization projects and grade control structures.
8. In conjunction with the Los Angeles District's Special Area Management Plans (SAMPs) for the San Diego Creek Watershed and San Juan Creek/Western San Mateo Creek Watersheds in Orange County, California, the Corps' Division Engineer, through his discretionary authority has revoked the use of the following 26 selected NWP within these SAMP watersheds: 03, 07, 12, 13, 14, 16, 17, 18, 19, 21, 25, 27, 29, 31, 33, 39, 40, 41, 42, 43, 44, 46, 49, and 50. Consequently, these NWP are no longer available in those watersheds to authorize impacts to waters of the United States from discharges of dredged or fill material under the Corps' Clean Water Act section 404 authority.
9. Any requests to waive the applicable linear foot limitations for NWP 13, 21, 29, 39, 40 and 42, 43, 44, 51, 52, and 54, must include the following:
 - a. A narrative description of the affected aquatic resource. This should include known information on: volume and duration of flow; the approximate length, width, and depth of the waterbody and characters observed associated with an Ordinary High Water Mark (e.g. bed and bank, wrack line, or scour marks) or Mean High Water Line; a description of the adjacent vegetation community and a statement regarding the wetland status of the associated vegetation community (i.e. wetland, non-wetland); surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information.
 - b. An analysis of the proposed impacts to the waterbody in accordance with General Condition 32 and Regional Condition 3;
 - c. Measures taken to avoid and minimize losses, including other methods of constructing the proposed project; and
 - d. A compensatory mitigation plan describing how the unavoidable losses are proposed to be compensated, in accordance with 33 CFR Part 332.

10. The permittee shall complete the construction of any compensatory mitigation required by special condition(s) of the NWP verification before or concurrent with commencement of construction of the authorized activity, except when specifically determined to be impracticable by the Corps. When mitigation involves use of a mitigation bank or in-lieu fee program, the permittee shall submit proof of payment to the Corps prior to commencement of construction of the authorized activity.

4. Further information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - () Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization.
 - (a) This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - (b) This permit does not grant any property rights or exclusive privileges.
 - (c) This permit does not authorize any injury to the property or rights of others.
 - (d) This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - (a) Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - (b) Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - (c) Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - (d) Design or construction deficiencies associated with the permitted work.
 - (e) Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - (a) You fail to comply with the terms and conditions of this permit.
 - (b) The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - (c) Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 330.5 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the

issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. This letter of verification is valid for a period not to exceed two years unless the nationwide permit is modified, reissued, revoked, or expires before that time.
7. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition H below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
8. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

CDFG 1600-2019-0252-R6 AGREEMENT (60MB)

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

INLAND DESERTS REGION
3602 INLAND EMPIRE BLVD., SUITE C-220
ONTARIO, CA 91764



STREAMBED ALTERATION AGREEMENT

NOTIFICATION No. 1600-2019-0252-R6

CITY OF MORENO VALLEY
SR 60/ MORENO BEACH DRIVE INTERCHANGE IMPROVEMENT PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and City of Moreno Valley (Permittee) or as represented by Margery Lazarus.

RECITALS

WHEREAS, pursuant to Fish and Game Code section 1602, Permittee notified CDFW on October 29, 2019 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to Fish and Game Code section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The SR 60/ Moreno Beach Drive Interchange Improvement Project (Project) is located at the intersection of State Route 60 and Moreno Beach Drive, in the City of Moreno Valley, in the County of Riverside, State of California; Latitude 33.93482°, Longitude - 117. 15408°; on the U.S. Geological Survey (USGS) Sunnymead 7.5 minute series quadrangle topographic map.

PROJECT DESCRIPTION

The Project proposes to provide a westbound off ramp to Moreno Beach Drive, north of SR-60. Also, at Moreno Beach Drive a loop onramp with auxiliary lane for northbound traffic and a direct onramp for southbound traffic are proposed for vehicles to complete the southbound to westbound SR-60 movement. The existing two-lane bridge will be replaced with a new overcrossing. Currently, 3 ephemeral drainages transect the

Project area. To complete the proposed Project, permanent grading and fill will occur in portions of "Drainage 2.3", "Drainage 2.4" and "Drainage 3.2" (Exhibit 1)

PROJECT IMPACTS

Existing fish or wildlife resources the Project could substantially adversely affect include:

AMPHIBIANS: Baja California tree frog (*Pseudacris hypochondriaca*), Western Spadefoot (*Scaphiopus hammondi*); **BIRDS-** Allen's Hummingbird (*Selasphorus sasin*), American Goldfinch (*Carduelis tristis*), American Kestrel (*Falco sparverius*), American Robin (*Turdus migratorius*), American Wigeon (*Mareca americana*), Anna's Hummingbird (*Calypte anna*), Ash-throated Flycatcher (*Myiarchus cinerascens*), Barn Owl (*Tyto alba*), Barn Swallow (*Hirundo rustica*), Bewick's Wren (*Thryomanes bewickii*), Black Phoebe (*Sayornis nigricans*), Black-chinned Hummingbird (*Archilochus alexander*), Black-necked Stilt (*Himantopus mexicanus*), Brewer's Blackbird (*Euphagus cyanocephalus*), Bullock's Oriole (*Icterus bullockii*), Burrowing Owl (*Athene cunicularia*), Bushtit (*Psaltriparus minimus*), California Towhee (*Melospiza crissalis*), Cattle Egret (*Bubulcus ibis*), Chipping Sparrow (*Spizella passerina*), Common Yellowthroat (*Geothlypis trichas*), Cooper's Hawk (*Accipiter cooperii*), Costa's Hummingbird (*Calypte costae*), Grasshopper Sparrow (*Ammodramus savannarum*), Great Egret (*Ardea alba*), Great Horned Owl (*Bubo virginianus*), Hooded Oriole (*Icterus cucullatus*), House Finch (*Haemorhous mexicanus*), House Wren (*Troglodytes aedon*), Hutton's Vireo (*Vireo huttoni*), Killdeer (*Charadrius vociferous*), Lark Sparrow (*Chondestes grammacus*), Lawrence's Goldfinch (*Carduelis lawrencei*), Least Bell's Vireo (*Vireo bellii pusillus*), Lesser Goldfinch (*Carduelis psaltria*), Lincoln's Sparrow (*Melospiza lincolni*), Mallard (*Anas platyrhynchos*), Marsh Wren (*Cistothorus palustris*), Northern Flicker (*Colaptes auratus*), Northern Mockingbird (*Mimus polyglottos*), Northern Rough-winged Swallow (*Steligopteryx serripennis*), Orange-crowned Warbler (*Oreothypis celata*), Red-shouldered Hawk (*Buteo lineatus*), Red-tailed Hawk (*Buteo jamaicensis*), Red-winged Blackbird (*Agelaius phoeniceus*), Rufous Hummingbird (*Selasphorus rufus*), Say's Phoebe (*Sayornis saya*), Snowy Egret (*Egretta thula*), Song Sparrow (*Melospiza melodia*), Sora (*Porzana carolina*), Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*), Spotted Towhee (*Pipilo maculatus*), Swainson's Thrush (*Catharus ustulatus*), Townsend's Warbler (*Setophaga townsendi*), Tree Swallow (*Tachycineta bicolor*), Turkey Vulture (*Cathartes aura*), Violet-green Swallow (*Tachycineta thalassina*), Western Meadowlark (*Sturnella neglecta*), White-throated Swift (*Aeronautes saxatalis*), Wilson's Warbler (*Cardellina pusilla*), Wrentit (*Chamaea fasciata*), Yellow-rumped Warbler (*Setophaga coronate*), Yellow Warbler (*Setophaga petechia*); **MAMMALS-** Bobcat (*Lynx rufus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), Coyote (*Canis latrans*), Desert cottontail (*Sylvilagus audubonii*), Southern grasshopper mouse (*Onychomys torridus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); **REPTILES-** California legless lizard (*Anniella pulchra*), two-striped garter snake (*Thamnophis hammondi*), Coachwhip (*Masticophis flagellum*), Pacific Gopher Snake (*Pituophis melanleucus catenifer*), Red-diamond Rattlesnake (*Crotalus ruber*), Rosy Boa (*Lichanura trivirgata*), side-blotched lizard (*Uta stansburiana*), and Western whiptail (*Cnemidophorus tigris*).

The adverse effects the Project could have on the fish or wildlife resources identified above include: the disturbance to, alteration of, and/or loss of nesting, roosting, and foraging habitat; the reduction or loss of habitat coverage, composition, and distribution; the disturbance to and alteration of wildlife movement corridors; and temporary impacts to water quality. The Project will permanently impact a total of 1.19 acres of fish and wildlife resources subject to Fish and Game Code section 1600 et seq; total Project impacts of 1.19 acres to fish and wildlife resources subject to Fish and Game Code section 1600 et seq. are authorized under this Agreement.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1 Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the Project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the Project at the Project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the Project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the Project site at any time to verify compliance with the Agreement.
- 1.5 Take of Listed Species. The issuance of this Agreement does not authorize the take of any state- or federally-listed threatened, endangered, or fully protected species. Take of any California Endangered Species Act (CESA)-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a Project, including Project construction or any Project-related activity during the life of the Project, results in take of CESA-listed species, the Department recommends that the Project proponent seek appropriate authorization prior to Project implementation. This may include an incidental take permit (ITP) or a consistency determination (Fish and Game Code, §§ 2080.1 & 2081).

- 1.6 Take of Nesting Birds. Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code Section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act 1918, as amended (16 U.S.C. § 703 et seq.). The issuance of this Agreement does not in any way exempt or excuse compliance with these statutes.
- 1.7 Additional Project Impacts. Permittee shall submit to CDFW a request to amend this Agreement if any additional impacts to Fish and Game Code section 1602 resources, or additional operations and maintenance activities not identified in this Agreement are anticipated. No additional impacts to Fish and Game Code section 1602 resources are authorized unless the impacts and/or activities are expressly authorized by CDFW by amendment to this Agreement.

2 Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 Designated Biologist. Permittee shall submit to CDFW for review and approval the names, qualifications, business addresses, and contact information of any qualified biologists (Designated Biologists) that will be utilized to conduct species/habitat surveys, biological monitoring, or mitigation planning and implementation activities at least 30 days before initiating ground- or vegetation- disturbing activities. Permittee shall specify the proposed responsibilities of each Designated Biologist and provide clear evidence that the Designated Biologist is knowledgeable, experienced, and capable of performing those proposed duties.
- 2.2 Responsibility of the Designated Biologist. The Designated Biologist(s) shall be responsible for monitoring activities addressed by this Agreement, including, but not limited to all activities that result in clearing, grading, drilling, and/or other ground-disturbing activities. To ensure compliance with the measures of this Agreement, the Designated Biologist(s) shall confirm and monitor the limits of Project activities addressed by this Agreement.
- 2.3 Authority of Designated Biologists. To ensure compliance with the measures of this Agreement, the Designated Biologists shall have the authority to immediately halt any activity that does not comply with this Agreement, order any reasonable measure to avoid the violation of any measure of this Agreement, and directly contact CDFW for any reason. If the Designated Biologist(s) determines that the

Project may have an adverse effect on any special-status species (threatened, endangered, candidate, species of special concern, etc.), they must halt construction and notify the appropriate agencies immediately. Unless authorized by CDFW, the Designated Biologists shall not have the authority to handle any special-status species (threatened, endangered, candidate, species of special concern, etc.).

- 2.4 Delineate Work Area Boundary (See Exhibit 1). In consultation with the Designated Biologist, Permittee shall clearly delineate the outer perimeter of the work areas and access routes with appropriate fencing, signage, and/or flagging to prevent damage to adjacent habitats. The delineation materials shall be in place during all periods of operation and all persons employed or otherwise working on the Project site shall be instructed about the restrictions. Permittee shall ensure the delineation materials are monitored daily, and maintained, repaired, or replaced immediately if the materials are damaged, lost, stolen, or become ineffective in any way. The Designated Biologist(s) shall ensure the delineation materials do not create a barrier to wildlife movement and will not pose a risk to wildlife safety.
- 2.5 Environmentally Sensitive Areas. The Designated Biologist shall determine and clearly delineate any necessary avoidance and/or buffer areas with appropriate fencing, signage, and/or flagging. The delineation materials shall be visibly discernable from the 'standard work area boundary' materials and all persons employed or otherwise working on the Project site shall be instructed about the restrictions associated with these environmentally sensitive areas. Permittee shall ensure the delineation materials are monitored daily, and maintained, repaired, or replaced immediately if the materials are damaged, lost, stolen, or become ineffective in any way. The Designated Biologist(s) shall ensure the delineation materials do not create a barrier to wildlife movement and will not pose a risk to wildlife safety.
- 2.6 Educational Program. Permittee shall conduct an Education Program for all persons employed or otherwise working on the Project prior to performing any work on site. The program shall consist of a presentation from a Designated Biologist that includes a discussion of the biology of the habitats and species identified in this Agreement and present at this site. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any Protected Species that may be present, legal protections for those species, penalties for violations and Project-specific protective measures included in this Agreement. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on site. The Permittee shall prepare and distribute wallet-sized cards or a fact sheet that contains this information for workers to carry on site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to CDFW upon request. The Education Program shall be repeated annually for part of the Project extending

more than one (1) year. Copies of program materials shall be maintained at the Project site for workers to reference as needed.

2.6.1 Invasive Species Education Program. Permittee shall include an invasive species Education Program for all persons working on the Project prior to the performing any work on site. The program shall consist of a presentation from a Designated Biologist that includes a discussion of the invasive species currently present within the Project site as well as those that may pose a threat to or have the potential to invade the Project site. The discussion shall include a physical description of each species and information regarding their habitat preferences, local and statewide distribution, modes of dispersal, and impacts. The program shall also include a discussion of BMPs to be implemented at the Project site to avoid the introduction and spread of invasive species into and out of the Project site.

2.7 Nesting Birds. It is the Permittee's responsibility to avoid impacts to nesting birds. Permittee shall ensure that impacts to nesting birds are avoided through the implementation of preconstruction surveys, ongoing monitoring, and if necessary, establishment of minimization measures.

2.7.1 Designated Avian Biologist. The Permittee shall designate a biologist with the following experience: identifying local and migratory bird species; conducting bird surveys using appropriate survey methodology (e.g., Ralph et al. 1993¹ and United States Fish and Wildlife Service and/or CDFW-accepted species-specific survey protocols, available here: <https://www.wildlife.ca.gov/conservation/survey-protocols>); nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success (e.g., Martin and Geupel 1993²); determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

2.7.2 Pre-construction Surveys. Surveys shall be conducted by the Designated Avian Biologist at the appropriate time of day/night, during appropriate weather conditions, between three (3) and seven (7) days prior to the initiation of Project activities addressed by this Agreement. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of area subject to this Agreement; density, and complexity of the habitat; number of survey participants; survey

¹ Ralph, C.J., G.R. Geupel, P. Pyle, T.E. Martin, and D.F. DeSanta. 1993. Handbook of field methods for monitoring landbirds. General Technical Report PSW-GTR 144. USDA Forest Service Pacific Southwest Research Station. Albany, CA.

² Martin, T.E. and G.R. Geupel. 1993. Nest-monitoring plots: methods for locating nests and monitoring success. Journal of Field Ornithology 64:507-514.

techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior (e.g., copulation, carrying of food or nest materials, nest building, removal of fecal sacks, flushing suddenly from atypically close range, agitation, aggressive interactions, feigning injury or distraction displays, or other behaviors). If a nest is suspected, but not confirmed, the Designated Avian Biologist shall establish a disturbance-free buffer until additional surveys can be completed, or until the location can be inferred based on observations. The Designated Avian Biologist shall not risk failure of the nest to determine the exact location or status and will make every effort to limit the nest to potential predation as a result of the survey/monitoring efforts (e.g., limit number of surveyors, limit time spent at/near the nest, scan the site for potential nest predators before approaching, immediately depart nest area if indicators of stress or agitation are displayed). If a nest is observed, but thought to be inactive, the Designated Avian Biologist shall monitor the nest for one hour (four hours for raptors during the non-breeding season) prior to approaching the nest to determine status. The Designated Avian Biologist shall use their best professional judgement regarding the monitoring period and whether approaching the nest is appropriate. Results of pre-construction surveys shall be provided to CDFW at least one business day prior to commencement of Project activities, as identified in Measure 4.2. Results of ongoing monitoring surveys shall be provided to CDFW upon request.

2.7.3 Buffers. When an active nest is confirmed, the Designated Avian Biologist shall immediately establish a conservative buffer surrounding the nest based on their best professional judgement and experience. The buffer shall be delineated to ensure that its location is known by all persons working within the vicinity but shall not be marked in such a manner that it attracts predators. Once the buffer is established, the Designated Avian Biologist shall document baseline behavior, stage of reproduction, and existing site conditions, including vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. The Designated Avian Biologist shall monitor the nest at the onset of Project activities addressed by this Agreement, and at the onset of any changes in Project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the Designated Avian Biologist determines that Project activities may be causing an adverse reaction, the Designated Avian Biologist shall adjust the buffer accordingly.

2.7.4 Ongoing Monitoring. The Designated Avian Biologist shall be onsite daily to monitor all existing nests, the efficacy of established buffers, and to document any new nesting occurrences. The Designated Avian Biologist

shall document the status of all existing nests, including the stage of reproduction and the expected fledge date. If a nest is suspected to have been abandoned or failed, the Designated Avian Biologist shall monitor the nest for a minimum of one hour (four hours for raptors), uninterrupted, during favorable field conditions. If no activity is observed during that time, the Designated Avian Biologist may approach the nest to assess the status.

- 2.7.5 Securing Site. The Permittee, under the direction of the Designated Avian Biologist, may also take steps to discourage nesting on the Project site, including moving equipment and materials daily, covering material with tarps or fabric, and securing all open pipes and construction materials. The Designated Avian Biologist shall ensure that none of the deterrent materials pose an entanglement risk to birds or other species. The Designated Avian Biologist(s) shall include a detailed account of any steps taken to discourage nesting within the Project site in the summary reports.
- 2.7.6 Reporting. The Designated Avian Biologist shall be responsible for providing summary reports, as specified in Measure 4.3, where relevant, to CDFW no less than once weekly regarding the nesting species identified onsite, discovery of any of new nests, the status/outcome of any previously identified nest, buffer distances established for each nest, and any adjustments made to established buffers. If Project activities result in the abandonment of, or damage to a nest, Permittee shall notify CDFW within 24 hours of detection.
- 2.8 Biological Monitoring. The Designated Biologist(s) shall be onsite daily, while Project activities are occurring and shall be responsible for monitoring all Project activities that have the potential to impact fish and wildlife resources subject to Fish and Game Code section 1600 et seq., including streams, associated vegetation/habitat, and wildlife. The Designated Biologist(s) shall ensure that all avoidance and minimization measures are implemented and maintained, including, but not limited to: determining and delineating appropriate avoidance and buffer areas, maintaining delineated access routes and work areas, monitoring for the presence of, and potential impacts to, special-status species, and maintaining/repairing/replacing any exclusionary fencing and trench/excavation covers.
- 2.9 Best Management Practices. Permittee shall actively implement Best Management Practices (BMPs) to prevent erosion and the discharge of sediment and pollutants during Project activities. BMPs shall be monitored and repaired if necessary to ensure maximum erosion, sediment, and pollution control. Permittee shall prohibit the use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material. All fiber rolls, straw wattles, and/or hay bales utilized within and adjacent to the Project site shall be free of nonnative plant materials. Fiber rolls or erosion control mesh shall

be made of loose-weave mesh that is not fused at the intersections of the weave, such as jute, or coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread. Permittee shall ensure BMPs do not pose a barrier to wildlife movement and shall be installed to allow for the safe passage of wildlife movement, particularly of less vagile species (such as small mammals and reptiles), out of the Project area. Long, continuous lengths of silt-fencing or other BMP materials installed without gaps can create a barrier to wildlife movement, trapping wildlife within the Project area. Areas of safe passage can be easily accommodated by leaving small gaps between parallel and overlapping lengths of BMPs.

- 2.10 Surface Water Diversion. In the event vehicles/equipment are to be driven/operated within the reservoir/stream when surface water inflow is present, the entire surface water flow shall be diverted around the work area. The Permittee shall notify CDFW of its intent to access the stream and implement the diversion plan submitted as part of the notification. Construction of the barrier and/or the new channel shall normally begin in the downstream area and continue in an upstream direction, and the flow shall be diverted only when construction of the diversion is completed. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area. The enclosure and the supportive material shall be removed when the work is completed, and removal shall normally proceed from downstream in an upstream direction.
- 2.11 Temporary Dam. Any temporary dam or other artificial obstruction for Surface Water Diversion shall be built pursuant to FGC Section 5937, and only from materials such as clean gravel, which will cause little or no siltation, and shall be approved by the CDFW prior to construction.
- 2.12 Equipment and Vehicles. Any equipment or vehicles driven and/or operated within or adjacent to the stream/lake shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.
- 2.13 Stationary Equipment. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream/lake shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak. Clean up equipment such as extra boom, absorbent pads, skimmers, shall be on site prior to the start of construction.
- 2.14 Staging and Storage Areas. Staging/storage areas for equipment and materials shall be located outside of the stream/lake. Any materials placed in seasonally dry portions of a stream or lake that could be washed downstream or could be deleterious to aquatic life shall be removed from the Project site prior to inundation by high flows.

- 2.15 Equipment Maintenance. No equipment maintenance shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- 2.16 Trash Abatement and Refuse Removal. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed at the end of each work day to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs. Upon completion of Project activities within each Project location, Permittee shall remove and properly dispose of all construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.
- 2.17 Pollution and Litter. Permittee shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance.
- 2.17.1 Spoil sites shall not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it will impact streambed habitat and aquatic or riparian vegetation.
- 2.17.2 Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from Project related activities shall be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, shall be removed immediately.
- 2.17.3 No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any lake, streambed, or flowing stream.
- 2.17.4 No equipment maintenance shall be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- 2.18 Turbidity and Siltation. All equipment that enters the streambed or habitat associated with the stream shall be clean and dry. Upon CDFW determination that turbidity/siltation levels resulting from Project-related activities constitute a threat to

aquatic life, activities associated with the turbidity/siltation shall be halted until effective CDFW approved control devices are installed, or abatement procedures are initiated.

- 2.19 Spill Containment. All activities performed in or near a stream shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. If a spill occurs the Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall also be notified by the Permittee and consulted regarding clean-up procedures.
- 2.20 Disposal of Vegetation. Following any vegetation clearing/removal activities, Permittee shall immediately chip woody debris to pieces 1-inch in diameter or less and dispose of the materials using one of the following methods: a) solarize with clear tarp, b) compost at a commercial facility, c) burn at a biogeneration facility, or d) send to a landfill (can be utilized as Alternative Daily Coverage). Plant material infested with polyphagous shot hole borer will follow handling procedures found at <http://eskalenlab.ucr.edu/handouts/decisionmaking.pdf>.
- 2.21 Excavated Areas. At the end of each work day, Permittee shall, with the oversight of the Designated Biologist or a trained construction management staff, secure any open trench or excavated area within the Project area addressed by this Agreement such that animals are unable to enter and become entrapped. The excavated areas must be secured using appropriate site- and species-specific methods, such as, placing plywood or other barrier materials over the excavated area, placing an escape ramp of suitable material and at an angle no greater than 30 degree at each end of the open trench/excavated area, or installing temporary fencing around the perimeter of trenches or holes.

Invasive Species

- 2.22 Prohibited Plant Species. Permittee shall not plant, seed or otherwise introduce invasive exotic plant species. Prohibited exotic plant species include those identified in the California Exotic Pest Plant Council's database, which is accessible at: <https://www.cal-ipc.org/plants/inventory/>.
- 2.23 Clean Equipment Prior to Entering Area Regulated by Agreement. All Equipment shall be free of materials deleterious to aquatic life including noxious and nuisance weeds, aquatic invasive species, oil, grease, hydraulic fluid, soil and other debris. The Permittee shall follow equipment washing guidelines (see conditions below) and complete the Certification of Clean Equipment. The Certification of Clean Equipment shall be completed by the Permittee for all equipment prior to initially entering areas regulated by this Agreement.
- 2.24 Inspection of Project Equipment. Permittee shall inspect all vehicles, tools, waders and boots, and other Project-related equipment and remove all visible soil/mud,

plant materials, and animal remnants prior to initially entering areas regulated by this Agreement, and upon Equipment Operator recertification following decontamination.

- 2.25 Decontamination of Project Equipment. Permittee shall decontaminate all tools, waders and boots, vehicles, trailers, and other equipment that will be used in areas regulated by this Agreement and make contact with water or wetted soils prior to initially entering and upon reentering with verification that subsequent decontamination is required with the following specific guidance: Permittee shall decontaminate Project gear and equipment utilizing one of three methods: drying, using a hot water soak, or freezing, as appropriate to the type of gear or equipment. For all methods, Permittee shall begin the decontamination process by thoroughly scrubbing equipment, paying close attention to hard to reach and clean areas with a stiff-bristled brush to remove all plant, seeds, soil, and other organisms. To decontaminate by drying, Permittee shall allow equipment to dry thoroughly (i.e., until there is a complete absence of water and all plant, seeds, and soil), preferably in the sun, for a minimum of 48 hours. To decontaminate using a hot water soak, Permittee shall immerse equipment in 140°F or hotter water and soak for a minimum of 5 minutes. To decontaminate by freezing, Permittee shall place equipment in a freezer 32°F or colder for a minimum of 8 hours. Repeat decontamination is required only if the equipment/clothing is removed from the site, used in contact with water or wet soil within a different watershed, and returned to the Project site.
- 2.26 Decontamination of Vehicles and Equipment. Permittee shall decontaminate vehicles and other Project-related equipment too large to immerse in a hot water bath by pressure washing with hot water a minimum of 140°F at the point of contact or 155°F at the nozzle. Additionally, Permittee shall flush watercraft engines and all areas that could contain standing water (e.g., storage compartments) for a minimum of 10 minutes. Following the hot water wash, Permittee shall dry all vehicles, watercraft, and other large equipment as thoroughly as possible. Repeat Decontamination is required only if vehicles and/or equipment is removed from the site used in contact with water or wet soil within a different watershed and returned to the Project site.
- 2.27 Decontamination Sites. Permittee shall perform decontamination of vehicles, watercraft, and other Project gear and equipment in a designated location where runoff can be contained and not allowed to pass into CDFW jurisdictional areas and other sensitive habitat areas. Cleaning of equipment may occur at a location that contains and recycles resulting wastewater.
- 2.28 Other Project Equipment. Permittee or designee shall require operators of equipment to re-certify equipment upon reentry to areas regulated by this Agreement. Permittee shall require operators of equipment subject to recertification that are reentering after contact with water and/or wet soil from a

stream or lake in areas outside those regulated under this Agreement to follow equipment washing guidelines (see measures above).

- 2.29 Notification of Invasive Species. Permittee shall notify CDFW immediately if an invasive species not previously known to occur within the Project site is discovered during Project activities by submitting a completed Suspect Invasive Species Report (available online at: <https://wildlife.ca.gov/Conservation/Invasives/Report>) and photos to the Invasive Species Program by email at: invasives@wildlife.ca.gov. Notification may also be provided by calling (866) 440-9530. Upon receiving notification, CDFW will provide Permittee with guidance for further action as appropriate to the species.

3 Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized. Permanent protection and funding for perpetual management of compensatory habitat must be complete before starting Project Activities, or within 18 months of the effective date of this Agreement if a letter of credit or other form of security approved by CDFW is provided pursuant to Measure 3.2 below for all uncompleted obligations.

- 3.1 Habitat Re-establishment and/or Rehabilitation – Offsite (Mitigation Bank). To compensate for permanent impacts to 1.19 acres of fish and wildlife resources subject to Fish and Game Code section 1600 et seq., Permittee shall purchase no less than 2.38 acres of streambed and riparian habitat rehabilitation credits through a CDFW-approved **mitigation bank**. Mitigation credits shall be purchased, and receipt provided to CDFW, **30 days prior to the initiation of Project activities**, which includes staging and site preparation, unless security is provided pursuant to Measure 3.2.
- 3.2 Financial Security. If Permittee is unable to purchase credits from a CDFW-approved mitigation bank no later than 30 days prior to initiation of Project activities covered by this Agreement as described in Measure 3.1, Permittee shall provide a Letter of Credit (LOC) in a form acceptable to CDFW, or other form of security approved by CDFW, in an amount sufficient to purchase 2.38 acres of streambed and riparian habitat rehabilitation credits through a CDFW-approved mitigation bank. The LOC shall reference the current costs associated with re-establishment and/or rehabilitation credits. The form and content of the LOC shall be the same or substantially similar to the template attached hereto as Exhibit 2. The LOC shall be **submitted to CDFW for approval and shall be executed 30 days prior to initiation of Project activities**.
- 3.2.1 Draft Copy of LOC. The Permittee shall provide a draft copy of the LOC to CDFW at the address listed below for review and approval prior to execution. The LOC shall not be executed without CDFW's prior approval.

- 3.2.2 Expiration of LOC. In the event that the LOC will expire before the mitigation obligations have been met, the Permittee shall be responsible for providing CDFW a new LOC to replace the existing LOC at least sixty (60) days prior to the expiration date.
- 3.2.3 Execution of LOC. Upon execution of the LOC, the Permittee shall provide the original to the address listed on the LOC template, and one copy of the executed document to CDFW at the address listed below under Contact Information.

4 Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 Notification Prior to Work. The Permittee shall notify CDFW, in writing, at least five (5) days prior to initiation of Project-related activities and at least five (5) days prior to completion of Project and mitigation activities. Notification shall be sent to CDFW as identified in Measure 4.2.
- 4.2 Reporting. All surveys, pre- and post- construction notifications, monitoring reports, and any other required communication between the Permittee and CDFW shall be submitted in digital copy to R6LSAReporting@wildlife.ca.gov Reference # 1600-2019-0252-R6, and cc: Eric.Chan@wildlife.ca.gov. If CDFW requests hard copies of any documentation, Permittee shall mail to 3602 Inland Empire Blvd., Suite C-220, Ontario, CA 9764, Attn: Lake and Streambed Alteration Program, Reference # 1600-2019-0252-R6.
- 4.3 Final Construction Report. Permittee shall provide a final construction report to CDFW no later than **two weeks after the Project is fully completed** including color photographs of before and after Project-related activities, including the surrounding staging areas. The construction report at a minimum shall contain pre-Project photographs, total amount of area impacted post-Project, post-Project photographs, and biological survey notes (including construction monitoring).
- 4.4 Notification to the California Natural Diversity Data Base (CNDDDB). If any sensitive species are observed on or in proximity to the Project site, or during Project surveys, the Permittee shall submit CNDDDB forms and maps to the CNDDDB **within five working days** of the sightings, and provide the regional CDFW office with copies of the CNDDDB forms and survey maps. The CNDDDB form is available online at <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. A copy of this information will be mailed within five days to the CDFW Region 6, to 3602 Inland Empire Blvd., Suite C-220, Ontario, CA 9764, ATTN: Streambed Unit. Please reference SAA# 1600-2019-0252-R6.
- 4.5 Compliance. CDFW shall verify compliance with protective measures to ensure the accuracy of the Operator's mitigation, monitoring, and reporting efforts. CDFW

may, at its sole discretion, review relevant documents maintained by the Operator, interview the Operator's employees and agents, inspect the work site, and take other actions to assess compliance with or effectiveness of protective measures in this Agreement.

- 4.6 List of Designated Biologists. The Permittee shall submit a proposed list of Designated Biologists to CDFW for review 30 days prior to Project Start (see Condition 2.1). CDFW will provide written response within 18 days of Permittee submittal, unless otherwise agreed to by CDFW in writing (email, letter, fax). The Permittee may utilize any of the Designated Biologists with the appropriate qualifications from the approved list without subsequent approvals from CDFW. The list may be updated at any time by CDFW or the Permittee with the prior approval of CDFW.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

Margery Lazarus
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553
margeryl@moval.org

To CDFW:

Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 9764
Attn: Lake and Streambed Alteration Program – Eric Chan
Notification #1600-2019-0252-R6
Eric.Chan@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers,

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employees, representatives, agents or contractors and subcontractors, to complete the Project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the Project. The decision to proceed with the Project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the Project or an activity related to it. For example, if the Project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 *et seq.*

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(threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with Fish and Game Code section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with Fish and Game Code section 1605, subdivisions (b) through (e).

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If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the Project the Agreement covers (Fish & G. Code § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable Fish and Game Code section 711.4 filing fee listed at <https://www.wildlife.ca.gov/Conservation/CEQA/Fees>.

TERM

This Agreement shall expire on September 10, 2025, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as Fish and Game Code section 1605, subdivision (a)(2) requires.

EXHIBITS

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

- A. Exhibit 1. Project Location
- B. Exhibit 2. Project Impacts
- C. Exhibit 3. Irrevocable Standby Letter of Credit

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the Project described herein. If Permittee begins or completes a Project different from the Project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with Fish and Game Code section 1602.

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CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR CITY OF MORENO VALLEY

DocuSigned by:
Margery A. Lazarus
52A83AAEAFD5434...

9/29/2020

Margery Lazarus
Designated Representative

Date

FOR DEPARTMENT OF FISH AND WILDLIFE

DocuSigned by:
Scott Wilson
8091B1A9242F49C...

10/13/2020

Scott Wilson
Environmental Program Manager

Date

Prepared by: Eric Chan
Environmental Scientist

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EXHIBIT 1



Exhibit 1. Project Location

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EXHIBIT 2

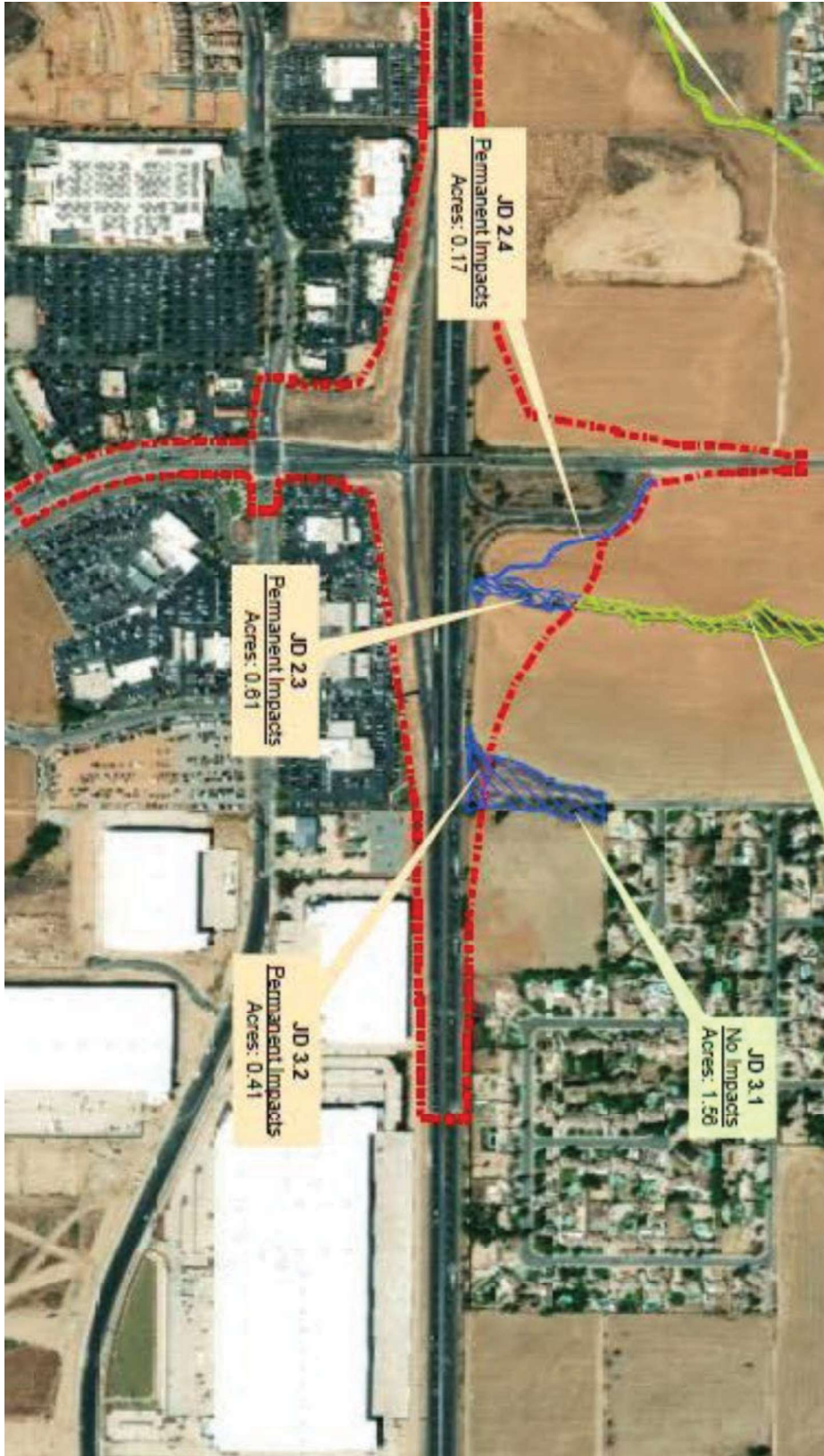


Exhibit 2. Project Impacts

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EXHIBIT 3

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[Financial institution letterhead]

IRREVOCABLE STANDBY LETTER OF CREDIT
NO. **[number issued by financial institution]**

Issue Date: **[date]**

Beneficiary:

Department of Fish and Wildlife
Habitat Conservation Planning Branch
Post Office Box 944209
Sacramento, CA 94244-2090
Attn: HCPB Contract Coordinator

Amount: U.S. \$**[dollar number]** **[(dollar amount)]**

Expiry: **[Date]** at our counters

Dear Sirs:

1. At the request and on the instruction of our customer, **[name of applicant]** ("Applicant"), we, **[name of financial institution]** ("Issuer"), hereby establish in favor of the beneficiary, the California Department of Fish and Wildlife ("CDFW"), this irrevocable standby letter of credit ("Credit") in the principal sum of U.S. \$**[dollar number]** **[(dollar amount)]** ("Principal Sum").
2. We are informed this Credit is and has been established for the benefit of CDFW pursuant to the terms of the [insert: "lake" or "streambed"] alteration agreement (No. [permit number]) for the [name of Project] issued by CDFW to the Applicant on [date] (No. [number]) ("Permit").
3. We are further informed that pursuant to the Permit, the Applicant has agreed to complete certain mitigation requirements, as set forth in Conditions [numbers] in the Permit ("Mitigation Requirements").
4. We are finally informed that this Credit is intended by CDFW and the Applicant to serve as a security device for the performance by the Applicant of the Mitigation Requirements.
5. CDFW shall be entitled to draw upon this Credit only by presentation of a duly executed Certificate for Drawing ("Certificate") in the same form as Attachment A₃, which is attached hereto, at our office located at **[name and address of financial institution]**.

6. The Certificate shall be completed and signed by an “Authorized Representative” of CDFW as defined in paragraph 12 below. Presentation by CDFW of a completed Certificate may be made in person or by registered mail, return receipt requested, or by overnight courier.
7. Upon presentation of a duly executed Certificate as above provided, payment shall be made to CDFW, or to the account of CDFW, in immediately available funds, as CDFW shall specify.
8. If a demand for payment does not conform to the terms and conditions of this Credit, we shall give CDFW prompt notice that the demand for payment was not effected in accordance with the terms and conditions of this Credit, state the reasons therefore, and await further instruction.
9. Upon being notified that the demand for payment was not effected in conformity with the Credit, CDFW may correct any such non-conforming demand for payment under the terms and conditions stated herein.
10. All drawings under this Credit shall be paid with our funds. Each drawing honored by us hereunder shall reduce, *pro tanto*, the Principal Sum. By paying to CDFW an amount demanded in accordance herewith, we make no representations as to the correctness of the amount demanded.
11. This Credit will be cancelled upon receipt by us of Certificate of Cancellation/Reduction, which: (i) shall be in the form of Attachment B, which is attached hereto, and (ii) shall be completed and signed by an Authorized Representative of CDFW, as defined in paragraph 12 below.
12. An “Authorized Representative” shall mean the Director of CDFW; the General Counsel of CDFW; a Regional Manager of CDFW; or the Branch Chief of CDFW’s Habitat Conservation Planning Branch.
13. This Credit shall be automatically extended without amendment for additional periods of one year from the present or any future expiration date hereof, unless at least sixty (60) days prior to any such date, we notify CDFW in writing by registered mail, return receipt requested, or by overnight courier that we elect not to consider this Credit extended for any such period.
14. Communications with respect to this Credit shall be in writing and addressed to us at [***name and address of financial institution***], specifically referring upon such writing to this credit by number. The address for notices with respect to this Credit shall be: (i) for CDFW: Department of Fish and Wildlife, Habitat Conservation Planning Branch, Post Office Box 944209, Sacramento, CA 94244-2090, Attn: HCPB Contract Coordinator; and (ii) for the Applicant: [***name and address of applicant***].
15. This Credit may not be transferred.

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16. This Credit is subject to the International Standby Practices 1998 (“ISP 98”). As to matters not covered by the ISP 98 and to the extent not inconsistent with the ISP 98, this credit shall be governed by and construed in accordance with the Uniform Commercial Code, Article 5 of the State of California.
17. This Credit shall, if not canceled, expire on [***expiration date***], or any extended expiration date.
18. We hereby agree with CDFW that documents presented in compliance with the terms of this Credit will be duly honored upon presentation, as specified herein.
19. This Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Credit is referred to or to which this Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

[Name of financial institution]

By: _____
Name: _____
Title: _____
Telephone: _____

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ATTACHMENT A

IRREVOCABLE STANDBY LETTER OF CREDIT NO. [number issued by financial institution]
CERTIFICATE FOR DRAWING

To:

[Name and address of financial institution]

Re: **[Insert: "Lake" or "Streambed"]** Alteration Agreement (No. **[permit number]**)

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. [Insert one of the following statements: "In the opinion of CDFW, the Applicant has failed to complete the Mitigation Requirements referenced in paragraph 3 of the Credit." or "As set forth in paragraph 13, the Issuer has informed CDFW that the Credit will not be extended and the Applicant has not provided CDFW with an equivalent security approved by CDFW to replace the Credit."]
2. The undersigned is authorized under the terms of the Credit to present this Certificate as the sole means of demanding payment on the Credit.
3. CDFW is therefore making a drawing under the Credit in amount of U.S. \$_____.
4. The amount demanded does not exceed the Principal Sum of the Credit.

Therefore, CDFW has executed and delivered this Certificate as of the ___ day of **[month]**, **[year]**.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY:

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]" or "BRANCH CHIEF, HABITAT CONSERVATION PLANNING BRANCH"]

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5 ATTACHMENT B

IRREVOCABLE LETTER OF CREDIT NO. [*number issued by financial institution*]

6 CERTIFICATE FOR CANCELLATION

To:

[Name of financial institution and address]

Re: [*Insert: "Lake" or "Streambed"*] Alteration Agreement (No. [*permit number*])

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in the paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. [*Insert one of the following statements: "The Applicant has presented documentary evidence of full compliance with the Mitigation Requirements referenced in paragraph 3 of the Credit." or "The Applicant has presented documentary evidence of compliance with the following Mitigation Requirement[(s)] referenced in paragraph 3 of the Credit: [*insert brief description of requirement(s) or requirement number(s) completed*]." or "The Applicant has provided CDFW with an equivalent security approved by CDFW to replace the Credit."*]

2. [*Insert one of the following statements: "CDFW therefore requests the cancellation of the Credit." or "CDFW therefore requests a reduction in the Principal Sum in the amount of \$ _____, thereby making the new Principal Sum \$ _____."*]

[Insert one of the following statements: "Therefore, CDFW has executed and delivered this Certificate for Cancellation as of the ____ day of [*month*], [*year*]." or "Therefore, CDFW has executed and delivered this Certificate for Reduction as of the ____ day of [*month*], [*year*]."

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY:

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [*NAME OF REGIONAL OFFICE*]" or "BRANCH CHIEF, HABITAT CONSERVATION PLANNING BRANCH"]

CDFG 1600-2019-0104-R6 AGREEMENT (LINE K-1)

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

INLAND DESERTS REGION
3602 INLAND EMPIRE BLVD., SUITE C-220
ONTARIO, CA 91764



STREAMBED ALTERATION AGREEMENT

NOTIFICATION NO. 1600-2019-0104-R6

CITY OF MORENO VALLEY
LINE K-1 PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and City of Moreno Valley (Permittee) or as represented by Margery Lazarus.

RECITALS

WHEREAS, pursuant to Fish and Game Code section 1602, Permittee notified CDFW on April 3, 2019 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to Fish and Game Code section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The Line K-1 Project (Project) is located at the intersection of State Route 60 and Moreno Beach Drive, in the City of Moreno Valley, in the County of Riverside, State of California; Latitude 33.946459°, Longitude -117.175510°; on the U.S. Geological Survey (USGS) Sunnymead 7.5 minute series quadrangle topographic map.

PROJECT DESCRIPTION

The Project proposes to construct a new drainage system along Ironwood Avenue (Line K-1) that directs a portion of the storm drain flows from the existing system at Moreno Beach Drive to the "Nason Basin" located at the northeast corner of the SR-60/Nason Street interchange. It is expected that construction of the Line K-1 diversion will allow lower flows (up to a maximum of 365 cubic feet per second) to continue to run through the existing drainage. High flows will be diverted to the Nason Basin. (Exhibit 1)

PROJECT IMPACTS

Existing fish or wildlife resources the Project could substantially adversely affect include:

AMPHIBIANS: Baja California tree frog (*Pseudacris hypochondriaca*), Western Spadefoot (*Scaphiopus hammondi*); **BIRDS-** Allen's Hummingbird (*Selasphorus sasin*), American Goldfinch (*Carduelis tristis*), American Kestrel (*Falco sparverius*), American Robin (*Turdus migratorius*), American Wigeon (*Mareca americana*), Anna's Hummingbird (*Calypte anna*), Ash-throated Flycatcher (*Myiarchus cinerascens*), Barn Owl (*Tyto alba*), Barn Swallow (*Hirundo rustica*), Bewick's Wren (*Thryomanes bewickii*), Black Phoebe (*Sayornis nigricans*), Black-chinned Hummingbird (*Archilochus alexandr*), Black-necked Stilt (*Himantopus mexicanus*), Brewer's Blackbird (*Euphagus cyanocephalus*), Bullock's Oriole (*Icterus bullockii*), Burrowing Owl (*Athene cunicularia*), Bushtit (*Psaltriparus minimus*), California Towhee (*Melospiza crissalis*), Cattle Egret (*Bubulcus ibis*), Chipping Sparrow (*Spizella passerina*), Common Yellowthroat (*Geothlypis trichas*), Cooper's Hawk (*Accipiter cooperii*), Costa's Hummingbird (*Calypte costae*), Grasshopper Sparrow (*Ammodramus savannarum*), Great Egret (*Ardea alba*), Great Horned Owl (*Bubo virginianus*), Hooded Oriole (*Icterus cucullatus*), House Finch (*Haemorhous mexicanus*), House Wren (*Troglodytes aedon*), Hutton's Vireo (*Vireo huttoni*), Killdeer (*Charadrius vociferous*), Lark Sparrow (*Chondestes grammacus*), Lawrence's Goldfinch (*Carduelis lawrencei*), Least Bell's Vireo (*Vireo bellii pusillus*), Lesser Goldfinch (*Carduelis psaltria*), Lincoln's Sparrow (*Melospiza lincolni*), Mallard (*Anas platyrhynchos*), Marsh Wren (*Cistothorus palustris*), Northern Flicker (*Colaptes auratus*), Northern Mockingbird (*Mimus polyglottos*), Northern Rough-winged Swallow (*Steligopteryx serripennis*), Orange-crowned Warbler (*Oreothypis celata*), Red-shouldered Hawk (*Buteo lineatus*), Red-tailed Hawk (*Buteo jamaicensis*), Red-winged Blackbird (*Agelaius phoeniceus*), Rufous Hummingbird (*Selasphorus rufus*), Say's Phoebe (*Sayornis saya*), Snowy Egret (*Egretta thula*), Song Sparrow (*Melospiza melodia*), Sora (*Porzana carolina*), Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*), Spotted Towhee (*Pipilo maculatus*), Swainson's Thrush (*Catharus ustulatus*), Townsend's Warbler (*Setophaga townsendi*), Tree Swallow (*Tachycineta bicolor*), Turkey Vulture (*Cathartes aura*), Violet-green Swallow (*Tachycineta thalassina*), Western Meadowlark (*Sturnella neglecta*), White-throated Swift (*Aeronautes saxatalis*), Wilson's Warbler (*Cardellina pusilla*), Wrentit (*Chamaea fasciata*), Yellow-rumped Warbler (*Setophaga coronate*), Yellow Warbler (*Setophaga petechia*); **MAMMALS-** Bobcat (*Lynx rufus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), Coyote (*Canis latrans*), Desert cottontail (*Sylvilagus audubonii*), Southern grasshopper mouse (*Onychomys torridus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); **REPTILES-** California legless lizard (*Anniella pulchra*), two-striped garter snake (*Thamnophis hammondi*), Coachwhip (*Masticophis flagellum*), Pacific Gopher Snake (*Pituophis melanleucus catenifer*), Red-diamond Rattlesnake (*Crotalus ruber*), Rosy Boa (*Lichanura trivirgata*), side-blotched lizard (*Uta stansburiana*), and Western whiptail (*Cnemidophorus tigris*).

The adverse effects the Project could have on the fish or wildlife resources identified above include: the disturbance to, alteration of, and/or loss of nesting, roosting, and

foraging habitat; the reduction or loss of habitat coverage, composition, and distribution; the disturbance to and alteration of wildlife movement corridors; and temporary impacts to water quality. The Project will permanently impact a total of 0.16 acres, and temporarily impact a total of 0.202 acres of fish and wildlife resources subject to Fish and Game Code section 1600 et seq; total Project impacts of 0.362 acres to fish and wildlife resources subject to Fish and Game Code section 1600 et seq. are authorized under this Agreement.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1 Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the Project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the Project at the Project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the Project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the Project site at any time to verify compliance with the Agreement.
- 1.5 Take of Listed Species. The issuance of this Agreement does not authorize the take of any state- or federally-listed threatened, endangered, or fully protected species. Take of any California Endangered Species Act (CESA)-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a Project, including Project construction or any Project-related activity during the life of the Project, results in take of CESA-listed species, the Department recommends that the Project proponent seek appropriate authorization prior to Project implementation. This may include an incidental take permit (ITP) or a consistency determination (Fish and Game Code, §§ 2080.1 & 2081).

- 1.6 Take of Nesting Birds. Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code Section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act 1918, as amended (16 U.S.C. § 703 et seq.). The issuance of this Agreement does not in any way exempt or excuse compliance with these statutes.
- 1.7 Additional Project Impacts. Permittee shall submit to CDFW a request to amend this Agreement if any additional impacts to Fish and Game Code section 1602 resources, or additional operations and maintenance activities not identified in this Agreement are anticipated. No additional impacts to Fish and Game Code section 1602 resources are authorized unless the impacts and/or activities are expressly authorized by CDFW by amendment to this Agreement.

2 Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 Designated Biologist. Permittee shall submit to CDFW for review and approval the names, qualifications, business addresses, and contact information of any qualified biologists (Designated Biologists) that will be utilized to conduct species/habitat surveys, biological monitoring, or mitigation planning and implementation activities at least 30 days before initiating ground- or vegetation- disturbing activities. Permittee shall specify the proposed responsibilities of each Designated Biologist and provide clear evidence that the Designated Biologist is knowledgeable, experienced, and capable of performing those proposed duties.
- 2.2 Responsibility of the Designated Biologist. The Designated Biologist(s) shall be responsible for monitoring activities addressed by this Agreement, including, but not limited to all activities that result in clearing, grading, drilling, and/or other ground-disturbing activities. To ensure compliance with the measures of this Agreement, the Designated Biologist(s) shall confirm and monitor the limits of Project activities addressed by this Agreement.
- 2.3 Authority of Designated Biologists. To ensure compliance with the measures of this Agreement, the Designated Biologists shall have the authority to immediately halt any activity that does not comply with this Agreement, order any reasonable measure to avoid the violation of any measure of this Agreement, and directly contact CDFW for any reason. If the Designated Biologist(s) determines that the

Project may have an adverse effect on any special-status species (threatened, endangered, candidate, species of special concern, etc.), they must halt construction and notify the appropriate agencies immediately. Unless authorized by CDFW, the Designated Biologists shall not have the authority to handle any special-status species (threatened, endangered, candidate, species of special concern, etc.).

- 2.4 Delineate Work Area Boundary (See Exhibit 1). In consultation with the Designated Biologist, Permittee shall clearly delineate the outer perimeter of the work areas and access routes with appropriate fencing, signage, and/or flagging to prevent damage to adjacent habitats. The delineation materials shall be in place during all periods of operation and all persons employed or otherwise working on the Project site shall be instructed about the restrictions. Permittee shall ensure the delineation materials are monitored daily, and maintained, repaired, or replaced immediately if the materials are damaged, lost, stolen, or become ineffective in any way. The Designated Biologist(s) shall ensure the delineation materials do not create a barrier to wildlife movement and will not pose a risk to wildlife safety.
- 2.5 Environmentally Sensitive Areas. The Designated Biologist shall determine and clearly delineate any necessary avoidance and/or buffer areas with appropriate fencing, signage, and/or flagging. The delineation materials shall be visibly discernable from the 'standard work area boundary' materials and all persons employed or otherwise working on the Project site shall be instructed about the restrictions associated with these environmentally sensitive areas. Permittee shall ensure the delineation materials are monitored daily, and maintained, repaired, or replaced immediately if the materials are damaged, lost, stolen, or become ineffective in any way. The Designated Biologist(s) shall ensure the delineation materials do not create a barrier to wildlife movement and will not pose a risk to wildlife safety.
- 2.6 Educational Program. Permittee shall conduct an Education Program for all persons employed or otherwise working on the Project prior to performing any work on site. The program shall consist of a presentation from a Designated Biologist that includes a discussion of the biology of the habitats and species identified in this Agreement and present at this site. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any Protected Species that may be present, legal protections for those species, penalties for violations and Project-specific protective measures included in this Agreement. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on site. The Permittee shall prepare and distribute wallet-sized cards or a fact sheet that contains this information for workers to carry on site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to CDFW upon request. The Education Program shall be repeated annually for part of the Project extending

more than one (1) year. Copies of program materials shall be maintained at the Project site for workers to reference as needed.

2.6.1 Invasive Species Education Program. Permittee shall include an invasive species Education Program for all persons working on the Project prior to the performing any work on site. The program shall consist of a presentation from a Designated Biologist that includes a discussion of the invasive species currently present within the Project site as well as those that may pose a threat to or have the potential to invade the Project site. The discussion shall include a physical description of each species and information regarding their habitat preferences, local and statewide distribution, modes of dispersal, and impacts. The program shall also include a discussion of BMPs to be implemented at the Project site to avoid the introduction and spread of invasive species into and out of the Project site.

2.7 Nesting Birds. It is the Permittee's responsibility to avoid impacts to nesting birds. Permittee shall ensure that impacts to nesting birds are avoided through the implementation of preconstruction surveys, ongoing monitoring, and if necessary, establishment of minimization measures.

2.7.1 Designated Avian Biologist. The Permittee shall designate a biologist with the following experience: identifying local and migratory bird species; conducting bird surveys using appropriate survey methodology (e.g., Ralph et al. 1993¹ and United States Fish and Wildlife Service and/or CDFW-accepted species-specific survey protocols, available here: <https://www.wildlife.ca.gov/conservation/survey-protocols>); nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success (e.g., Martin and Geupel 1993²); determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

2.7.2 Pre-construction Surveys. Surveys shall be conducted by the Designated Avian Biologist at the appropriate time of day/night, during appropriate weather conditions, between three (3) and seven (7) days prior to the initiation of Project activities addressed by this Agreement. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of area subject to this Agreement; density, and complexity of the habitat; number of survey participants; survey

¹ Ralph, C.J., G.R. Geupel, P. Pyle, T.E. Martin, and D.F. DeSanta. 1993. Handbook of field methods for monitoring landbirds. General Technical Report PSW-GTR 144. USDA Forest Service Pacific Southwest Research Station. Albany, CA.

² Martin, T.E. and G.R. Geupel. 1993. Nest-monitoring plots: methods for locating nests and monitoring success. Journal of Field Ornithology 64:507-514.

techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior (e.g., copulation, carrying of food or nest materials, nest building, removal of fecal sacks, flushing suddenly from atypically close range, agitation, aggressive interactions, feigning injury or distraction displays, or other behaviors). If a nest is suspected, but not confirmed, the Designated Avian Biologist shall establish a disturbance-free buffer until additional surveys can be completed, or until the location can be inferred based on observations. The Designated Avian Biologist shall not risk failure of the nest to determine the exact location or status and will make every effort to limit the nest to potential predation as a result of the survey/monitoring efforts (e.g., limit number of surveyors, limit time spent at/near the nest, scan the site for potential nest predators before approaching, immediately depart nest area if indicators of stress or agitation are displayed). If a nest is observed, but thought to be inactive, the Designated Avian Biologist shall monitor the nest for one hour (four hours for raptors during the non-breeding season) prior to approaching the nest to determine status. The Designated Avian Biologist shall use their best professional judgement regarding the monitoring period and whether approaching the nest is appropriate. Results of pre-construction surveys shall be provided to CDFW at least one business day prior to commencement of Project activities, as identified in Measure 4.2. Results of ongoing monitoring surveys shall be provided to CDFW upon request.

2.7.3 Buffers. When an active nest is confirmed, the Designated Avian Biologist shall immediately establish a conservative buffer surrounding the nest based on their best professional judgement and experience. The buffer shall be delineated to ensure that its location is known by all persons working within the vicinity but shall not be marked in such a manner that it attracts predators. Once the buffer is established, the Designated Avian Biologist shall document baseline behavior, stage of reproduction, and existing site conditions, including vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. The Designated Avian Biologist shall monitor the nest at the onset of Project activities addressed by this Agreement, and at the onset of any changes in Project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the Designated Avian Biologist determines that Project activities may be causing an adverse reaction, the Designated Avian Biologist shall adjust the buffer accordingly.

2.7.4 Ongoing Monitoring. The Designated Avian Biologist shall be onsite daily to monitor all existing nests, the efficacy of established buffers, and to document any new nesting occurrences. The Designated Avian Biologist

shall document the status of all existing nests, including the stage of reproduction and the expected fledge date. If a nest is suspected to have been abandoned or failed, the Designated Avian Biologist shall monitor the nest for a minimum of one hour (four hours for raptors), uninterrupted, during favorable field conditions. If no activity is observed during that time, the Designated Avian Biologist may approach the nest to assess the status.

- 2.7.5 Securing Site. The Permittee, under the direction of the Designated Avian Biologist, may also take steps to discourage nesting on the Project site, including moving equipment and materials daily, covering material with tarps or fabric, and securing all open pipes and construction materials. The Designated Avian Biologist shall ensure that none of the deterrent materials pose an entanglement risk to birds or other species. The Designated Avian Biologist(s) shall include a detailed account of any steps taken to discourage nesting within the Project site in the summary reports.
- 2.7.6 Reporting. The Designated Avian Biologist shall be responsible for providing summary reports, as specified in Measure 4.3, where relevant, to CDFW no less than once weekly regarding the nesting species identified onsite, discovery of any of new nests, the status/outcome of any previously identified nest, buffer distances established for each nest, and any adjustments made to established buffers. If Project activities result in the abandonment of, or damage to a nest, Permittee shall notify CDFW within 24 hours of detection.
- 2.8 Biological Monitoring. The Designated Biologist(s) shall be onsite daily, while Project activities are occurring and shall be responsible for monitoring all Project activities that have the potential to impact fish and wildlife resources subject to Fish and Game Code section 1600 et seq., including streams, associated vegetation/habitat, and wildlife. The Designated Biologist(s) shall ensure that all avoidance and minimization measures are implemented and maintained, including, but not limited to: determining and delineating appropriate avoidance and buffer areas, maintaining delineated access routes and work areas, monitoring for the presence of, and potential impacts to, special-status species, and maintaining/repairing/replacing any exclusionary fencing and trench/excavation covers.
- 2.9 Best Management Practices. Permittee shall actively implement Best Management Practices (BMPs) to prevent erosion and the discharge of sediment and pollutants during Project activities. BMPs shall be monitored and repaired if necessary to ensure maximum erosion, sediment, and pollution control. Permittee shall prohibit the use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material. All fiber rolls, straw wattles, and/or hay bales utilized within and adjacent to the Project site shall be free of nonnative plant materials. Fiber rolls or erosion control mesh shall

be made of loose-weave mesh that is not fused at the intersections of the weave, such as jute, or coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread. Permittee shall ensure BMPs do not pose a barrier to wildlife movement and shall be installed to allow for the safe passage of wildlife movement, particularly of less vagile species (such as small mammals and reptiles), out of the Project area. Long, continuous lengths of silt-fencing or other BMP materials installed without gaps can create a barrier to wildlife movement, trapping wildlife within the Project area. Areas of safe passage can be easily accommodated by leaving small gaps between parallel and overlapping lengths of BMPs.

- 2.10 Surface Water Diversion. In the event vehicles/equipment are to be driven/operated within the reservoir/stream when surface water inflow is present, the entire surface water flow shall be diverted around the work area. The Permittee shall notify CDFW of its intent to access the stream and implement the diversion plan submitted as part of the notification. Construction of the barrier and/or the new channel shall normally begin in the downstream area and continue in an upstream direction, and the flow shall be diverted only when construction of the diversion is completed. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area. The enclosure and the supportive material shall be removed when the work is completed, and removal shall normally proceed from downstream in an upstream direction.
- 2.11 Temporary Dam. Any temporary dam or other artificial obstruction for Surface Water Diversion shall be built pursuant to FGC Section 5937, and only from materials such as clean gravel, which will cause little or no siltation, and shall be approved by the CDFW prior to construction.
- 2.12 Equipment and Vehicles. Any equipment or vehicles driven and/or operated within or adjacent to the stream/lake shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.
- 2.13 Stationary Equipment. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream/lake shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak. Clean up equipment such as extra boom, absorbent pads, skimmers, shall be on site prior to the start of construction.
- 2.14 Staging and Storage Areas. Staging/storage areas for equipment and materials shall be located outside of the stream/lake. Any materials placed in seasonally dry portions of a stream or lake that could be washed downstream or could be deleterious to aquatic life shall be removed from the Project site prior to inundation by high flows.

- 2.15 Equipment Maintenance. No equipment maintenance shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- 2.16 Trash Abatement and Refuse Removal. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed at the end of each work day to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs. Upon completion of Project activities within each Project location, Permittee shall remove and properly dispose of all construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.
- 2.17 Pollution and Litter. Permittee shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance.
- 2.17.1 Spoil sites shall not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it will impact streambed habitat and aquatic or riparian vegetation.
- 2.17.2 Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from Project related activities shall be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, shall be removed immediately.
- 2.17.3 No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any lake, streambed, or flowing stream.
- 2.17.4 No equipment maintenance shall be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- 2.18 Turbidity and Siltation. All equipment that enters the streambed or habitat associated with the stream shall be clean and dry. Upon CDFW determination that turbidity/siltation levels resulting from Project-related activities constitute a threat to

aquatic life, activities associated with the turbidity/siltation shall be halted until effective CDFW approved control devices are installed, or abatement procedures are initiated.

- 2.19 Spill Containment. All activities performed in or near a stream shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. If a spill occurs the Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall also be notified by the Permittee and consulted regarding clean-up procedures.
- 2.20 Disposal of Vegetation. Following any vegetation clearing/removal activities, Permittee shall immediately chip woody debris to pieces 1-inch in diameter or less and dispose of the materials using one of the following methods: a) solarize with clear tarp, b) compost at a commercial facility, c) burn at a biogeneration facility, or d) send to a landfill (can be utilized as Alternative Daily Coverage). Plant material infested with polyphagous shot hole borer will follow handling procedures found at <http://eskalenlab.ucr.edu/handouts/decisionmaking.pdf>.
- 2.21 Excavated Areas. At the end of each work day, Permittee shall, with the oversight of the Designated Biologist or a trained construction management staff, secure any open trench or excavated area within the Project area addressed by this Agreement such that animals are unable to enter and become entrapped. The excavated areas must be secured using appropriate site- and species-specific methods, such as, placing plywood or other barrier materials over the excavated area, placing an escape ramp of suitable material and at an angle no greater than 30 degree at each end of the open trench/excavated area, or installing temporary fencing around the perimeter of trenches or holes.

Invasive Species

- 2.22 Prohibited Plant Species. Permittee shall not plant, seed or otherwise introduce invasive exotic plant species. Prohibited exotic plant species include those identified in the California Exotic Pest Plant Council's database, which is accessible at: <https://www.cal-ipc.org/plants/inventory/>.
- 2.23 Clean Equipment Prior to Entering Area Regulated by Agreement. All Equipment shall be free of materials deleterious to aquatic life including noxious and nuisance weeds, aquatic invasive species, oil, grease, hydraulic fluid, soil and other debris. The Permittee shall follow equipment washing guidelines (see conditions below) and complete the Certification of Clean Equipment. The Certification of Clean Equipment shall be completed by the Permittee for all equipment prior to initially entering areas regulated by this Agreement.
- 2.24 Inspection of Project Equipment. Permittee shall inspect all vehicles, tools, waders and boots, and other Project-related equipment and remove all visible soil/mud,

plant materials, and animal remnants prior to initially entering areas regulated by this Agreement, and upon Equipment Operator recertification following decontamination.

- 2.25 Decontamination of Project Equipment. Permittee shall decontaminate all tools, waders and boots, vehicles, trailers, and other equipment that will be used in areas regulated by this Agreement and make contact with water or wetted soils prior to initially entering and upon reentering with verification that subsequent decontamination is required with the following specific guidance: Permittee shall decontaminate Project gear and equipment utilizing one of three methods: drying, using a hot water soak, or freezing, as appropriate to the type of gear or equipment. For all methods, Permittee shall begin the decontamination process by thoroughly scrubbing equipment, paying close attention to hard to reach and clean areas with a stiff-bristled brush to remove all plant, seeds, soil, and other organisms. To decontaminate by drying, Permittee shall allow equipment to dry thoroughly (i.e., until there is a complete absence of water and all plant, seeds, and soil), preferably in the sun, for a minimum of 48 hours. To decontaminate using a hot water soak, Permittee shall immerse equipment in 140°F or hotter water and soak for a minimum of 5 minutes. To decontaminate by freezing, Permittee shall place equipment in a freezer 32°F or colder for a minimum of 8 hours. Repeat decontamination is required only if the equipment/clothing is removed from the site, used in contact with water or wet soil within a different watershed, and returned to the Project site.
- 2.26 Decontamination of Vehicles and Equipment. Permittee shall decontaminate vehicles and other Project-related equipment too large to immerse in a hot water bath by pressure washing with hot water a minimum of 140°F at the point of contact or 155°F at the nozzle. Additionally, Permittee shall flush watercraft engines and all areas that could contain standing water (e.g., storage compartments) for a minimum of 10 minutes. Following the hot water wash, Permittee shall dry all vehicles, watercraft, and other large equipment as thoroughly as possible. Repeat Decontamination is required only if vehicles and/or equipment is removed from the site used in contact with water or wet soil within a different watershed and returned to the Project site.
- 2.27 Decontamination Sites. Permittee shall perform decontamination of vehicles, watercraft, and other Project gear and equipment in a designated location where runoff can be contained and not allowed to pass into CDFW jurisdictional areas and other sensitive habitat areas. Cleaning of equipment may occur at a location that contains and recycles resulting wastewater.
- 2.28 Other Project Equipment. Permittee or designee shall require operators of equipment to re-certify equipment upon reentry to areas regulated by this Agreement. Permittee shall require operators of equipment subject to recertification that are reentering after contact with water and/or wet soil from a

stream or lake in areas outside those regulated under this Agreement to follow equipment washing guidelines (see measures above).

- 2.29 Notification of Invasive Species. Permittee shall notify CDFW immediately if an invasive species not previously known to occur within the Project site is discovered during Project activities by submitting a completed Suspect Invasive Species Report (available online at: <https://wildlife.ca.gov/Conservation/Invasives/Report>) and photos to the Invasive Species Program by email at: invasives@wildlife.ca.gov. Notification may also be provided by calling (866) 440-9530. Upon receiving notification, CDFW will provide Permittee with guidance for further action as appropriate to the species.

3 Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized. Permanent protection and funding for perpetual management of compensatory habitat must be complete before starting Project Activities, or within 18 months of the effective date of this Agreement if a letter of credit or other form of security approved by CDFW is provided pursuant to Measure 3.2 below for all uncompleted obligations.

- 3.1 Habitat Re-establishment and/or Rehabilitation – Offsite (Mitigation Bank). To compensate for permanent impacts to 0.16 acres of fish and wildlife resources subject to Fish and Game Code section 1600 et seq., Permittee shall purchase no less than 0.32 acres of streambed and riparian habitat rehabilitation credits through a CDFW-approved **mitigation bank**. Mitigation credits shall be purchased, and receipt provided to CDFW, **30 days prior to the initiation of Project activities**, which includes staging and site preparation, unless security is provided pursuant to Measure 3.2.
- 3.2 Financial Security. If Permittee is unable to purchase credits from a CDFW-approved mitigation bank no later than 30 days prior to initiation of Project activities covered by this Agreement as described in Measure 3.1, Permittee shall provide a Letter of Credit (LOC) in a form acceptable to CDFW, or other form of security approved by CDFW, in an amount sufficient to purchase 0.32 acres of streambed and riparian habitat rehabilitation credits through a CDFW-approved mitigation bank. The LOC shall reference the current costs associated with re-establishment and/or rehabilitation credits. The form and content of the LOC shall be the same or substantially similar to the template attached hereto as Exhibit 2. The LOC shall be **submitted to CDFW for approval and shall be executed 30 days prior to initiation of Project activities**.
- 3.2.1 Draft Copy of LOC. The Permittee shall provide a draft copy of the LOC to CDFW at the address listed below for review and approval prior to execution. The LOC shall not be executed without CDFW's prior approval.

- 3.2.2 Expiration of LOC. In the event that the LOC will expire before the mitigation obligations have been met, the Permittee shall be responsible for providing CDFW a new LOC to replace the existing LOC at least sixty (60) days prior to the expiration date.
- 3.2.3 Execution of LOC. Upon execution of the LOC, the Permittee shall provide the original to the address listed on the LOC template, and one copy of the executed document to CDFW at the address listed below under Contact Information.
- 3.3 Temporary Impacts. The Permittee shall restore all areas within the Project area temporarily impacted by Project activities, such as staging areas and temporary access areas. Temporary impact areas altered during the Project shall be returned to natural contours without creating a possible future bank erosion problem. The Permittee shall remove all temporary infrastructure. Temporary impact areas altered during the project shall be returned to natural contours without creating a possible future bank erosion problem.

4 Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 Notification Prior to Work. The Permittee shall notify CDFW, in writing, at least five (5) days prior to initiation of Project-related activities and at least five (5) days prior to completion of Project and mitigation activities. Notification shall be sent to CDFW as identified in Measure 4.2.
- 4.2 Reporting. All surveys, pre- and post- construction notifications, monitoring reports, and any other required communication between the Permittee and CDFW shall be submitted in digital copy to R6LSAReporting@wildlife.ca.gov Reference # 1600-2019-0104-R6, and cc: Eric.Chan@wildlife.ca.gov. If CDFW requests hard copies of any documentation, Permittee shall mail to 3602 Inland Empire Blvd., Suite C-220, Ontario, CA 9764, Attn: Lake and Streambed Alteration Program, Reference # 1600-2019-0104-R6.
- 4.3 Final Construction Report. Permittee shall provide a final construction report to CDFW no later than **two weeks after the Project is fully completed** including color photographs of before and after Project-related activities, including the surrounding staging areas. The construction report at a minimum shall contain pre-Project photographs, total amount of area impacted post-Project, post-Project photographs, and biological survey notes (including construction monitoring).
- 4.4 Notification to the California Natural Diversity Data Base (CNDDDB). If any sensitive species are observed on or in proximity to the Project site, or during Project surveys, the Permittee shall submit CNDDDB forms and maps to the CNDDDB **within five working days** of the sightings, and provide the regional

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CDFW office with copies of the CNDDDB forms and survey maps. The CNDDDB form is available online at <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. A copy of this information will be mailed within five days to the CDFW Region 6, to 3602 Inland Empire Blvd., Suite C-220, Ontario, CA 9764, ATTN: Streambed Unit. Please reference SAA# 1600-2019-0104-R6.

- 4.5 Compliance. CDFW shall verify compliance with protective measures to ensure the accuracy of the Operator's mitigation, monitoring, and reporting efforts. CDFW may, at its sole discretion, review relevant documents maintained by the Operator, interview the Operator's employees and agents, inspect the work site, and take other actions to assess compliance with or effectiveness of protective measures in this Agreement.
- 4.6 List of Designated Biologists. The Permittee shall submit a proposed list of Designated Biologists to CDFW for review 30 days prior to Project Start (see Condition 2.1). CDFW will provide written response within 18 days of Permittee submittal, unless otherwise agreed to by CDFW in writing (email, letter, fax). The Permittee may utilize any of the Designated Biologists with the appropriate qualifications from the approved list without subsequent approvals from CDFW. The list may be updated at any time by CDFW or the Permittee with the prior approval of CDFW.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

Margery Lazarus
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553
margeryl@moval.org

To CDFW:

Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 9764
Attn: Lake and Streambed Alteration Program – Eric Chan

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Eric.Chan@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the Project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the Project. The decision to proceed with the Project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the Project or an activity related to it. For example, if the Project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of

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authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 *et seq.* (threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with Fish and Game Code section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to

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CDFW a completed CDFW “Request to Extend Lake or Streambed Alteration” form and include with the completed form payment of the extension fee identified in CDFW’s current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with Fish and Game Code section 1605, subdivisions (b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the Project the Agreement covers (Fish & G. Code § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW’s signature, which shall be: 1) after Permittee’s signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable Fish and Game Code section 711.4 filing fee listed at <https://www.wildlife.ca.gov/Conservation/CEQA/Fees>.

TERM

This Agreement shall expire on September 10, 2025, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as Fish and Game Code section 1605, subdivision (a)(2) requires.

EXHIBITS

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

- A. Exhibit 1. Project Location
- B. Exhibit 2. Project Impacts
- C. Exhibit 3. Irrevocable Standby Letter of Credit

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee’s behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the Project described herein. If Permittee begins or completes a Project different from the Project the Agreement authorizes, Permittee may

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be subject to civil or criminal prosecution for failing to notify CDFW in accordance with Fish and Game Code section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR CITY OF MORENO VALLEY

DocuSigned by:

52A83AAEAFD5434...

9/29/2020

Margery Lazarus
Designated Representative

Date

FOR DEPARTMENT OF FISH AND WILDLIFE

DocuSigned by:

8091B1A9242F49C...

10/13/2020

Scott Wilson
Environmental Program Manager

Date

Prepared by: Eric Chan
Environmental Scientist

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EXHIBIT 1



Exhibit 1. Project Location

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EXHIBIT 2

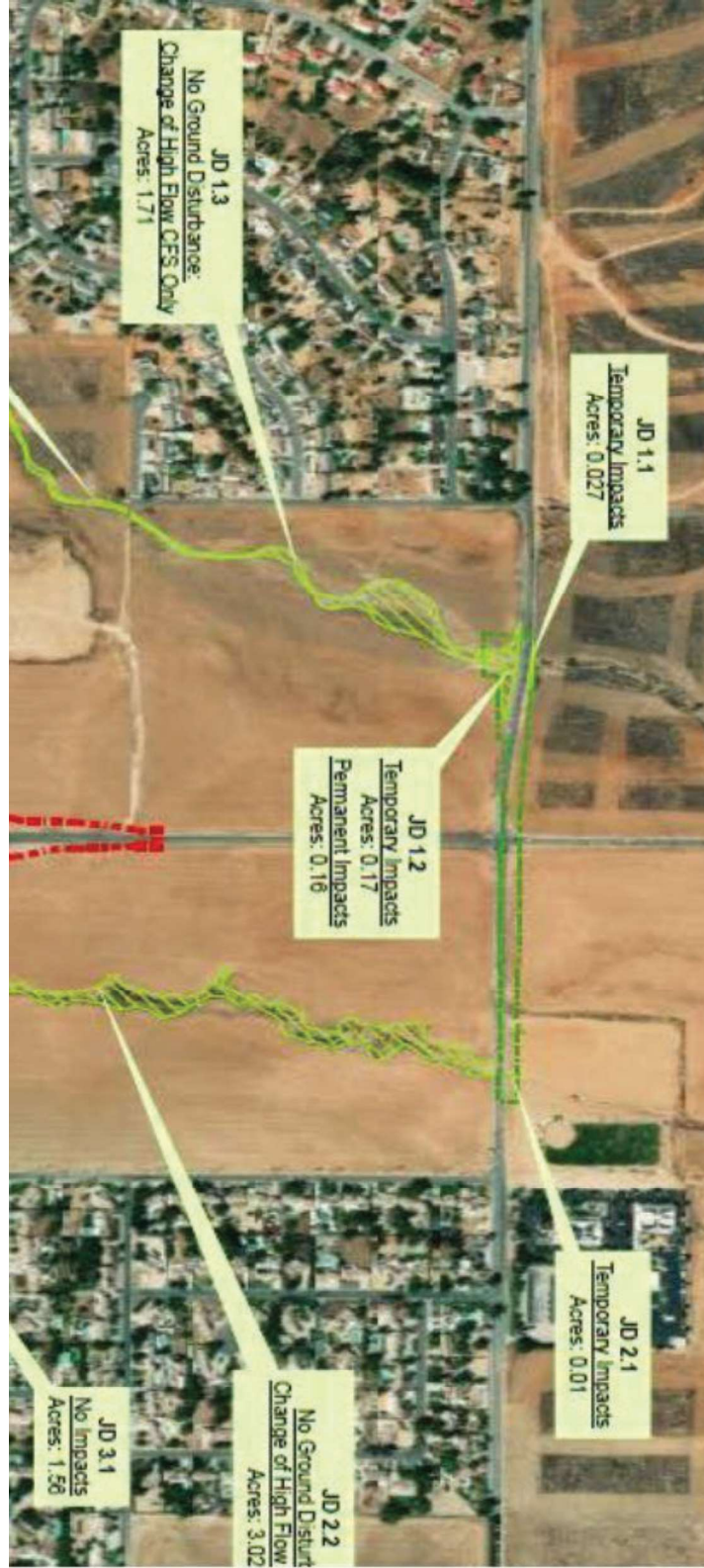


Exhibit 2. Project Impacts

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EXHIBIT 3

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[Financial institution letterhead]

IRREVOCABLE STANDBY LETTER OF CREDIT
NO. **[number issued by financial institution]**

Issue Date: **[date]**

Beneficiary:

Department of Fish and Wildlife
Habitat Conservation Planning Branch
Post Office Box 944209
Sacramento, CA 94244-2090
Attn: HCPB Contract Coordinator

Amount: U.S. \$**[dollar number]** **[(dollar amount)]**

Expiry: **[Date]** at our counters

Dear Sirs:

1. At the request and on the instruction of our customer, **[name of applicant]** ("Applicant"), we, **[name of financial institution]** ("Issuer"), hereby establish in favor of the beneficiary, the California Department of Fish and Wildlife ("CDFW"), this irrevocable standby letter of credit ("Credit") in the principal sum of U.S. \$**[dollar number]** **[(dollar amount)]** ("Principal Sum").
2. We are informed this Credit is and has been established for the benefit of CDFW pursuant to the terms of the [insert: "lake" or "streambed"] alteration agreement (No. [permit number]) for the [name of Project] issued by CDFW to the Applicant on [date] (No. [number]) ("Permit").
3. We are further informed that pursuant to the Permit, the Applicant has agreed to complete certain mitigation requirements, as set forth in Conditions [numbers] in the Permit ("Mitigation Requirements").
4. We are finally informed that this Credit is intended by CDFW and the Applicant to serve as a security device for the performance by the Applicant of the Mitigation Requirements.
5. CDFW shall be entitled to draw upon this Credit only by presentation of a duly executed Certificate for Drawing ("Certificate") in the same form as Attachment A₃, which is attached hereto, at our office located at **[name and address of financial institution]**.

6. The Certificate shall be completed and signed by an “Authorized Representative” of CDFW as defined in paragraph 12 below. Presentation by CDFW of a completed Certificate may be made in person or by registered mail, return receipt requested, or by overnight courier.
7. Upon presentation of a duly executed Certificate as above provided, payment shall be made to CDFW, or to the account of CDFW, in immediately available funds, as CDFW shall specify.
8. If a demand for payment does not conform to the terms and conditions of this Credit, we shall give CDFW prompt notice that the demand for payment was not effected in accordance with the terms and conditions of this Credit, state the reasons therefore, and await further instruction.
9. Upon being notified that the demand for payment was not effected in conformity with the Credit, CDFW may correct any such non-conforming demand for payment under the terms and conditions stated herein.
10. All drawings under this Credit shall be paid with our funds. Each drawing honored by us hereunder shall reduce, *pro tanto*, the Principal Sum. By paying to CDFW an amount demanded in accordance herewith, we make no representations as to the correctness of the amount demanded.
11. This Credit will be cancelled upon receipt by us of Certificate of Cancellation/Reduction, which: (i) shall be in the form of Attachment B, which is attached hereto, and (ii) shall be completed and signed by an Authorized Representative of CDFW, as defined in paragraph 12 below.
12. An “Authorized Representative” shall mean the Director of CDFW; the General Counsel of CDFW; a Regional Manager of CDFW; or the Branch Chief of CDFW’s Habitat Conservation Planning Branch.
13. This Credit shall be automatically extended without amendment for additional periods of one year from the present or any future expiration date hereof, unless at least sixty (60) days prior to any such date, we notify CDFW in writing by registered mail, return receipt requested, or by overnight courier that we elect not to consider this Credit extended for any such period.
14. Communications with respect to this Credit shall be in writing and addressed to us at [***name and address of financial institution***], specifically referring upon such writing to this credit by number. The address for notices with respect to this Credit shall be: (i) for CDFW: Department of Fish and Wildlife, Habitat Conservation Planning Branch, Post Office Box 944209, Sacramento, CA 94244-2090, Attn: HCPB Contract Coordinator; and (ii) for the Applicant: [***name and address of applicant***].
15. This Credit may not be transferred.

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16. This Credit is subject to the International Standby Practices 1998 ("ISP 98"). As to matters not covered by the ISP 98 and to the extent not inconsistent with the ISP 98, this credit shall be governed by and construed in accordance with the Uniform Commercial Code, Article 5 of the State of California.
17. This Credit shall, if not canceled, expire on [***expiration date***], or any extended expiration date.
18. We hereby agree with CDFW that documents presented in compliance with the terms of this Credit will be duly honored upon presentation, as specified herein.
19. This Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Credit is referred to or to which this Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

[Name of financial institution]

By: _____
Name: _____
Title: _____
Telephone: _____

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ATTACHMENT A

IRREVOCABLE STANDBY LETTER OF CREDIT NO. [number issued by financial institution]
CERTIFICATE FOR DRAWING

To:

[Name and address of financial institution]

Re: **[Insert: "Lake" or "Streambed"]** Alteration Agreement (No. **[permit number]**)

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. [Insert one of the following statements: "In the opinion of CDFW, the Applicant has failed to complete the Mitigation Requirements referenced in paragraph 3 of the Credit." or "As set forth in paragraph 13, the Issuer has informed CDFW that the Credit will not be extended and the Applicant has not provided CDFW with an equivalent security approved by CDFW to replace the Credit."]
2. The undersigned is authorized under the terms of the Credit to present this Certificate as the sole means of demanding payment on the Credit.
3. CDFW is therefore making a drawing under the Credit in amount of U.S. \$_____.
4. The amount demanded does not exceed the Principal Sum of the Credit.

Therefore, CDFW has executed and delivered this Certificate as of the ___ day of **[month]**, **[year]**.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY:

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]" or "BRANCH CHIEF, HABITAT CONSERVATION PLANNING BRANCH"]

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5 ATTACHMENT B

IRREVOCABLE LETTER OF CREDIT NO. [*number issued by financial institution*]

6 CERTIFICATE FOR CANCELLATION

To:

[Name of financial institution and address]

Re: [*Insert: "Lake" or "Streambed"*] Alteration Agreement (No. [*permit number*])

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in the paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. [*Insert one of the following statements: "The Applicant has presented documentary evidence of full compliance with the Mitigation Requirements referenced in paragraph 3 of the Credit." or "The Applicant has presented documentary evidence of compliance with the following Mitigation Requirement[(s)] referenced in paragraph 3 of the Credit: [*insert brief description of requirement(s) or requirement number(s) completed*]." or "The Applicant has provided CDFW with an equivalent security approved by CDFW to replace the Credit."*]

2. [*Insert one of the following statements: "CDFW therefore requests the cancellation of the Credit." or "CDFW therefore requests a reduction in the Principal Sum in the amount of \$ _____, thereby making the new Principal Sum \$ _____."*]

[Insert one of the following statements: "Therefore, CDFW has executed and delivered this Certificate for Cancellation as of the ____ day of [*month*], [*year*]." or "Therefore, CDFW has executed and delivered this Certificate for Reduction as of the ____ day of [*month*], [*year*]."

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY:

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [*NAME OF REGIONAL OFFICE*]" or "BRANCH CHIEF, HABITAT CONSERVATION PLANNING BRANCH"]

RWQCB 401 PERMIT (LINE K-1) 332014



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

December 7, 2020

Margery Lazarus
City of Moreno Valley
14177 Fredrick Street
Moreno Valley, CA 92552

margeryl@moval.org

**AMENDED CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS
CERTIFICATION FOR THE STATE ROUTE 60/MORENO VALLEY BEACH DRIVE
IMPROVEMENT PROJECT, MORENO VALLEY, RIVERSIDE COUNTY (USACE FILE
NO. N/A) (SARWQCB WDID NO. 332014-08)**

Dear Ms. Lazarus,

On October 11, 2019, Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) staff received from City of Moreno Valley a request to revise the September 10, 2014 Clean Water Act Section 401 Water Quality Standards Certification (Certification) issued for the subject project (Project). The construction permitted by the September 10, 2014 Certification has not been completed because of Project phasing and the Clean Water Act Section 404 Permit covering the Project has expired. We considered your request and have revised the Certification accordingly. Revisions are shown by striking out removed text and underlining added text. Text that is neither stricken nor underlined remains unchanged. This amended Certification replaces the September 10, 2014 Certification issued for this Project.

On April 17, 2014, we received an application for Clean Water Act Section 401 Water Quality Standards Certification (Certification) from the City of Moreno Valley for a project in the City of Moreno Valley, Riverside County. The purpose of the proposed project is to improve the State Route 60/ Moreno Valley Beach Drive Interchange and the Nason Street Overcrossing (Project). A portion of the proposed ~~p~~-Project includes adding a concrete headwall with associated rip rap, for erosion protection, to the existing Line K-1 drainage facility operated by Riverside County Flood Control and Water Conservation District (RCFC&WCD). The Applicant has also submitted a filing fee of \$1,408.00, which satisfies this ~~p~~-Project's fee requirement for consideration of a ~~401~~-Certification. This fee amount was determined using the Dredge and Fill Fee Calculator on the State Water Resources Control Board (SWRCB) web site, which is

WILLIAM RUH, CHAIR | HOPE SMYTHE, EXECUTIVE OFFICER

3737 Main St., Suite 500, Riverside, CA 92501 | www.waterboards.ca.gov/santaana

based on the most current iteration of California Code of Regulations, Division 3, Chapter 9, Article 1, section 2200 (a) (3). This letter responds to your request for certification that the proposed ~~p~~-Project, described in your application and amendment request and summarized below, will comply with State water quality standards outlined in the Water Quality Control Plan for the Santa Ana River Basin (1995) (Basin Plan) and subsequent Basin Plan amendments:

Project Description: To comply with the RCFC&WCD's Moreno Master Drainage Area Plan, Project activities include extending an existing segment of Line K-1, which will convey storm drain flows to the Nason Basin. This basin is located northeast of the SR-60/Nason Street interchange. The approximately 1,700-foot-long Line K-1 storm drain system is located along the north side of Ironwood Avenue from approximately 400 feet west of Pettit Street to Line K (approximately 700 feet west of Moreno Beach Drive). The existing Line K-1 segment that conveys flows southerly beneath Ironwood Avenue consists of a 90-inch diameter pipe and 7-foot by 7-foot reinforced concrete box culvert and associated inlet and outlet. The project involves the installation of approximately 218 cubic yards of 1/2-ton rock rip rap, adjacent to a newly constructed concrete culvert headwall at the downstream outlet, south of Ironwood Avenue.

The work will take place within Sections 34 & 35 of Township 2 South, Range 3 West, of the U.S. Geological Survey *Sunnymead*, CA 7.5-minute topographic quadrangle map (33° 56' 47.24" N/ -117° 50' 84" W).

Receiving water: Unnamed watercourse that discharges to the Nason Basin. Any discharges from the Nason Basin flow to the Perris Valley Channel and eventually to the San Jacinto River. Perris Valley Channel has the present or potential beneficial uses, including: ~~agricultural supply (AGR), ground water recharge (GWR), municipal and domestic supply (MUN),~~ intermittent water contact recreation (REC1), non-contact water recreation (REC2), intermittent warm freshwater habitat (WARM), wildlife habitat (WILD) and rare, threatened, or endangered species (RARE).

Fill area:

Temporary Impact to Streambed Habitat	0.03 acre	40 linear feet
Permanent Impact to Streambed Habitat	0.04 acre	40 linear feet

Dredge/Fill volume: N/A

Federal permit: NWP 31, Section 404 Non-Notifying Project

You have proposed to mitigate water quality impacts as described in your Certification application. The proposed mitigation is summarized below.

Onsite Water Quality Standards Mitigation Proposed:

- Temporary impacts will be restored to their pre-~~p~~-Project conditions. Vegetation will be restored through natural recruitment.
- Standard water quality related best management practices (BMPs) will be employed during construction activities.

Offsite Water Quality Standards Mitigation Proposed:

- None.

Should the proposed ~~p~~-Project impact state- or federally-listed endangered species or their habitat, implementation of measures identified in consultation with U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife will ensure those impacts are mitigated to an acceptable level. Appropriate BMPs will be implemented to reduce construction-related impacts to Waters of the State.

This ~~Water Quality~~ Certification is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein, or any conditions contained in any other permit or approval for this project issued by the State of California, or any subdivision thereof, may result in appropriate enforcement action, including imposition of administrative civil liability.

Pursuant to California Code of Regulations (CCR), Title 14, Chapter 3, ~~S~~-section 15096, as a responsible agency, the ~~Regional~~ Santa Ana Water Board is required to consider an Environmental Impact Report or Negative Declaration prepared by the lead agency in determining whether to approve a project. A responsible agency has responsibility for mitigating and avoiding only the direct and indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve. Further, the responsible agency must make findings as required by CCR ~~S~~-sections 15091 and, if necessary, 15093, for each and every significant impact of the project.

As required by CCR ~~S~~-section 15096, the ~~Regional~~ Santa Ana Water Board has considered the Negative Declaration prepared and filed for the proposed ~~p~~-Project on June 29, 2007, and information provided subsequently in the ~~p~~-Project application, in approving this Certification. Additionally, the California Department of Transportation (Caltrans) filed a National Environmental Policy Act Determination on August 18, 2011, which stated~~s~~ that, based on the examination of the ~~p~~-Project's proposal and supporting information, ~~that~~ Caltrans had~~s~~ determined the ~~p~~-Project qualified for is-a

Categorical Exclusion under Guidelines ~~Section~~ 6005 of 23 U.S.C. 327. The ~~Regional Santa Ana Water Board~~ has independently considered ~~the Applicant's both the Negative Determination and Categorical Exclusion Exemption~~ in the issuance of this Certification and independently finds that no changes or alterations to the proposed ~~p~~ Project are necessary to avoid or mitigate impacts to water quality to a less than significant level.

This ~~404~~ Certification is contingent upon the execution of the following conditions:

- 1) The Applicant ~~must~~ shall comply with the requirements of the applicable Clean Water Act section 404 permit.
- 2) All materials generated from construction activities associated with this ~~p~~ Project shall be managed appropriately. This shall include identifying all potential pollution sources within the scope of work of this ~~p~~ Project and incorporating all necessary pollution prevention BMPs as they relate to each potential pollution source identified.
- 3) The ~~Applicant project proponent~~ shall utilize BMPs during ~~p~~ Project construction to minimize the controllable discharges of sediment and other wastes to drainage systems or other waters of the ~~s~~ State and of the United States.
- 4) Substances resulting from ~~p~~ Project-related activities that could be harmful to aquatic life, including, but not limited to, petroleum lubricants and fuels, cured and uncured cements, epoxies, paints and other protective coating materials, Portland cement concrete or asphalt concrete, and washings and cuttings thereof, shall not be discharged to soils or waters of the ~~s~~ State. All waste concrete shall be removed.
- 5) Motorized equipment shall not be maintained or parked within or near any stream crossing, channel or lake margin in such a manner that petroleum products or other pollutants from the equipment may enter these areas under any flow conditions. Vehicles shall not be driven or equipment operated in waters of the ~~s~~ State on-site, except as necessary to complete the proposed project. No equipment shall be operated in areas of flowing water.
- 6) This ~~Water Quality~~ Certification is subject to the acquisition of all local, regional, ~~s~~ State, and federal permits and approvals as required by law. Failure to meet any conditions contained herein or any the conditions contained in any other permit or approval issued by the State of California or any subdivision thereof may result in the revocation of this Certification and civil or criminal liability.

- 7) ~~BMPs and management practices~~ to stabilize disturbed soils shall ~~must~~ include the use of native plant species whenever feasible.
- 8) Applicant shall ensure that all fees associated with this ~~p~~-Project shall be paid to each respective agency prior to conducting any on-site construction activities.
- 9) This Certification will remain valid until the U.S. Army Corps of Engineers (USACE) 2017 Nationwide Permits expire on March 18, 2022, or through an extended period beyond the expiration date that is authorized in writing by the USACE.
- 10) The Applicant shall submit an Annual Report each year on the anniversary of the effective date of the amended Certification. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Applicant.
- 11) The Applicant shall submit a Commencement of Construction Report at least seven (7) days prior to start of Construction.
- 12) The Applicant shall submit a Request for Notice of Project Complete Letter when maintenance and any required post-construction monitoring is complete and no further Project activities will occur. This request shall be submitted to Santa Ana Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Santa Ana Water Board staff will issue to the Applicant a Notice of Project Complete Letter, which will end the post discharge monitoring period and associated annual fees.

Under California Water Code, ~~S~~-section 1058, and ~~P~~-pursuant to title 23 CCR §section 3860, the following shall be included as conditions of all water quality certification actions:

- (a) Every certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to ~~S~~-section §13330 of the Water Code and Article 6 (commencing with ~~S~~ section 3867) of this Chapter.
- (b) Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to ~~S~~-subsection §3855(b) of this Chapter and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- (c) Certification is conditioned upon total payment of any fee required under this Chapter and owed by the Applicant.

If the above stated conditions are changed, any of the criteria or conditions as previously described are not met, or new information becomes available that indicates a water quality problem, the ~~Regional~~ Santa Ana Water Board may require the Applicant to submit a report of waste discharge and obtain Waste Discharge Requirements.

In the event of any violation or threatened violation of the conditions of this ~~e~~ Certification, the holder of any permit or license subject to this ~~e~~ Certification shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process 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 certification. Violations of the conditions of this certification may subject the Applicant to civil liability pursuant to Water Code sections 13350 and/or 13385.

This letter constitutes a Water Quality Standards Certification issued pursuant to Clean Water Act Section 401. I hereby certify that any discharge from the referenced project will comply with the applicable provisions of 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) of the Clean Water Act, and with other applicable requirements of State law.

This discharge is also regulated under ~~SWRCB State Water Resources Control Board~~ Order No. 2003-0017-DWQ (Order No. 2003-0017-DWQ), "Statewide General Waste Discharge Requirements for Dredged or and-Fill Discharges That Have Received State Water Quality Certification," which requires compliance with all conditions of this Water Quality Standards Certification. Order No. 2003-0017-DWQ is available at: www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo_2003-0017.pdf.

Should there be any questions, please contact Jason Bill at (951) 782-3295 or Jason.Bill@Waterboards.ca.gov ~~Marc Brown~~ at (951) 321-4584, or David Woelfel at (951) 782-7960 or David.Woelfel@waterboards.ca.gov ~~Mark Adelson~~ at (951) 782-3234.

Sincerely,

Hope Smythe  Digitally signed by Hope Smythe
Date: 2020.12.07 13:43:33 -08'00'
Water Boards

Hope A. Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board

cc (via electronic mail):

USACE, Regulatory Division, Los Angeles District - James Mace
James.E.Mace@usace.army.mil
U.S. Environmental Protection Agency, Region 9 – Wetlands Section –
Melissa Scianni -- Scianni.Melissa@epa.gov
U.S. Fish and Wildlife Service - James Theide - James_Thiede@fws.gov
California Department of Fish and Wildlife – Carly Beck -
Carly.Beck@wildlife.ca.gov
California Department of Fish and Wildlife – Eric Chan -
Eric.Chan@wildlife.ca.gov
Caltrans – Antonia Toledo - Antonia.Toledo@dot.ca.gov
SWRCB, Office of Chief Counsel – Teresita Sablan
Teresita.Sablan@waterboards.ca.gov
SWRCB, Division of Water Quality -- Water Quality Certification Unit –
Stateboard401@waterboards.ca.gov
Santa Ana Water Board – David Woelfel – David.Woelfel@waterboards.ca.gov

Santa Ana Regional Water Quality Control Board

RECEIVED

September 10, 2014

SEP 11 2014

Margery Lazarus
City of Moreno Valley
14177 Fredrick Street
Moreno Valley, CA 92552

PUBLIC WORKS DEPARTMENT
CAPITAL PROJECTS DIVISION

**CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS
CERTIFICATION FOR THE STATE ROUTE 60/MORENO VALLEY BEACH DRIVE
IMPROVEMENT PROJECT, MORENO VALLEY, RIVERSIDE COUNTY (ACOE
CORPS FILE NO. N/A) (SARWQCB PROJECT NO. 332014-08)**

Dear Ms. Lazarus,

On April 17, 2014, we received an application for Clean Water Act Section 401 Water Quality Standards Certification ("Certification") from the City of Moreno Valley for a project in the City of Moreno Valley, Riverside County. The purpose of the proposed project is to improve the State Route 60/ Moreno Valley Beach Drive Interchange and the Nason Street Overcrossing (Project). A portion of the proposed project includes adding a concrete headwall with associated rip rap, for erosion protection, to the existing Line K-1 drainage facility operated by Riverside County Flood Control and Water Conservation District (RCFC&WCD). The applicant has also submitted a filing fee of \$1,408.00, which satisfies this project's fee requirement for consideration of a 401 Certification. This fee amount was determined using the Dredge and Fill Fee Calculator on the State Water Resources Control Board (SWRCB) web site, which is based on the most current iteration of California Code of Regulations, Division 3, Chapter 9, Article 1, section 2200 (a) (3). This letter responds to your request for certification that the proposed project, described in your application and summarized below, will comply with State water quality standards outlined in the Water Quality Control Plan for the Santa Ana River Basin (1995) (Basin Plan) and subsequent Basin Plan amendments:

Project Description: To comply with the RCFC&WCD's Moreno Master Drainage Area Plan, Project activities include extending an existing segment of Line K-1, which will convey storm drain flows to the Nason Basin. This basin is located northeast of the SR-60/Nason Street interchange. The approximately 1,700 foot long Line K-1 storm drain system is located along the north side of Ironwood Avenue from approximately 400 feet west of Pettit Street to Line K (approximately 700 feet west of Moreno Beach Drive). The existing Line K-1 segment that conveys flows southerly beneath Ironwood Avenue consists

of a 90-inch diameter pipe and 7-foot by 7-foot reinforced concrete box culvert and associated inlet and outlet. The project involves the installation of approximately 218 cubic yards of 1/2 ton rock rip rap, adjacent to a newly constructed concrete culvert headwall at the downstream outlet, south of Ironwood Avenue.

The work will take place within Sections 34 & 35 of Township 2 South, Range 3 West, of the U.S. Geological Survey *Sunnymead*, CA 7.5 minute topographic quadrangle map (33° 56' 47.24" N/ -117° 50' 84" W).

Receiving water: Unnamed watercourse that discharges to the Nason Basin. Any discharges from the Nason Basin flow to the Perris Valley Drain and eventually to the San Jacinto River. These watercourses have present or potential beneficial uses, including: agricultural supply (AGR), ground water recharge (GWR), municipal and domestic supply (MUN), water contact recreation (REC1), non-contact water recreation (REC2), warm freshwater habitat (WARM), and wildlife habitat (WILD).

Fill area:

Temporary Impact to Streambed Habitat	0.03 acre	40 linear feet
Permanent Impact to Streambed Habitat	0.04 acre	40 linear feet

Dredge/Fill volume: N/A

Federal permit: NWP 31, Section 404 Non-Notifying Project

You have proposed to mitigate water quality impacts as described in your Certification application. The proposed mitigation is summarized below:

Onsite Water Quality Standards Mitigation Proposed:

- Temporary impacts will be restored to their pre-project conditions. Vegetation will be restored through natural recruitment.
- Standard water quality related best management practices (BMPs) will be employed during construction activities.

Offsite Water Quality Standards Mitigation Proposed:

- None.

Should the proposed project impact state- or federally-listed endangered species or their habitat, implementation of measures identified in consultation with U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife will ensure those impacts are mitigated to an acceptable level. Appropriate BMPs will be implemented to reduce construction-related impacts to Waters of the State.

This Water Quality Certification is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein, or any conditions contained in any other permit or approval for this project issued by the State of California, or any subdivision thereof, may result in appropriate enforcement action, including imposition of administrative civil liability.

Pursuant to California Code of Regulations, Title 14, Chapter 3, Section 15096, as a responsible agency, the Regional Board is required to consider an EIR or Negative Declaration prepared by the lead agency in determining whether to approve a project. A responsible agency has responsibility for mitigating and avoiding only the direct and indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve. Further, the responsible agency must make findings as required by Sections 15091 and, if necessary, 15093, for each and every significant impact of the project.

As required by Section 15096, the Regional Board has considered the Negative Declaration prepared and filed for the proposed project on June 29, 2007, and information provided subsequently in the project application, in approving this Certification. Additionally, Caltrans filed a NEPA Determination on August 18, 2011, which states that based on the examination of the project's proposal and supporting information, that Caltrans has determined the project is a Categorical Exclusion under Guidelines Section 6005 of 23 U.S.C. 327. The Regional Board has independently considered the applicant's Categorical Exemption in the issuance of this Certification and independently finds that no changes or alterations to the proposed project are necessary to avoid or mitigate impacts to water quality to a less than significant level.

This 401 Certification is contingent upon the execution of the following conditions:

- 1) The applicant must comply with the requirements of the applicable Clean Water Act section 404 permit.

- 2) All materials generated from construction activities associated with this project shall be managed appropriately. This shall include identifying all potential pollution sources within the scope of work of this project, and incorporating all necessary pollution prevention BMPs as they relate to each potential pollution source identified.
- 3) The project proponent shall utilize BMPs during project construction to minimize the controllable discharges of sediment and other wastes to drainage systems or other waters of the state and of the United States.
- 4) Substances resulting from project-related activities that could be harmful to aquatic life, including, but not limited to, petroleum lubricants and fuels, cured and uncured cements, epoxies, paints and other protective coating materials, portland cement concrete or asphalt concrete, and washings and cuttings thereof, shall not be discharged to soils or waters of the state. All waste concrete shall be removed.
- 5) Motorized equipment shall not be maintained or parked within or near any stream crossing, channel or lake margin in such a manner that petroleum products or other pollutants from the equipment may enter these areas under any flow conditions. Vehicles shall not be driven or equipment operated in waters of the state on-site, except as necessary to complete the proposed project. No equipment shall be operated in areas of flowing water.
- 6) This Water Quality Certification is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein or any the conditions contained in any other permit or approval issued by the State of California or any subdivision thereof may result in the revocation of this Certification and civil or criminal liability.
- 7) Best management practices to stabilize disturbed soils must include the use of native plant species whenever feasible.
- 8) Applicant shall ensure that all fees associated with this project shall be paid to each respective agency prior to conducting any on-site construction activities.

Under California Water Code, Section 1058, and Pursuant to 23 CCR §3860, the following shall be included as conditions of all water quality certification actions:

- (a) Every certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to

Section §13330 of the Water Code and Article 6 (commencing with Section 3867) of this Chapter.

(b) Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to Subsection §3855(b) of this Chapter and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

(c) Certification is conditioned upon total payment of any fee required under this Chapter and owed by the applicant.

If the above stated conditions are changed, any of the criteria or conditions as previously described are not met, or new information becomes available that indicates a water quality problem, the Regional Board may require the applicant to submit a report of waste discharge and obtain Waste Discharge Requirements.

In the event of any violation or threatened violation of the conditions of this certification, the holder of any permit or license subject to this certification shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process 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 certification. Violations of the conditions of this certification may subject the applicant to civil liability pursuant to Water Code section 13350 and/or 13385.

This letter constitutes a Water Quality Standards Certification issued pursuant to Clean Water Act Section 401. I hereby certify that any discharge from the referenced project will comply with the applicable provisions of 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) of the Clean Water Act, and with other applicable requirements of State law.

This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ (Order No. 2003-0017-DWQ), "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received Water Quality Certification" which requires compliance with all conditions of this Water Quality Standards Certification. Order No. 2003-0017-DWQ is available at:
www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo_2003-0017.pdf

Margery Lazarus
City of Moreno Valley
RWQB #: 332014-08 CIWQS #: 806317

- 6 -

September 10, 2014

Should there be any questions, please contact Marc Brown at (951) 321-4584, or Mark Adelson at (951) 782-3234.

Sincerely,



Kurt V. Berchtold
Executive Officer
Santa Ana Regional Water Quality Control Board

cc (via electronic mail):

Parsons – Ryan Todaro – ryan.todaro@parsons.com
U. S. Army Corps of Engineers, Los Angeles Office – Jim Mace
CA Department of Fish and Wildlife – Joanna Gibson
State Water Resources Control Board, Office of Chief Counsel-David Rice
State Water Resources Control Board DWQ -Water Quality Certification Unit
U.S. EPA -Supervisor of the Wetlands Regulatory Office WTR-8

RWQCB 401 PERMIT (60MB) 332019



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

January 7, 2021

Ms. Margery Lazarus
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

margeryl@moval.org

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE STATE ROUTE 60/MORENO BEACH DRIVE INTERCHANGE PROJECT, PHASE 2 (SARWQCB WDID # 332019-30)

Dear Ms. Lazarus:

Enclosed please find a Clean Water Act Section 401 Water Quality Certification and Order, authorized by Santa Ana Regional Water Quality Control Board Executive Officer, Hope A. Smythe. This Order is issued to you for the State Route 60/Moreno Beach Drive Interchange Project, Phase 2 (Project). Attachments A through C of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted on behalf of the City of Moreno Valley for the 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 me by phone at (951) 782-3204 or by email at Maher.Zaher@waterboards.ca.gov. You may also contact David Woelfel, Chief of Regional Planning Programs Section, by phone at (951) 782-7960 or by email at David.Woelfel@waterboards.ca.gov.

Sincerely,

 Digitally signed by Maher Zaher
Date: 2021.01.07 11:41:30
Water Boards

Maher Zaher
Water Resource Control Engineer
Regional Planning Programs Section
Santa Ana Regional Water Quality Control Board

Enclosures (1): Order for State Route 60/Moreno Beach Drive Interchange Project, Phase 2

WILLIAM RUH, CHAIR | HOPE SMYTHE, EXECUTIVE OFFICER

3737 Main St., Suite 500, Riverside, CA 92501 | www.waterboards.ca.gov/santaana

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

U.S. Army Corps of Engineers, Jim Mace – James.E.Mace@usace.army.mil
U.S. Environmental Protection Agency, Region 9 – Wetlands Section –
Melissa Scianni -- Scianni.Melissa@epa.gov
U.S. Fish and Wildlife Service – James Thiede – James.Thiede@fws.gov
California Department of Fish and Wildlife – Eric Chan – Eric.Chan@wildlife.ca.gov
California Department of Fish and Wildlife – Carley Beck - Carley.Beck@wildlife.ca.gov
California Department of Transportation – Antonia Toledo – Antonia.Toledo@dot.ca.gov
State Water Resource Control Board, Office of Chief Counsel -- Teresita Sablan –
Teresita.Sablan@waterboards.ca.gov
State Water Resources Control Board, Division of Water Quality -- Water Quality
Certification Unit – Stateboard401@waterboards.ca.gov
Santa Ana Regional Water Quality Control Board – David Woelfel –
David.Woelfel@waterboards.ca.gov
Parsons Corporation – Elizabeth Kempton – Elizabeth.Kempton@parsons.com

Santa Ana Regional Water Quality Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: January 7, 2021

Program Type: Fill/Excavation

Project Type: Roads and Highways

Project: State Route 60/Moreno Beach Drive Interchange Project, Phase 2 (Project)

Federal Permit: United States Army Corps of Engineers (USACE) Nationwide Permit (NWP) 14, Linear Transportation Project

Applicant: City of Moreno Valley

Applicant Contact: Margery Lazarus, Senior Engineer
14177 Frederick Street
Moreno Valley, California 92552
Phone: (951) 413-3133
Email: margeryl@moval.org

Applicant's Agent: Elizabeth Kempton, Principal Biologist
100 West Walnut Street
Pasadena, California 91124
Phone: (909) 806-4198
Email: elizabeth.kempton@parsons.com

Water Board Staff: Maher Zaher, Water Resource Control Engineer
3737 Main Street, Suite 500
Riverside, California 92501
Phone: (951) 782-3204
Email: Maher.Zaher@waterboards.ca.gov

Water Board Contact Person:

If you have any questions, please call Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) staff listed above or (951) 782-4130 and ask to speak with the Regional Planning Programs Section Chief.

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I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of the City of Moreno Valley (herein after Permittee) for the Project. This Order is for the purpose described in the application and supplemental information submitted by the Permittee. The Phase 1 project, as noted on the map in Attachment A, already received approval through a separate order under SARWQCB WDID # 332014-08. The application for the current Project (Phase 2) was received on October 30, 2019. The application was deemed complete on December 31, 2020. Prior to receiving a complete application, Santa Ana Water Board staff issued a notice of incomplete application, and the Permittee responded to the request for application information as summarized on Table 1.

Table 1: Record of Notice(s) of Incomplete Application	
Date of Notice of Incomplete Application	Date Requested Information Received
12/30/2019	11/17/2020

Santa Ana 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 provided in Table 2.

Table 2: Record of Supplemental Application Information	
Date of Request for Supplemental Information	Date Requested Information Received
1/4/2021	1/4/2021

II. Public Notice

The Santa Ana Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from November 4, 2019 to the effective date of the Order. The Santa Ana Water Board did not receive any comments during the comment period.

III. Project Purpose

The Project purpose is to perform operational improvements to facilitate movement of traffic at and near the interchange of State Route 60 (SR-60) and Moreno Beach Drive. The Project would alleviate existing traffic congestion and address deficiencies of the existing roadway. The proposed Project is needed to improve the safety of the interchange.

IV. Project Description

The Project proposes the construction of a westbound off-ramp to Moreno Beach Drive, north of SR-60. Additional Project activities at Moreno Beach Drive would include a loop on-ramp with an auxiliary lane for northbound traffic and a direct on-ramp for southbound traffic proposed for vehicles to complete the southbound to westbound SR-60 movement.

The existing two-lane bridge would be replaced with a new overcrossing that would provide additional through lanes and a dedicated left-turn lane with sidewalks, as well as minimal shoulders that would accommodate bicycles in each direction. Additionally, SR-60 would be widened in the westbound direction to provide an auxiliary lane.

Three ephemeral drainages transect the Project area. To complete the proposed Project, permanent grading and fill would occur at three site features, Drainage 2.3, Drainage 2.4, and Drainage 3.2, as outlined in the site map provided in Attachment A (note that other drainages on the map refer to the Phase 1 project that received prior approval).

V. Project Location

The Project is located at the intersection of SR-60 and Moreno Beach Drive, City of Moreno Valley in Riverside County in Section 3 of Township 3 South, Range 3 West in the United States Geological Survey (USGS) Sunnymead 7.5-minute quadrangle topographic map (33.93482 °N / -117. 15408 °W). The Project is located within the San Jacinto watershed. A map showing the Project location is found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the Santa Ana Water Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the Water Quality Control Plan for the Santa Ana River Basin (1995) and subsequent amendments (Basin Plan) and other plans and 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: Unnamed tributary to San Jacinto River (Reach 3), Perris Valley Channel

Existing or Potential Beneficial Uses: Water Contact Recreation (REC1), Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE)

VII. Description of Direct Impacts to Waters of the State

Direct impacts to waters of the State would occur at three Project features, referred to as Drainage 2.3, Drainage 2.4, and Drainage 3.2 in the site map provided in Attachment A. Grading and fill activities at the mentioned features would result in 0.61 acre of impacts at Drainage 2.3, 0.17 acre of impacts at Drainage 2.4, and 0.41 acre of impacts at Drainage 3.2. Direct impacts would include the discharge of rip-rap rock and construction materials associated with roadways and on-ramps, such as concrete, asphalt and rebar.

Total Project fill/excavation quantities for all impacts are summarized in Table 1. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition only.

Table 3: Total Project Fill/Excavation Quantity									
Aquatic Resource Type	Temporary Impact¹			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY²	LF	Acres	CY	LF	Acres	CY	LF
Riparian Zone	-	-	-	0.96	-	1121.43	-	-	-
Stream Channel	-	-	-	0.23	-	560.70	-	-	-

VIII. Compensatory Mitigation

The Permittee has agreed to provide compensatory mitigation described in section XII.H for the permanent physical loss of, the permanent degradation of ecological condition of, and temporary impacts to waters of the State.

IX. California Environmental Quality Act (CEQA)

On July 16, 2007, the California Department of Transportation, District 8, as lead agency, adopted an Initial Study/Mitigated Negative Declaration (IS/MND) for the Project and filed a Notice of Determination at the Clerk of the Board of Supervisors, County of Riverside on March 8, 2008. As required by California Code of Regulations, title 14, section 15096, in approving this Certification, the Santa Ana Water Board has considered the IS/MND adopted by the California Department of Transportation, District 8, and subsequent information provided by the Permittee. More specifically, the Santa Ana Water Board considered those sections of the IS/MND pertaining to impacts to water quality standards. Based on the mitigation proposed in the IS/MND and the Conditions set forth in this Certification, potentially adverse impacts to water quality standards should be reduced to a less than significant level and beneficial uses protected, if all stated mitigation and conditions are performed.

X. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Resources Control 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 thirty (30) calendar days of the issuance of this Order.

XI. Fees Received

An application fee of \$1638.00 was received on October 30, 2019. 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 Santa Ana 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:

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)

A. Authorization

Impacts to waters of the State shall not exceed quantities shown in Table 3.

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 B, including specifications for photo and map documentation during the Project construction. Written reports and notifications shall be submitted using the *Reporting and Notification Cover Sheet* located in Attachment B and 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 the effective date. 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 Santa Ana Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Santa Ana Water Board staff will issue to the Permittee a *Notice of Completion of Discharges Letter*, which will end the active discharge period and, if appropriate, 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 any required post-construction monitoring is complete³ and no further Project activities will occur. This request shall be submitted to Santa Ana Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Santa Ana Water Board staff will issue to the Permittee a *Notice of Project Complete Letter*, 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.

³ Completion of post-construction monitoring will be determined by Santa Ana Water Board staff and will be contingent on successful attainment of restoration and mitigation performance criteria.

- a. Accidental Discharges of Hazardous Materials.**⁴ Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Water Code, section 13271):
- i. As soon as (A) the 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 the Permittee shall:
 - 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 the *California Hazardous Materials Spill / Release Notification Guidance*
 - ii. Following notification to OES, the Permittee shall notify Santa Ana Water Board, as soon as practicable (ideally within twenty-four [24] hours). Notification may be via telephone, email, delivered written notice, or other verifiable means.
 - iii. Within five (5) working days of notification to the Santa Ana Water Board, the Permittee shall submit an *Accidental Discharge of Hazardous Material Report*.
- b. Violation of Compliance with Water Quality Standards.** The Permittee shall notify the Santa Ana Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, email, 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.
 - ii. This notification shall be followed within three (3) working days by submission of a *Violation of Compliance with Water Quality Standards Report* to the Santa Ana Water Board.
- c. In-Water Work.**
- i. The Permittee shall notify the Santa Ana Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, email, 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* shall be submitted to Santa Ana Water Board staff.

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 and Safety Code, section 25501)

- d. **Modifications to Project.** Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Santa Ana Water Board staff by submitting a *Modifications to Project Report*, 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. The Permittee shall inform Santa Ana 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.
- 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 Santa Ana Water Board in accordance with the following terms:
 - i. The Permittee shall notify the Santa Ana Water Board by submitting a *Transfer of Property Ownership Report*, of any change in ownership or interest in ownership of the Project area. The Permittee and purchaser shall sign and date the notification and provide such notification to the Santa Ana Water Board at least ten (10) days prior to the transfer of ownership. The purchaser shall also submit a written request to the Santa Ana 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.
- f. **Transfer of Long-Term Best Management Practices (BMPs) Maintenance.** If maintenance responsibility for post-construction BMPs is legally transferred, the Permittee shall submit to the Santa Ana Water Board a copy of such documentation and shall provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee shall provide such notification to the Santa Ana Water Board with a *Transfer of Long-Term BMP Maintenance Report* at least ten (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, 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, Santa Ana 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 water any discharge(s) to waters of the State shall conform to the following water quality standards.
 - a. **Oil and Grease.** Waste discharges shall not result in deposition of oil, grease, wax, or other material in concentrations that result in a visible film or in coating objects in the water, or that cause a nuisance or adversely affect beneficial uses.

- b. Oxygen.** The dissolved oxygen content of surface waters shall not be depressed below 5 mg/L for waters designated WARM, as a result of controllable water quality factors. In addition, waste discharge shall not cause the median dissolved oxygen concentration to fall below 85 percent of saturation or the 95th percentile concentration or fall below 75 percent of saturation within a 30-day period.
- c. pH.** The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge.
- d. Turbidity.** Increases in turbidity that result from controllable water quality factors shall comply with the following: where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20 percent; where natural turbidity is between 50 and 100 NTU, increases shall not exceed 10 NTU; and where natural turbidity is greater than 100 NTU, increases shall not exceed 10 percent. Changes in turbidity shall not adversely affect beneficial uses. Measurements of turbidity shall be taken 100 feet downstream of Project activities.
- e. Temperature.** The temperature of waters designated WARM shall not be raised above 90 °F June through October or above 78 °F during the rest of the year as a result of controllable water quality factors

Sampling shall be conducted in accordance with Table 4 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	Once per day during in-water work
pH	Standard Units	Grab	Once per day during in-water work
Turbidity	NTU	Grab	Once per day during in-water work
Temperature	°F (or as °C)	Grab	Once per day during in-water work

Baseline sampling shall be conducted at least at one location within the Project boundary. All other sampling shall take place at a minimum of two locations: the sample locations shall be upstream and downstream of the construction area. Results of the analyses shall be submitted to the Santa Ana Water 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.

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, a description of the method to be used must be submitted to the Santa Ana Water Board staff for approval. 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. Environmental Protection Agency-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.

- 4. Post-Construction.** The Permittee shall visually inspect the Project site during the rainy season for three (3) years to ensure excessive erosion, stream instability, or other water quality pollution is not occurring in or downstream of the Project site. If water quality pollution is occurring, contact the Santa Ana Water Board staff member overseeing the Project within three (3) working days. The Santa Ana 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.

D. Standards

1. This Certification will remain valid until the USACE 2017 Nationwide Permits expire on March 18, 2022, or through an extended period beyond the expiration date that is authorized in writing by the USACE.
2. 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 Santa Ana Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Santa Ana 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 (Water Code, sections 13000 et seq.) or federal Clean Water Act section 303 (Title 33 U.S Code section 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.
3. 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.
4. 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.
5. 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, processes, 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. If the conditions of this Order are changed, any of the criteria or conditions as previously described are not met, or new information becomes available that indicates a water quality problem, the Santa Ana Water Board may require that the Permittee submit a *Report of Waste Discharge* and obtain *Waste Discharge Requirements*.
3. Permitted actions shall not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters, as adopted in the Basin Plan and subsequent Basin Plan Amendments or in any applicable State Water Resources Control Board water quality control plan or policy. The source of any such discharge shall be eliminated as soon as practicable.
4. In response to a suspected violation of any condition of this Order, the Santa Ana Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Santa Ana Water Board deems appropriate, provided that the burden, including costs, of the reports bears 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.
5. The Permittee shall, 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.
6. 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.

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment C of this Order.
2. This Order does not authorize any act that results in the taking of a threatened, endangered, or candidate species, or any act that is now prohibited or becomes prohibited in the future under either the California Endangered Species Act (Fish and Game Code, sections 2050-2097) or the federal Endangered Species Act (Title 16 U.S. Code sections 1531-1544). If a “take” will result from any act authorized under this Order held by the Permittee, the Permittee shall 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 Santa Ana 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 shall 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. **Lake and Streambed Alteration Agreement:** The Permittee shall submit a signed copy of the California Department of Fish and Wildlife's lake and streambed alteration agreement to the Santa Ana Water Board immediately upon execution and prior to any discharge to waters of the State.

G. Construction

1. **Dewatering:** Construction dewatering discharges, including temporary stream diversions necessary to carry out the Project, are subject to regulation by Santa Ana Water Board Order No. R8-2020-0006, General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality.
2. **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; NPDES No. CAS000002) and any subsequent approvals.
3. **Good Site Management "Housekeeping":**
 - a. A Storm Water Pollution Prevention Plan (SWPPP) shall be developed by the construction contractor prior to Project implementation. The SWPPP shall include measures to prevent sediment from entering the watercourse during construction.
 - b. BMPs for effective perimeter control shall be in place at all times to control the discharge of pollutants from the Project site during construction. Construction waste shall be contained and protected against wind and exposure to storm water at all times, unless being actively handled. Chemical, fuel, and lubricant containers shall be kept closed and protected from damage or upset at all times, unless being actively used. Dirt and landscaping material stockpiles shall have effective erosion control BMPs in place to prevent their transport in storm water or directly into the channel and shall not be located in any waters of the United States. Discharges of wastewater from the Project site are prohibited.

- c. Substances resulting from Project-related activities and that could be harmful to aquatic life shall not be discharged to soils or waters of the State. These substances include but are not limited to petroleum lubricants and fuels, cured and uncured cements, epoxies, paints and other protective coating materials, Portland cement concrete or asphalt concrete, and washings and cuttings thereof. All waste concrete shall be removed from the Project site.
 - d. Motorized equipment shall not be maintained or parked in or near any stream crossing, channel, or lake margin in such manner that petroleum products or other pollutants from the equipment might enter these areas under any flow conditions. Vehicles shall not be driven, or equipment shall not be operated on-site in waters of the State onsite, except as necessary to complete the proposed Project.
 - e. Prior to construction activities, the Permittee shall delineate the work area with brightly colored fencing or other methods to ensure temporary impacts to waters of the United States and waters of the State do not exceed the limits authorized in this Certification.
4. **Hazardous Materials:** During construction activities, the Permittee shall comply with local, State, and federal laws and regulations regarding the handling and storage of hazardous substances.
5. **Invasive Species and Soil Borne Pathogens:** BMPs to stabilize disturbed soils shall include the use of native plant species whenever feasible.
6. **Storm Water:** The Project shall comply with the local regulations associated with the Santa Ana Water Board's Municipal Stormwater Permit issued to Riverside County and co-permittees under NPDES No. CAS618033 and Waste Discharge Requirements Order No. R8-2010-0033, and subsequent iterations thereof.

H. Compensatory Mitigation for Permanent Impacts⁶

1. Purchase of Mitigation Credits by Permittee for Compensatory Mitigation

- a. A copy of the fully executed agreement for the purchase of mitigation credits shall be provided to the Santa Ana Water Board within ten (10) days of authorized impacts.
- b. The Permittee shall retain responsibility for providing the compensatory mitigation and long-term management until Santa Ana Water Board staff has received documentation of the credit purchase and the transfer agreement between the Permittee and the seller of credits.

2. Total Required Compensatory Mitigation

- a. The Permittee shall provide compensatory mitigation for the authorized impact to an unnamed tributary to San Jacinto River and Perris Valley Channel by purchase of 2.38 acres (a 2:1 mitigation to impact ratio) of rehabilitation credits from a Santa Ana Water Board-approved mitigation bank.

⁶ Compensatory Mitigation is for permanent physical loss and permanent ecological degradation of a water of the State.

- b. The Permittee shall provide the total required Project compensatory mitigation information for permanent physical loss of area as summarized in Table 5.

Table 5: Required Project Compensatory Mitigation Quantity for Permanent Physical Loss of Area								
Aquatic Resource Type	Comp Mit. Type ⁷	Units	Method ⁸					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Riparian Zone	MB	Acres	-	-	1.92	-	-	-
Stream Channel	MB	Acres	-	-	0.46	-	-	-

XIII. Certification Deviation

- A. 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. For purposes of this Certification, a *Certification Deviation* is a Project locational or impact modification that does not require an immediate amendment of the Order because the Santa Ana 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.
- B. 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.

XIV. Water Quality Certification

I hereby issue the Order (SARWQCB WDID # 332019-30) for the *State Route 60/Moreno Beach Drive Interchange Project, Phase 2*. This Order certifies that 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), as long as all of the conditions listed in the Order are met.

⁷ Compensatory mitigation type may be: In-Lieu-Fee (ILF); Mitigation Bank (MB); 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.

This discharge is also regulated pursuant to State Water Resources Control 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 (Water Code, sections 13000 et seq.).

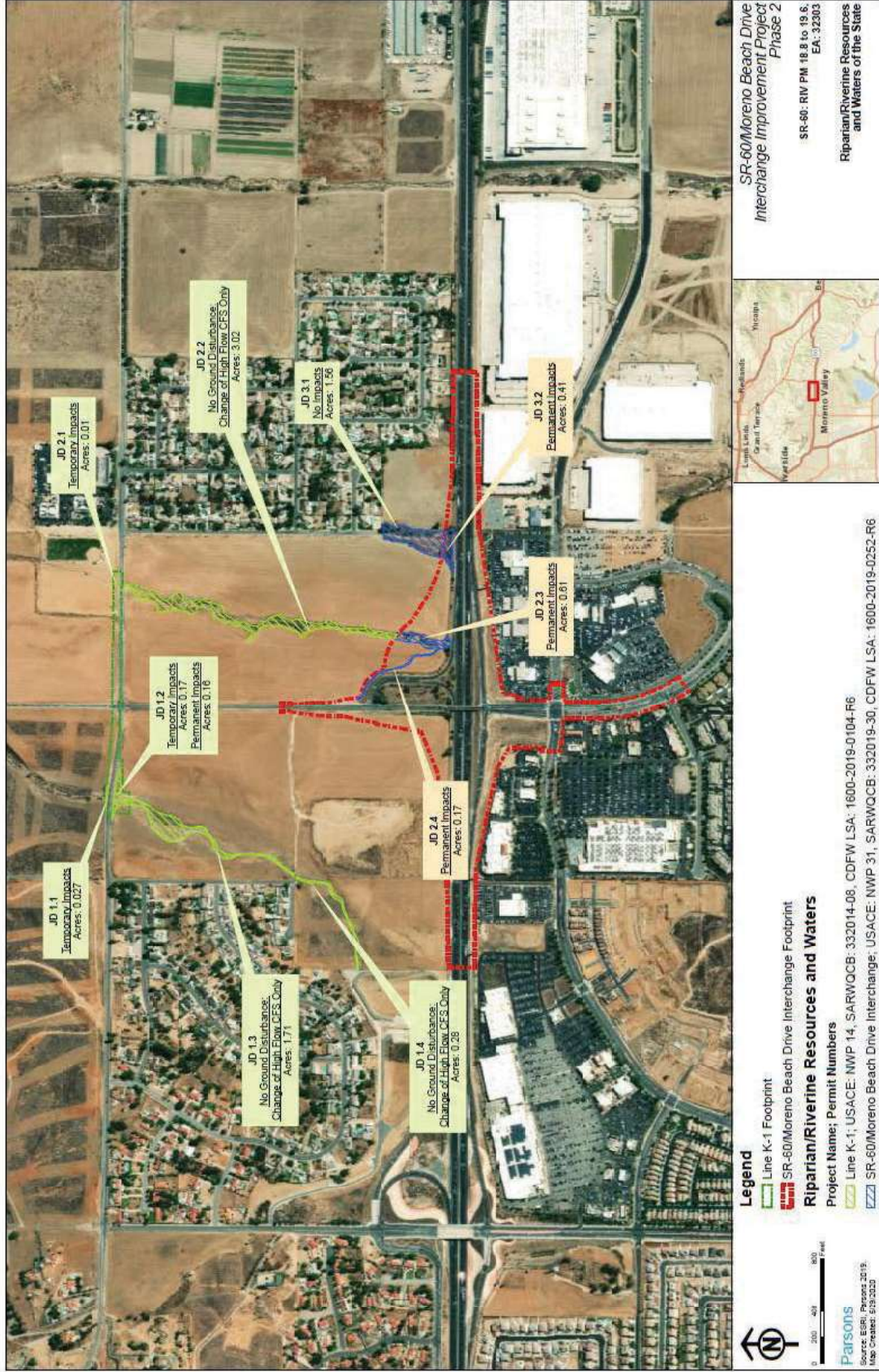
Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited, and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and (b) compliance with all applicable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

Hope Smythe  Digitally signed by Hope Smythe
Date: 2021.01.07 15:40:12 -08'00'

Hope A. Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board

Date

Attachment A Project Map(s)
Attachment B Report and Notification Requirements
Attachment C Signatory Requirements



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 (see page 3). 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):** Submitted annually from the anniversary of the Project effective date until a *Notice of Project Complete Letter* is issued.
 - **Part B (Project Status Notifications):** Used to notify the Santa Ana 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: RB8-401Reporting@waterboards.ca.gov
 - Include in the subject line of the email:
Subject: ATTN: Maher Zaher; Reg. Measure ID: 435308 Report; WDID # 332019-30

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 Santa Ana Water Board staff pertains to projects that have post construction monitoring requirements (e.g., if site restoration were required to be monitored for five (5) years following construction). Santa Ana 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 Santa Ana 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. Santa Ana 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 Santa Ana Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.

5. **Effective Date:** 1/07/2021

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 shall 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 (NAD83) in the California Teale Albers projection in feet.
- **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps shall 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 shall 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 shall 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:	State Route 60/Moreno Beach Drive Interchange Project, Phase 2		
Permittee:	City of Moreno Valley		
SARWQCB WDID:	332019-30		
Reg. Meas. ID:	435308	Place ID:	862659
Order Effective Date:	January 7, 2021		

Report Type Submitted	
Part A – Project Reporting	
Report Type 1	<input type="checkbox"/> Annual Report
Part B - Project Status Notifications	
Report Type 2	<input type="checkbox"/> Commencement of Construction
Report Type 3	<input type="checkbox"/> Request for Notice of Completion of Discharges Letter
Report Type 4	<input type="checkbox"/> Request for Notice of Project Complete Letter
Part C - Conditional Notifications and Reports	
Report Type 5	<input type="checkbox"/> Accidental Discharge of Hazardous Material Report
Report Type 6	<input type="checkbox"/> Violation of Compliance with Water Quality Standards Report
Report Type 7	<input type="checkbox"/> In-Water Work and Diversions Water Quality Monitoring Report
Report Type 8	<input type="checkbox"/> Modifications to Project Report
Report Type 9	<input type="checkbox"/> Transfer of Property Ownership Report
Report Type 10	<input type="checkbox"/> Transfer of Long-Term Best Management Practices (BMPs) Maintenance Report

"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 1	Annual Report
Report Purpose	Notify the Santa Ana 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 by the 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 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.
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.

	<p>2. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.</p>
<p>Annual Report Topic 3</p>	<p>Compensatory Mitigation for Permanent Impacts Status</p>
<p>When to Submit</p>	<p>With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.</p>
<p>Report Contents</p>	<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 (ILF)</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 2	Commencement of Construction
Report Purpose	Notify Santa Ana 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 3	Request for Notice of Completion of Discharges Letter
Report Purpose	Notify Santa Ana 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 Santa Ana 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 4	Request for Notice of Project Complete Letter
Report Purpose	Notify Santa Ana 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 Santa Ana 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 that 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">1. A report establishing that the performance standards outlined in the compensatory mitigation plan have been met.2. Status on the implementation of the long-term maintenance and management plan and funding of endowment.3. Pre- and post-photo documentation of all compensatory mitigation sites.4. Final maps of all compensatory mitigation areas (including buffers). <p>Part C: Post-Construction Storm Water BMPs</p> <ol style="list-style-type: none">1. Date of storm water Notice of Termination(s), if applicable.2. Report status and functionality of all post-construction BMPs.
--	--

Part C – Conditional Notifications and Reports

Report Type 5	Accidental Discharge of Hazardous Material Report
Report Purpose	Notifies Santa Ana 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 Santa Ana Water Board staff.
Report Contents	<ol style="list-style-type: none"> 1. The report shall include the <i>OES Incident/Assessment Form</i>, 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 <i>OES Written Follow-Up Report</i> 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 6	Violation of Compliance with Water Quality Standards Report
Report Purpose	Notifies Santa Ana 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 Santa Ana 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 Santa Ana Water Board staff.

Report Type 7	In-Water Work and Diversions Water Quality Monitoring Report
Report Purpose	Notifies Santa Ana 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 8	Modifications to Project Report
Report Purpose	Notifies Santa Ana 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 9	Transfer of Property Ownership Report
Report Purpose	Notifies Santa Ana Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
When to Submit	At least ten (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 BMP¹ maintenance plan requirements in this Order. 2. A statement that the Permittee has informed the purchaser to submit a written request to the Santa Ana Water Board to be named as the permittee in a revised order.

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

¹ Best Management Practices (BMPs) is a term used to describe a type of environmental or water pollution control.

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 Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) shall 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 Santa Ana 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."

Attachment AA

SWPPP Amendments

SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

CEM-2008 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL
	<input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002. <input type="checkbox"/> Risk Level 3

Storm Water Pollution Prevention Plan (SWPPP)/Water Pollution Control Program (WPCP)

Amendment Number _____

CONTRACTOR WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE
CONTRACTOR WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

Contractor Certification of SWPPP or WPCP Amendment

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

CONTRACTOR SIGNATURE	DATE
CONTRACTOR NAME	PHONE NUMBER
TITLE	

Resident Engineer Acceptance of SWPPP or WPCP Amendment

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

RESIDENT ENGINEER SIGNATURE	DATE OF AMENDMENT ACCEPTANCE
RESIDENT ENGINEER NAME	PHONE NUMBER

SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

CEM-2008 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Required for Private Entity Administered Projects

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

LEGALLY RESPONSIBLE PERSON SIGNATURE	DATE
LEGALLY RESPONSIBLE PERSON NAME	PHONE NUMBER
TITLE	

Required for Local Agency/Private Entity Administered Project**Caltrans Oversight Engineer's Concurrence With SWPPP/WPCP Amendment**

I and personnel acting under my direction and supervision have reviewed this SWPPP/ WPCP and find that it meets the requirements set forth in the contract Special Provisions, Caltrans *Standard Specifications*, and the Caltrans SWPPP/WPCP Preparation Manual.

OVERSIGHT ENGINEER SIGNATURE	DATE OF AMENDMENT CONCURRENCE
OVERSIGHT ENGINEER NAME	PHONE NUMBER

SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

CEM-2008 (REV 11/2013)

Instructions**General Information**

- The information on CEM-2008 is required for projects with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) to document amendment acceptance and certification.
- SWPPP amendments must be certified by the approved signatory as identified in CEM-2006 or 2006T, "Legally Responsible Person Authorization of Approved Signatory," signed by the legally responsible person (LRP).
 1. For Caltrans, the LRP is the district director. The LRP may authorize the project resident engineer to be approved signatory.
 2. For a local agency, the LRP is either a principal executive officer or a ranking elected official. The local agency LRP may authorize the project resident engineer to be approved signatory.
 3. For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
 - a. For a corporation, a responsible corporate officer.
 - b. For a partnership or sole proprietorship, a general partner or the proprietor, respectively.The private entity LRP may not authorize an approved signatory.
 4. Attach a completed copy of CEM-2008 to each SWPPP or WPCP amendment, and include it in the SWPPP Attachment DD or the WPCP Attachment C.

Form**Contract Number/Co/Rta/PM**

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

Project Identifier Number







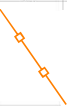



























Caltrans projects starting July 1, 2010, will have a Project Identifier Number. For projects without one, write "N/A" in the field.

WDID Number

For projects that have a Water Pollution Control Program enter "WPCP" in this field.

Attachment BB

Water Pollution Control Drawings

 SS-1 SCHEDULING	 SS-2 PRESERVATION OF PROPERTY/PRESERVATION OF EXISTING VEGETATION	 SS-3 BONDED TEMPORARY HYDRAULIC MULCH (BONDED STABILIZED FIBER MATRIX)	 SS-5 TEMPORARY SOIL STABILIZER	 SS-7 GEOTEXTILE TEMPORARY COVER GEOTEXTILES AND MATS	 SS-9 EARTH DIKES/DRAINAGE SWALES & LINED SWALES	 SC-1 TEMPORARY SILT FENCE	 SC-4 TEMPORARY CHECK DAM	 SC-5 TEMPORARY FIBER ROLLS	 SC-6 TEMPORARY GRAVEL BAG BERM	 SC-7 STREET SWEEPING	 SC-10 TEMPORARY DRAIN INLET PROTECTION	 TC-1 TEMPORARY CONSTRUCTION ENTRANCE	 WE-1 WIND EROSION CONTROL	 NS-1 WATER CONTROL AND CONSERVATION	 NS-2 DEWATERING	 NS-3 PAVING, SEALING, SAWCUTTING, AND GRINDING OPERATIONS	 NS-6 ILLEGAL CONNECTION AND ILLEGAL DISCHARGE DETECTION REPORTING	 NS-7 POTABLE WATER/IRRIGATION	 NS-9 VEHICLE AND EQUIPMENT FUELING	 NS-10 VEHICLE AND EQUIPMENT MAINTENANCE	 NS-12 CONCRETE CURING	 NS-14 CONCRETE FINISHING	 WM-1 MATERIAL DELIVERY AND STORAGE	 WM-2 MATERIAL USE	 WM-3 STOCKPILE MANAGEMENT	 WM-4 SPILL PREVENTION AND CONTROL	 WM-5 SOLID WASTE MANAGEMENT	 WM-6 HAZARDOUS WASTE MANAGEMENT	 WM-7 CONTAMINATED SOIL MANAGEMENT	 WM-8 CONCRETE WASTE MANAGEMENT	 WM-8 TEMPORARY CONCRETE WASHOUT (PORTABLE)	 WM-9 SANITARY/SEPTIC WASTE MANAGEMENT	 WM-10 LIQUID WASTE MAINTENANCE
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DRAINAGE FLOW DIRECTION

SAMPLING LOCATION

PREPARED BY: **RTC, Inc.**
 22431 Antonio Parkway B 100-251
 Rancho Santa Margarita, CA 92688
 (949) 454-0823



DIG ALERT
 CALL TOLL FREE
 1-800-287-6000
 AT LEAST TWO DAYS
 BEFORE YOU DIG
 (FOR INFORMATION ON DIG ALERTS,
 VISIT WWW.DIGALERT.COM)

CAUTION - NOTICE TO CONTRACTOR
 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND DEPTH OF
 UTILITIES SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY.
 THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO
 ANY EXCAVATION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING
 ALL NECESSARY PERMITS AND NOTIFICATIONS FROM THE APPROPRIATE AGENCIES.
 SHOULD CALL 811 TO REPORT ANY UNDISCOVERED UTILITIES. FOR MORE INFORMATION,
 VISIT WWW.DIGALERT.COM

NOTICE TO CONTRACTOR
 ALL UTILITIES SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY.
 THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO
 ANY EXCAVATION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING
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 SHOULD CALL 811 TO REPORT ANY UNDISCOVERED UTILITIES. FOR MORE INFORMATION,
 VISIT WWW.DIGALERT.COM

4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
2					
1					
1					

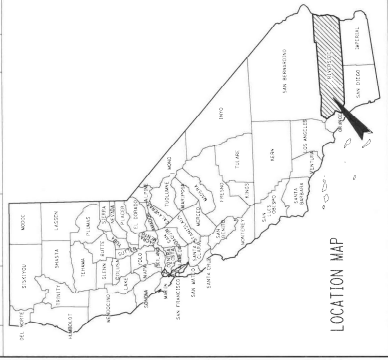
APPROVED: _____ DATE: _____ BY: _____

08-323034

WATER POLLUTION CONTROL DRAWING

REV. NO. 1
 SHEET NO. _____

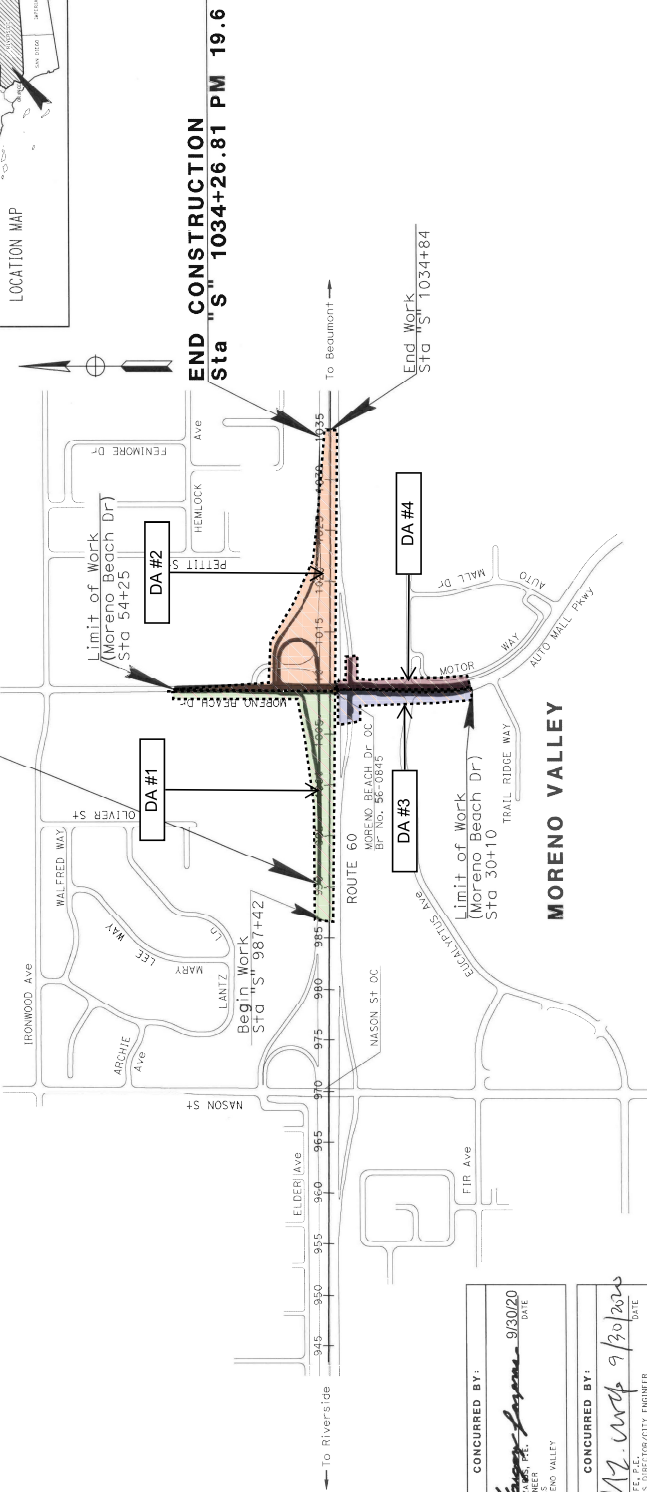
08 Riv 60 18.8/19.6 1 358



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY
 IN RIVERSIDE COUNTY
 IN MORENO VALLEY
 FROM 0.3 MILE WEST TO 0.5 MILE EAST
 OF MORENO BEACH DRIVE OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018

BEGIN CONSTRUCTION
 Sta "S" 990+28.54 PM 18.8



END CONSTRUCTION
 Sta "S" 1034+26.81 PM 19.6

CONCURRED BY:
Michael Rolfe
 MICHAEL ROLFE, P.E., CIVIL ENGINEER
 CITY OF MORENO VALLEY
 DATE: 9/30/20

CONCURRED BY:
MJ Murphy
 MICHAEL J. MURPHY, CIVIL ENGINEER
 CITY OF MORENO VALLEY
 DATE: 9/30/20



CAUTION - NOTICE TO CONTRACTOR
 ALL UTILITIES HAVE BEEN LOCATED BY THE CONTRACTOR. UNMARKED UTILITIES ARE DISCOVERED DURING CONSTRUCTION. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER LATERALS TO UNITS ARE UNKNOWN AT THIS TIME.

NOTICE TO CONTRACTOR
 ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY THE CONTRACTOR. UNMARKED UTILITIES ARE DISCOVERED DURING CONSTRUCTION. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER LATERALS TO UNITS ARE UNKNOWN AT THIS TIME.



PREPARED BY:
RTC, Inc.
 22431 Antonio Parkway B 104-251
 Moreno Valley, CA 92550
 (949) 456-8223

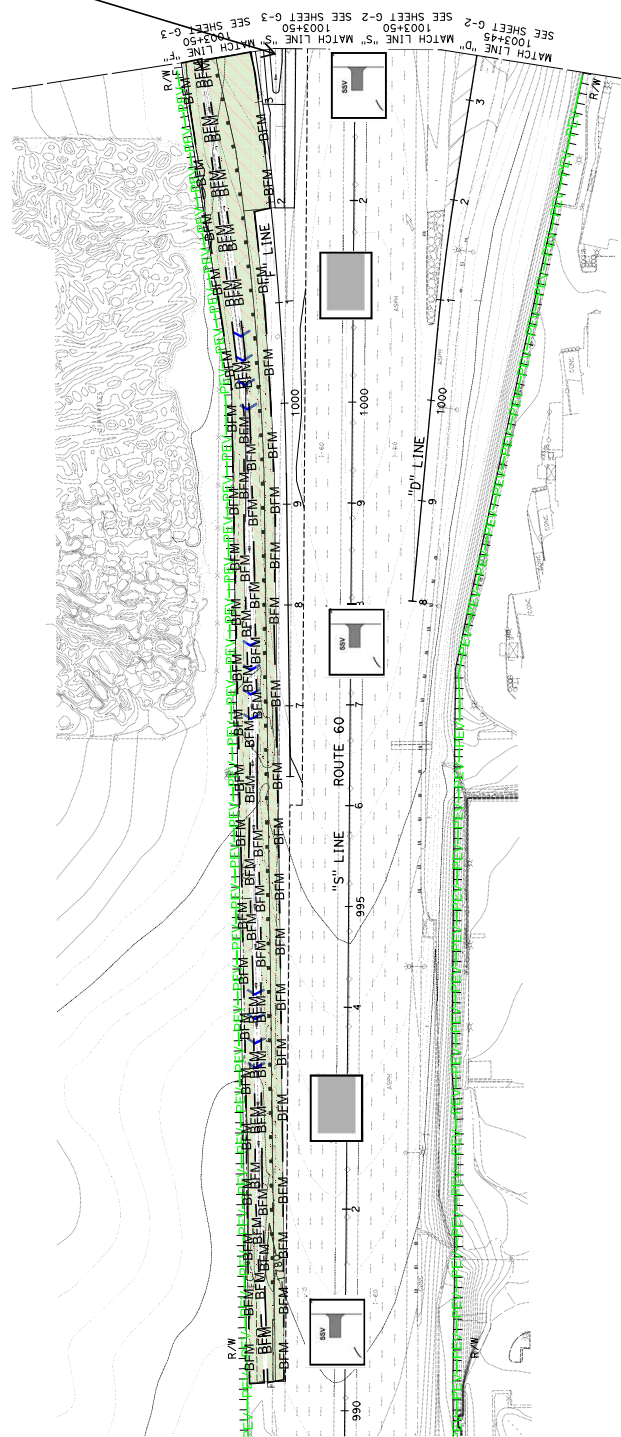


4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
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2					
1					
APPROVED:					
DATE: 08-323034			BY:		
WATER POLLUTION CONTROL DRAWING					
SHEET 2 OF 2					

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATIONS:
C CUT

BIO-SWALE TO BE PROTECTED (QSP TO PROVIDE
DIRECTION FOR PERIMETER BMP AND CHECK DAMS,
BASED ON FIELD CONDITIONS)



CONTOUR GRADING G-1
SCALE: 1" = 50'

APPROVED FOR CONTOUR GRADING WORK ONLY

DIG ALERT
DIAL TOLL FREE
1-800-222-8880
AT ALL TIMES
BEFORE YOU DIG
UNLESS OTHERWISE ALERT
OF SOUTHERN CALIFORNIA



PREPARED BY:
RTC, Inc.
22431 Antonio Parkway B 104-251
Fountain Valley, CA 92708
(949) 456-8223



NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY
THE CONSULTING ENGINEER. THE CONTRACTOR SHALL
VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES
DURING DEMOLITION PHASE. THE CONTRACTOR TO
REMOVING EXACT LOCATION OF SEWER LATERALS
TO UNITS ARE UNKNOWN AT THIS TIME

CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES IS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL
VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES
DURING DEMOLITION PHASE. THE CONTRACTOR TO
REMOVING EXACT LOCATION OF SEWER LATERALS
TO UNITS ARE UNKNOWN AT THIS TIME

NO.	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
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APPROVED:
DATE: _____
BY: _____

08-323034

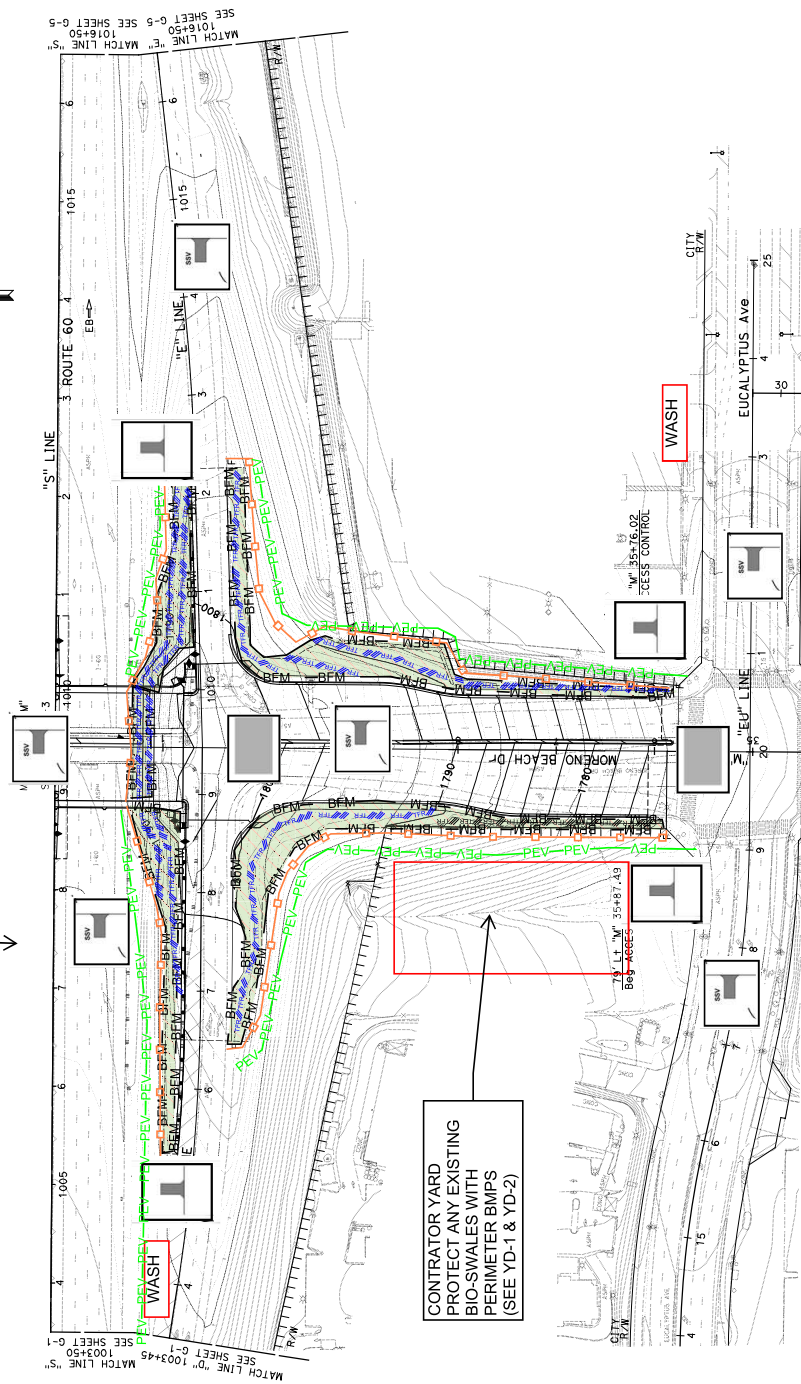
**WATER POLLUTION CONTROL
DRAWING**

SHEET 3
OF 3
DRAWING NO.

NOTE:
 DO NOT COMPUTE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

POTENTIAL CONTRACTOR YARD
 PROTECT ANY EXISTING BIO-SWALES
 WITH PERIMETER BMPs
 (SEE YD-1 & YD-2)

CONTRACTOR YARD
 PROTECT ANY EXISTING
 BIO-SWALES WITH
 PERIMETER BMPs
 (SEE YD-1 & YD-2)



CONTOUR GRADING G-2
 SCALE: 1" = 50'

APPROVED FOR CONTOUR GRADING WORK ONLY



PREPARED BY:
RTC, Inc.
 22431 Antonio Parkway B 100-251
 Hayward, CA 94608
 (949) 456-8223

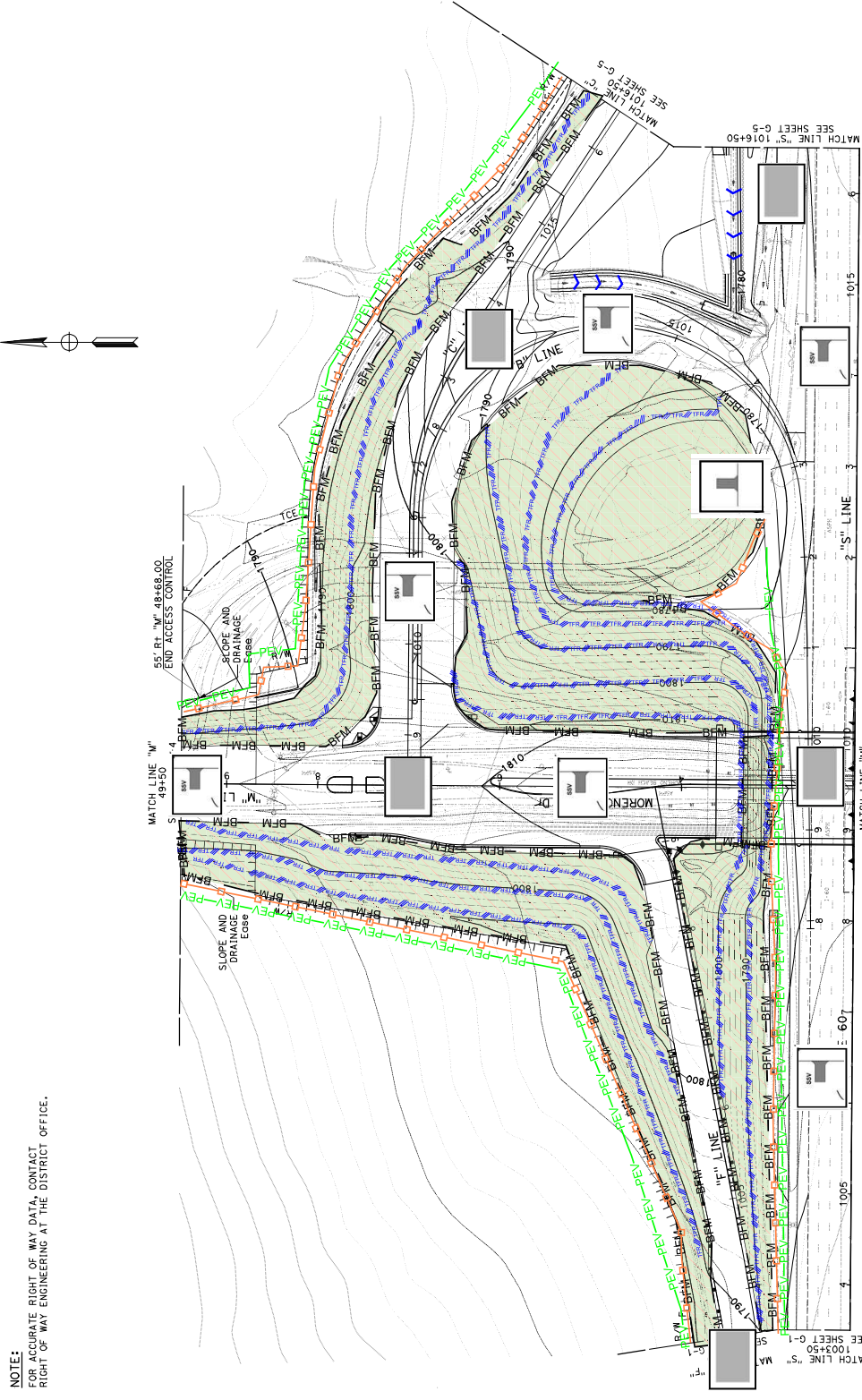


NOTICE TO CONTRACTOR
 ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY
 THE DISTRICT OFFICE. THE CONTRACTOR SHALL
 VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES
 DURING DEMONSTRATION PHASE. CONTRACTOR TO
 REMOVE EXISTING UTILITIES TO THE LOCATION OF
 REMOVAL EXACT LOCATION OF SEWER LATERALS
 TO UNITS ARE UNKNOWN AT THIS TIME

CAUTION - NOTICE TO CONTRACTOR
 THE CONTRACTOR SHALL PROTECT ALL EXISTING
 BIO-SWALES AND SWALES ON-SITE. THE CONTRACTOR
 SHALL CALL THE ADR AT 1-800-222-2280, 48 HOURS BEFORE ANY DEMONSTRATION

4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
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1					
APPROVED:					
DATE:					
BY:					
08-323034					
WATER POLLUTION CONTROL DRAWING					
4					

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CONTOUR GRADING G-3
SCALE: 1" = 50'

APPROVED FOR CONTOUR GRADING WORK ONLY

PREPARED BY:
RTC, Inc.
22431 Antelope Parkway B 109-251
Livermore, CA 94550
(925) 456-8223



DIG ALERT
DIAL TOLL FREE
1-800-333-3333
AT ALL TIMES
BEFORE YOU DIG
UNLAWFUL AND PENALTY APPLIES
OF \$OUTLINE/FOOT/LINE

CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES ARE SHOWN ON THESE PLANS. THE LOCATION OF THE VARIOUS UTILITIES IS NOT TO BE RELIED ON AS BEING EXACT. THE CONTRACTOR SHALL CALL FOR ALL UTILITIES AT 1-800-227-8686, 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON SITE HAVE BEEN LOCATED BY THE CONTRACTOR. UNMARKED UTILITIES ARE DISCOVERED DURING EXCAVATION PHASE. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.

NO.	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
4					
3					
2					
1					

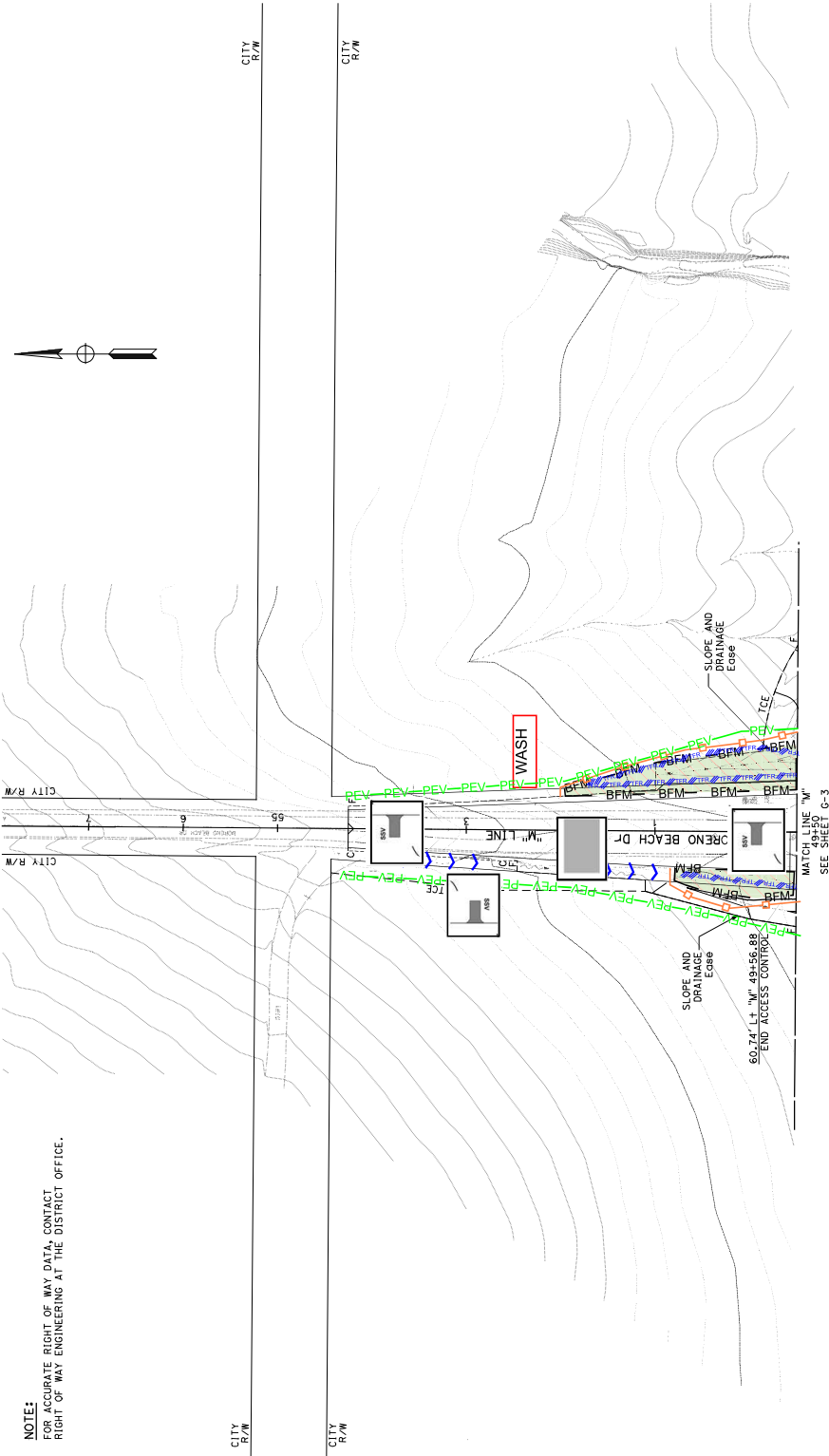
APPROVED:
DATE: _____
BY: _____

08-323034

WATER POLLUTION CONTROL DRAWING

SHEET 5 OF 5

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CONTOUR GRADING G-4
SCALE: 1" = 50'

APPROVED FOR CONTOUR GRADING WORK ONLY

PREPARED BY:
RTC, Inc.
22431 Antelope Parkway B 104-251
Livermore, CA 94550
(925) 456-8223



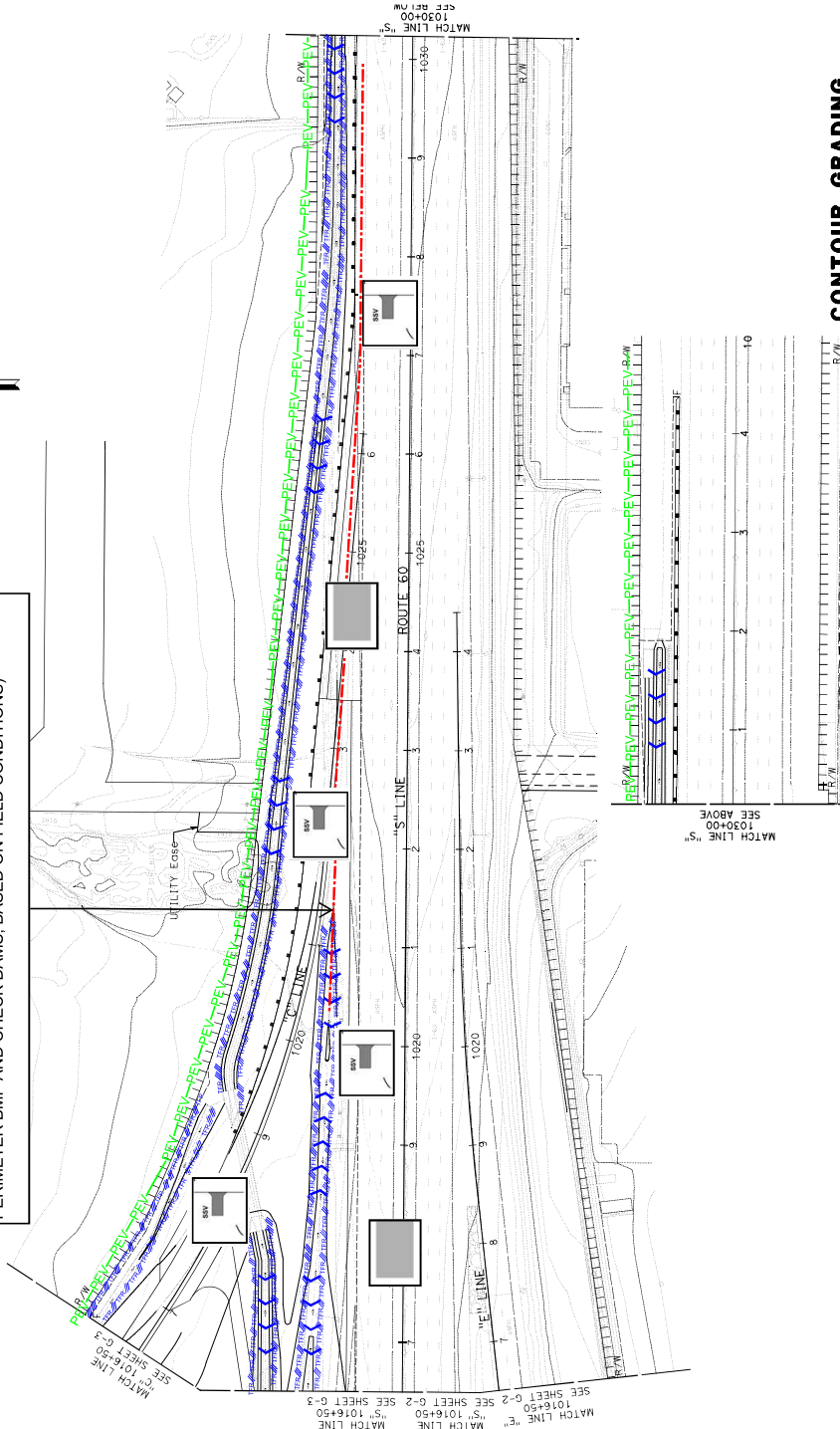
CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES IS SHOWN ON THESE PLANS TO BE BASED ON RECORDS OF THE VARIOUS UTILITIES. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION. THE CONTRACTOR SHALL CALL 811 FOR ALL UTILITIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION. THE CONTRACTOR SHALL CALL 811 FOR ALL UTILITIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION.

4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
2					
1					
△					
APPROVED:					
DATE: _____ BY: _____					
08-323034					
WATER POLLUTION CONTROL DRAWING					
SHEET 6 OF 6					

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

BIO-SWALE TO BE PROTECTED (QSP TO PROVIDE DIRECTION FOR
PERIMETER BMP AND CHECK DAMS, BASED ON FIELD CONDITIONS)



CONTOUR GRADING G-5
SCALE: 1" = 50'

APPROVED FOR CONTOUR GRADING WORK ONLY



PREPARED BY:
RTC, Inc.
22431 Antelope Parkway B 109-0251
Livermore, CA 94550
(925) 456-8223



CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES. CONTRACTOR TO VERIFY EXISTING UTILITIES AND REMOVE OR PROTECT AS NECESSARY. THE CONTRACTOR SHALL CALL 811 OR THE AEP AT 1-800-227-8669, 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY THE CONTRACTOR. UNMARKED UTILITIES ARE DISCOVERED DURING EXCAVATION PHASE. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.

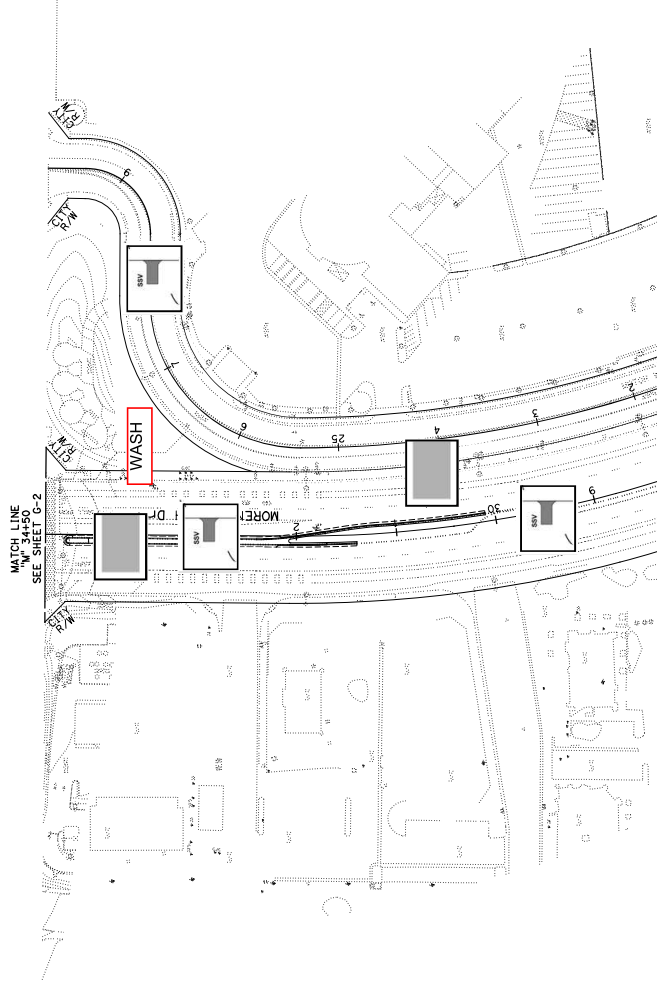
NO.	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
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2					
1					
△					

APPROVED:	DATE:	BY:

PROJECT NO.	08-323034
DRAWING NO.	
SHEET NO.	7
TOTAL SHEETS	

**WATER POLLUTION CONTROL
DRAWING**

NOTE:
FOR LOCATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CONTOUR GRADING G-6
SCALE: 1" = 50'

APPROVED FOR CONTOUR GRADING WORK ONLY



CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES IS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITIES AGENCIES. CONTRACTOR TO VERIFY EXISTING UTILITIES AND DEPT. OF PUBLIC WORKS SHALL CALL 811 FOR ALERT AT 1-800-227-8666, 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY THE DISTRICT OFFICE. CONTRACTOR TO VERIFY ALL UTILITIES AND DEPT. OF PUBLIC WORKS SHALL CALL 811 FOR ALERT AT 1-800-227-8666, 48 HOURS BEFORE ANY EXCAVATION. DURING DEMOLITION PHASE, CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.



PREPARED BY:
RTC, Inc.
22431 Antelope Parkway B 109-0251
Livermore, CA 94550
(925) 456-8223



4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
2					
1					
△					

APPROVED:	DATE:	BY:

PROJECT NO.	08-323034
DATE	

WATER POLLUTION CONTROL DRAWING

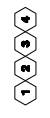
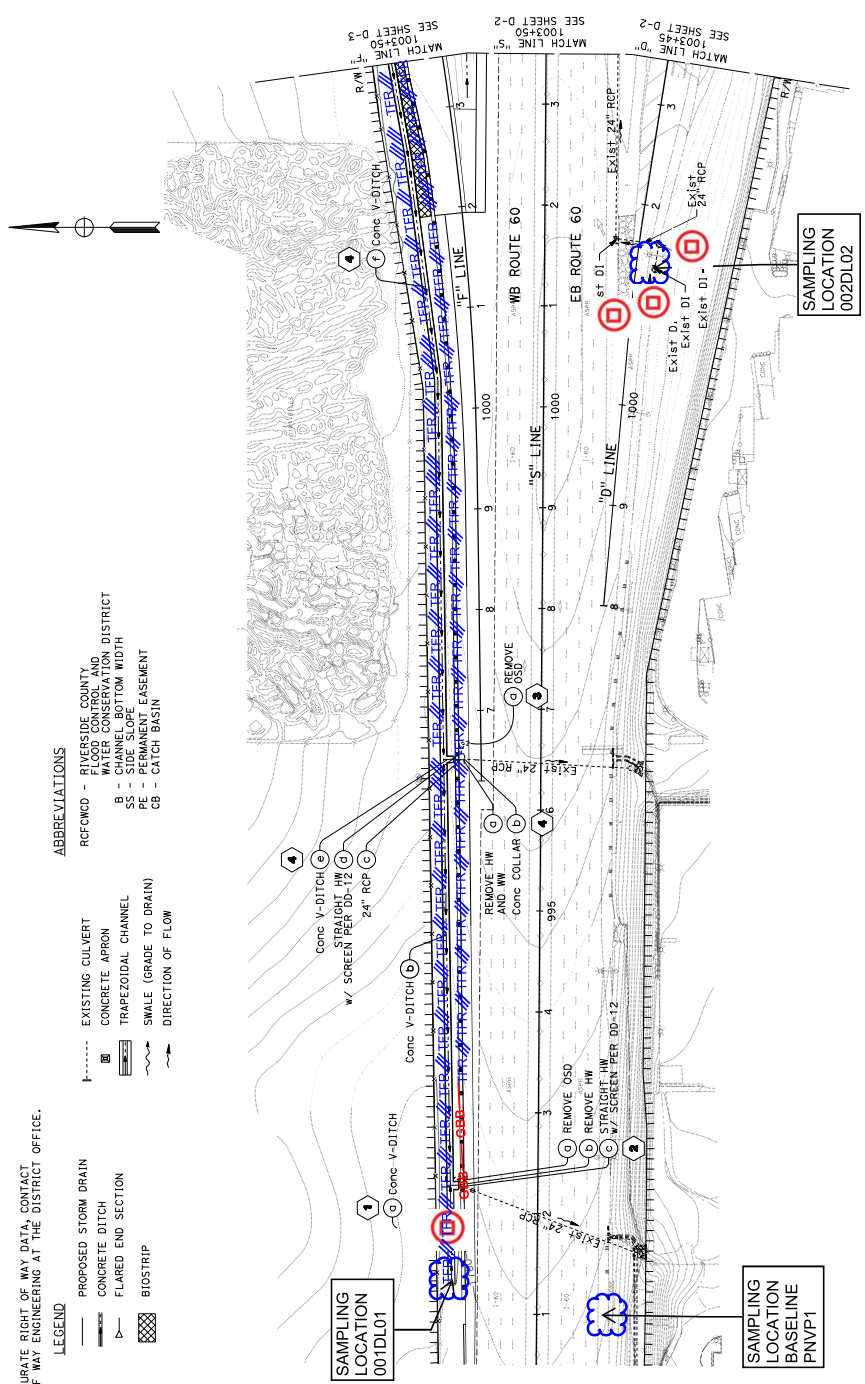
NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND

- PROPOSED STORM DRAIN
- CONCRETE DITCH
- CONCRETE APRON
- FLARED END SECTION
- BIOSTRIP
- EXISTING CULVERT
- CONCRETE APRON
- TRAPEZOIDAL CHANNEL
- SWALE (GRADE TO DRAIN)
- DIRECTION OF FLOW

ABBREVIATIONS

- RFCWCD - RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
- B - SIDEWALK BOTTOM WIDTH
- SS - SIDEWALK SLOPE
- PE - PERMANENT EASEMENT
- CB - CATCH BASIN



DRAINAGE PLAN
SCALE 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY



DIG ALERT
DIAL TOLL FREE 1-800-333-3330
AT 10:00 AM 3 DAYS BEFORE YOU DIG
UNLESS YOU ARE A MEMBER OF THE NATIONAL
UNDERGROUND SERVICE ALERT
OR SUBSCRIBER

CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES ARE SHOWN ON THESE PLANS. THE BURIAL DEPTHS OF THE VARIOUS
EXISTING UTILITIES IS SHOWN ON THESE PLANS. THE CONTRACTOR TO VERIFY THE
INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR
SHALL CALL 811 OR 1-800-227-5868, 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY
THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY
THE LOCATION OF ALL UTILITIES AND RECORD
THEIR DEPTHS. THE CONTRACTOR SHALL
REMOVE EXACT LOCATION OF SEWER MATERIALS
TO UNITS ARE UNKNOWN AT THIS TIME.

PREPARED BY:
RTC, Inc.
22431 Antonio Parkway B 100-251
Irvine, CA 92618
(949) 456-8223

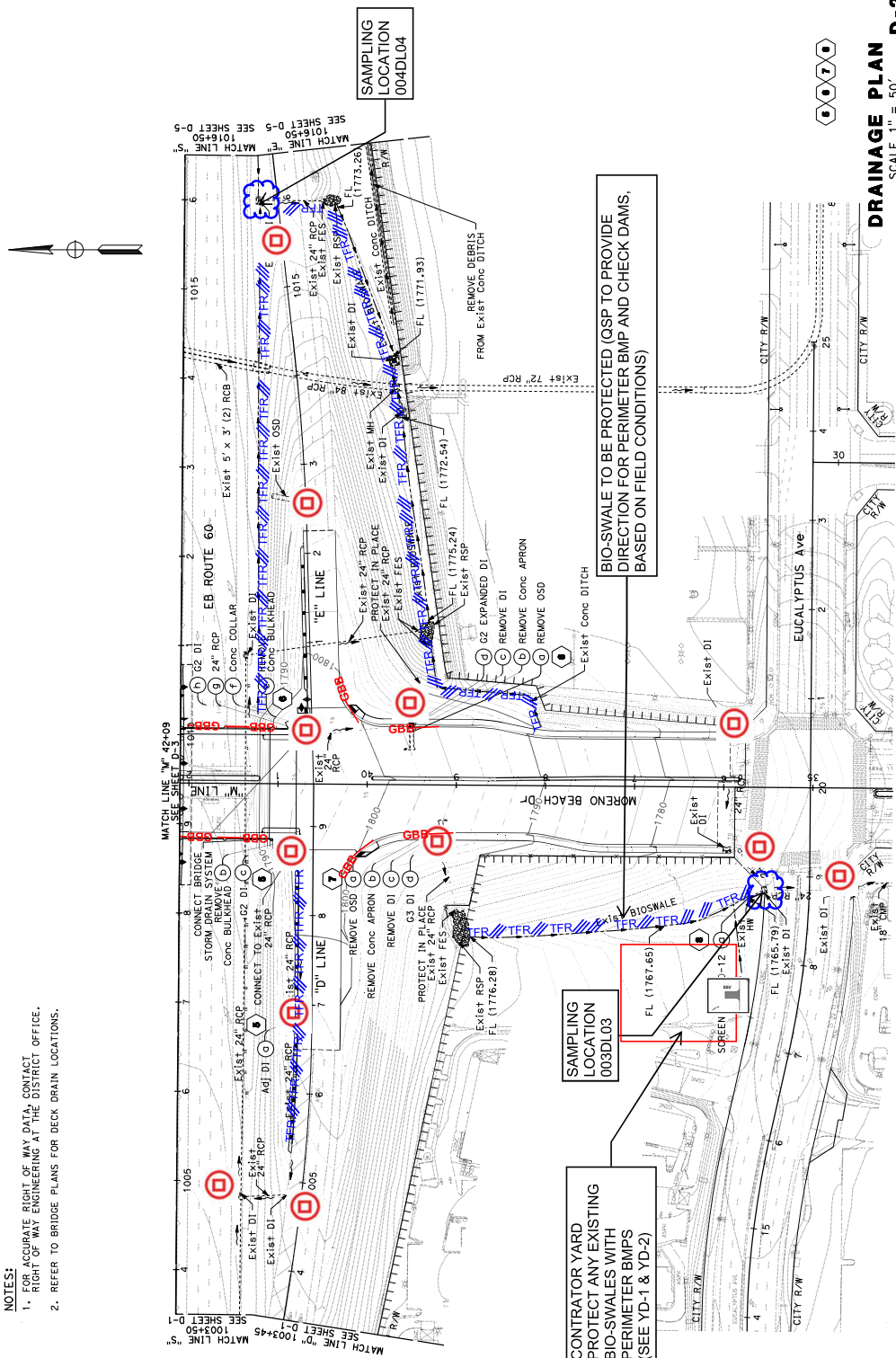


4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
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1					
APPROVED:					
DATE:	08-323034				
BY:					
PROJECT NO.					
DRAWING NO.					
SHEET	9				
OF					
TOTAL NO.					

**WATER POLLUTION CONTROL
DRAWING**

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. REFER TO BRIDGE PLANS FOR DECK DRAIN LOCATIONS.



DRAINAGE PLAN D-2
SCALE 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY

PREPARED BY:

 22431 Antonio Parkway B 104-251
 Livermore, CA 94550
 (925) 456-8223



DIG ALERT
 DIAL TOLL FREE 1-800-222-2889
 AT ALL TIMES BEFORE YOU DIG
 UNLESS YOU ARE A MEMBER OF THE NATIONAL
 ASSOCIATION OF STATE UTILITIES ENGINEERS
 (NASSUE) OR A MEMBER OF THE NATIONAL
 ASSOCIATION OF PUBLIC UTILITIES ENGINEERS
 (NAPUE)

CAUTION - NOTICE TO CONTRACTOR
 ALL UTILITIES ON SITE HAVE BEEN LOCATED BY THE DISTRICT OFFICE. UNMARKED UTILITIES ARE DISCOVERED DURING CONSTRUCTION. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER LATERALS TO UNITS ARE UNKNOWN AT THIS TIME.

NOTICE TO CONTRACTOR
 ALL UTILITIES ON SITE HAVE BEEN LOCATED BY THE DISTRICT OFFICE. UNMARKED UTILITIES ARE DISCOVERED DURING CONSTRUCTION. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER LATERALS TO UNITS ARE UNKNOWN AT THIS TIME.

CONTRACTOR YARD PROTECT ANY EXISTING BIO-SWALES WITH PERIMETER BMPs (SEE YD-1 & YD-2)

SAMPLING LOCATION 003DL03

BIO-SWALE TO BE PROTECTED (QSP TO PROVIDE DIRECTION FOR PERIMETER BMP AND CHECK DAMS, BASED ON FIELD CONDITIONS)

SAMPLING LOCATION 004DL04

4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
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APPROVED:					
DATE: _____ BY: _____					
08-323034					
WATER POLLUTION CONTROL DRAWING					
SHEET NO. _____ OF _____					

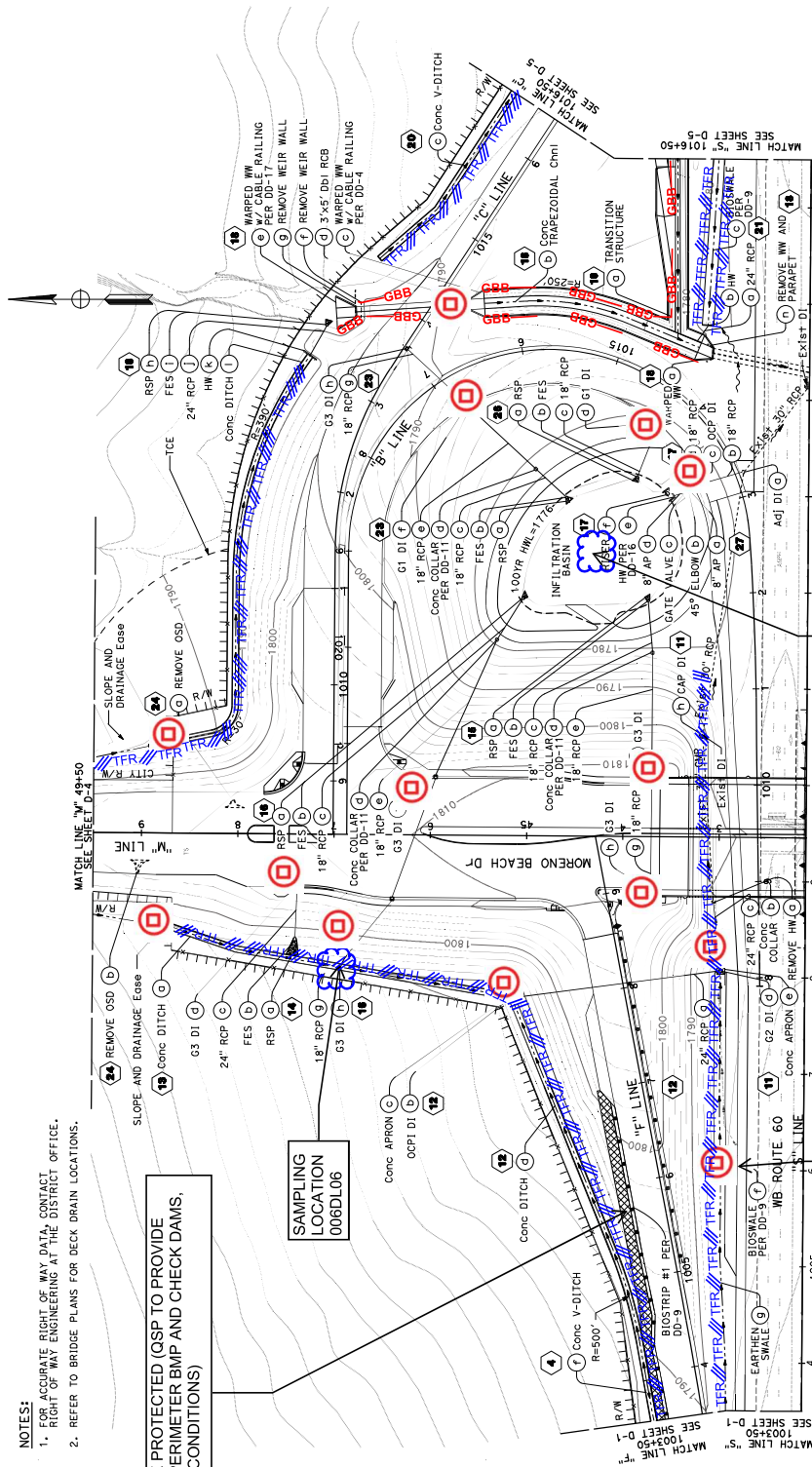
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT THE DISTRICT OFFICE.
2. REFER TO BRIDGE PLANS FOR DECK DRAIN LOCATIONS.

BIO-SWALE TO BE PROTECTED (QSP TO PROVIDE DIRECTION FOR PERIMETER BMP AND CHECK DAMS, BASED ON FIELD CONDITIONS)

SAMPLING LOCATION 006DL06

BIO-SWALE TO BE PROTECTED (QSP TO PROVIDE DIRECTION FOR PERIMETER BMP AND CHECK DAMS, BASED ON FIELD CONDITIONS)



INFILTRATION BASIN
100-YR WSEL = 1776'

Elevation (ft)	Area (sq ft)	Volume (cu ft)
1,774.0	15,904.0	8,246.0
1,774.5	17,087.0	16,933.0
1,775.0	18,106.0	25,489.0
1,775.5	18,106.0	36,047.0
1,776.0	20,230.0	48,951.0
1,776.5	23,419.0	63,082.0
1,777.0	26,608.0	83,246.0

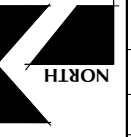
SAMPLING LOCATION 005DL05

DRAINAGE PLAN D-3
SCALE 1"= 50'



APPROVED FOR DRAINAGE WORK ONLY

PREPARED BY:
RTC, Inc.
22451 Antonio Parkway B 100-251
Rancho Santa Margarita, CA 92688
(949) 456-0823



DIG ALERT
DIAL TOLL FREE 1-800-227-0000
AT LEAST TWO DAYS BEFORE YOU DIG
UNPROTECTED OPERATIONS
SHOULD BE STOPPED IMMEDIATELY

CAUTION - NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND DEPTH OF UTILITIES ARE DISCOVERED BY THE CONTRACTOR'S OWN FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND COORDINATING WITH THE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND COORDINATING WITH THE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES.

NOTICE TO CONTRACTOR
ALL UTILITIES SHOWN HAVE BEEN LOCATED BY SITE VISIT, MANUAL & EXISTING MAIN SEWER PLANS. UNMARKED UTILITIES ARE DISCOVERED BY THE CONTRACTOR'S OWN FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND COORDINATING WITH THE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES.

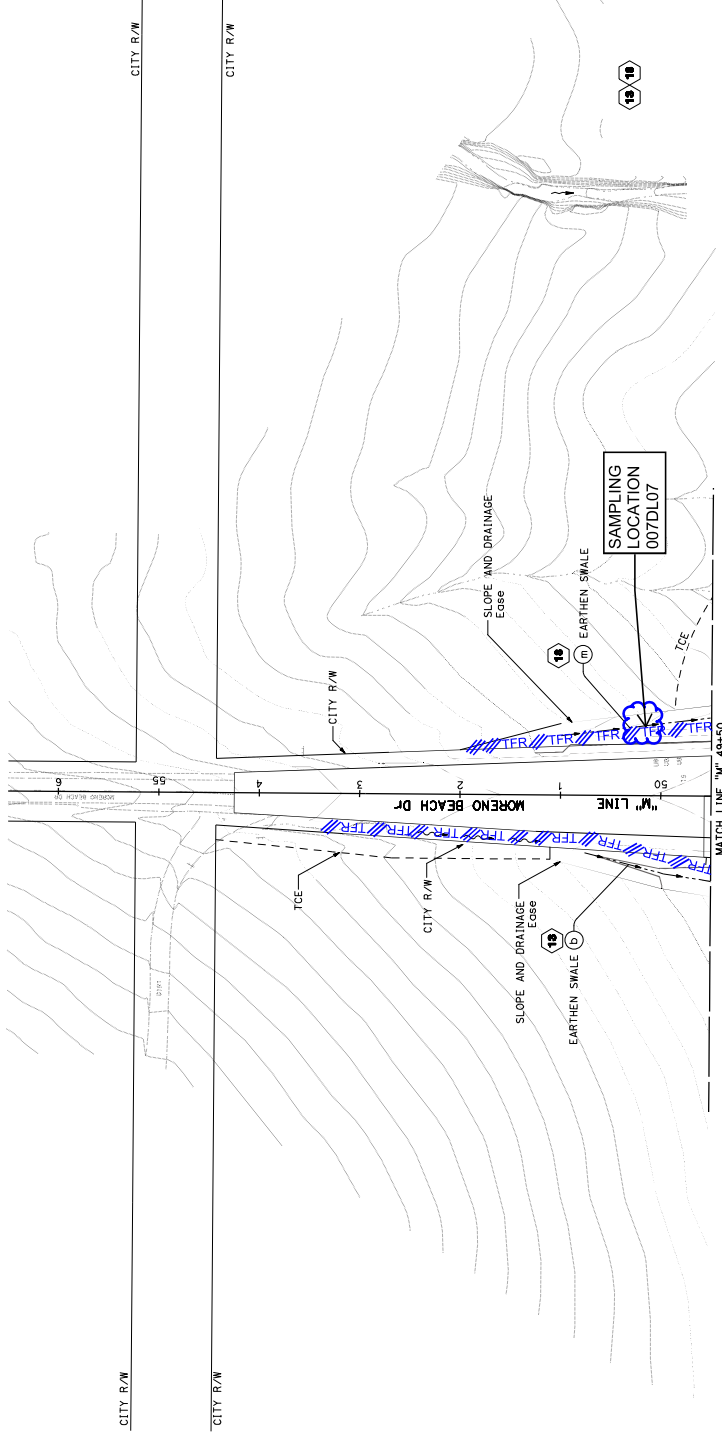
NO.	DATE	APP.	DATE	DESCRIPTION OF REVISION
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08-323034

WATER POLLUTION CONTROL DRAWING

11

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



DRAINAGE PLAN
SCALE 1"= 50'
D-4

APPROVED FOR DRAINAGE WORK ONLY



PREPARED BY:
RTC, Inc.
22431 Antelope Parkway B 104-251
Livermore, CA 94550
(925) 456-8223



CAUTION - NOTICE TO CONTRACTOR
EXISTING UTILITIES IS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES. CONTRACTOR TO VERIFY EXISTING UTILITIES AND DEPT. OF PUBLIC WORKS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL 811 OR 495-4959, 48 HOURS BEFORE ANY EXCAVATION.

NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY THE DISTRICT OFFICE. CONTRACTOR TO VERIFY ALL UTILITIES AND DEPT. OF PUBLIC WORKS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL 811 OR 495-4959, 48 HOURS BEFORE ANY EXCAVATION.

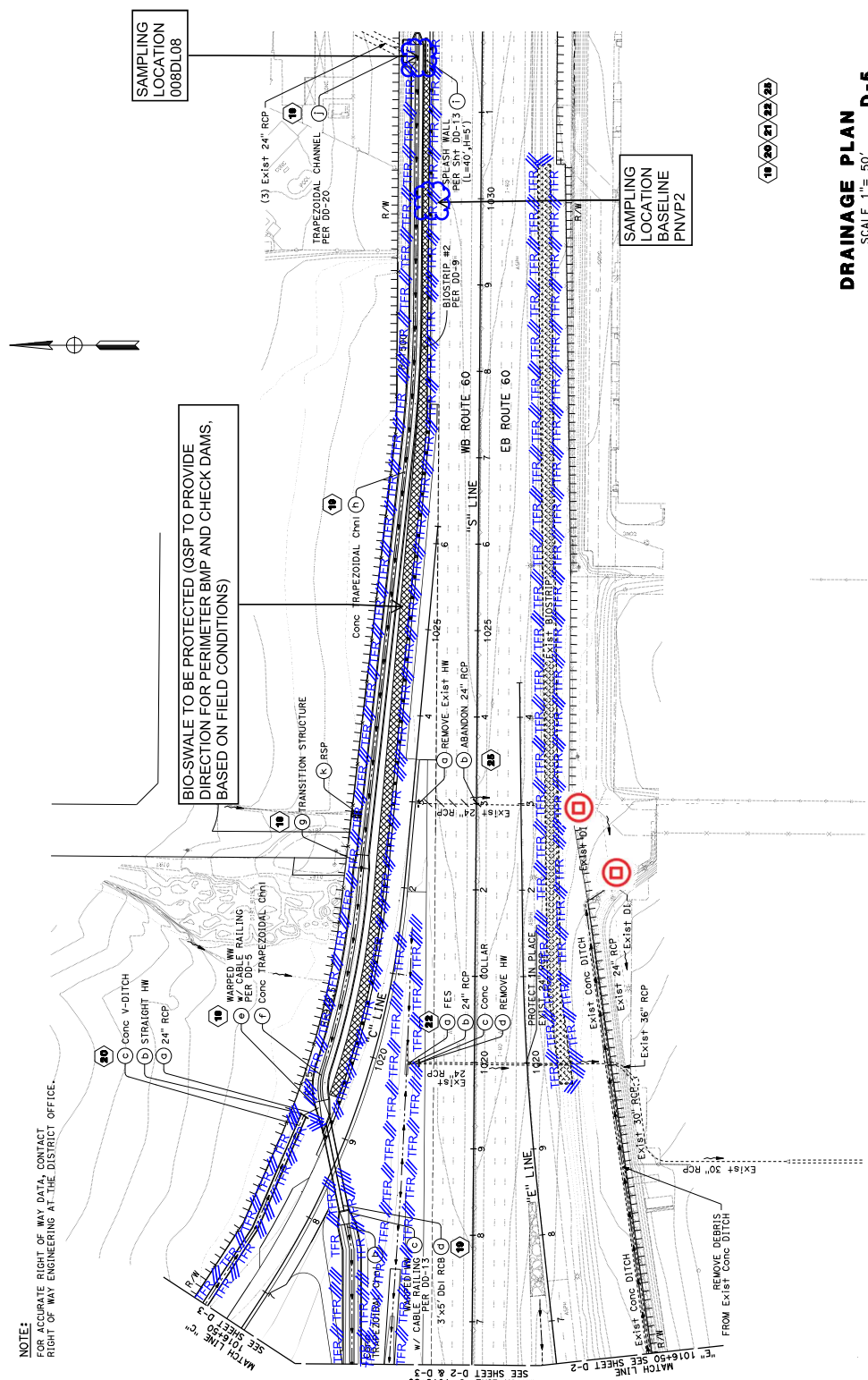
NO.	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
4					
3					
2					
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△					

08-323034

**WATER POLLUTION CONTROL
DRAWING**

SHEET 12 OF 12

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



DRAINAGE PLAN D-5
SCALE 1"= 50'

APPROVED FOR DRAINAGE WORK ONLY



PREPARED BY:
RTC, Inc.
22431 Antonio Parkway B 109-251
Irvine, CA 92618
(949) 456-8223



NOTICE TO CONTRACTOR
ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY THE DISTRICT ENGINEER. CONTRACTOR TO VERIFY ALL UTILITIES AND RECORDS OF THE VARIOUS UTILITIES TO BE WORKED ON. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.

CAUTION - NOTICE TO CONTRACTOR
CONTRACTOR TO VERIFY ALL UTILITIES AND RECORDS OF THE VARIOUS UTILITIES TO BE WORKED ON. CONTRACTOR TO REMOVE EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.


4	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
3					
2					
1					
APPROVED: _____ DATE: _____ BY: _____					
08-323034					
WATER POLLUTION CONTROL DRAWING					
SHEET NO. 13 OF 13					

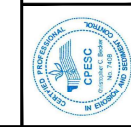
TEMPORARY WATER POLLUTION CONTROL QUANTITIES

TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	SOYD	LF	7,419	EA	43	TEMPORARY CHECK DAM	TEMPORARY FIBER ROLL	TEMPORARY CONSTRUCTION ENTRANCE	TEMPORARY SILT FENCE
TOTAL	49,817	7,419	13,180	7	11,537				

TEMPORARY WATER POLLUTION CONTROL QUANTITIES
NO SCALE **WPCQ-1**



PREPARED BY:

 22431 Antonio Parkway B 100-251
 Fremont, CA 94588
 (949) 456-8823



DIG ALERT
 DIAL TOLL FREE 800-485-5880
 AT 1-800-485-5880
 BEFORE YOU DIG
 UNLAWFUL SERVICE ALERT
 OF SOUTHERN CALIFORNIA



CAUTION - NOTICE TO CONTRACTOR
 ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES. CONTRACTOR TO VERIFY EXISTENCE AND DEPTH OF ALL UTILITIES PRIOR TO REMOVAL. EXACT LOCATION OF SEWER MATERIALS TO UNITS ARE UNKNOWN AT THIS TIME.

NOTICE TO CONTRACTOR
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NO.	DATE	APP.	RCE	DESCRIPTION OF REVISION
4				
3				
2				
1				
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APPROVED:
 DATE: _____ BY: _____

08-323034

REV. NO. _____
 DATE: _____

WATER POLLUTION CONTROL DRAWING

Sheet 14 of _____
 DRAWING NO. _____

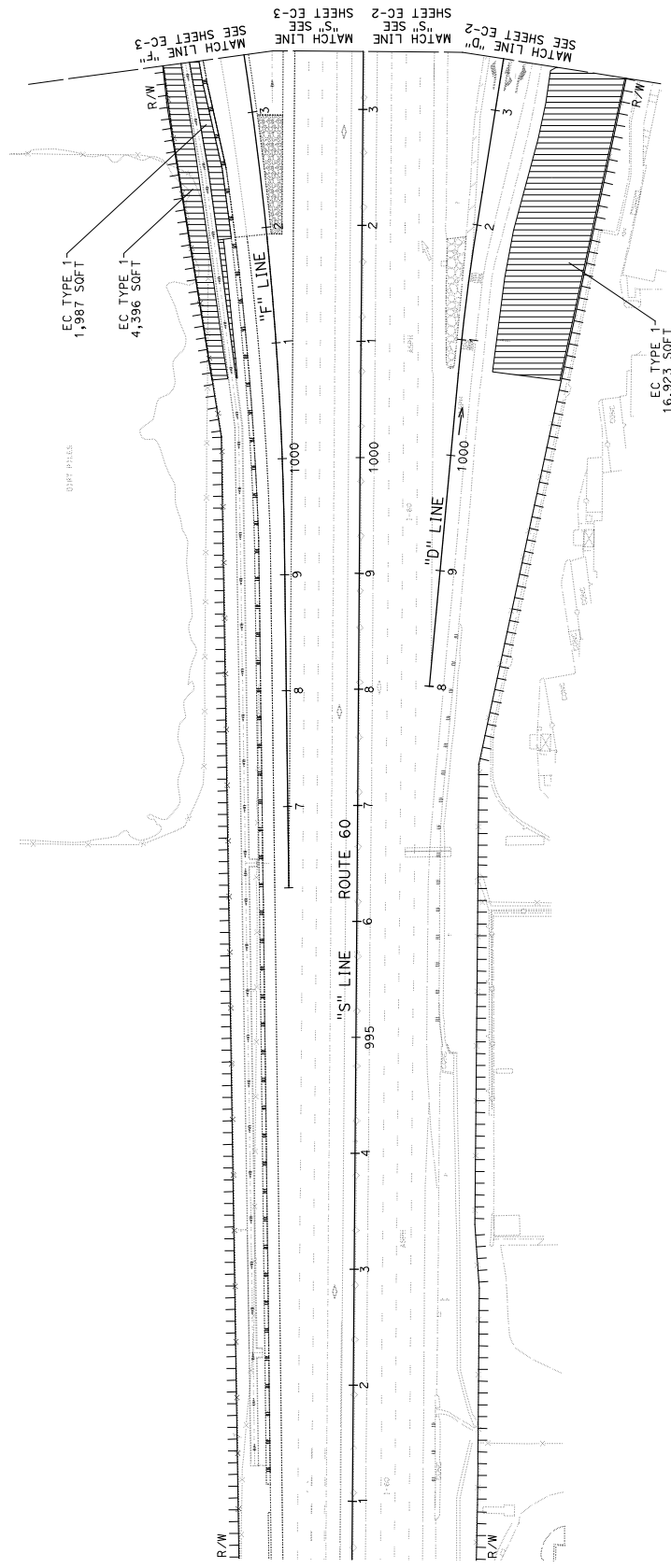
08	RIV	60	18.8/19.6	251	358
COUNTY		ROUTE	POST MILES	TOTAL PROJECT	SHEET TOTAL
08		RIV	60	18.8/19.6	251
LISCENSED LANDSCAPE ARCHITECT					
PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS					
OR AGENTS SHALL NOT BE RESPONSIBLE FOR					
CORRECTIONS OR CHANGES MADE TO ANY					
COPIES OF THIS PLAN SHEET.					
EMERALD DESIGN					
4747 AMERICA BLVD, SUITE 222					
FULLERTON, CA 92832					
CITY OF MORNING VALLEY					
MORNING VALLEY, CALIFORNIA 92552					



NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND

- EROSION CONTROL (TYPE 1)
- EROSION CONTROL (TYPE 2)



EROSION CONTROL EC-1
SCALE: 1" = 50'

APPROVED FOR EROSION CONTROL WORK ONLY

RELATIVE BORDER SCALE
15 IN INCHES

UNIT 2232

PROJECT NUMBER & PHASE

08120000591

USERNAME => J0032560
DGN FILE => 08120000591e001.dgn

BORDER LAST REVISED 7/2/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Design Branch H

CONSULTANT SENIOR LANDSCAPE ARCHITECT
ERIC FREEMAN

CHECKED BY
ERIC FREEMAN

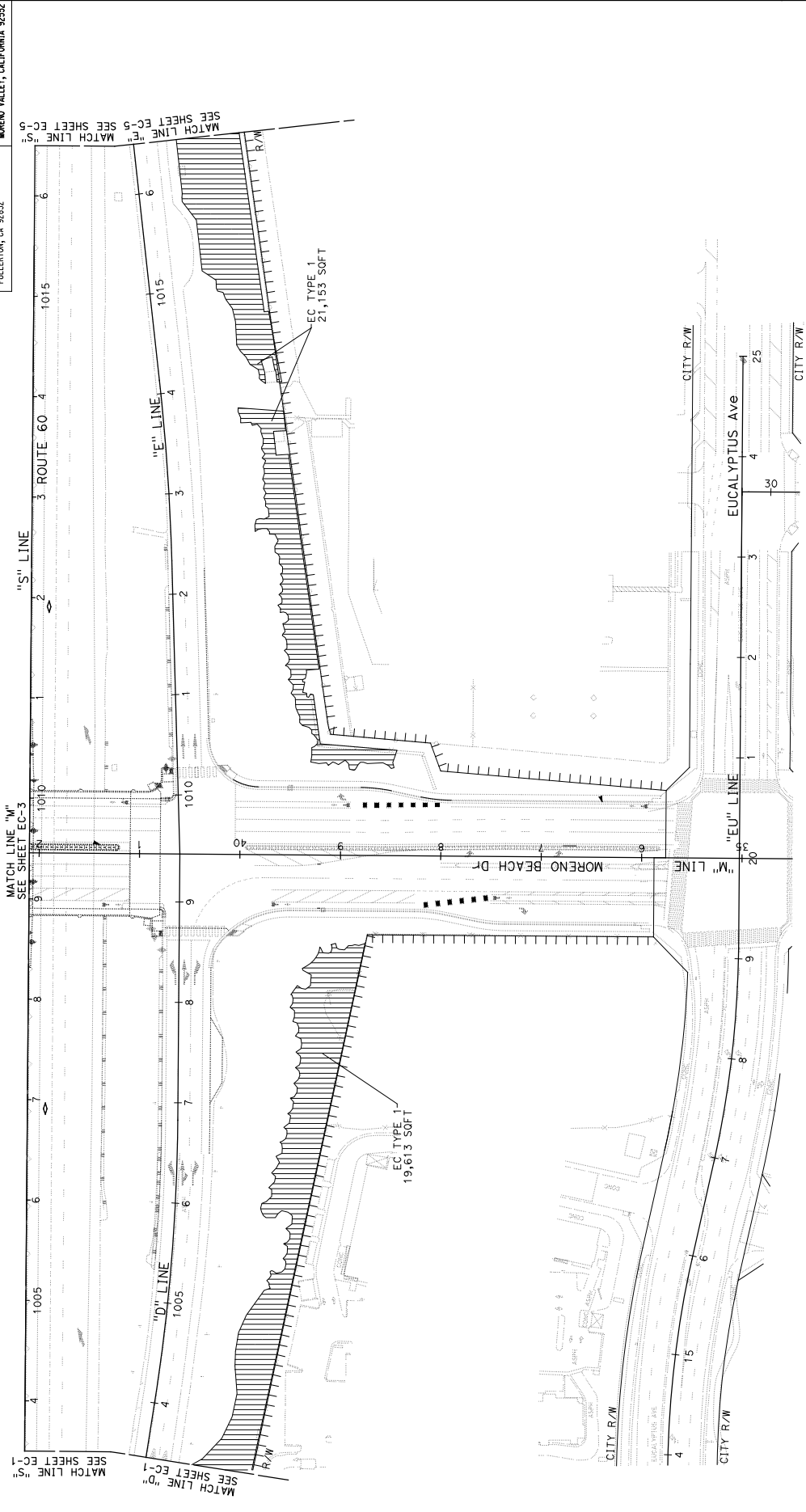
DESIGNED BY
ERIK ADELMAN

DATE REVISED
REVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT SENIOR LANDSCAPE ARCHITECT	CALCULATED BY	ERIC FREEMAN
DESIGN BRANCH H	DESIGNED BY	CHECKED BY	ERIC FREEMAN
	REVISOR BY	DATE REVISED	

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

08	ROUTE 60	POST MILES TOTAL PROJECT	18.8/19.6	SHEET TOTAL NO. SHEETS	252 / 358
PLANS APPROVAL DATE: _____ THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION OF THIS PLAN SHEET.					
EMERALD DESIGN 4414 HARBOR BLVD, SUITE 222 FULLERTON, CA 92632 CITY OF MORENO VALLEY 4414 HARBOR BLVD, SUITE 222 MORENO VALLEY, CALIFORNIA 92552					



EROSION CONTROL EC-2

SCALE: 1" = 50'

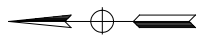
APPROVED FOR EROSION CONTROL WORK ONLY

RELATIVE BORDER SCALE
15 IN INCHES

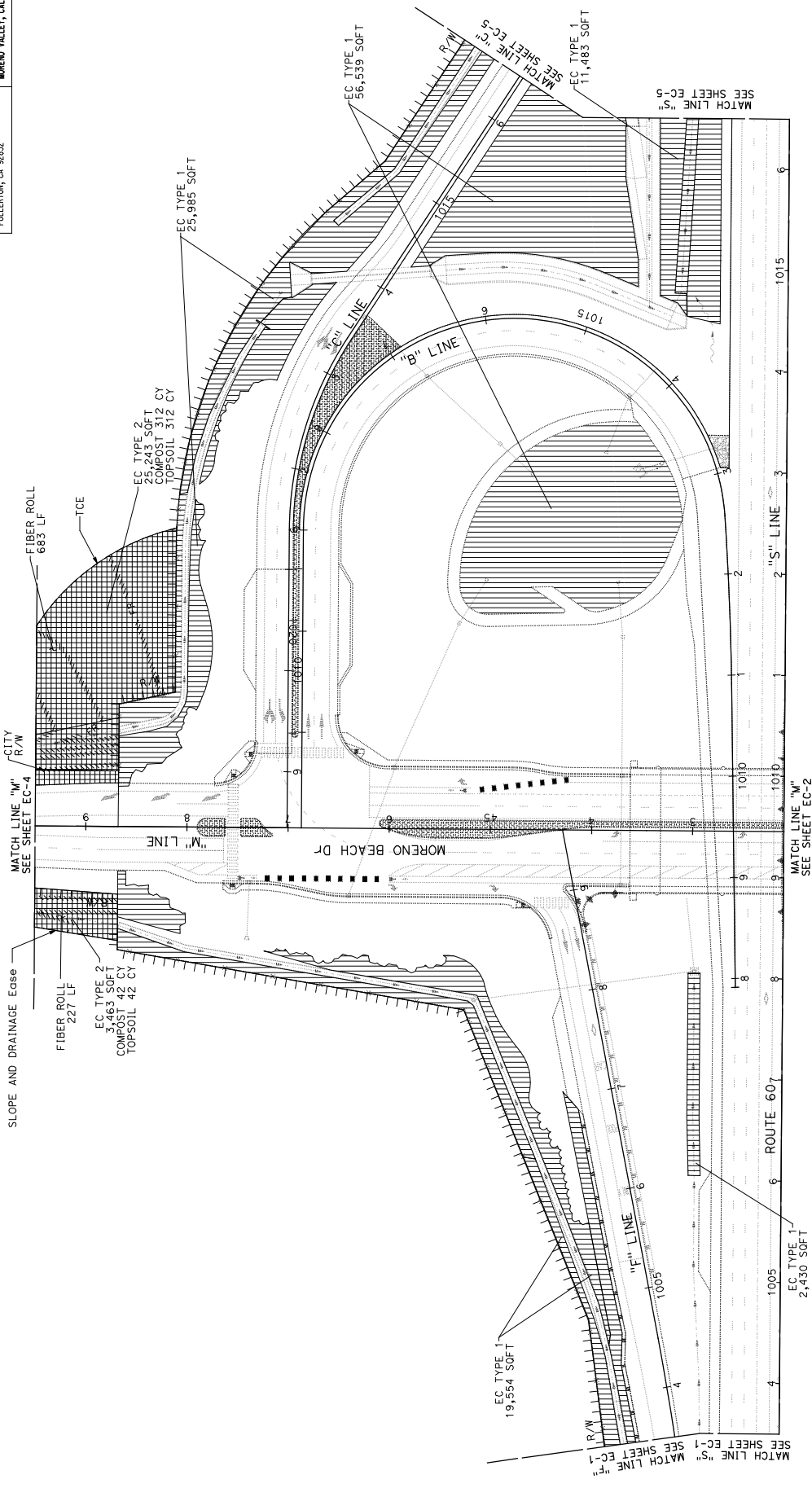
UNIT 2232 PROJECT NUMBER & PHASE 08120000591

BORDER LAST REVISED 7/2/2010 USERNAME => P0032560 DON FILE => 08120000591e002.dgn

08	08	ROUTE 60	POST MILES TOTAL PROJECT	18.8/19.6	SHEET TOTAL NO. SHEETS	253 358
<p>EMERALD DESIGN LANDSCAPE ARCHITECT</p> <p>PLANS APPROVAL DATE</p> <p>THE STATE OF CALIFORNIA AND ITS OFFICERS OUR AGENTS SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OR FOR THE CORRECTNESS OR INACCURACY OF ANY COPIES OF THIS PLAN SHEET.</p> <p>CITY OF MORENO VALLEY 4747 INDIAN STREET MORENO VALLEY, CALIFORNIA 92552</p>						



NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



EROSION CONTROL EC-3
SCALE: 1" = 50'

APPROVED FOR EROSION CONTROL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT SENIOR LANDSCAPE ARCHITECT	ERIC FREEMAN	DESIGNED BY	ERIK ADELMAN	REVISOR	
CD CIVIL ENGINEERS	DESIGN BRANCH H	ERIC FREEMAN	CHECKED BY	ERIC FREEMAN	DATE REVISED	

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
08	RIV	60	18.8/19.6	254 358

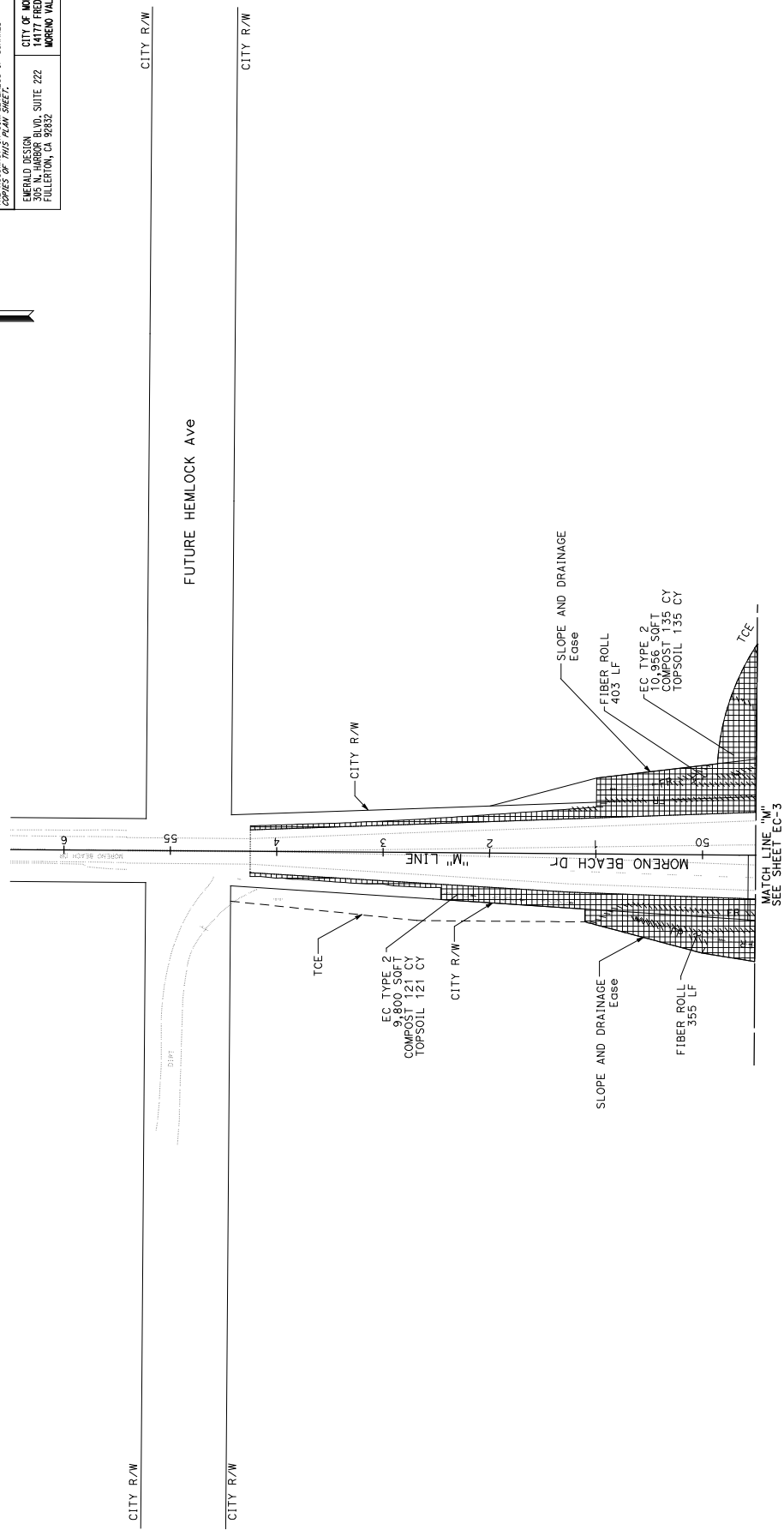
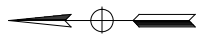
LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA AND ITS OFFICERS
AND AGENCIES SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF ANY
COPIES OF THIS PLAN SHEET.

EMERALD DESIGN
4741 HEMLOCK STREET
FULLERTON, CA 92632

CITY OF MORENO VALLEY
4741 HEMLOCK STREET
MORENO VALLEY, CALIFORNIA 92552



EROSION CONTROL EC-4
SCALE: 1" = 50'

APPROVED FOR EROSION CONTROL WORK ONLY

PROJECT NUMBER & PHASE

UNIT 2232


3

RELATIVE BORDER SCALE
15 IN INCHES

USERNAME => P0032560
DGN FILE => 08120000591e004.dgn

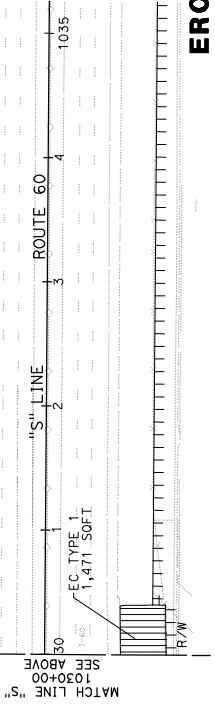
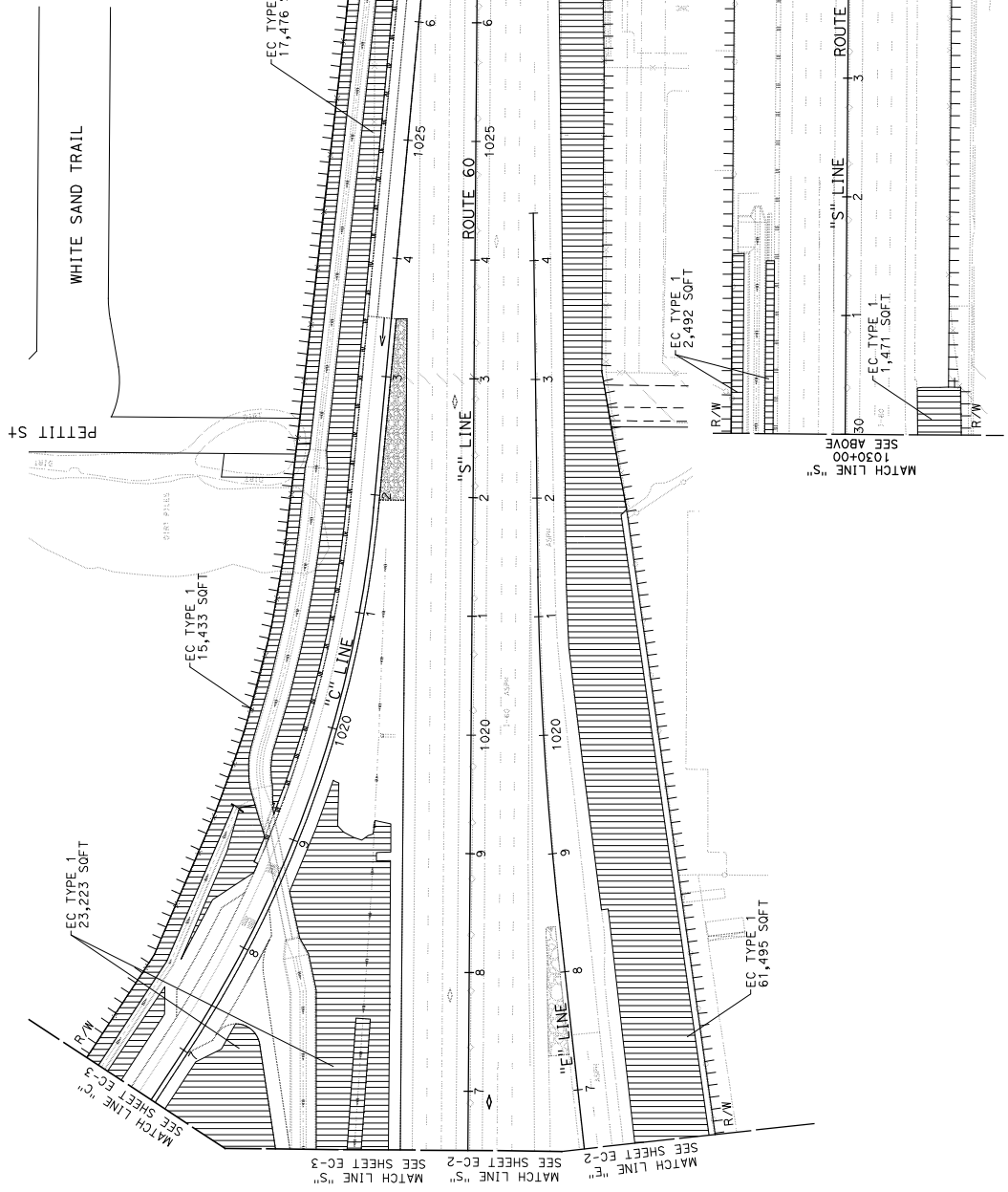
BORDER LAST REVISED 7/2/2010

08120000591

08	08	ROUTE 60	POST MILES TOTAL PROJECT	18.8/19.6	SHEET TOTAL SHEETS	255	358
							
LICENSED LANDSCAPE ARCHITECT PLANS APPROVAL DATE: _____ THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENCIES SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY COPIES OF THIS PLAN SHEET.							
EMERALD DESIGN 4747 HUNTERS STREET FULLERTON, CA 92832 CITY OF MORENO VALLEY 4747 HUNTERS STREET MORENO VALLEY, CALIFORNIA 92552							



NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.





EROSION CONTROL EC-5
 SCALE: 1" = 50'

APPROVED FOR EROSION CONTROL WORK ONLY

EROSION CONTROL QUANTITIES

SHEET NUMBER	DESCRIPTION	COMPOST		IMPORTED TOPSOIL		INCORPORATE MATERIALS		HYDROSEED		HYDROMULCH		FIBER ROLLS	
		CY		CY		SQFT		SQFT		SQFT		SQFT	
EC-1	EC TYPE 1							23,306		23,306			
EC-2	EC TYPE 1							40,766		40,766			
EC-3	EC TYPE 1							115,991		115,991			
	EC TYPE 2	354		354		28,706		28,706		28,706			
EC-4	FIBER ROLLS											910	
	EC TYPE 2	256		256		20,756		20,756		20,756			
EC-5	FIBER ROLLS							121,590		121,590			758
	EC TYPE 1	610		610		49,462		351,115		351,115			1,668
	TOTAL												

01*	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
08	RIV	60	18.8/19.6	256 358
 LICENSED LANDSCAPE ARCHITECT				
PLANS APPROVAL DATE _____ <small>THE STATE OF CALIFORNIA AND ITS OFFICERS AND AGENCIES SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY INFORMATION CONTAINED HEREIN UNLESS IT IS SHOWN OTHERWISE ON THIS PLAN SHEET.</small>				
				
EMERALD DESIGN 4471 MONROE BLVD., SUITE 222 FOLEYTON, CA 92632 CITY OF MONROE VALLEY 4471 MONROE STREET MONROE VALLEY, CALIFORNIA 92652				

EROSION CONTROL QUANTITIES ECQ-1

NO SCALE

Implementation

Dust Control Practices

Dust control BMPs generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. The following table presents dust control practices that can be applied to varying site conditions that could potentially cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching can be employed for areas of occasional or no construction traffic. Preventive measures include minimizing surface areas to be disturbed, limiting onsite vehicle traffic to 15 mph or less, and controlling the number and activity of vehicles on a site at any given time.

DUST CONTROL REQUIREMENTS:

Site Condition	Dust Control Practices							Minimize Extent of Disturbed Area
	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt	Temporary Gravel Construction Entrances/Equipment Wash Down	Synthetic Covers	
Disturbed Areas not Subject to Traffic	X	X	X	X	X			X
Disturbed Areas Subject to Traffic			X	X	X	X		X
Material Stockpiles		X	X	X			X	X
Demolition			X			X	X	
Clearing/Excavation			X	X				X
Track Traffic on Unpaved Roads			X	X	X	X	X	
Tracking					X	X		

- Schedule construction activities to minimize exposed area (see SS-1, Scheduling).
- Quickly treat exposed soils using water, mulching, chemical dust suppressants, or stone/gravel layering.
- Identify and stabilize key access points prior to commencement of construction.
- Minimize the impact of dust by anticipating the direction of prevailing winds.
- Restrict construction traffic to stabilized roadways within the project site, as practicable.
- Water should be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment should be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit should be available at all times to apply water or dust palliative to the project.
- If reclaimed waste water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board (RWQCB) requirements. Non-potable water should not be conveyed in tanks or drain pipes that will be used to convey potable water and there should be no connection between potable and non-potable supplies. Non-potable tanks, pipes, and other conveyances should be marked, "NON-POTABLE WATER - DO NOT DRINK."
- Pave or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul trucks transporting materials that contribute to dust.
- Provide for rapid clean up of sediments deposited on paved roads. Furnish stabilized construction road entrances and wheel wash areas.
- Stabilize inactive areas of construction sites using temporary vegetation or chemical stabilization methods. Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level.
- Check areas protected to ensure coverage.
- Most water-based dust control measures require frequent application, often daily or even multiple times per day. Obtain vendor or independent information on longevity of chemical dust suppressants.

PREPARED BY:

 22431 Antonio Parkway E 160-251
 Rancho Santa Margarita, CA 92688
 (949) 450-9222



NO.	DESCRIPTION OF REVISION	REV.	DATE	APP.	DATE
4					
3					
2					
1					
△					

APPROVED:
 DATE: _____
 BY: _____

PROJECT NO. _____
 SHEET NO. _____
 DUST MITIGATION PLAN



PROTECT ANY EXISTING BIO-SWALES WITH PERIMETER BMPs

Lot that Spectrum is interested in using for storage

Lot owned by Caltrans that will be used for trailers and parking

PROTECT ANY EXISTING BIO-SWALES WITH PERIMETER BMPs

PREPARED BY:

 22437 Antonio Parkway B 100-0251
 San Ramon, CA 94583
 (949) 656-8823



DIG ALERT
 DIAL TOLL FREE
 1-800-922-0980
 800-422-0980
 800-422-0980
 800-422-0980
 800-422-0980
 800-422-0980

CAUTION - NOTICE TO CONTRACTOR
 ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY SITE VISIT, AERIAL, & EXISTING MAIN DRAWER RECORDS. CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES DURING DECONSTRUCTION PHASE. CONTRACTOR TO BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES REMOVAL. EACH LOCATION OF SEWER LATERALS TO UNITS ARE UNKNOWN AT THIS TIME.

NOTICE TO CONTRACTOR
 ALL UTILITIES ON-SITE HAVE BEEN LOCATED BY SITE VISIT, AERIAL, & EXISTING MAIN DRAWER RECORDS. CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES DURING DECONSTRUCTION PHASE. CONTRACTOR TO BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES REMOVAL. EACH LOCATION OF SEWER LATERALS TO UNITS ARE UNKNOWN AT THIS TIME.

NO.	DATE	APP.	DATE	DESCRIPTION OF REVISION
4				
3				
2				
1				
1				

APPROVED: _____ DATE: _____ BY: _____

08-323034

WATER POLLUTION CONTROL DRAWING

NO. 2009-24

Attachment CC

Water Pollution Control Best Management Practices List

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ATTACHMENT CC WATER POLLUTION CONTROL
BEST MANAGEMENT PRACTICES LIST

CEM-20-CC (REV 03/2019)

Page 1 of 5

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
CONTRACTOR NAME AND SITE ADDRESS Spectrum Construction Group, Inc. 16 Goodyear, Suite 140, Irvine, CA 92618	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3

Water Pollution Control Best Management Practices List (WPCBMPL)

Project Phases included in WPCBMPL <input type="checkbox"/> Preliminary Phase <input type="checkbox"/> Grading Phase <input checked="" type="checkbox"/> Highway Construction Phase <input type="checkbox"/> Highway Planting / Erosion Control Phase	Projected Stages included in WPCBMPL <input checked="" type="checkbox"/> 1 Stage <input type="checkbox"/> 2 Stages <input type="checkbox"/> 3 Stages <input type="checkbox"/> 4 Stages
---	--

Project Required BMP	Best Management Practice (BMP)	BMP ID	Total Quantity Required
TEMPORARY SOIL STABILIZATION			
<input checked="" type="checkbox"/>	Preservation of Existing Vegetation	SS-02	
<input checked="" type="checkbox"/>	Hydraulic Mulch	SS-03	49,900 sqyd
<input type="checkbox"/>	Hydroseeding	SS-04	
<input checked="" type="checkbox"/>	Soil Binders	SS-05	tbd
<input type="checkbox"/>	Straw Mulch	SS-06	
<input type="checkbox"/>	Geotextiles, Mats, Plastic Covers, and Erosion Control Blankets	SS-07	tbd
<input type="checkbox"/>	Wood Mulching	SS-08	
<input type="checkbox"/>	Earth Dikes/Drainage Swales, and Lined Ditches	SS-09	
<input type="checkbox"/>	Outlet Protection/Velocity Dissipation Devices	SS-10	
<input type="checkbox"/>	Slope Drains	SS-11	
<input type="checkbox"/>	Streambank Stabilization	SS-12	
TEMPORARY SEDIMENT CONTROL			
<input checked="" type="checkbox"/>	Silt Fence	SC-01	11,600 lf
<input type="checkbox"/>	Sediment/Distilling Basin	SC-02	
<input type="checkbox"/>	Sediment Trap	SC-03	
<input checked="" type="checkbox"/>	Check Dams	SC-04	7,420 lf
<input checked="" type="checkbox"/>	Fiber Rolls	SC-05	13,200lf
<input checked="" type="checkbox"/>	Gravel Bad Berm	SC-06	included w/ check dam
<input type="checkbox"/>	Sandbag Barrier	SC-08	
<input type="checkbox"/>	Straw Bale Barrier	SC-09	
<input checked="" type="checkbox"/>	Storm Drain Inlet Protection	SC-10	43

**ATTACHMENT CC WATER POLLUTION CONTROL
BEST MANAGEMENT PRACTICES LIST**

CEM-20-CC (REV 03/2019)

Page 2 of 5

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

Water Pollution Control Best Management Practices List

Project Required BMP	Best Management Practice (BMP)	BMP ID	Total Quantity Required
WIND EROSION CONTROL			
<input checked="" type="checkbox"/>	Wind Erosion Control	WE-01	
TRACKING CONTROLS			
<input checked="" type="checkbox"/>	Stabilized Construction Entrance/Exit	TC-01	7
<input type="checkbox"/>	Stabilized Construction Roadway	TC-02	
<input type="checkbox"/>	Entrance/Exit Tire Wash	TC-03	
<input checked="" type="checkbox"/>	Street Sweeping	SC-07	
NON-STORMWATER MANAGEMENT			
<input checked="" type="checkbox"/>	Water Conservation Practices	NS-01	
<input checked="" type="checkbox"/>	Dewatering Operations	NS-02	
<input checked="" type="checkbox"/>	Paving and Grinding Operations	NS-03	
<input type="checkbox"/>	Temporary Stream Crossing	NS-04	
<input type="checkbox"/>	Clear Water Diversion	NS-05	
<input checked="" type="checkbox"/>	Illicit Connection/Illegal Discharge Detection and Reporting	NS-06	
<input checked="" type="checkbox"/>	Potable Water/Irrigation	NS-07	
<input type="checkbox"/>	Vehicle and Equipment Cleaning	NS-08	
<input checked="" type="checkbox"/>	Vehicle and Equipment Fueling	NS-09	
<input checked="" type="checkbox"/>	Vehicle and Equipment Maintenance	NS-10	
<input type="checkbox"/>	Pile Driving Operations	NS-11	
<input checked="" type="checkbox"/>	Concrete Curing	NS-12	
<input type="checkbox"/>	Material and Equipment Use Over Water	NS-13	
<input checked="" type="checkbox"/>	Concrete Finishing	NS-14	
<input type="checkbox"/>	Structure Demolition/Removal Over or Adjacent to Water	NS-15	
WASTE MANAGEMENT AND POLLUTION CONTROL			
<input checked="" type="checkbox"/>	Material Delivery and Storage	WM-01	
<input checked="" type="checkbox"/>	Material Use	WM-02	
<input checked="" type="checkbox"/>	Stockpile Management	WM-03	
<input checked="" type="checkbox"/>	Spill Prevention and Control	WM-04	
<input checked="" type="checkbox"/>	Solid Waste Management	WM-05	
<input checked="" type="checkbox"/>	Hazardous Waste Management	WM-06	
<input checked="" type="checkbox"/>	Contaminated Soil Management	WM-07	
<input checked="" type="checkbox"/>	Concrete Waste Management	WM-08	
<input checked="" type="checkbox"/>	Sanitary/Septic Waste Management	WM-09	
<input checked="" type="checkbox"/>	Liquid Waste Management	WM-10	

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ATTACHMENT CC WATER POLLUTION CONTROL
BEST MANAGEMENT PRACTICES LIST

CEM-20-CC (REV 03/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

No.	Water Pollution Control Best Management Practices List			
1	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
		Stage:		
	Best Management Practice (BMP)		BMP ID	Quantity Required
Comments:				
2	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
		Stage:		
	Best Management Practice (BMP)		BMP ID	Quantity Required
Comments:				

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ATTACHMENT CC WATER POLLUTION CONTROL
BEST MANAGEMENT PRACTICES LIST

CEM-20-CC (REV 03/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

No.	Water Pollution Control Best Management Practices List			
	Location:	Project Phase: Stage:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
	Best Management Practice (BMP)		BMP ID	Quantity Required
	Comments:			
	Location:	Project Phase: Stage:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
	Best Management Practice (BMP)		BMP ID	Quantity Required
	Comments:			

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ATTACHMENT CC WATER POLLUTION CONTROL
BEST MANAGEMENT PRACTICES LIST

CEM-20-CC (REV 03/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

No.	Water Pollution Control Best Management Practices List			
	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area:
		Stage:		_____ acres
	Best Management Practice (BMP)		BMP ID	Quantity Required
	Comments:			
	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area:
		Stage:		_____ acres
	Best Management Practice (BMP)		BMP ID	Quantity Required
	Comments:			
	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area:
		Stage:		_____ acres
	Best Management Practice (BMP)		BMP ID	Quantity Required
	Comments:			

Attachment DD

Water Pollution Control Schedule

City of Moreno Valley Contract No. 801 0021

Prime Contractor: Spectrum Construction Group, Inc.
16 Goodyear Ste. 140, Irvine, CA 92618
P: (949) 299-1400 F: (949) 502-5542

Water Pollution Control Schedule							
ID #	Task Name	Details for BMP activity	Duration	Notes	LOCATIONS as plans	INSTALL DATE	REMOVAL DATE
STAGE 1A & 1B							
1	SS-3	Bonded Fiber Matrix	8/18/21 - 3/25/22	Job duration, prior to rain or when areas are inactive	Inactive disturbed soil areas/erosion control	8/18/2021	3/25/2022
2	SS-5	Temporary Soil Stabilizer		Job duration, until all areas are permanently stabilized	Yards/Laydowns/Shoulders and haul routes on unpaved areas	8/18/2021	3/25/2022
3	SS-9	Earth Berms/Swales		Job duration, until all areas are permanently stabilized	Perimeter sediment control	8/18/2021	3/25/2022
4	SC-1	Silt Fence		First item of work and relocate or add as needed until all areas are permanently stabilized	per WPC drawings	8/18/2021	3/25/2022
5	SC-4	Checkdams		Prior to rainy season each year. Remove as needed and reset for next rain season	On concentrated flow/drainage paths to slow velocity	8/18/2021	3/25/2022
6	SC-5	Fiber Rolls		First item of work and relocate or add as needed until all areas are permanently stabilized	Perimeter and slopes for sediment control	8/18/2021	3/25/2022
7	SC-6	Gravel Bag Berms		job duration	per WPC drawings	8/18/2021	3/25/2022
8	SC-7	Street Sweeping		job duration	All area roadways	8/18/2021	3/25/2022
9	TC-1	Construction Entrances		First item of work and relocate or add as needed until all areas are permanently stabilized	Field located	8/18/2021	3/25/2022
STAGE 2							
1	SS-3	Bonded Fiber Matrix	3/28/22 - 11/17/22	Job duration, prior to rain or when areas are inactive	Inactive disturbed soil areas/erosion control	3/28/2022	11/17/2022
2	SS-5	Temporary Soil Stabilizer		Job duration, until all areas are permanently stabilized	Yards/Laydowns/Shoulders and haul routes on unpaved areas	3/28/2022	11/17/2022
3	SS-9	Earth Berms/Swales		Job duration, until all areas are permanently stabilized	Perimeter sediment control	3/28/2022	11/17/2022
4	SC-1	Silt Fence		First item of work and relocate or add as needed until all areas are permanently stabilized	per WPC drawings	3/28/2022	11/17/2022
5	SC-4	Checkdams		Prior to rainy season each year. Remove as needed and reset for next rain season	On concentrated flow/drainage paths to slow velocity	3/28/2022	11/17/2022
6	SC-5	Fiber Rolls		First item of work and relocate or add as needed until all areas are permanently stabilized	Perimeter and slopes for sediment control	3/28/2022	11/17/2022
7	SC-6	Gravel Bag Berms		job duration	per WPC drawings	3/28/2022	11/17/2022
8	SC-7	Street Sweeping		job duration	All area roadways	3/28/2022	11/17/2022
9	TC-1	Construction Entrances		First item of work and relocate or add as needed until all areas are permanently stabilized	Field located	3/28/2022	11/17/2022
STAGE 3A & 3B							
1	SS-3	Bonded Fiber Matrix	11/18/22 - 12/14/22	Job duration, prior to rain or when areas are inactive	Inactive disturbed soil areas/erosion control	11/18/2022	12/14/2022
2	SS-5	Temporary Soil Stabilizer		Job duration, until all areas are permanently stabilized	Yards/Laydowns/Shoulders and haul routes on unpaved areas	11/18/2022	12/14/2022
3	SS-9	Earth Berms/Swales		Job duration, until all areas are permanently stabilized	Perimeter sediment control	11/18/2022	12/14/2022
4	SC-1	Silt Fence		First item of work and relocate or add as needed until all areas are permanently stabilized	per WPC drawings	11/18/2022	12/14/2022
5	SC-4	Checkdams		Prior to rainy season each year. Remove as needed and reset for next rain season	On concentrated flow/drainage paths to slow velocity	11/18/2022	12/14/2022
6	SC-5	Fiber Rolls		First item of work and relocate or add as needed until all areas are permanently stabilized	Perimeter and slopes for sediment control	11/18/2022	12/14/2022
7	SC-6	Gravel Bag Berms		job duration	per WPC drawings	11/18/2022	12/14/2022
8	SC-7	Street Sweeping		job duration	All area roadways	11/18/2022	12/14/2022
9	TC-1	Construction Entrances		First item of work and relocate or add as needed until all areas are permanently stabilized	Field located	11/18/2022	12/14/2022
IRONWOOD							
1	SS-3	Bonded Fiber Matrix	8/25/21 - 8/27/22	Job duration, prior to rain or when areas are inactive	Inactive disturbed soil areas/erosion control	8/25/2021	8/27/2022
2	SS-5	Temporary Soil Stabilizer		Job duration, until all areas are permanently stabilized	Yards/Laydowns/Shoulders and haul routes on unpaved areas	8/25/2021	8/27/2022
3	SS-9	Earth Berms/Swales		Job duration, until all areas are permanently stabilized	Perimeter sediment control	8/25/2021	8/27/2022
4	SC-1	Silt Fence		First item of work and relocate or add as needed until all areas are permanently stabilized	per WPC drawings	8/25/2021	8/27/2022
5	SC-4	Checkdams		Prior to rainy season each year. Remove as needed and reset for next rain season	On concentrated flow/drainage paths to slow velocity	8/25/2021	8/27/2022
6	SC-5	Fiber Rolls		First item of work and relocate or add as needed until all areas are permanently stabilized	Perimeter and slopes for sediment control	8/25/2021	8/27/2022
7	SC-6	Gravel Bag Berms		job duration	per WPC drawings	8/25/2021	8/27/2022
8	SC-7	Street Sweeping		job duration	All area roadways	8/25/2021	8/27/2022
9	TC-1	Construction Entrances		First item of work and relocate or add as needed until all areas are permanently stabilized	Field located	8/25/2021	8/27/2022
Storm Water Annual Rept							
By 7/15 each year							

Attachment EE

Stormwater Sampling Locations

**SWPPP ATTACHMENT EE
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
	PROJECT IDENTIFIER NUMBER	

STORMWATER SAMPLING LOCATIONS

Project Site Non-Visible Pollutant Sampling Locations
SWPPP Table 700.2.2.3.2.1 & Table 700.2.2.3.2.2

Location No.	Uncontaminated Location No.	Location	Pollutant Source	Pollutant	Water Quality Indicator Constituent
PNVP 1	PNVP 1	Yard/Laydown Area Centerpoint	Equipment/vehicles	Oil/Grease/Fuel	Sheen/odor
PNVP 2	PNVP 2	Yard/Laydown Area Perimeter	Equipment/vehicles	Oil/Grease/Fuel	Sheen/odor

Instruction: Include the following Table for all Risk Levels.

Project Site Drainage Areas
SWPPP Table Table 700.1.1.1

TABLE 700.1.1.1 DRAINAGE AREAS	
Drainage Area No.	Location
1	NW QUADRANT OF INTERCHANGE
2	NE QUADRANT OF INTERCHANGE
3	SW QUADRANT OF INTERCHANGE
4	SE QUADRANT OF INTERCHANGE

**SWPPP ATTACHMENT EE
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--------------	---------------------------	---------------------------

STORMWATER SAMPLING LOCATIONS CONTINUED

Instruction: Include the following Table for all Risk Levels when dewatering will be performed on the project site. Delete the Table if there is no dewatering planned for the project site.

Project Site Dewatering Sampling Locations
(SWPPP Table 700.2.3.3.2.1)

Location No.	Location	Dewatering Permit?	Pollutant From Construction Activity	Water Quality Indicator Constituent
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		

Instruction: Include the following Table for all Risk Levels when there is a potential for impounded stormwater that will have to be discharged from the project site.

Project Site Potential Impounded Stormwater Sampling Locations
(SWPPP Table 700.2.3.3.2.2)

Location No.	Location	Dewatering Permit?	Pollutant From Construction Activity	Water Quality Indicator Constituent
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		

Instruction: Include the following Table for all Risk Levels when there are dewatering activities or a potential for impounded stormwater that will have to be discharged from the project site and there is a high risk receiving water.

Project Site Potential Dewatering/Impounded Stormwater Sampling Locations and Receiving Water Sampling Locations
(SWPPP Table 700.2.3.3.2.3)

Dewatering/ Impounded Stormwater Location No.	Location	Receiving Water Location No.	Location

**SWPPP ATTACHMENT EE
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
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STORMWATER SAMPLING LOCATIONS CONTINUED

Instruction: Include the following Table for Risk Level 2 and Risk Level 3 projects. Delete the Table for Risk Level 1 projects.

Project Site Discharge Sampling Locations for Turbidity and pH
SWPPP Table 700.2.4.3.2.1

TABLE 700.1.1.3 STORMWATER DISCHARGE LOCATIONS	
Unique Sampling Location Identifier	Location
001DL01	Concrete V-ditch North of Route 60, STA 991+20
002DL02	DI along D-Line @ STA 1001+10
003DL03	DI NWC Moreno Beach Drive/Eucalyptus Av
004DL04	DI South side Route 60 STA 1016+00
005DL05	Infiltration basin bottom in the Southeast gore area
006DL06	Concrete ditch/DI on slope Northwest quadrant
007DL07	Earth swale East side Moreno Beach Drive STA 50+10
008DL08	Splash wall North side Route 60 @ STA 1031+70

Instruction: Include the following Table for Risk Level 2 and Risk Level 3 when project site has discharge locations that discharge directly to a receiving water. Delete the Table for Risk Level 1 projects.

Receiving Water Sampling Locations for Turbidity and pH When Project Site Discharges Directly To The Receiving Water

SWPPP Table 700.2.4.3.2.2

Location No.	Location	Drainage Area (acres)	Disturbed Soil Area (acres)	Percentage of Drainage Area that is Disturbed Soil Area (%)	Are there construction activities that may affect pH of stormwater discharges?
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO

SWPPP ATTACHMENT EE
STORMWATER SAMPLING LOCATIONS

CEM-20EE (NEW 9/2012)

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--------------	---------------------------	---------------------------

STORMWATER SAMPLING LOCATIONS CONTINUED

Instruction: Include the following Table for all Risk Levels. Delete the Table for Risk Level 1 projects if there are no project site run-on locations.

Project Site Run-on Sampling Locations

SWPPP Table 700.2.4.3.2.4

Location No.	Location	Run-on May Affect Water Quality Discharged at Project Site Discharge Location No.	Is there any off-site disturbed soil area that could affect run-on water quality at this location?	Are there any off-site pollutants identified that could affect run-on water quality at this location?	Identified Potential Off-site Pollutants
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	

Instruction: Include the following Table for all Risk Level 3 projects. Delete the Table for Risk Level 1 and Risk Level 2 projects.

Receiving Water Sampling Locations

SWPPP Table 700.2.4.3.2.5

Location No.	Location	Project Site Discharge Location No.	Do discharges from this project site discharge location reach receiving water?
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

**SWPPP ATTACHMENT EE
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--------------	---------------------------	---------------------------

STORMWATER SAMPLING LOCATIONS CONTINUED

Instruction: Include the following Table when the RWQCB has requested specific water quality standard monitoring of project site discharge locations.

Stormwater Discharge Locations Required To Be Monitored By RWQCB
SWPPP Table 700.5.3.2.1

Location No.	Location	Water Quality Standard(s)	Is there potential site run-on that may affect water quality standard(s)?
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

Instruction: Include the following Table when the RWQCB has requested specific water quality standard monitoring of receiving waters.

Receiving Water Sampling Locations Required To Be Monitored By RWQCB
SWPPP Table 700.2.4.3.2.5

Location No.	Location	Water Quality Standard(s)

Instruction: Include the following Table when the project receives run-on with the potential to combine with stormwater discharges locations or receiving waters that require RWQCB specified water quality monitoring.

Run-on Locations With Potential To Combine With Stormwater Discharges Required To Be Monitored By RWQCB
SWPPP Table 700.2.5.3.2.4

Location No.	Location	Water Quality Standard(s)

SWPPP ATTACHMENT EE
STORMWATER SAMPLING LOCATIONS
 CEM-20EE (NEW 9/2012)

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--------------	---------------------------	---------------------------

STORMWATER SAMPLING LOCATIONS CONTINUED

Instruction: Include the following Table for Risk Level 3 when an active treatment system will be used on the project site. Delete the Table if active treatment system is not planned to be used on the project site.

Active Treatment System (ATS) Sampling Locations
 SWPPP Table 700.2.6.3.2

Location No.	Location	Chemical/Additive Used in Active Treatment System	Residual Chemical/Additive Indicator Constituent

Appendix A

CEM-2008 SWPPP Amendment Certification and Approval Form

SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

CEM-2008 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL
	<input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002. <input type="checkbox"/> Risk Level 3

Storm Water Pollution Prevention Plan (SWPPP)/Water Pollution Control Program (WPCP)

Amendment Number _____

CONTRACTOR WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE
CONTRACTOR WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

Contractor Certification of SWPPP or WPCP Amendment

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

CONTRACTOR SIGNATURE	DATE
CONTRACTOR NAME	PHONE NUMBER
TITLE	

Resident Engineer Acceptance of SWPPP or WPCP Amendment

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

RESIDENT ENGINEER SIGNATURE	DATE OF AMENDMENT ACCEPTANCE
RESIDENT ENGINEER NAME	PHONE NUMBER

SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

CEM-2008 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Required for Private Entity Administered Projects

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

LEGALLY RESPONSIBLE PERSON SIGNATURE	DATE
LEGALLY RESPONSIBLE PERSON NAME	PHONE NUMBER
TITLE	

Required for Local Agency/Private Entity Administered Project**Caltrans Oversight Engineer's Concurrence With SWPPP/WPCP Amendment**

I and personnel acting under my direction and supervision have reviewed this SWPPP/ WPCP and find that it meets the requirements set forth in the contract Special Provisions, Caltrans Standard Specifications, and the Caltrans SWPPP/WPCP Preparation Manual.

OVERSIGHT ENGINEER SIGNATURE	DATE OF AMENDMENT CONCURRENCE
OVERSIGHT ENGINEER NAME	PHONE NUMBER

SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

CEM-2008 (REV 11/2013)

Instructions**General Information**

- The information on CEM-2008 is required for projects with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) to document amendment acceptance and certification.
- SWPPP amendments must be certified by the approved signatory as identified in CEM-2006 or 2006T, "Legally Responsible Person Authorization of Approved Signatory," signed by the legally responsible person (LRP).
 1. For Caltrans, the LRP is the district director. The LRP may authorize the project resident engineer to be approved signatory.
 2. For a local agency, the LRP is either a principal executive officer or a ranking elected official. The local agency LRP may authorize the project resident engineer to be approved signatory.
 3. For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
 - a. For a corporation, a responsible corporate officer.
 - b. For a partnership or sole proprietorship, a general partner or the proprietor, respectively.The private entity LRP may not authorize an approved signatory.
 4. Attach a completed copy of CEM-2008 to each SWPPP or WPCP amendment, and include it in the SWPPP Attachment DD or the WPCP Attachment C.

Form**Contract Number/Co/Rta/PM**

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number. For projects without one, write "N/A" in the field.

WDID Number

For projects that have a Water Pollution Control Program enter "WPCP" in this field.

Appendix B

CEM-2009 SWPPP Amendment Log Form

SWPPP/WPCP AMENDMENTS LOG

CEM-2009 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	<p>PROJECT SITE RISK LEVEL</p> <p><input type="checkbox"/> Risk Level 1 N/A. WPCP</p> <p><input checked="" type="checkbox"/> Risk Level 2 N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002.</p> <p><input type="checkbox"/> Risk Level 3</p>

Amendments

Amendment Number	Date Prepared	Brief Description of Amendment	Requested by	Accepted Date

SWPPP/WPCP AMENDMENTS LOG

CEM-2009 (REV 11/2013)

Instructions

General Information

- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require the information on this form to track amendments.
- Attach a completed copy of the form to each accepted SWPPP/WPCP amendment, and include in SWPPP Attachment DD or WPCP Attachment C.

Form

Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

Project Identifier Number

Caltrans projects starting July 1, 2010, will have a project identifier number. For projects without one, write "N/A" in the field.

WDID Number

For projects with WPCP enter "WPCP" in this field.

When the resident engineer has accepted SWPPP or WPCP amendments, enter:

1. The amendment number.
2. The date the Water Pollution Control Manager signed form CEM-2008.
3. A brief description of the amendment.
4. The name and title of person who requested the amendment.
5. The date the resident engineer accepted form CEM-2008.

Appendix C

CEM-2070 SWPPP/WPCP Annual Certification of Compliance Form

SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE

CEM-2070 (REV 12/2013)

Page 2 of 4

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Required for Private Entity Administered Projects
Private Entity Legally Responsible Person Annual Certification of Compliance**

I certify that the project is in compliance with the project site approved Stormwater Pollution Prevention Plan or Water Pollution Control Program including approved amendments. The project site and activities thereon are in compliance with the Caltrans Statewide NPDES Permit No. CAS000003, the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002, or Order No. R6T-2011-0019, NPDES No. CAG-616002, whichever is applicable.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Legally responsible person signature	Date
Legally responsible person name	Phone number
Title	

SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE

CEM-2070 (REV 12/2013)

Page 3 of 4

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Resident Engineer Approval of Annual Certification of Compliance

An inspection of the project site for annual certification of compliance was conducted on (date) _____	Annual Certification of Compliance project site inspection conducted by _____
--	---

I certify that I, or personnel acting under my direction and supervision, have inspected the project site and find the following:

- Yes No Water pollution control measures are being implemented in accordance with the SWPPP or WPCP approved for the project, including approved SWPPP/WPCP amendments.
- Yes No The project site and activities thereon are in compliance with the Caltrans Statewide NPDES Permit No. CAS000003, the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002, or Order No. R6T-2011-0019, NPDES No. CAG-616002, whichever is applicable.

The box above is checked "no" based on the project site annual certification inspection, and the following corrective actions are necessary for the project to be in compliance with SWPPP/WPCP or NPDES Permits

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Resident engineer signature	Date of approval
Resident engineer name	Phone number

Required for Local Agency or Private Entity-Administered Project
Caltrans Oversight Engineer's Concurrence With Annual Certification of Compliance

I, or personnel acting under my direction and supervision, have reviewed this Annual Certification of Compliance and concur that the project is in compliance with SWPPP or WPCP approved for the project, including approved SWPPP/WPCP amendments and applicable NPDES Permits.

Oversight engineer signature	Date of concurrence
Oversight engineer name	Phone number

SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE

CEM-2070 (REV 12/2013)

Instructions

General Information

- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require an Annual Certification of Compliance by July 15th of each year.
- Document the project site inspection for annual certification on form CEM-2030, "Stormwater Site Inspection Report."
- A legally responsible person (LRP) or a signatory approved by the LRP must certify the Stormwater Pollution Prevention Plan Annual Certification of Compliance.
 - For Caltrans, the LRP is the district director. The LRP may authorize the project resident engineer to be the approved signatory.
 - For a local agency, the LRP is either a principal executive officer or ranking elected official. The local agency's LRP may authorize the project resident engineer to be the approved signatory. If the local agency's LRP has not approved the local agency's resident engineer to be an approved signatory then the local agency's LRP must sign in the resident engineer signature box of the Annual Certification of Compliance.
 - For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
 - For a corporation—a responsible corporate officer.
 - For a partnership or sole proprietorship—a general partner or the proprietor, respectively.
 - The private entity's LRP may not authorize an approved signatory.
- File a completed copy of this form in SWPPP/WPCP file category 20.70, Annual Certification of Compliance.
- This form is used for Annual Certification as well as replaces form CEM-2001.

Form

Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write "N/A" in the field.

WDID Number

For projects that have Water Pollution Control Program, enter "WPCP" in this field.

SWPPP Projects Site Risk Level

Check the box for the appropriate SWPPP risk level, or N/A for projects residing in the Lake Tahoe Hydrologic Unit, or N/A for projects that have Water Pollution Control Program.

Appendix D

Subcontractor/Material Supplier Notification Letter and Contact Information

Appendix D Subcontractor/Material Supplier Notification Letter and Contact Information

ABC Construction Inc.,
123 Rock Road
Rock City, CA 90000

[Date]

Dear Sir/Madam,

Be advised that this project must comply with the requirements of Order No. 99-06-DWQ, NPDES No. CAS000003 (“Permit”), National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation, adopted by California State Water Resources Control Board (SWRCB) on July 15, 1999. This project must also comply with the requirements of Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, adopted by SWRCB on September 02, 2009.

[Contractor] has developed a Storm Water Pollution Prevention Plan (SWPPP) in order to implement the requirements of the Permits. Be aware of and comply with the following water pollution control Best Management Practices (BMPs) [*use one of the following* 1) related to your work on 2) when delivering materials to] the project site:

- [*insert list of BMPs*]

You are required to comply with the SWPPP and Permits for any work that you perform on the project site. Any person who violates condition of the Permits may be subject to substantial penalties in accordance with state and federal law. You are encouraged to advise each of your employees working on the project site of the requirements of the SWPPP and the Permits. All employees prior to working on the project site must have completed basic water pollution control training that includes water pollution control laws and regulations and implementation and maintenance requirements for water pollution control Best Management Practices (BMPs).

A copy of the Permits and project SWPPP are available for your review at the construction office. If you have further questions contact me at [*email address*] or [*phone number*].

Sincerely,

John Doe
Project Superintendent



Appendix D SWPPP Notification Log

CONTRACT NUMBER/CO/RTE/PM		PROJECT IDENTIFIER NUMBER	WDID NUMBER	DATE			
[x] SUBCONTRACTOR SWPPP NOTIFICATION LOG							
[x] MATERIAL SUPPLIER SWPPP NOTIFICATION LOG							
Log No.	Subcontractor / Materials Supplier Name	Subcontractor / Materials Supplier Address	Type of Work Performed / Material Supplied	Contact Name Email Address	Phone Number	24/7 Phone Number	Date Notification Letter Sent
1	Chris Co.	1001 Stokes Avenue Stockton, CA 95215	Striping	Brandon Chafey	510-656-2840	510-656-2840	12/23/17
	Bortolussi & Watkin	77 Larkspur St. San Rafael, CA 94901	Landscape	Mike Reinbolt	415-453-4675	707-338-6507	12/23/17
	Betancourt Bro.	8015 W. 11th St. Tracy, A 95304	Electrical	Jeff Betancourt	209-832-7631	209-832-7631	12/23/17
	Green Vista Landscape	4050 Alvis Ct. Rocklin, CA 95677	Landscape	Jim Jones	916-780-6866	916-780-7631	12/23/17
	Oliveira Fence, Inc.	293 Brokaw Rd. Santa Clara, CA 95050	Fencing	Debbie Garcia	408-727-3811	408-727-3811	12/23/17
	Western Traffic Supply, Inc.	3942 Valey Ave., Suite M Pleasanton, CA 94566	Traffic Signs	Bill Eibanez	925-249-1854	925-580-6482	12/23/17

EXAMPLE



Appendix E

CEM-2023 Stormwater Training Record Form

STORMWATER TRAINING RECORD

CEM-2023 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Attendee Roster (Continued)

Name	Phone Number	Initials	Company Name

Review and Record Keeping

Has training information been entered into the optional Stormwater Training Log (CEM-2024)? Yes No

I have reviewed this document and, based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief the information submitted is true, accurate, and complete.

Water Pollution Control Manager (name)
Chris Becker, QSD #24331

Date

Water Pollution Control Manager (signature)

STORMWATER TRAINING RECORD

CEM-2023 (REV 11/2013)

Instructions

General Information

- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require the information on this form to document stormwater training for contractor and subcontractor managers, supervisors, and employees. Include the form and required training documentation in the stormwater annual report for SWPPP projects.
- Use this form to document training for employees responsible for activities associated with Construction General Permit compliance and contract specifications. Use this form to document required weekly stormwater training.
- Provide this training record and an updated copy of CEM-2024 (CEM-2024 is an optional form used at the WPCM's discretion) "Stormwater Training Log," to the resident engineer (RE) within five days of the date of training.
- Attach additional copies of page 2 of this form if necessary to record all individuals attending this training.
- Stormwater training needs to be completed at the frequency stipulated in the project specifications and/or the SWPPP, whichever is more frequent.
- Names may be written or typed. Initials must be original. Originals are filed with RE as stipulated above.
- Attach copy of training material/topic with submittal to RE.

Form

- **Contract Number/Co/Rte/PM** For local agency encroachment permit projects write the encroachment permit number in the Contract Number field.
- **Project Identifier Number** Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write N/A in the field.
- **WDID Number** For projects with Water Pollution Control Program, enter "WPCP."
- **Attendee Roster** Enter employee name, contractor or subcontractor company name and employee phone number.
- **Training Audience** Enter one of the following responses:
 - General—Training for individuals responsible for activities associated with compliance with the Construction General Permit.
 - BMPs—Training for individuals responsible for BMP installation, inspection, maintenance, and repair.
 - SWPPP—Training for individuals responsible for overseeing, revising, and amending the SWPPP.

Appendix F

CEM-2024 Stormwater Training Log

optional form - not used

Appendix G

CEM-2030 Stormwater Site Inspection Report

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in The Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-019, NPDES No. CAG616002 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE
WATER POLLUTION CONTROL MANAGER NAME AND COMPANY NAME	PHONE NUMBER
	EMERGENCY (24/7) PHONE NUMBER

GENERAL INFORMATION

INSPECTOR'S NAME	Accompanied by Caltrans staff? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Name/Initials _____	DATE OF INSPECTION
Weather Condition <input type="checkbox"/> Clear <input type="checkbox"/> Partly cloudy <input type="checkbox"/> Cloudy	Precipitation Condition <input type="checkbox"/> None <input type="checkbox"/> Heavy rain <input type="checkbox"/> Misty <input type="checkbox"/> Hail <input type="checkbox"/> Light rain <input type="checkbox"/> Snow <input type="checkbox"/> Rain	Wind Condition <input type="checkbox"/> None <input type="checkbox"/> Less than 5 mph <input type="checkbox"/> Greater than 5 mph
Construction Phase <input type="checkbox"/> Highway construction <input type="checkbox"/> Plant establishment <input type="checkbox"/> Suspension of work (inactive site)	Site Information Total project area _____ acres Total project disturbed soil area _____ acres Current phase disturbed soil area _____ acres Current phase inactive disturbed soil _____ acres	

Inspection Type <i>Check appropriate box(es)</i> <input type="checkbox"/> Weekly <input type="checkbox"/> Annual Certification of Compliance <input type="checkbox"/> Quarterly non-stormwater	Storm Information		
<input type="checkbox"/> Pre-storm	Time elapsed since last storm _____ days	Precipitation amount from last storm _____ inches	
<input type="checkbox"/> During storm event	Time storm is expected _____ (time) _____ (date)	Expected precipitation amount _____ inches	
<input type="checkbox"/> Post storm	Time elapsed since storm began _____ hours-minutes	Precipitation amount from storm recorded from site rain gauge _____ inches	
	Time elapsed since storm _____ hours-minutes	Precipitation amount from storm recorded from site rain gauge _____ inches	

Date	Daily Site Inspection of Best Management Practices (BMP) List Daily inspections for previous calendar week. Do not include weekly inspection.	Daily inspection performed by	Any corrective actions identified as completed or new?		If yes, were the actions added or verified on CEM-2035, as appropriate?		Date shown on corrective action form
			YES	NO	YES	NO	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Site Inspection of Best Management Practices, continued

For project specific BMPs, insert the BMP name and additional inspection requirements below.

Temporary Linear Sediment Barriers <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Right location?		Properly installed or cross barriers installed?		Maintenance performed when 1/3 height or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No				Yes
Location 1									
Location 2									
Location 3									

Storm Drain Inlet Protection <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	All inlets protected?		Properly installed?		Maintenance or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No				Yes
Location 1									
Location 2									
Location 3									

Stockpile Management <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date stockpile created	Is the stockpile listed as a location on stockpile management inactive stockpiles? If yes, stop here.		Is there a storm event forecasted? If yes, stop here and take action.		Is stockpile being actively used? If yes, stop here.		If no to previous question, what is the last day stockpile was actively used?	How long since stockpile actively used?	Has it been 3 days since the stockpile has been actively used? If yes, take action.	
		Yes	No	Yes	No	Yes	No			Date	Days	Yes	No
Location 1											
Location 2											

Notes:

1. If it has been 3 days (72 hours) since a stockpile has been active then the stockpile is inactive and must be reported as a location on stockpile management inactive stockpiles.
2. Stockpiles must be covered and have perimeter control installed prior to a storm event.

Location Number	Comments / Corrective Actions	Photos?	Action No.
		Yes	
1			
2			

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Inactive Stockpile Management <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Type of Material or Waste	Is the stockpile properly located?		Is the stockpile covered?		Does the stockpile have a perimeter control?		Does the stockpile need maintenance or repair?	
		Yes	No	Yes	No	Yes	No	Yes	No
Location 1									
Location 2									

Location Number	Comments / Corrective Actions	Photos?	Action No.
		Yes	
1			
2			

Sediment and Desilting Basins <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are basin inlets, outlets, and spillways in working order?		Is water contained in basin?		Is maintenance needed to provide required retention or detention?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No	Yes		
Location 1									
Location 2									
Location 3									

Tracking Controls <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Do all entrances and exits have tracking controls?		Is pavement free from visible sediment tracking?		Does sediment need to be removed from rock or ribbed plates?		Is daily sweeping done?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No	Yes	No	Yes		
Location 1											
Location 2											
Location 3											

Wind Erosion Control <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water trucks on-site?		Visible dust?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes		
Location 1							
Location 2							
Location 3							

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Dewatering Operations <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dewatering currently active?		Dewatering conforms with RWQCB permit?		Dewatering discharge within discharge specified limitations?		Photos? Yes	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No			
Location 1									
Location 2									
Location 3									

Temporary Stream Crossing <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Constructed as shown on the plan?		Conforms to 404 permit and 1601 agreement requirements?		Maintenance or repair required?		Photos? Yes	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No			
Location 1									
Location 2									
Location 3									

Material Storage <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Located away from drainage courses and water courses?		Areas protected from run on and runoff?		Bagged and boxed materials stored on pallets?		Areas reasonably clean and free of spills, leaks, and other material?		Is material inventory up to date?		Liquid materials in secondary containment?		Photos? Yes
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Location 1													
Location 2													
Location 3													

Comments and Required Actions													Action No.	
Location 1														
Location 2														
Location 3														

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Waste Management Sanitation Facilities <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Located away from drainage courses and water courses?		Secured to ground or foundation?		Clean and has adequate capacity?		Ground checked for any spills or leaks?		Any spills or leaks found?		Photos?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
Location 1												
Location 2												
Location 3												

Location Number	Comments / Corrective Actions	Action No.
1		
2		
3		

Project-specific BMP <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Properly located?		Properly installed?		Maintenance or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No	Yes		
Location 1									
Location 2									
Location 3									

Project-specific BMP <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Properly located?		Properly installed?		Maintenance or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No				Yes	No
Location 1									
Location 2									
Location 3									

Location Number	Comments and Required Actions	Action No.
Location 1		
Location 2		
Location 3		

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Site Inspection Report General Comments

Are the BMPs installed as required by the Stormwater Pollution Prevention Plan for the phase of construction?

Yes No

Does the SWPPP need to be amended?

Yes No

Does the SWPPP currently reflect the current site conditions and contractor operations?

Yes No

Is hazardous waste stored on the jobsite?

Yes No

Are there water pollution control concerns on the project site not addressed by the comments and required actions shown above for BMPs, based on the field review of the jobsite?

Yes No *If yes, provide details, comments, and required actions below for each location.*

Location	Water Pollution Control Concern	Comments and Required Actions	Action No.

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Stormwater Inspection Report Certification

I certify under penalty of law that this Stormwater Inspection Report was performed in accordance with the General Permit. The information contained in this inspection report was gathered from a field site inspection. I am aware that Section 309 (c)(4) of the Clean Water Act provides for significant penalties, including fines and imprisonment for knowingly submitting a false material statement, representation, or certification.

Stormwater Inspector (Name)	Date Report Completed
-----------------------------	-----------------------

Stormwater Inspector (Signature)

I certify under penalty of law that this Stormwater Inspection Report was performed in accordance with the General Permit by me or under my direction or supervision. The information contained in this inspection report was gathered and evaluated by qualified personnel prior to submittal. Based on my review of the information and inquiry of those who gathered and evaluated the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that Section 309 (c)(4) of the Clean Water Act provides for significant penalties, including fines and imprisonment for knowingly submitting a false material statement, representation, or certification.

Water Pollution Control Manager (Name)	Date
--	------

Water Pollution Control Manager (Signature)

Stormwater Inspection Report Acceptance

If hazardous waste is stored on the jobsite, the resident engineer should notify the district hazardous waste coordinator.

Was the District Hazardous Waste Coordinator notified?

- N/A, no hazardous waste stored on the jobsite
 YES, Date _____ Time _____
 NO

Accepted by Resident Engineer (Print Name)	Date
--	------

Resident Engineer (Signature)

Instructions

General Information

- Construction General Permit attachments C, D, and E, Section G.5. require the information on this form.
- If the inspection form does not contain enough lines to report all locations on a jobsite, click on the "Add Item" button so that all locations are inspected and reported.
- Obtain forecasted precipitation information from the National Weather Service Forecast Office website, <http://www.srh.noaa.gov/forecast>.
- Weather information should be the best estimate of the beginning of the storm event, duration of the event, and time elapsed since the last storm.
- Rainfall amounts should be recorded from the project site rain gauge.
- "Daily Site Inspection of Best Management Practices" section is to be filled out by the water pollution control manager.

Storm Visual Inspections

- For non-visible pollutant inspections, report on all locations shown in the Stormwater Pollution Prevention Plan.

Required Actions

- All corrective actions identified in this report must also be recorded on Form CEM-2035, "Stormwater Corrective Actions Summary."
 - Locations identified where BMPs are failing or have other shortcomings require implementation of repairs or design changes within 72 hours of identification, and BMP repairs or other changes must be completed as soon as possible.
-
-

Appendix H

CEM-2034 Stormwater Best Management Status Report Form

Optional Form - Not Used

Appendix I

CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFICATION NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	SWPPP PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No.CAG61002 <input checked="" type="checkbox"/> Risk Level 3
Submitted by contractor (print and sign name)	Date

Implement required actions identified in this Stormwater Corrective Actions Summary as soon as possible, but actions must begin within 72 hours of the site inspection, or be completed before the next predicted rain event, whichever is sooner.

Corrective Action Number	Verification of Stormwater Site Inspection Corrective Action	Date Corrective Actions Identified
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFICATION NUMBER
	WDID NUMBER

Stormwater Site Inspection Report Corrective Action Summary Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the people who manage the system or are directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Water Pollution Control Manager (name)	Date
Water Pollution Control Manager (signature)	

Stormwater Site Inspection Report Corrective Action Summary Acceptance

Resident Engineer (name)	Date
Resident Engineer (signature)	

Instructions

General Information

- If the summary form does not have enough lines to report all required actions, use additional copies of this form's page 1 to report all required corrective actions from an Inspection form.
- On page 1 of this form and additional copies of page 1, insert consecutive numbers for each required corrective action.

Required Actions

- Identified locations—where BMPs are failing or have other shortcomings—required repairs or design changes within 72 hours of identification and complete BMP repairs or other changes as soon as possible, or before the next predicted rain event, whichever is sooner, per the Lake Tahoe Hydrologic Unit Permit.
- Daily inspection required for waste containers (covered at end of shift), tracking, and other per project specifications.

Appendix J

CEM-2040 Weather Forecast Monitoring Form

Form Eliminated - No Longer Used

Appendix K

CEM-2041 Weather Monitoring Form

Form Eliminated - No Longer Used

Appendix L

CEM-2045, CEM-2046, CEM-2047 Rain Event Action Plan Forms

RAIN EVENT ACTION PLAN

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM	
	PROJECT IDENTIFIER NUMBER	
	WDID NUMBER	
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL	
	<input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3	
Submitted by contractor (print and sign name)	Date	
Water Pollution Control Manager name and company name	Phone number	
	Emergency (24/7) phone number	
Erosion and sediment control provider or subcontractor name and company	Phone number	
	Emergency (24/7) phone number	
Stormwater sampling and testing agent or subcontractor name and company	Phone number	
	Emergency (24/7) phone number	

Storm Information

Attach forecasted precipitation information from the National Weather Service Forecast Office website, <http://www.weather.gov>

Project site ZIP code	Date forecast checked	Time forecast checked
Forecast percentage probability of precipitation in 0 - 24 hours	Expected precipitation amount	Date
Forecast percentage probability of precipitation in 24 - 48 hours	Expected precipitation amount	Date
Forecast percentage probability of precipitation in 48 - 72 hours	Expected precipitation amount	Date
Will predicted weather pattern rain event produce 1/2-inch or more rain? <input type="checkbox"/> Yes <input type="checkbox"/> No	Note: A qualifying rain event happens when a predicted weather pattern will produce 1/2-inch or more of precipitation. A qualifying rain event will require stormwater visual monitoring site inspections and sampling and analysis of stormwater discharges.	

Phase Information
 Highway Construction Phase

 Plant Establishment Phase

 Inactive
Sampling Schedule

Based on the weather forecast, stormwater discharge sampling is required to begin on _____ (date) at approximately _____ (time).
Stormwater discharge sampling is required every 24 hours during an extended storm event based on the predicted duration of the storm event.
It is required on the following date:

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RAIN EVENT ACTION PLAN

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Activities Associated with Highway Construction Projects, Plant Establishment, Inactive Projects*Check ALL boxes below that apply to current project site.*

<input type="checkbox"/> Cleaning and grubbing	<input type="checkbox"/> Finish grading	<input type="checkbox"/> Traffic striping and pavement markings
<input type="checkbox"/> Earthwork	<input type="checkbox"/> Structure construction	<input type="checkbox"/> Highway planting
<input type="checkbox"/> Culvert construction	<input type="checkbox"/> Soundwall construction	<input type="checkbox"/> Soil amendments
<input type="checkbox"/> Rough grading	<input type="checkbox"/> Curbs, gutters, and sidewalks	<input type="checkbox"/> Plant establishment
<input type="checkbox"/> Storm drain installation	<input type="checkbox"/> Paving operations	<input type="checkbox"/> Material delivery and storage
<input type="checkbox"/> Utility installation water-gas-sewer	<input type="checkbox"/> Finishing roadway	<input type="checkbox"/> Equipment maintenance and fueling
<input type="checkbox"/> Structure foundations (including piles)	<input type="checkbox"/> Metal beam guard rail installation	<input type="checkbox"/> Erosion and sediment control
<input type="checkbox"/> Subgrade grading	<input type="checkbox"/> Sign installation	<input type="checkbox"/> Other _____
<input type="checkbox"/> Subbase and base placement	<input type="checkbox"/> Highway electrical work	<input type="checkbox"/> Other _____

Subcontractors or Trades Active on Site for Highway Construction, Plant Establishment, Inactive Projects*Check ALL boxes below that apply to current project site.*

<input type="checkbox"/> Grading (operating engineers)	<input type="checkbox"/> Curb, gutter and sidewalk (carpenters, laborers and concrete finishers)
<input type="checkbox"/> Underground storm drain (operating engineers and laborers)	<input type="checkbox"/> Lighting and signals (operating engineers and electricians)
<input type="checkbox"/> Underground utilities (operating engineers and laborers)	<input type="checkbox"/> Metal beam guard rail (operating engineers and laborers)
<input type="checkbox"/> Underground utilities (public or private utility company)	<input type="checkbox"/> Signs (operating engineers)
<input type="checkbox"/> Pile installation (pile butts)	<input type="checkbox"/> Traffic striping and pavement markings
<input type="checkbox"/> Concrete foundations (carpenters, laborers, and concrete finishers)	<input type="checkbox"/> Masonry soundwalls (masons and laborers)
<input type="checkbox"/> Bar reinforcement placement	<input type="checkbox"/> Erosion and sediment control
<input type="checkbox"/> Structure construction (carpenters and laborers)	<input type="checkbox"/> Highway planting
<input type="checkbox"/> Concrete placement (operating engineer, laborers and concrete finishers)	<input type="checkbox"/> Other _____
<input type="checkbox"/> Hot mix asphalt placement (operating engineers and laborers)	<input type="checkbox"/> Other _____

Trade (Subcontractor) Information Provided*Check ALL boxes below that apply to current project site.*

<input type="checkbox"/> Project SWPPP Handout	<input type="checkbox"/> Tailgate Meetings
<input type="checkbox"/> Contract Specifications	<input type="checkbox"/> Poster and Signage
<input type="checkbox"/> Educational Material Handout	<input type="checkbox"/> Other _____
<input type="checkbox"/> SWPPP Training Workshop	<input type="checkbox"/> Other _____

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RAIN EVENT ACTION PLAN

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Predicted Rain-Event-Triggered Actions

Activity	Actions Required Before Predicted Rain Event
Information and Scheduling	<p><input type="checkbox"/> Project superintendent informed of predicted rain at _____ (time) on _____ (date).</p> <p><input type="checkbox"/> Foreman and subcontractors informed of predicted rain.</p> <p><input type="checkbox"/> Erosion control or sediment control provider notified to provide:</p> <p style="padding-left: 20px;"><input type="checkbox"/> Pre-storm crew with at least _____ people</p> <p style="padding-left: 20px;"><input type="checkbox"/> Pre-storm crew to start implementing storm event actions by _____ (time) on _____ (date)</p> <p><input type="checkbox"/> Sample collection and testing provider alerted if non-visible pollutant sampling and testing required. List of non-visible pollutant sampling locations and parameters:</p> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p><input type="checkbox"/> Check that adequate erosion and sediment control materials are on hand for:</p> <p style="padding-left: 20px;"><input type="checkbox"/> Pre-storm required actions</p> <p style="padding-left: 20px;"><input type="checkbox"/> Extended storm event maintenance and repair</p> <p><input type="checkbox"/> Confirm that the BMP site map is updated and provide a copy to erosion and sediment control provider or subcontractor.</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Other _____</p> <hr/> <p style="text-align: center;">Additional Actions Required Before a Qualifying Rain Event</p> <p><input type="checkbox"/> Pre-storm stormwater site inspection completed.</p> <p><input type="checkbox"/> Listed corrective actions identified by pre-storm stormwater site inspection that must be corrected before storm event on page 7 of this Rain Event Action Plan (REAP).</p> <p><input type="checkbox"/> Staff scheduled for inspections during storm.</p> <p><input type="checkbox"/> Erosion control or sediment control provider notified at _____ (time) on _____ (date) to provide crew during the storm event of at least _____.</p> <p><input type="checkbox"/> The attached contingency plan is to be implemented in the event of flooding:</p>

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RAIN EVENT ACTION PLAN

CEM-2045 (REV 01/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Predicted Rain-Event-Triggered Actions, (continued)

Activity	Construction Site Monitoring Program Actions Required Before a Qualifying Rain Event
Information and Scheduling	<input type="checkbox"/> Review the discharge location site map for the current phase of the project and include additional non-visible pollutant sampling locations identified during pre-storm stormwater site inspection.
	<input type="checkbox"/> Alert sample collection and testing provider that sampling will be required and provide the following:
	<input type="checkbox"/> Updated discharge location site map
	<input type="checkbox"/> The required number of sampling locations for this phase of the project:
	<input type="checkbox"/> _____ Discharge points
	<input type="checkbox"/> _____ Run-on locations
	<input type="checkbox"/> _____ Receiving waters for Risk Level 3
	<input type="checkbox"/> _____ Non-visible potential discharge points
	<p>Run-on Sampling Locations</p>
	<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p>
<p>Receiving Water Sampling Locations</p>	
<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p>	
<p>Discharge Sampling Locations</p>	
<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p>	

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RAIN EVENT ACTION PLAN

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Predicted Rain-Event-Triggered Actions (continued)

Activity	Actions Required Before Predicted Rain Event
Material Storage Areas	<input type="checkbox"/> Material covered or in sheds (For example: treated wood and metals) <input type="checkbox"/> Stockpiles covered and perimeter control installed <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Waste Management Areas	<input type="checkbox"/> Dumpsters closed <input type="checkbox"/> Drain holes plugged <input type="checkbox"/> Recycling bins covered <input type="checkbox"/> Sanitary stations bermed and protected from tipping <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Concrete Rinse Out Areas	<input type="checkbox"/> Wash-out bins covered <input type="checkbox"/> Adequate capacity for rain <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Operations	<input type="checkbox"/> Operations to shut down for rain event <ul style="list-style-type: none"> <input type="checkbox"/> Grading <input type="checkbox"/> Concrete pours <input type="checkbox"/> Hot mix asphalt paving <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Soil amendments not to be applied within the 24 hours before a rain event <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____

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RAIN EVENT ACTION PLAN

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Predicted Rain-Event-Triggered Actions (continued)

Activity	Actions Required Before Predicted Rain Event																		
Secure Site for Storm Event	<input type="checkbox"/> Trenches and excavation protected. <input type="checkbox"/> Perimeter and excavations protected. <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____																		
Site Erosion and Sediment Control BMPs	<input type="checkbox"/> Site perimeter controls are in place. <input type="checkbox"/> Catch basin and drop inlet protection are in place. <input type="checkbox"/> Sediment basins and traps have adequate capacity. <input type="checkbox"/> Deploy temporary perimeter control on inactive areas. <input type="checkbox"/> Deploy temporary perimeter control around active disturbed soil areas and active stockpiles. <input type="checkbox"/> Sweep access roads. <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____																		
Spills and Drips	<input type="checkbox"/> Clean up all spills and drips, including paint, fuel, and oil. <input type="checkbox"/> Empty drip pans. <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____																		
Pre-storm Inspection Identified Corrective Actions	<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;"><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">Corrective Action Number _____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td style="text-align: right; vertical-align: bottom;">_____</td> </tr> </table>	<input type="checkbox"/> _____	Corrective Action Number _____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____
<input type="checkbox"/> _____	Corrective Action Number _____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		
<input type="checkbox"/> _____	_____																		

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RAIN EVENT ACTION PLAN

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Certification of Rain Event Action Plan

I certify under penalty of law that this Rain Event Action Plan (REAP) will be implemented in accordance with the Construction General Permit by me or under my direction or supervision. The information contained in this REAP was gathered and evaluated by qualified personnel before submittal. Based on my review of the information and inquiry of those who gathered and evaluated the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that Section 309 (c)(4) of the Clean Water Act provides for significant penalties, including fines and imprisonment for knowingly submitting false material statement, representation or certification.

Water Pollution Control Manager name	Date
Water Pollution Control Manager signature	
Accepted by resident engineer name	Date
Resident engineer signature	

Instruction

General Information

- This form must be completed for Risk Level 2 and Risk Level 3 projects with the chance for precipitation of 50 percent or greater, within 72 hours of the forecast date. The Rain Event Action Plan (REAP) must be developed 48 hours prior to any likely precipitation rain event (any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the project area).
- The CGP requires a pre-storm inspection within two business days (48 hours) prior to a "qualifying rain event" which is defined as any event producing precipitation of 0.5 inch or more over the duration of the rain event. Because the size of a rain event cannot be accurately predicted, Caltrans requires a pre-storm inspection based on a forecasted storm event, which is defined as any rain event that is forecasted to produce 0.1 inch or more of precipitation within any 24-hour period. The trigger for a pre-storm event visual inspection is the same as for a REAP: 50 percent or greater probability of producing 0.1 inch or more of precipitation within any 24-hour period in the project area based on the National Weather Service Forecast Office (National Oceanic and Atmospheric Administration).
- Within 24 hours prior to a storm event, the REAP must be submitted to the resident engineer. The REAP must be made available on site and implementation begun no later than 24 hours prior to the likely precipitation event.
- File this form in SWPPP File Category 20.45.

Form

- **Contract Number/Co/Rte/PM**
For encroachment permit projects, write the local agency or private entity encroachment permit number in the contract number field.
- **Project Identifier Number**
For projects without a number, write N/A in the field.

Appendix M

CEM-2061 Notice of Discharge Form

NOTICE OF DISCHARGE REPORT

CEM-2061 (REV 01/2018)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	WDID NUMBER
	DISCHARGE REPORT NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input checked="" type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3 <input type="checkbox"/> N/A. WPCP
Submitted by contractor (print and sign name)	Date

A. Discharge Information

Discharge Location	Discharge Type <input type="checkbox"/> Stormwater <input type="checkbox"/> Authorized non-stormwater <input type="checkbox"/> Non-authorized non-stormwater <input type="checkbox"/> Other
Discharge samples taken? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, complete Section E	Discharge identified by Name: _____ Title: _____ Date/Time: _____

Date and time water pollution control manager notified of discharge:

Date and time resident engineer or district construction stormwater coordinator notified of discharge:

B. Discharge Information

Describe the discharge, based on a visual observation; estimate discharge quantities:	Photographs <input type="checkbox"/> YES <input type="checkbox"/> NO
Describe the source and the operation that cause the discharge:	
Describe existing BMPs at the discharge location:	<input type="checkbox"/> YES <input type="checkbox"/> NO

C. Field Response

Was the discharge eliminated? <input type="checkbox"/> YES <input type="checkbox"/> NO
Describe changes in operation and BMPs implemented to eliminate the discharge and control the source:
Corrective action plan and implementation schedule:

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NOTICE OF DISCHARGE REPORT

CEM-2061 (REV 01/2018)

DISCHARGE REPORT NUMBER

D. Assessment of Discharge

Discussion of the discharge event: how, why, whether the discharge was preventable, etc., who participated (required: WPC Manager, RE, contractor's field superintendent)?

Future corrective actions to minimize or eliminate (provide a schedule and list responsible parties):

Were quantities estimated in Section B corrected by field measurements?

E. Sampling and Analysis Results

Required when discharge samples are taken. Attach CEM-2052 or lab results report.

- Are discharge samples taken? YES NO
- Is lab results report attached? YES NO RESULTS PENDING
- If applicable, provide lab information: lab name, contract name, date samples sent, attach a copy of chain of custody, etc.
- Is CEM-2052 attached? YES NO N/A

F. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Water Pollution Control Manager (name)

WPC Manager Phone Number

Water Pollution Control Manager (signature)

Date

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NOTICE OF DISCHARGE REPORT

CEM-2061 (REV 01/2018)

DISCHARGE REPORT NUMBER

For Caltrans Use

Accepted by Resident Engineer (name)	Date		
Resident Engineer (signature)			
Discharge reported by telephone or email to the Regional Water Quality Control Board (RWQCB)? A. Immediately and no later than 2 hours after discovery (sewage discharging)? <input type="checkbox"/> YES <input type="checkbox"/> NO B. Within 24 hours (project specific)? <input type="checkbox"/> YES <input type="checkbox"/> NO C. As soon as possible but within 48 hours? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date discharge reported to RWQCB	Reported by	
Notice of Discharge Report submitted to RWQCB within 14 days (3 days for District 7 and District 11)? A. Within 24 hours (sewage discharge)? <input type="checkbox"/> YES <input type="checkbox"/> NO B. Within 14 days? <input type="checkbox"/> YES <input type="checkbox"/> NO C. Within _____ days (project specific)? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date report submitted to RWQCB	Resident Engineer or DCSWC initials	

Instructions**GENERAL INFORMATION**

- This form is required for compliance with provisions in Section E.2.c, "Monitoring and Discharge Characterization Requirements," of the National Pollutant Discharge Elimination System (NPDES) Permit Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation, Order No. 2012-0011-DWQ, NPDES No. CAS000003.
- This form is to be completed when the contractor, Caltrans, State Water Resources Control Board, or Regional Water Quality Control Board staff determines that stormwater discharges, authorized non-stormwater discharges, or non-authorized, non-stormwater discharges are causing or contributing to an exceedance of an applicable water quality standard.
- This form is appropriate when there is evidence of a discharge that occurred outside of business hours where no sampling occurred.
- This form is appropriate when there is a discharge of AC grindings; concrete debris, rubble, or fines; dry materials; construction wastes; or, contaminated soils or sediment.
- When a discharge occurs, Section C is used to describe the maintenance or repair of BMPs that were done and Section D is used to describe BMPs that will be implemented in the future.
- Water quality standards are contained in the Statewide Water Quality Control Plan or applicable Regional Water Quality Control Boards (RWQCBs) Basin Plan.
- Sampling guidance is found in the current edition of the *Construction Site Monitoring Program Guidance Manual*.
- If sampling is done, effluent samples must be collected.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPPP) files.

FORM

- **Contract Number/Co/Rte/PM**
For encroachment permit projects, write the local agency or private entity encroachment permit number in the contract number field.
- **Discharge Information**
Do not leave any subsection blank. Caltrans permit specifically requires Caltrans to submit the information in this section to RWQCBs. For non-stormwater discharges, describe the construction operation or activity that caused the discharge.
- **Field Response**
Corrective action plan must include a description of maintenance or repair for existing BMPs and an implementation schedule for future BMP changes or implementation.
- **Sampling and Analysis Results**
Leave this section blank if the no box is checked for discharge samples taken.
- **Notice of Discharge Report Certification**
For instruction on reporting timelines, see Section 9.4, Noncompliance Reporting, of Statewide Stormwater Management Plan, May 2003.

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

Appendix N

CEM-2048 Storm Event Sampling and Analysis Plan

Form Eliminated-No Longer Used

Appendix O

CEM-2049 Qualifying Rain Event Sampling and Analysis Plan

Form Eliminated-No Longer Used

Appendix P

CEM-2055 Stormwater Equipment Maintenance Log Form

Form Eliminated-No Longer Used