

SUPPLEMENTAL INFORMATION HANDOUT

MATERIALS INFORMATION

1. Amendment of Streambed Alteration Agreement 1600 Permit, dated February 26, 2014
2. Conceptual Storm Water Pollution Prevention Plan (CSWPPP)
3. USFWS Amended Biological Opinion File No. 81420-2009-F-1058-R002-1
4. USACE Nationwide 404 Permit amendment dated April 3, 2014

ROUTE: 04-SCI-152 PM 0.0/5.2

Addendum No. 4 April 10, 2014.



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director



February 26, 2014

Mr. Hardeep Takhar
California Department of Transportation
111 Grand Avenue
Oakland, CA 94623

Subject: Amendment of Lake or Streambed Alteration Agreement
Notification No. 1600-2012-0208-R3

Dear Mr. Takhar:

The California Department of Fish and Wildlife (Department) has received your request to amend Lake or Streambed Alteration Agreement 1600-2012-0208-R3 (Agreement) and the required fee in the amount of \$613.75 for a major amendment.

Your request to amend the Agreement includes the construction of a soldier pile wall. The proposed soldier pile wall will be constructed from the existing roadside at Location 4, at approximately PM 3.1. The soldier pile wall construction shall only occur between June 15 and October 15. This Amendment does not authorize pile driving activities. Access for the construction of this wall will be from the existing paved State Route 152.

To build the soldier pile wall 22 30-inch diameter holes, spaced 8 feet apart, will be drilled. Twenty two 30-foot long steel H-shaped piles will be set into concrete inside the drilled holes. The outer edge of the wall will be 24 feet from the road centerline and 30 feet above the creek.

The Department hereby agrees to amend the agreement as requested. All conditions in the Agreement remain in effect.

Copies of the Agreement and this amendment must be readily available at project worksites and must be presented when requested by a Department representative or agency with inspection authority.

If you have any questions regarding this matter, please contact Melisa Escaron, Senior Environmental Scientist (Specialist) at (925)786-3045 or Melissa.escaron@wildlife.ca.gov.

Hardeep Takhar
February 26, 2014
Page 2 of 2

Sincerely,



Craig Weightman
Environmental Program Manage
Bay Delta Region

cc: Melisa Escaron, Staff Environmental Scientist

ec: Monica Gan

ACKNOWLEDGEMENT

I hereby agree to the above-referenced amendment.

Print Name: HARDEEP TAKHAR Date: 3-12-14

Signature: Hardeep Takhar

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER: To be determined

CONCEPTUAL STORMWATER POLLUTION PREVENTION PLAN

for

State Route 152 Hecker Pass Safety Improvement Project

CONTRACT NO.: 04-2A2504

CALTRANS Project Identifier NUMBER: 04000008131

RISK LEVEL: 2

Prepared for:

California Department of Transportation, District 4

111 Grand Avenue

Oakland, CA 94612

To be determined

To be determined

Submitted by:

To be determined

To be determined

To be determined,

To be determined

To be determined

Project Site Address

In Santa Clara County near Gilroy between 0.2 miles north of Bella Vista Lane to 0.2 miles east of Watsonville Road

To be determined

Contractor's Water Pollution Control (WPC) Manager/Qualified SWPPP Developer(QSD)

To be determined

To be determined

Contractor's Qualified SWPPP Developer (QSD) (if SWPPP not developed by WPC Manager)

To be determined

To be determined

Contractor's Qualified SWPPP Practitioner (QSP) (if different from WPC Manager)

To be determined

To be determined

CSWPPP Developed by:

WRECO

1243 Alpine Road, Suite 108

Walnut Creek, CA 94596

To be determined

Analette Ochoa, P.E., QSD/QSP - Senior Associate

CSWPPP Date

4/1/2014

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Attachment BNotice of Construction (NOC) / Notice of Intent (NOI)
Attachment CRisk Level Determination
Attachment DVicinity Map and Site Map
Attachment EContractor Personnel Stormwater Training
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SWPPP Appendices

Appendix ACEM-2008 SWPPP/WPCP Amendment Certification and Acceptance Form
Appendix BCEM-2009 SWPPP/WPCP Amendments Log Form
Appendix CCEM-2070 SWPPP/WPCP Annual Certification of Compliance Form
Appendix DSubcontractor/Material Supplier Notification Letter and Contact Information
Appendix ECEM-2023 Stormwater Training Record Form
Appendix FCEM-2024 Stormwater Training Log-Optional Form
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
Appendix NCEM-2052 Stormwater Sample Field Test Report Form
Appendix OCEM-2062 Numeric Action Level Exceedance Report Form
Appendix PCEM-2063 Numeric Effluent Limitation Violation Report – ATS Discharges Form

SWPPP Files

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 Construction or Notice of Intent
File Category 20.06	Legally Responsible Person Authorization of Approved Signatory
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File Category 20.54	ATS Monitoring Sampling and Test Results
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File Category 20.70	Annual Certification of Compliance
File Category 20.80	Stormwater Annual Reports
File Category 20.90	Notice of Termination

SECTION 100

SWPPP Certifications and Approval

100.1 Legally Responsible Person Certification and Caltrans Approval

The California Department of Transportation (Caltrans) District Director, as the Legally Responsible Person (LRP), has authorized the Caltrans RE to be the authorized Approved Signatory of Caltrans for reviewing, signing, and certifying the Stormwater Pollution Prevention Plan (SWPPP) in conformance with Section IV.I of the Construction General Permit (CGP) (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 provided as Attachment A. The SWPPP was developed by the Contractor and submitted for review and acceptance to the RE, pursuant to the Special Provisions, the SWPPP / Water Pollution Control Program (WPCP) Preparation Manual, and the Standard Specifications Section 7-1.01G – Water Pollution. The Contractor is responsible and liable at all times for compliance with applicable requirements of the CGP (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). Copies of the SWRCB-issued Waste Discharge Identification Number and Notice of Intent form are provided as Attachment B.

For Caltrans Use Only

**RE's Acceptance of the
Stormwater Pollution Prevention Plan**

Project Name: State Route 152 Hecker Pass Safety Improvement Project

Caltrans Contract Number: 04-2A2504

Caltrans Project Identification Number: 04000008131

"I certify under penalty of law that this document and all attachments were reviewed 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."

This SWPPP is accepted based on a review performed by myself or personnel acting under my direction that determined that the SWPPP meets the requirements set forth in the contract special provisions, Caltrans Standard Specifications, and the Caltrans SWPPP/WPCP Preparation Manual.

RE's Signature

Date of SWPPP Acceptance

To be determined

To be determined

RE's Name

RE's Telephone Number

100.2 Contractor and QSD SWPPP Certification

Contractor's Certification of SWPPP

Project Name: State Route 152 Hecker Pass Safety Improvement Project

Caltrans Contract Number: 04-2A2504

Caltrans Project Identification Number: 04000008131

"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."

Contractor's Signature

Date

To be determined

To be determined

Contractor's Name

Telephone Number

Contractor's Title

QSD's Certification of SWPPP

Project Name: State Route 152 Hecker Pass Safety Improvement Project

Caltrans Contract Number: 04-2A2504

Caltrans Project Identification Number: 04000008131

“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	Date
WRECO	To be determined
QSD’s Name	QSD’s Telephone Number
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).

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.

100.4 Annual Compliance and Approval

By July 15 of each year, the Contractor shall submit the Contractor's Annual Certification of Compliance to the RE stating that the project is in compliance with the terms and conditions of the Permits and the SWPPP. By August 1 of each year, the Caltrans LRP, or RE as authorized Approved Signatory, will complete an Annual Certification of Compliance stating that the project is in compliance with the terms and conditions of the Permits and the SWPPP. A blank copy of the CEM-2070 SWPPP/WPCP Annual Certification of Compliance form is included in Appendix C. Completed Annual Certification of Compliance forms will be filed in SWPPP File Category 20.70: Annual Certification of Compliance.

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

This Conceptual SWPPP only covers the work to be completed in the first 55 days of construction at Location 3, PM 1.18 to PM 1.48, and Location 5, PM 4.77 and PM 5.20. Any work beyond the 55th day that results in soil disturbance is not covered under this Conceptual SWPPP. On the 56th day of construction, this Conceptual SWPPP will no longer be effective unless otherwise directed by the Resident Engineer.

The SWPPP to be developed by the Contractor and approved by the Resident Engineer will cover all construction work involved with the Project beyond the first 55 days. If the Contractor's SWPPP is approved by the Resident Engineer within the first 55 days of construction, then the Contractor's SWPPP will supercede this Conceptual SWPPP. This Project proposes to increase the safety of SR 152 in western Santa Clara County by making improvements to 5.06 miles of the highway between the Santa Cruz County Line (PM 0.14) and Watsonville Road near Gilroy (PM 5.20). The direct receiving water body for this Project is Bodfish Creek, an unnamed tributary to Bodfish Creek, and Blackhawk Creek. The drainage systems within the Caltrans R/W belong to Caltrans.

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.

- | | |
|--|-----------|
| • Construction site area | 9.1 acres |
| • Percentage impervious area before construction | 39.1 |
| • Runoff coefficient before construction | 0.615 |
| • Percentage impervious area after construction | 47.3 |
| • Runoff coefficient after construction | 0.660 |

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

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

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

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 site generally flows in an easterly direction along the Bodfish Creek. Bodfish Creek follows SR152 longitudinally. However, Blackhawk Creek flows in a southerly direction, discharges into Bodfish Creek, and then flows into an easterly direction. The unnamed tributary of Bodfish Creek flows in a southerly direction, turns to an easterly direction, discharges into Bodfish Creek, and continues in an easterly direction. Blackhawk Creek and the unnamed tributary to Bodfish Creek are conveyed under SR152 via cross-culverts.

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
 Environmentally Sensitive Areas Other None

According to the Final Environmental Impact Report/Environmental Assessment (approved November 5, 2010), soils within the project area exhibit high levels of erosion, increased impervious area could accelerate storm water runoff, exacerbating soil erosion. Portions of the hillsides in Location 3 is historically susceptible to landslides and rock falls.

There is also a potential for presence of aerially deposited lead (ADL) in soil adjacent to roadway, the source of which is primarily the use of lead in gasoline, a practice that was phased out in the mid-1970s. Typically, ADL exists in the top 6 in of soil adjacent to the roadway shoulder. Potential for lead chromate in yellow roadway striping. Exposure to these contaminants during construction could affect safety and health.

Soil excavation depth for project activities is anticipated to be a maximum of 6 ft, which is not expected to be deep enough to encounter groundwater. Therefore, project activities would not be expected to impact the groundwater basin.

Location 3 is in the Sierra Azula block and underlain by two rock units: the siltacious shale and sandstone of Mt. Pajaro and the sandstone of Mt. Madonna. Soils at Location 3 is characterized as Felton silt loam. These soils are well drained and are underlain by interbedded shales and sandstone at a depth of 20 to 30 in. Permeability in the subsoil is moderately slow. Runoff is very rapid and the hazard of erosion is very high. These soils have moderate shrink-swell potential and corrosivity.

This location is entirely underlain by Pleistocene alluvial fan deposits and surrounded to the north and south by the Temblor Sandstone of the New Almaden Block. Soils at this location consist of San Ysidro loam and Pleasanton gravelly loam. Both of these soil types have moderate corrosivity, moderate shrink-swell potential, and none to slightly low hazard of erosion.

According to the Final Addendum Environmental Impact Report (2013) California Tiger Salamander (CTS) is a large

terrestrial salamander that inhabits seasonal/semi-permanent water resources (3-4 months in duration) and adjacent upland habitat with small fossorial mammal activity in lowland grasslands, oak savannah and mixed woodlands. Range includes the Central Valley and Central Coast ranges from Colusa County south to San Luis Obispo and Kern counties from sea level to 3,460 ft in elevation with two disjunct populations within Sonoma County and Santa Barbara County. CTS have been documented traveling distances of up to one mile. CTS may occur in the Project study area. Suitable breeding habitat has been identified within a 1.24-mile radius of Location 5, which is within the potential migratory range. Occurrences reported within a 1.24-mile radius.

California Red-Legged Frog (CRLF) is a medium-sized frog that inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation up to 4,900 ft in elevation. Range extends from Redding to Baja California, Mexico. Breeding occurs between November and April in standing or slow-moving water at least 2.5 ft in depth with emergent vegetation, such as cattails (*Typha* spp.), tules (*Scirpus* spp.) or overhanging willows (*Salix* spp.). CRLF may occur in the Project study area. CRLF were detected historically in 1939. Suitable breeding habitat has been identified within a 1-mile radius of Locations 3 and 5.

Steelhead South/Central California Coast DPS inhabits cold headwaters, creeks, and small to large rivers and lakes with swift shallow water and clean, loose gravel for spawning. They require large pools during the summer months and spawn in the winter and spring. They may occur in Location 5 parallel Bodfish Creek and/or its tributaries, which lie within the Pajaro River watershed and are within the South/Central California Coast DPS boundary and the designated critical habitat. During field surveys, individuals were observed in several locations below SR152. Species not in Project limits; but species critical habitat is near enough to warrant consideration.

The following USFWS is a list of Special-Status Animal Species that may occur in the Project:

- Foothill yellow-legged frog
- Western pond turtle
- Cooper's hawk
- Sharp shinned-hawk
- Golden eagle
- Long-eared owl
- Burrowing owl
- Yellow warbler
- White tailed kite
- Merlin
- Loggerhead shrike
- Purple martin
- Pallid bat
- Western red bat
- Hoary bat
- San Francisco dusky-footed woodrat

Prior to the start of construction, environmentally sensitive areas (ESAs) - defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed - will be clearly delineated using high-visibility orange fencing. The ESA fencing will remain in place throughout the duration of the project, while construction activities are ongoing and will prevent the encroachment of construction equipment/personnel from entering the sensitive habitat.

Prior to the start of construction, Wildlife Exclusion Fencing (WEF) will be installed along the project footprint in all areas where CRLF and CTS could enter the project site. In cooperation with the USFWS and CDFG, the location of the fencing will be determined the Resident Engineer and USFWS-approved biologist based on habitat suitability.

300.6 Contact Information for Responsible Parties

The following parties are responsible for this SWPPP:

WPC Manager

Name: **To be determined**
Title: **Water Pollution Control Manager**
Company: **To be determined**
Address: **To be determined**
To be determined,
Phone Number: **To be determined**
Emergency Phone Number (24/7): **To be determined**
Email address: **To be determined**

Resident Engineer

Name: **To be determined**
Title: **Resident Engineer**
Company: **California Department of Transportation, District 4**
Address: **111 Grand Avenue**
Oakland, CA 94612
Phone Number: **To be determined**
Emergency Phone Number (24/7) **To be determined**
Email address: **To be determined**

Contractor

Name: **To be determined**
Title: **Contractor**
Company: **To be determined**
Address: **To be determined**
To be determined,
Phone Number: **To be determined**
Emergency Phone Number (24/7)

Email address: **To be determined**

Erosion and Sediment Control Provider

Name: **To be determined**

Title: **To be determined**

Company: **To be determined**

Address: **To be determined**

To be determined,

Phone Number: **To be determined**

Emergency Phone Number (24/7) **To be determined**

Email address: **To be determined**

Stormwater Sampling and Testing Agent

Name: **To be determined**

Title: **To be determined**

Company: **To be determined**

Address: **To be determined**

To be determined,

Phone Number: **To be determined**

Emergency Phone Number (24/7) **To be determined**

Email address: **To be determined**

300.7 List of Subcontractor and Materials Suppliers

The following subcontractors will be working on this project:

1

SWPPP Responsibility:

2 **To be determined**

SWPPP Responsibility: **To be determined**

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

2 **To be determined**

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).

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 QSD. 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:

- To be determined
-

The WPC Manager has received the following training:

- To be determined
-

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

- To be determined
-

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
- State of California RWQCB
- IECA-, 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
- To be determined
-

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

- To be determined
-

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;
- 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 24-Hour Training Class and CGP Training) for the WPC Manager and the Qualified SWPPP Developer 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.
- To be determined
-

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 2010.
- Contract Plans and Special Provisions for Contract No. 04-2A2504, dated August 19, 2013, prepared by Dan Massa, Getachew Eschete, Fariba Zohoury, Mona Attallah, Hassan Taha, and Laurie Smith.
- 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
- *Caltrans Statewide Storm Water Management Plan* (SWMP), dated July 2012 (Revision)
- *Caltrans SWPPP/WPCP Preparation Manual*, dated March 2011
- *Caltrans Construction Site Monitoring Program Guidance Manual*, January 2012
- Final Addendum Environmental Impact Report (2013)
- Final Environmental Impact Report/Environmental Assessment (2010)

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.

- Project Plans for Construction on State Highway in Santa Clara County near Gilroy at Various Locations from 0.2 mile North of Bella Vista Lane to 0.2 mile East of Watsonville Road (June 17, 2013)
- NMFS Endangered Species Act Section 7(a)(2) Request for Technical Assistance for the Hecker Pass Safety Improvement Project (2/24/14)
- NMFS Letter of Concurrence (3/13/13)
- RWQCB 401 Permit (5/24/13)
- USACE Nationwide 404 Permit (5/10/13)
- CDFG Streambed Alteration Agreement 1600 Permit (4/12/13)
- USFWS Amended Biological Opinion File No. 81420-2009-F-1058-R001 (5/29/12)
- USFWS Biological Opinion File No. 81420-2009-F-1058-2 (7/14/10)

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 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 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 type="checkbox"/> Utilities <input 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 type="checkbox"/> Concrete Placement (colored chalks) <input checked="" type="checkbox"/> Concrete Curing (curing and glazing compounds) <input type="checkbox"/> Concrete Finishing (surface cleaners) <input checked="" type="checkbox"/> Concrete Waste Management
<input checked="" type="checkbox"/> Building Construction	<input type="checkbox"/> Paint Preparation, Painting, Stenciling, and Etching <input checked="" type="checkbox"/> Material Use <input checked="" type="checkbox"/> Material Delivery and Storage <input checked="" 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 checked="" 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 checked="" 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.

- Fill material
- Tree cutting
- Clearing and grubbing

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

-
-

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

- Hazardous materials: fuels, oils, solvent, hydraulic fluids, etc.
- All replacement pipes, culverts, or similar structures
- Stockpiled soils

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

- Trash
- Concrete waste
- Hazardous waste

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

- Portable Toilets
- Motor
- Pumps
- Generators
- Compressors
- Welders
- Vehicles
- Heavy equipment and machinery
- Staging areas

Potential pollutants shall not be stored within 50 feet of stormwater conveyance features or concentrated flow paths. In addition, 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

Historic Contamination: Yes No

- Not Applicable

-

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

- Aerially deposited lead
-

500.1.3 Risk Level Determination

The Project risk level is 2.

500.2 Pre-Construction Existing Stormwater Control Measures

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

- Vegetated slopes
- Vegetated unlined ditches
- Drainage facilities

There are no pre-construction existing stormwater control measures, because this project is located in a rural, heavily vegetated, and mountainous area.

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:

- Disturbed soil areas
- New cut/fill slopes
- Unpaved areas that were trenched

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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.

- Roughen embankment slopes
- Track-walk slopes by running track-mounted equipment perpendicular to slope contours
- Rolling with a sheepfoot roller
- Remove and dispose of trash, debris, and weeds

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

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 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-9	Earth Dikes / Drainage Swales & Lined Swales	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	

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SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SC-4	Temporary Check Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SC-5	Fiber Rolls	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SC-6	Temporary Gravel Bag Berm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
SC-8	Temporary Sandbag Barrier	<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-5, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference 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

- Wattles
- Sediment trap in drainage inlets

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.

TABLE 500.3.2					
TEMPORARY EROSION CONTROL BMPs					
CONSTRUCTION	BMP NAME	CONTRACT	CONTRACT	BMP USED	IF A CONTRACT MINIMUM
To be determined					

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BMP ID NO. (1)		MIN REQUIREMENT (2)	BID ITEM			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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-3	Temporary Hydraulic Mulch (Polymer Stabilized Fiber Matrix)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	Not used because Temporary Hydraulic Mulch (Bonded Fiber Matrix) is used instead.
SS-4	Temporary Erosion Control (With Temporary Seeding)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	Not used because Temporary Hydraulic Mulch (Bonded Fiber Matrix) is used instead.
SS-5	Temporary Soil Stabilizer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	Not used because Temporary Hydraulic Mulch (Bonded Fiber Matrix) is used instead.
SS-6	Temporary Erosion Control (Straw Mulch with Stabilizing Emulsion)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	Not used because Temporary Hydraulic Mulch (Bonded Fiber Matrix) is used instead.
SS-7	Temporary Erosion Control Blanket (On Slope)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	Not used because Temporary Hydraulic Mulch (Bonded Fiber Matrix) is used instead.
SS-7	Temporary Erosion Control Blanket (In swale or ditch)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-7	Temporary Cover (Geotextiles and Mats)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-8	Temporary Mulch (Wood)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-9	Earth Dikes / Drainage Swales & Lined Swales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-10	Outlet Protection/ Velocity Dissipation Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-11	Slope Drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-13	Polyacrylamide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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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 Reference 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-2 Preservation of Existing Vegetation
- SS-3 Temporary Hydraulic Mulch
- SS-7 Temporary Cover
- SS-1 Scheduling

SS-1 Scheduling

Within 5 days of the Contract award, the Contractor or Contractor's WPC Manager must develop a schedule detailing the work to be completed in the first 55 days of construction, the period covered under this Conceptual SWPPP. The schedule shall present the proposed sequencing of work and planned BMP implementation, including temporary soil stabilization BMPs.

SS-2 Preservation of Existing Vegetation

Temporary Fence Type ESA (TFESA) and Temporary Reinforced Silt Fence (TRSF) will be the first order of work prior to the start of any work or any soil disturbance. The fencing must be placed around locations identified as outside limits of work. Fencing placed in the field should be in compliance with the Contract Plans, the conditions stated in the regulatory permits, and as directed by the field biologist. No construction work is permitted these fenced locations; and damage or disturbance to these areas shall be identified, reported to the Resident Engineer, and mitigated with corrective actions per direction of the Resident Engineer; and required corrective action will be at the Contractor's expense.

SS-3 Temporary Hydraulic Mulch

Temporary Hydraulic Mulch (Bonded Fiber Matrix-BFM) will be applied to disturbed slopes, disturbed soils, and stockpiles to provide temporary stabilization and prevent sediment transport from rain or wind. The minimum locations that require the application of temporary hydraulic mulch (bonded fiber matrix) are shown on the Water Pollution Control Drawings included in Attachment A; additional areas requiring temporary soil stabilization should be identified in the field.

SS-7 Temporary Cover

Temporary cover will be placed on temporary stockpiles to prevent erosion due to rain or wind. Temporary cover will also be placed over construction materials (as needed to avoid sediment or debris transport by rain or wind). Temporary cover will be used as stated in the stockpile management section of this Conceptual SWPPP and in compliance with the Contract Special Provisions. For short term durations, plastic covers should be used. For long-term stabilization, blankets should be used. Areas requiring temporary cover should be identified in the field.

500.3.3 Sediment Control

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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.

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 REQUIRE- MENT (2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
SC-1	Temporary Silt Fence	<input checked="" 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 checked="" type="radio"/>	
SC-3	Temporary Sediment Trap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-6	Temporary Gravel Bag Berm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	
SC-9	Temporary Straw Bale Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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SC-10	Temporary Drain Inlet Protection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-11	Temporary Chemical Treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 Reference 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-4 Temporary Check Dam
- SC-5 Temporary Fiber Rolls
- SC-7 Street Sweeping
- SC-10 Temporary Drain Inlet Protection
- SC-1 Temporary Silt Fence

SC-1 Temporary Silt Fence

Temporary silt fence will be installed and maintained at locations shown on the plans to allow sediment to settle from run-off, prior to flowing beyond the site.

SC-5 Temporary Fiber Rolls

Temporary fiber rolls are placed on slopes to intercept run-on and runoff, reduce flow velocity, promote sheet flow, and prevent sediment transport. Temporary fiber rolls should be placed on slopes are disturbed to prevent sediment laden sheet flow due to loss of vegetation cover. The temporary fiber rolls should be removed and replaced or relocated once soil disturbance work as started. The minimum locations of temporary fiber rolls are shown on the Water Pollution Control Drawings included in Attachment A. The placement of temporary fiber rolls should be adjusted to meet field conditions.

SC-7 Street Sweeping

Street sweeping shall be conducted using machine-operated sweepers along paved areas, roadways, and pathways where sediment has been tracked or transported by construction equipment. At least a single sweeper is needed for one day per week. Additional sweepers should be conducted as approved by the Resident Engineer. Debris material generated from street sweeping activities will be managed daily by either immediately disposing of the waste material using an on-site, watertight container or temporarily stockpiling the material using temporary cover and temporary perimeter control BMPs to prevent sediment transport.

SC-10 Temporary Drain Inlet Protection

Temporary protection should be placed at all drain inlets (existing and proposed) that are subject to runoff from construction activities or can be impacted by sediment transport from construction activities. To limit the amount of sediment entering the drain inlets, a temporary gravel bag berm must be used in addition to standard temporary drain

inlet protection measures. All drain inlets that are impacted by construction activities must have temporary drain inlet protection.

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	
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 checked="" type="radio"/>	
TC-3	Temporary Entrance / Outlet Tire Wash	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 Reference 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
- TC-1 Temporary Construction Entrance

SC-7 Street Sweeping

To be determined

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Steet sweeping shall be conducted using machine-operated sweepers along paved areas, roadways, and pathways where sediment has been tracked or transported by construction equipment. At least a single sweeper is needed for one day per week. Additional sweepers should be conducted as approved by the Resident Engineer. Debris material generated from street sweeping activities will be managed daily by either immediately disposing of the waste material using an on-site, watertight container or temporarily stockpiling the material using temporary cover and temporary perimeter control BMPs to prevent sediment transport.

TC-1 Temporary Construction Entrance

Temporary construction entrances shall be placed at points of ingress and egress at the construction site and at staging areas to reduce tracking mud and sediment onto public roads by construction vehicles. The suggested locations for temporary construction entrances are shown on the Water Pollution Control Drawings included in Attachment A.

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 REQUIRE- MENT (2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
WE-1	Wind Erosion Control	<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 checked="" type="radio"/>	
----	All Soil Stabilization Measures included in Section 500.3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 Reference 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
- TC-1 Temporary Construction Entrance

WE-1 Wind Erosion Control

Wind erosion control must be in place and used during windy conditions (forecast or actual wind conditions of approximately 25 mph or greater) and whenever there is a potential for wind erosion. Potable water shall be applied to disturbed soil areas to control dust and maintain optimum moisture levels for compaction. The water shall be applied using water trucks. Wind erosion control and water conservation practices shall be implemented during construction. Water application rates shall be minimized, as necessary, to prevent runoff and ponding. Water equipment leaks shall be repaired immediately. Wind erosion control is not a separate contract bid item, but is considered as covered under the various other BMPs used to prevent sediment transport and under Job Site Management lump sum.

TC-1 Temporary Construction Entrance

Temporary construction entrances shall be placed at points of ingress and egress at the construction site and at staging areas to reduce tracking mud and sediment onto public roads by construction vehicles. The suggested locations for temporary construction entrances are shown on the Water Pollution Control Drawings included in Attachment A.

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.

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"/>	

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NS-2	Dewatering(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-3	Paving, Sealing, Sawcutting, and Grinding Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	
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 type="radio"/>	<input checked="" type="radio"/>	
NS-13	Material and Equipment Used Over Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-14	Concrete Finishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" 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 Reference 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
- NS-6 Illegal Connection and Illegal Discharge Detection Reporting
- NS-7 Potable Water/Irrigation
- NS-8 Vehicle and Equipment Cleaning
- NS-9 and NS-10 Vehicle and Equipment Fueling and Maintenance

NS-1 Water Control and Conservation

Water that is used during construction shall be minimized in order to control erosion and discharge into storm drain systems or receiving water bodies. Water shall be used conservatively to prevent ponding, erosion and transport of sediment, and any discharge from watering operations into storm drain facilities or water bodies shall be documented and reported to the Resident Engineer. Water equipment shall be inspected at least once a week and equipment failures shall be repaired immediately.

NS-6 Illegal Connection and Illegal Discharge Detection Reporting

The job site and perimeter shall be inspected for evidence of illegal or illicit connections, illegal discharges and dumping prior to the start of work, and daily after work has started. Illegal connections, discharges, or dumping should be reported to the Resident Engineer and appropriate action taken upon direction of Resident Engineer. All leaks, spills, breaches or other unauthorized discharges observed and identified must be cleaned up immediately and managed and/or disposed of properly.

NS-7 Potable Water/Irrigation

Potable water used during construction activities, including irrigation or wind erosion control uses, shall be controlled so as to not result in permanent standing water or non-stormwater discharge to storm drain facilities or receiving water bodies. All necessary permits and approvals shall be obtained prior to connecting to and using potable sources.

NS-8 Vehicle and Equipment Cleaning

Vehicles and equipment should be cleaned off-site except when it is necessary to avoid tracking of sediment or hazardous waste. The Resident Engineer shall be notified when equipment is washed on the job site using soap, solvents or steam. The use of diesel to clean vehicles and equipment is prohibited and the use of solvents and water should be minimized; any residue or runoff from cleaning operations should be collected and disposed of as stated in the Contract Special Provision and as directed by the Resident Engineer.

NS-9 and NS-10 Vehicle and Equipment Fueling and Maintenance

Vehicles and equipment should be fueled off-site. If fueling or maintenance must be done at the job site, assign a site that is on level ground and in an area protected from stormwater run-on and runoff. Containment berms or dikes should be placed and adequate quantities of absorbent material and spill kits should be made available. Fueling nozzles must be equipped with an automatic shutoff control, and must be equipped with vapor-recovery systems. Used materials should be recycled or properly disposed of. If leaks cannot be repaired immediately, the vehicle or equipment should be removed from the job site.

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.

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**TABLE 500.4.2
 TEMPORARY WASTE MANAGEMENT AND MATERIALS 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	
WM-1	Material Delivery and Storage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
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 type="radio"/>	<input checked="" type="radio"/>	
WM-7	Contaminated Soil Management (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
WM-8	Concrete Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
WM-8	Temporary Concrete Washout (Portable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
WM-8	Temporary Concrete Washout Facility	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input 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 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 Reference 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 and WM-2 Material Use

Minimize or eliminate the discharge of material into the air, storm drain systems, and receiving waters while taking delivery of, using or storing the following material:

1. Hazardous chemicals, including acids, lime, glues, adhesives, paints, solvents, and curing compounds
2. Soil stabilizers and binders
3. Fertilizers
4. Detergents
5. Plaster
6. Petroleum materials, including fuel, oil, and grease
7. Asphalt and concrete components
8. Pesticides and herbicides

Dedicated refueling areas will be located at least 150 ft from a body of water. Waste materials shall not be placed within 150 linear feet of waters of the State or where the material may be washed by rainfall into waters of the State. For example, no debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement, or concrete or concrete washings, welding slag, oil or associated activity or whatever nature, other than that authorized by the 401 Certification, shall not be allowed to enter into waters of the State. The minimum requirements shall include: storing hazardous materials at least 150 linear feet outside of the stream banks; checking equipment for leaks and preventing the use of equipment with leaks; and pressure washing or steam cleaning equipment to remove fluid residue on any of its surfaces prior to its entering any stream channel in a manner that does not result in a discharge to waters of the State.

If materials are stored:

1. Store liquids, petroleum materials, and substances listed in 40 CFR 110, 117, 302, and place them in secondary containment facilities as specified by US DOT for storage of hazardous materials.
2. Secondary containment facilities must be impervious to the materials stored therein for a minimum contact time of 72 hours.
3. Cover secondary containment facilities during non-working days and whenever precipitation is forecasted. Secondary containment facilities must be adequately ventilated.
4. Keep secondary containment facilities free of accumulated stormwater or spills. After precipitation, or in the event of spills or leaks, collect accumulated liquid and place it into drums within 24 hours. Handle the liquid as hazardous waste under "Waste Management" of these special provisions unless testing confirms that the liquid is non-hazardous.
5. Do not store incompatible materials, such as chlorine and ammonia, in the same secondary containment facility.
6. Store materials in their original containers with the original material labels maintained in legible condition. Immediately replace damaged or illegible labels.
7. Secondary containment facilities must have the capacity to contain precipitation from a 24-hour, 25-year storm, plus 10-percent of the aggregate volume of all containers or the entire volume of the largest container within the facility, whichever is greater.
8. 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.
9. Provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well-organized, and equipped with cleanup supplies appropriate for the material being stored.
10. Repair or replace perimeter controls, containment structures, covers, and liners as necessary. Inspect storage areas before and after precipitation and at least weekly during other times.

WM-3 Stockpile Management

Stockpiling of materials at the job site should be minimized. Protection of stockpiles is required and must be implemented in compliance with the Contract Specifications and as directed by the Resident Engineer. Stockpiles will be properly covered and sediment/perimeter controls will be used for stockpiles after 14 days of inactivity. Water pollution control practices should be implemented within 72 hours of stockpiling material or before a forecasted storm event, whichever occurs first. If stockpiles are being used, soil, sediment or other debris are not allowed to enter storm drains, open drainages, and watercourses. In addition, stockpile locations must be, at a minimum, 150 feet away from concentrated flows of stormwater, drainage courses, and inlets. Linear sediment barriers and covers should be repaired or replaced as needed to keep them functioning properly.

Active and inactive soil stockpiles must be:

1. Covered with soil stabilization material or a temporary cover
2. Surrounded with a linear sediment barrier

WM-4 Spill Prevention and Control

Material or waste storage areas must be kept clean, well-organized, and equipped with enough cleanup supplies for the material being stored. Spill and leak prevention procedures should be implemented for chemicals and hazardous substances stored on the job site. All hazardous spills must be reported to the WPC Manager and Resident Engineer immediately. As soon as it is safe, spills of petroleum materials and sanitary and septic waste substances must be contained and cleaned as described under 40 CFR, Parts 110, 117, and 302.

WM-9 Sanitary/Septic Waste Management

Local health agency provisions shall be complied with when using an on-site disposal system. Sanitary or septic system wastewater must not be buried or discharged within the highway. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. Portable sanitary facilities must be placed at least 150 feet away from receiving waters and 150 feet away from waters of the State or where the material may be washed by rainfall into waters of the State.

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

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;
- 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.

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 Water Pollution Control Schedule (WPCS) is the component of the project SWPPP that shows the timeline for 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
- 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.

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 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:
 - a 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

- 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 72-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 illicit connections or illegal 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

-
- 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:

In Santa Clara County near Gilroy between 0.2 miles north of Bella Vista Lane to 0.2 miles east of Watsonville Road

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 72 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.

The Project site's latitude and longitude that will be used when obtaining weather forecast information from National Weather Service Forecast Office are: 37 degrees 00' 14.02" N and 121 degrees 40' 50.91" W. These coordinates are equidistant to Location 3 and Location 5.

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.

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

5 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
17.57 acres	Location 3 PM 1.32
11.64 acres	Location 3 PM 1.39
7.20 acres	Location 3 PM 1.50
1.47 acres	Location 5 PM 4.98
38.25 acres	Location 3 PM 1.22

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	Not Applicable

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

6 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.

**TABLE 700.1.1.3
 STORMWATER DISCHARGE LOCATIONS**

Unique Sampling Location Identifier	Location
D1	Location 3 "C" Line 64+80, 40' Rt
D2	Location 3 "C" Line 69+80, 37' Rt
D3	Location 3 "C" Line 73+50, 45' Rt
D4	Location 5 "E" Line 260+20, 60' Lt
D5	Location 5 "E" Line 274+20, 15' Lt
D6	Location 5 "E" Line 274+30, 20' Rt

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.

5 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
- 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: To be determined | Contact phone: To be determined |
| ● Alternate Inspector: To be determined | Contact phone: To be determined |

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
- 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

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)
- 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

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

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.

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).

- Stormwater sampling and field analysis will be performed by the following primary and alternative stormwater samplers: To be determined
- To be determined

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

-
-

The primary stormwater sampler has the following stormwater sampling experience:

-
-

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

-
-

The alternate stormwater sampler has the following stormwater sampling experience:

-
-

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 To be determined.

700.2.1.2.2 Monitoring Supplies

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
To be determined	To be determined

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: **To be determined**
- Address: **To be determined**
To be determined, To be determined To be determined
- Contact Name: **To be determined**
- Title: **To be determined**
- Phone Number: **To be determined**
- Emergency Phone Number (24/7): **To be determined**
- Email Address: **To be determined**

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
- 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
- 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)
TTT = sampling location type (e.g. DL)
T = 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 this 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 handling 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.
 - 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, **SSSSYYMMDDHHmmTT** , where

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

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 To be determined at To be determined for inclusion into a statewide database.

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, January 2012. 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
- Cleaning Agent
- Portland Cement Concrete & Masonry Products
- Painting & Cleaning Products
- Adhesives
- Dust Palliative Products
- Treated Wood Products

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.

- Contaminated Soil
-

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.

- Landscaping Products

- Soil Amendment/Stabilization Products

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
- 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
Vehicle	Antifreeze, Batteries, Fuels, Lubricants	Lead, pH, Sulfuric Acid
Cleaning Agent	Acids, Bleaches, Tri-Sodium Phosphate, and Solvents	pH, Chlorine, Phosphate, VOC, SVOC
Portland Cement Concrete, Masonry Products	Masonry Products, Sealant, Fly Ash, Municipal Solid Waste, Curing Compounds	pH, Alkalinity, Methyl Methacrylate, Metals, VOC, SVOC
Landscaping Products	Fertilizers, Inorganic and Organic, Herbicides, Natural Earth	Aluminum, TDS, Sulfate, Nitrate, Phosphate, pH, Organic Nitrogen, and COD
Contaminated Soil	Aerially Deposited Lead	Lead
Painting & Cleaning Products	Solvents, Thinners, Resins	COD, VOC, SVOC
Adhesives	Adhesives	COD, Phenols, SVOC
Dust Palliative Products	Salts	Chloride, TDS, Cations (Sodium, Magnesium, Calcium)
Soil Amendments/Stabilization Products	Polymer/Copolymer	BOD, COD, DOC, Nitrate, Sulfate, Nickel
Treated Wood Products	Ammoniacal-Copper-Zinc-Arsenate (ACZA), Copper-Chromium-Arsenic (CCA), Ammoniacal-Copper-Arsenate (ACA), Copper-Naphthenate, Creosole	Arsenic, Total Chromium, Copper, and Zinc

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:

7 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
D1	Location 3 "C" Line 64+80, 40' Rt
D2	Location 3 "C" Line 69+80, 37' Rt
D3	Location 3 "C" Line 73+50, 45' Rt
D4	Location 5 "E" Line 260+20, 60' Lt
D5	Location 5 "E" Line 274+20, 15' Lt
D6	Location 5 "E" Line 274+30, 20' Rt

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

5 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
C1	Location 3 "C" Line 64+55, 45' Lt
C2	Location 3 "C" Line 69+80, 50' Lt
C3	Location 3 "C" Line 73+50, 50' Lt
C4	Location 5 "E" Line 252+30, 110' Lt

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.

- 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, in Appendix O. 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
VOCs-Solvents	EPA 820B	3 x 40 mL	VOA-glass	Store at 4 degrees Celsius, HCl to pH<2	1 ug/L	14 days
SVOCs	EPA 8270C	1 x 1 L	Glass-Amber		Store at 4 degree Celsius	10 ug/L
COD	EPA 410.4	1 x 100 mL	Glass-Amber	Store at 4 degrees Celsius	5 mg/L	28 days
pH	EPA 150.1	100 mL	Polypropylene	None	+/-0.2 pH units	15 minutes
Lead	EPA 200.8 (Pb)	500 mL	Polypropylene or Glass	Store at 4 degrees Celsius, HCl to pH<2		1 ug/L
Phenol	EPA 420.1 (Phenol)	500 mL	Polypropylene or Glass	Store at 4 degrees Celsius	5 ug/L	2 days

To be determined

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Phosphate	EPA 365.3 (phosphate)	500 mL	Polypropylene	Store at 4 degrees Celsius	1 mg/L	2 days
Suspended Sediment Concentration (SSC)	ASTM D3977-97	200 mL	Contact Lab	Store at 4 degrees Celsius	Contact Lab	7 days
Turbidity	EPA 180.1 SM 2130(b)	100 mL	Glass	Store at 4 degrees Celsius	1 NTU	48 hours

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.

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, January 2012. 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
- 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

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*, January 2012. Sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE.

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.

TABLE 700.2.3.3.2.1 POTENTIAL NON-STORMWATER DEWATERING SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description
Not Applicable	Not Applicable

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.

TABLE 700.2.3.3.2.2 POTENTIAL IMPOUNDED STORMWATER DISCHARGE SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description
Not Applicable	Not Applicable

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.

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.

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

Samples from non-stormwater discharges shall be analyzed for pH and turbidity.

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
- MI - 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.

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, January 2012. 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, January 2012. 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.”

TABLE 700.2.4.3.2.1 STORMWATER DISCHARGE LOCATIONS	
Sampling Location Identifier	Location
D1	Location 3 "C" Line 64+80, 40' Rt
D2	Location 3 "C" Line 69+80, 37' Rt
D3	Location 3 "C" Line 73+50, 45' Rt
D4	Location 5 "E" Line 260+20, 60' Lt
D5	Location 5 "E" Line 274+20, 15' Lt
D6	Location 5 "E" Line 274+30, 20' Rt

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.
- 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

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 Reportin - 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.”

TABLE 700.2.4.7.1 NALs FOR MONITORING pH AND TURBIDITY				
Parameter	Test Method	Detection Limit (min)	Unit	Numeric Action Level
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test with calibrated portable instrument	1	NTU	250 NTU

Acronyms:

Min = Minimum

NAL = numeric action level

NTU = Nephelometric Turbidity Units

If an NAL for pH is 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 include:

- 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.

700.2.4.9 Change of Condition

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

700.2.5 Sampling and Analysis Plan for Monitoring Required by Regional Board

This project does not require a Sampling and Analysis Plan for Monitoring required by a RWQCB.

700.2.6 Sampling and Analysis Plan for Monitoring of Active Treatment System

This project does not require a SAP for an ATS because deployment of such a system is not planned.

SECTION 800

POST-CONSTRUCTION CONTROL PRACTICES

800.1 Post-Construction Control Practices

The following are the post-construction BMPs for the project site

- Biofiltration Swale (Location 5) "E" Line 264+00 to 265+00
- Biofiltration Swale (Location 5) "E" Line 269+00 to 270+00
- Permanent erosion control, seeding, and planting
- Outlet protection/velocity dissipation devices
- Rock slope protection
- Biofiltration Swale (Location 5) "E" Line 257+00 to 258+60

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 4 Maintenance

long-term funding: Caltrans District 4 Maintenance

The responsible party for the long-term maintenance of post-construction BMPs is Caltrans District 4 Maintenance

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 Construction or 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 20.90	Notice 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 Limitation (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 Illicit Connection/Illegal Discharge Reporting

If the Contractor discovers an illicit 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 illegal 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:

- the date, time, and location of the discovery
- the details for the illicit connection or illegal discharge, including any photographs taken
- any actions taken to contain the illegal discharge

- any sampling and testing performed on material that was illegally disposed of or discharged

Attachment C Risk Level Determination

	A	B	C
1	Sediment Risk Factor Worksheet		Entry
2	A) R Factor		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	R Factor Value		274.73
6	B) K Factor (weighted average, by area, for all site soils)		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	K Factor Value		0.21
10	C) LS Factor (weighted average, by area, for all slopes)		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	LS Factor Value		10.25
14			
15	Watershed Erosion Estimate (=RxKxLS) in tons/acre		591.356325
16	Site Sediment Risk Factor		High
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	yes/no	
A.1. Does the disturbed area discharge (either directly or indirectly) to a 303(d)-listed waterbody impaired by sediment (For help with impaired waterbodies please check the attached worksheet or visit the link below) or has a USEPA approved TMDL implementation plan for sediment ?: 2006 Approved Sediment-impaired WBs Worksheet http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml	No	Low
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp		

Combined Risk Level Matrix

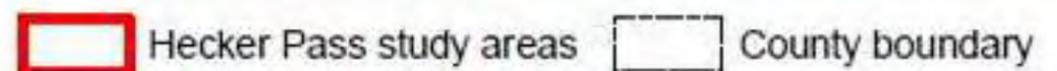
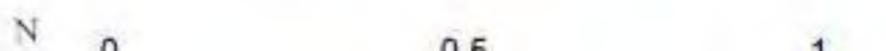
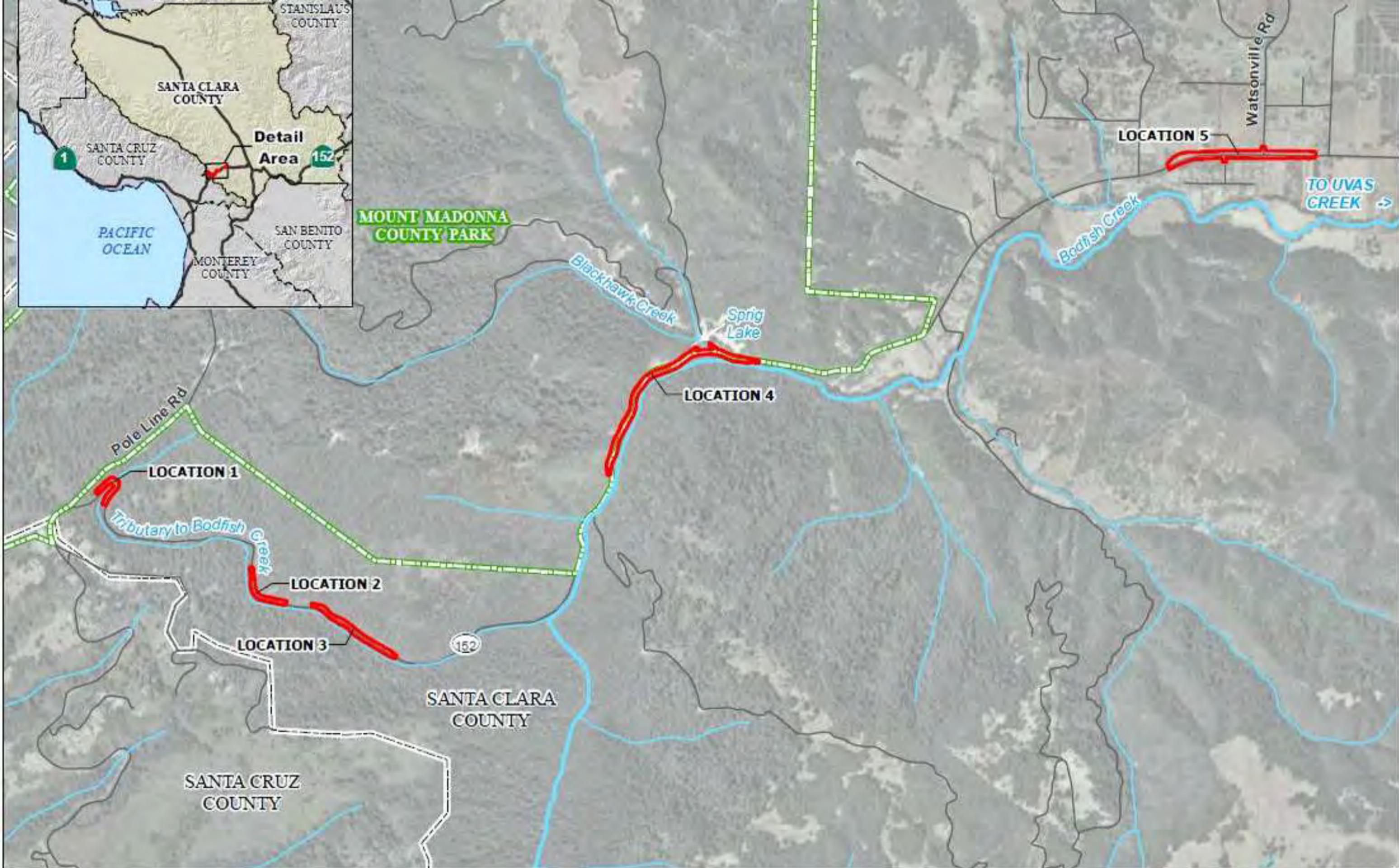
		<u>Sediment Risk</u>		
		Low	Medium	High
<u>Receiving Water Risk</u>	Low	Level 1	Level 2	
	High	Level 2		Level 3

Project Sediment Risk: **High**

Project RW Risk: **Low**

Project Combined Risk: **Level 2**

Attachment D Vicinity Map and Site Map



Project Location

Attachment E Contractor Personnel Stormwater Training

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

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

Analette Ochoa

Nov 26, 2012 - Dec 13, 2014

Certificate # 00178



California Stormwater Quality Association and
California Construction General Permit Training Team

Attachment BB Water Pollution Control Drawings

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.0/5.2		

GANGA D. TRIPATHI 06/01/2012
 REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

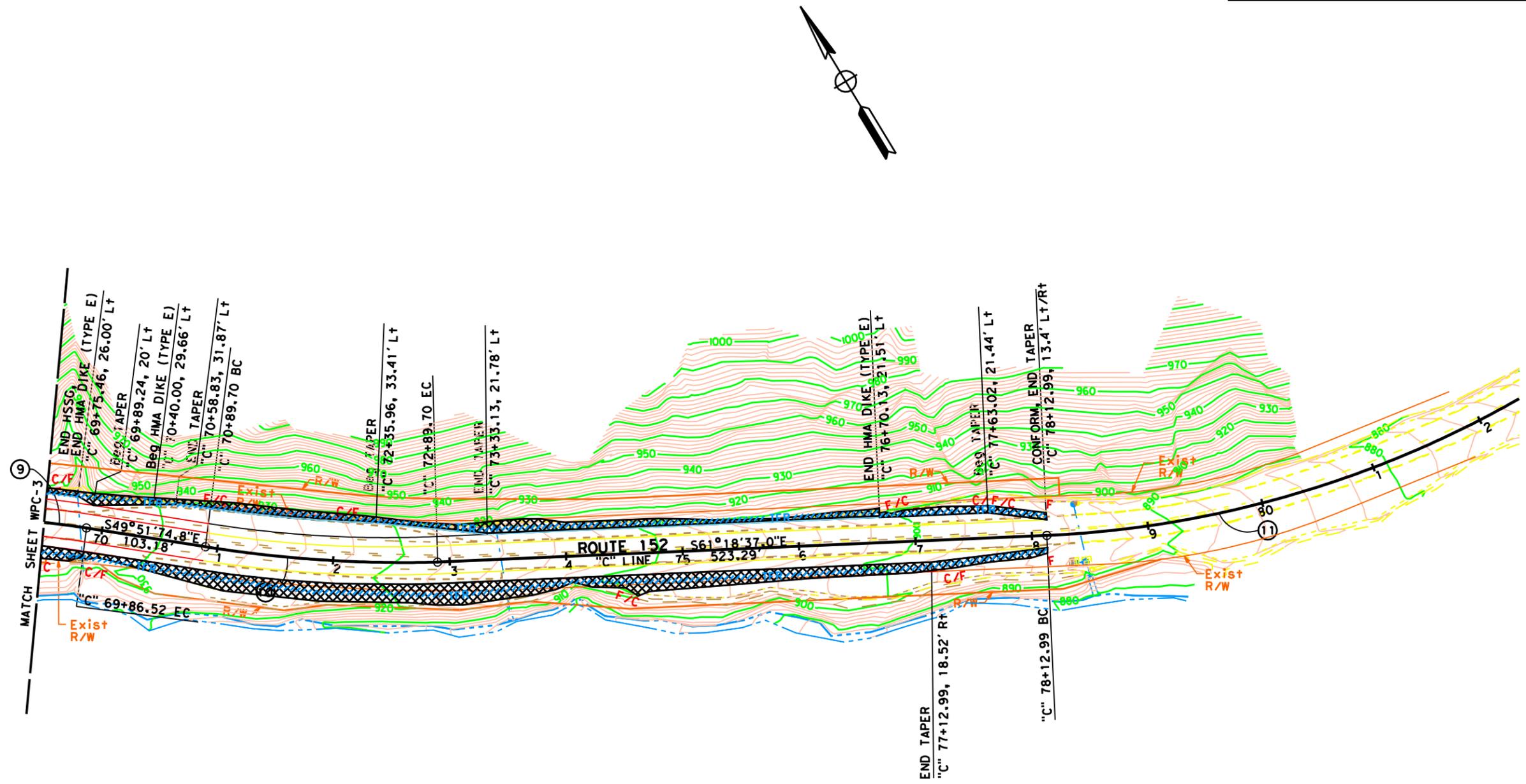
REGISTERED PROFESSIONAL ENGINEER
 GANGA D. TRIPATHI
 No. 78447
 Exp. 09/30/2013
 CIVIL
 STATE OF CALIFORNIA

REVISOR BY
 DATE REVISOR

CALCULATED-DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR

BORDER LAST REVISED 7/2/2010
 USERNAME => USER
 DGN FILE => REQUEST



WATER POLLUTION CONTROL PLAN
 (LOCATION 3 PM 1.19 TO 1.48)
 SCALE: 1"=50'

WPC-4

BORDER LAST REVISED 7/2/2010

USERNAME => USER
 DGN FILE => REQUEST



UNIT 1475

PROJECT NUMBER & PHASE

0400008131

LAST REVISION DATE PLOTTED => DATE
 03-23-12 TIME PLOTTED => \$TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.0/5.2		

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

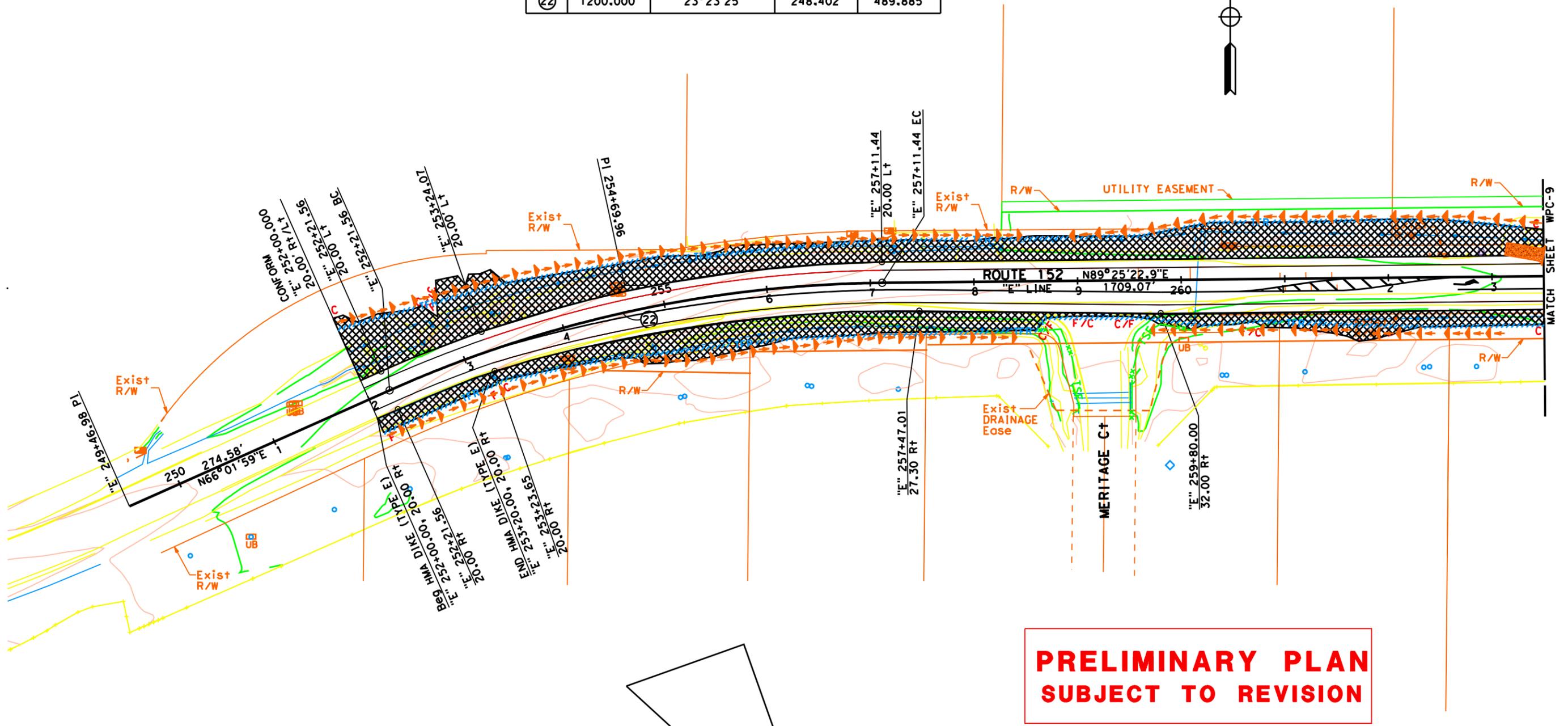


NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.

CURVE DATA

No.	R	Δ	T	L
22	1200.000'	23°23'25"	248.402'	489.885'



**PRELIMINARY PLAN
SUBJECT TO REVISION**

LAYOUT
(LOCATION 5 PM 4.73 TO 5.19)
SCALE: 1" = 50'
L-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN

REVISOR BY
DATE REVISOR

CALCULATED/DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR

BORDER LAST REVISED 7/2/2010

USERNAME => USER
DGN FILE => REQUEST

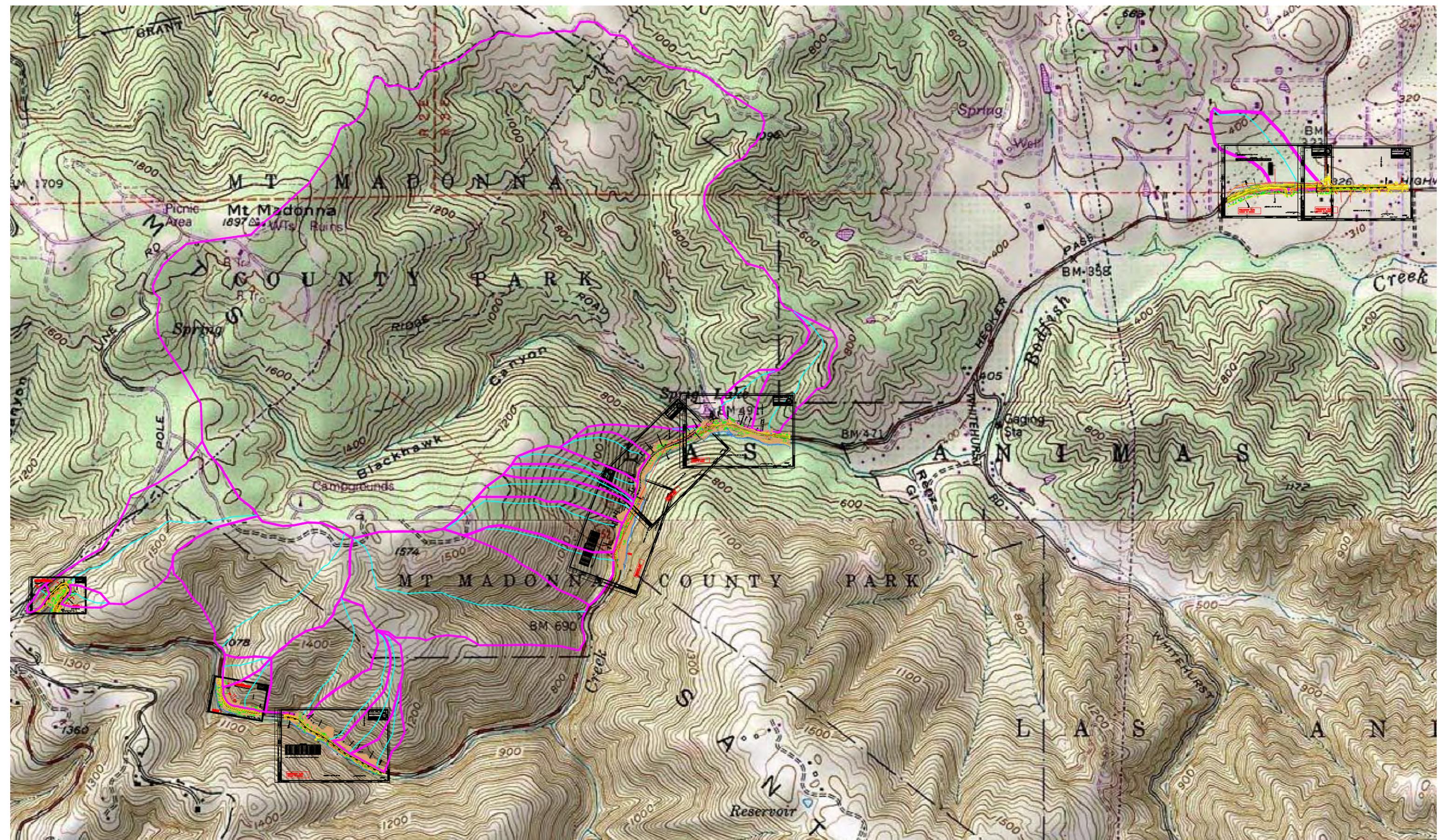
RELATIVE BORDER SCALE
15 IN INCHES



UNIT 1475

PROJECT NUMBER & PHASE
0400008131

LAST REVISION DATE PLOTTED => DATE
03-23-12 TIME PLOTTED => \$TIME



Attachment EE Stormwater Sampling Locations

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06 - DESIGN

FUNCTIONAL SUPERVISOR: GETACHEW ESHETE
 CALCULATED-DRAWN BY: WILLIAM LEE
 CHECKED BY: MARK TAKETA
 DESIGNED BY: WRL
 DATE REVISED: 02-27-12

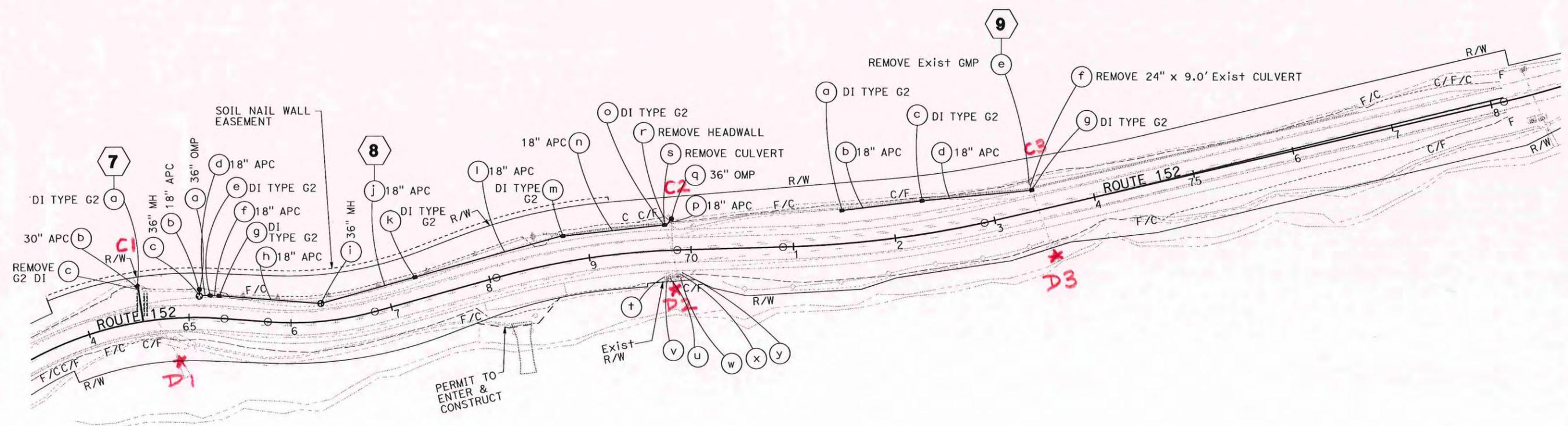
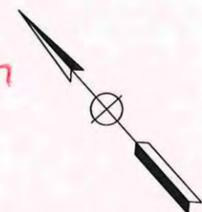
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.1/5.2	58	416

REGISTERED CIVIL ENGINEER: *M. I. Taketa* DATE: 08-31-12
 No. 64391
 Exp. 6-30-13
 PLANS APPROVAL DATE: 6-17-13

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

C = Control Sample
★ = Discharge Sampling Location



DRAINAGE PLAN
 (LOCATION 3 PM 1.2 TO 1.5)
 SCALE: 1" = 50'
D-3

APPROVED FOR DRAINAGE WORK ONLY

DATE PLOTTED => 21-JUN-2013
 TIME PLOTTED => 07:48
 LAST REVISION 05-21-12

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

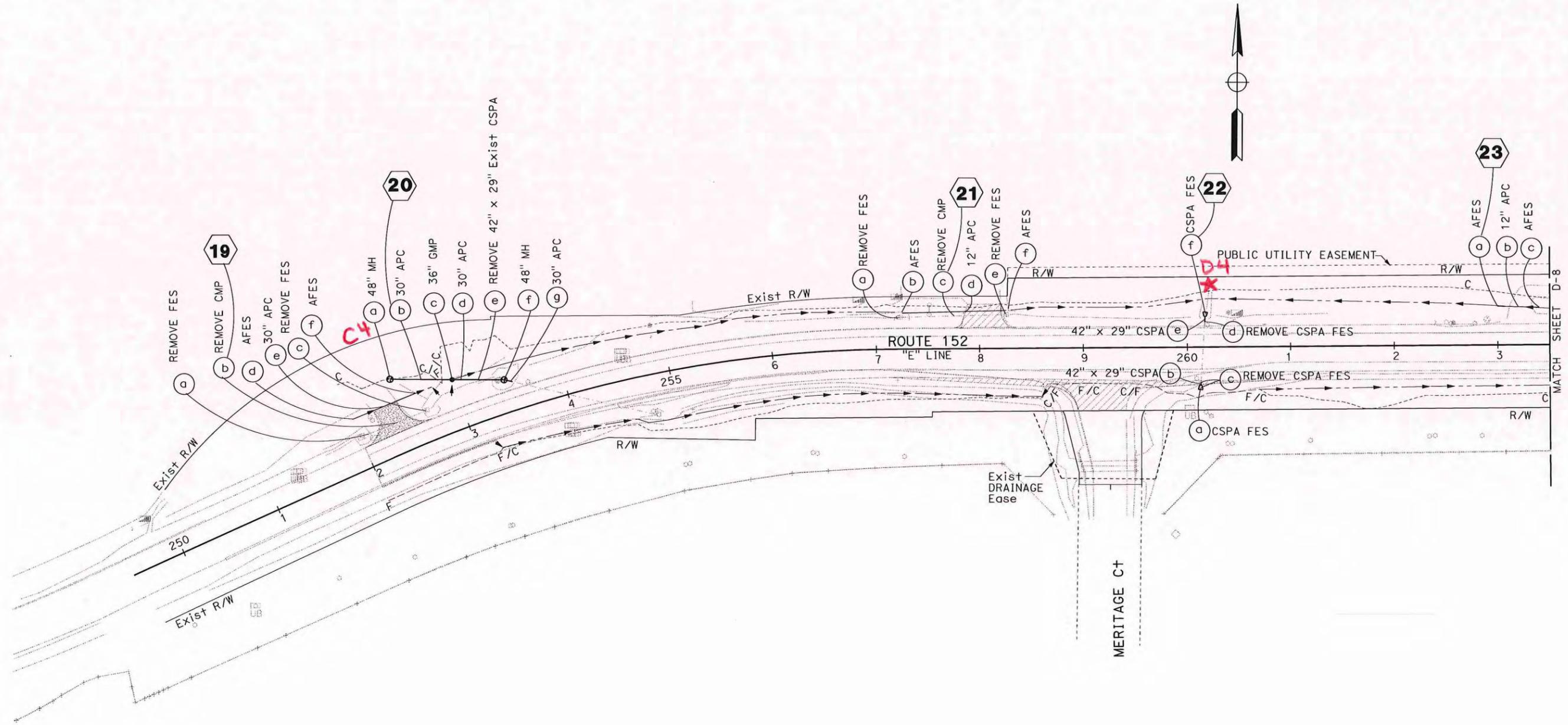
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.1/5.2	62	416

<i>M. I. Taketa</i>	08-31-12
REGISTERED CIVIL ENGINEER	DATE
6-17-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MARK I. TAKETA
No. 64391
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR BY
Caltrans	GETACHEW ESHETE	CHECKED BY	DATE REVISED
06 - DESIGN		WILLIAM LEE	MARK TAKETA



DRAINAGE PLAN
(LOCATION 5 PM 4.8 TO 5.2)
SCALE: 1" = 50'
D-7

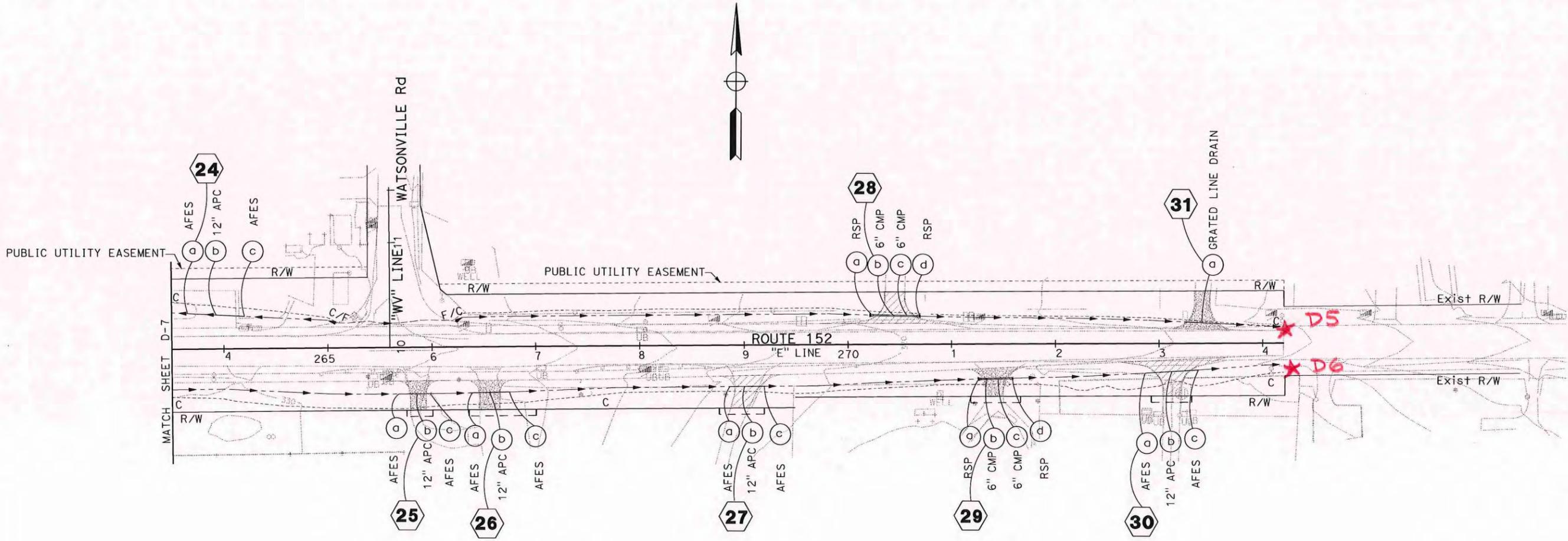
LAST REVISION: 06-22-12 DATE PLOTTED => 21-JUN-2013 TIME PLOTTED => 07:49

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN
 FUNCTIONAL SUPERVISOR: GETACHEW ESHETE
 CALCULATED/DESIGNED BY: WILLIAM LEE
 CHECKED BY: MARK TAKETA
 REVISIONS: (Table with columns for REVISION NO., REVISION BY, DATE, and DESCRIPTION)

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.1/5.2	63	416

REGISTERED CIVIL ENGINEER: *M. Lee* DATE: 08-31-12
 PLANS APPROVAL DATE: 6-17-13
 REGISTERED PROFESSIONAL ENGINEER: MARK I. TAKETA
 No. 64391 Exp. 6-30-13
 CIVIL STATE OF CALIFORNIA
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



DRAINAGE PLAN
 (LOCATION 5 PM 4.8 TO 5.2)
 SCALE: 1" = 50'
D-8

Appendices

WEATHER FORECAST LOG

CEM-2040 (NEW 1/2011)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

WEATHER MONITORING LOG
 Week of ___ / ___ / ___ - ___ / ___ / ___

National Weather Forecast Office <http://www.srh.noaa.gov/forecast> project site forecast based on search using

(Address or Latitude and Longitude)

Forecast Date/Time	24-Hour Forecast	48-Hour Forecast	72-Hour Forecast	96-Hour Forecast
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No

WEATHER FORECAST LOG

CEM-2040 (NEW 1/2011)

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

WEATHER MONITORING LOG

Forecast Date/Time	24-Hour Forecast	48-Hour Forecast	72-Hour Forecast	96-Hour Forecast
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date	Date	Date	Date
	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %
	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches
	Chance of Precipitation 50 percent or greater within 48 hours of forecast date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chance of Precipitation 50 percent or greater within 72 hours of forecast date? <input type="checkbox"/> Yes <input type="checkbox"/> No	Forecasted cumulative amount of precipitation for storm event? _____ inches	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No

WEATHER FORECAST LOG

CEM-2040 (NEW 1/2011)

Instructions**GENERAL INFORMATION**

- The information on this form is required to document weather forecasts for project sites with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP).
- To obtain accurate weather forecast information for a project site on the National Weather Service Forecast Office website, enter the site's nearest city, state, or ZIP code in the "Search for" box. Click on Forecast Weather Table Interface on the bottom right side of the page and search by address, city, state, or project site latitude or longitude.
- Use this form daily to log the weather forecast information for the project site from the National Weather Service Forecast Office. Record in inches the chance of precipitation in the percentage and forecasted amounts listed.
- Complete the weather forecast log each working day. If the project is a calendar-day project (seven-working-day week), attach an additional copy of page 2 to report all seven days. Submit Weekly Weather Forecast Monitoring logs to the resident engineer within 48 hours of the ending date.

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 a project identifier number write N/A in the field.

WDID Number

For projects with Water Pollution Control Program enter "WPCP."

Enter the project site street address, including city and state or latitude and longitude used to obtain National Weather Service forecast.

Weekly Reporting Period

Enter the first and last working day for the reporting period.

Enter weather forecast information from the Forecast Weather Table Interface of the National Weather Service Forecast Office webpage. Record forecasted chance of precipitation and precipitation amounts for each six-hour period for the next 24 hours, 48 hours, 72 hours, and 96 hours. For each day you do a forecast, do not include forecast information for the forecast date.

From the forecast information recorded, determine if the chance for precipitation is 50 percent or greater within 48 hours of the forecast date, and check the appropriate box.

From the forecast information recorded, determine if the chance for precipitation is 50 percent or greater within 72 hours of the forecast date, and check the appropriate box.

Using the forecasted amounts of precipitation for each six-hour period, add the amounts to determine the cumulative amount of precipitation for a storm event, and record the amount on the form. You may need to use information within the 96-hour forecast to determine storm event forecasted cumulative amount of precipitation. Determine if the forecasted cumulative amount of precipitation for the storm event is ½ inch or greater, and check the appropriate box.

WPCP/SPPPP IMPLEMENTATION REQUIREMENTS BASED ON WEATHER FORECAST

- For WPCP projects with the chance for precipitation 50 percent or greater within 48 hours of the forecast date, the water pollution control manager must implement appropriate water pollution control practices.
- For SWPPP projects with the chance for precipitation 50 percent or greater within or 72 hours of the forecast date, the water pollution control manager must implement appropriate water pollution control practices and prepare a Rain Event Action Plan for Risk Level 2 and Risk Level 3 projects.
- For WPCP projects with the forecasted cumulative amount of precipitation for the storm event ½ inch or greater, the water pollution control manager must perform a pre-storm stormwater site inspection within 48 before the storm event.
- For SWPPP projects with the forecasted cumulative amount of precipitation for the storm event ½ inch or greater, the water pollution control manager must perform a visual site-monitoring pre-storm, daily-during-storm, and post-storm inspection. For Risk Level 2 and Risk Level 3, qualifying storm events require daily stormwater discharge sampling and analysis.

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"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

Storm Event Sampling and Analysis Plan

Weather Forecast Information

Weather Forecast at _____ (time) _____ (date)

24-Hour Forecast	48-Hour Forecast	72-Hour Forecast	24-Hour Forecast
Date	Date	Date	Date
Chance of Precipitation %	Chance of Precipitation %	Chance of Precipitation %	Forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No
Amount of Precipitation Inches	Amount of Precipitation Inches	Amount of Precipitation Inches	

If yes and the project is Risk Level 1, complete this form.

If yes and the project is Risk Level 2 or 3, stop here and use form CEM-2049, "Qualifying Rain Event Sampling and Analysis Plan."

If no, complete this form.

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, so based on the predicted duration of the storm event, it is required on the following dates:

The order in which stormwater discharge sample location will be sampled:

- Numeric order by location number
- Reverse numeric order by location number
- The following specified order _____

Reason for specified sampling order

STORM EVENT SAMPLING AND ANALYSIS PLAN

CEM-2048 (NEW 2/2011)

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

Storm Event Sampling and Analysis Plan Certification

I certify under penalty of law that this Storm Event Sampling and Analysis Plan was prepared by me or under my direction or supervision. The information contained in the summary 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 (CWA) 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

Storm Event Sampling and Analysis Plan Review

Reviewed by resident engineer (name)	Date
--------------------------------------	------

Resident engineer signature

STORM EVENT SAMPLING AND ANALYSIS PLAN

CEM-2048 (NEW 2/2011)

Page 4 of 6

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

STORM EVENT SAMPLING AND ANALYSIS WORKSHEETS**Worksheet for Determining Non-Visible Pollutant Storm Event Sampling and Analysis Plan*****Determining Non-Visible Pollutant Sampling Locations***

Instructions: Enter potential non-visible pollutant sampling locations from SWPPP Attachment EE. From pre-storm site visual monitoring inspection, determine if pollutant source is present, and check the appropriate box. For each potential non-visible sampling location, determine from the pre-storm site visual monitoring inspection if any criteria for triggering sampling and analysis for non-visible pollutant are met, and check the appropriate box in the "Pre-storm site inspection identified trigger for sampling?" column.

The five triggers for sampling non-visible pollutant sampling locations:

1. Materials or waste containing non-visible pollutants are not stored under watertight conditions.
2. Materials or waste containing 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 before the storm event, or (3) the potential for a discharge of non-visible pollutants exists.
3. A construction activity with potential to contribute non-visible pollutants (1) was occurring within 24 hours before the storm event; (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented; and (3) the potential for a discharge of non-visible pollutants exists.
4. Soil amendments have been applied, and the potential for a discharge of non-visible pollutants exists.
5. Stormwater runoff from an area contaminated by historic use of the site has the potential to combine with stormwater runoff from the site, and the potential for a discharge of non-visible pollutants exists.

Non-Visible Pollutant Sampling Required?

- No—If no pollutant sources are present, sampling stormwater discharges for non-visible pollutants is not required.
- No—If pre-storm site visual monitoring inspection identified no triggers, sampling stormwater discharges for non-visible pollutants is not required.
- Yes—If the pollutant source is present and the answer to a trigger question is yes, check the box in the "Storm Event Sample Location" column.

STORM EVENT SAMPLING AND ANALYSIS PLAN

CEM-2048 (NEW 2/2011)

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

STORM EVENT SAMPLING AND ANALYSIS WORKSHEETS

Worksheet for determining non-visible pollutant storm event sampling and analysis plan for locations Identified by pre-storm site monitoring inspection not shown on SWPPP Attachment EE

Instructions: List any project site non-visible sampling location identified by pre-storm site visual monitoring in Table B not identified in SWPPP Attachment EE Table "Potential Sampling Locations for Non-visible Pollutants." Determine pollutant source, pollutant and water quality indicator constituent and enter the information into Table B.

Table B: Non-Visible Pollutant Sampling Locations Identified by Pre-Storm Site Inspection

Location Number	Uncontaminated Location Number	Location	Pollutant Source	Pollutant	Water Quality Indicator Constituent

Enter the information from Table B into Table 1 on CEM-2049, "Qualifying Rain Event Sampling and Analysis Plan."

GENERAL INFORMATION

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 a PID, write N/A in the field.

WDID Number

For projects with Water Pollution Control Program, enter "WPCP" in this field.

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

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"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

Qualifying Rain Event Sampling and Analysis Plan

Weather Forecast Information

Weather Forecast at _____ (time) _____ (date)

24-Hour Forecast	48-Hour Forecast	72-Hour Forecast
Date:	Date:	Date:
Chance of Precipitation (%):	Chance of Precipitation (%):	Chance of Precipitation (%):
Amount of Precipitation (Inches):	Amount of Precipitation (Inches):	Amount of Precipitation (Inches):

Forecasted Amount of Precipitation

What is the forecasted cumulative amount of precipitation for storm event? _____ inches	If yes and the project is Risk Level 2 or Risk Level 3, complete this form. If yes and the project is Risk Level 1, stop here and use form CEM-2048, "Storm Event Sampling and Analysis Plan."
Is the forecasted cumulative amount of precipitation for storm event 1/2 inch or greater? <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, stop here and use CEM-2048, "Storm Event Sampling and Analysis Plan."

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, storm water discharge sampling is required on the following dates:

_____ , _____ , _____ , _____ , _____ , _____

The order in which stormwater discharge sample location will be sampled:

- Numeric order by location number
- Reverse numeric order by location number
- The following specified order _____

Reason for specified sampling order

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

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

Qualifying Rain Event Sampling and Analysis Plan

Complete "Qualifying Rain Event Sampling and Analysis Worksheet" to determine sampling locations for storm event.

Non-Visible Pollutant Sampling Locations

Complete worksheet to determine non-visible pollutant sampling locations.

- No sampling locations for non-visible pollutants exist for this storm event.
- Table 1 shows sampling locations for non-visible pollutants for this storm event.

Table 1: Rain Event Non-Visible Pollutant Sampling Locations

Location Number	Uncontaminated Location Number	Location	Sample Type	Water Quality Indicator Constituent	Analysis

Stormwater Discharge Sampling Locations

- No sampling locations for turbidity and pH exist for this storm event.
- Table 2 shows sampling locations for required turbidity and pH analysis, optional SSC analysis, and other analysis for this storm event.

Table 2: Storm Event Sampling Locations for Turbidity and pH

Location Number	Location	Required Analysis	Optional Analysis
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other

Other Analyses Required _____

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

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

Project Site Run-on Sampling Locations

- No project site run-on locations to be sampled exist for this storm event.
- Table 3 shows sampling locations for project site run-on for this storm event.

Table 3: Run-on Sampling Locations

Location Number	Location	Required Analysis	Optional Analysis
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other

Other Analyses Required _____

Project Site Receiving Water Sampling Locations

- No receiving water locations to be sampled exist for this this storm event.
- Table 4 shows receiving water sampling locations for this storm event.

Table 4: Receiving Water Sampling Locations

Location Number	Location	Required Analysis	Optional Analysis
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other
		<input type="checkbox"/> Turbidity <input type="checkbox"/> pH	<input type="checkbox"/> SSC <input type="checkbox"/> Other

Other Analyses Required _____

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

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

Table 5: Sampling Locations for Rain Event Listed in Numeric Order

Number	Location Number	QCQA									
1			11			21			31		
2			12			22			32		
3			13			23			33		
4			14			24			34		
5			15			25			35		
6			16			26			36		
7			17			27			37		
8			18			28			38		
9			19			29			39		
10			20			30			40		

Qualifying Rain Event Sampling and Analysis Plan Certification

I certify under penalty of law that this Qualifying Rain Event Sampling and Analysis Plan was prepared by me or under my direction or supervision. The information contained in the summary 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 (CWA) 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

Qualifying Rain Event Sampling and Analysis Plan Review

Reviewed by resident engineer (name)	Date
--------------------------------------	------

Resident engineer signature

Instructions**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 a PID, write N/A in the field.

WDID Number

For projects with Water Pollution Control Program, enter "WPCP" in this field.

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

Page 5 of 13

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM
WATER POLLUTION CONTROL MANAGER NAME	PROJECT IDENTIFIER NUMBER
WATER POLLUTION CONTROL MANGER SIGNATURE	WDID NUMBER
	DATE

Qualifying Rain Event Sampling and Analysis Plan Worksheets**Determining Non-visible Pollutant Sampling Locations**

Instructions: Enter the potential non-visible pollutant sampling locations from SWPPP Attachment EE. From pre-storm site visual monitoring inspection, determine if the pollutant source is present and check the appropriate box. For each potential non-visible sampling location, determine from the pre-storm site visual monitoring inspection if any of the five criteria for triggering sampling and analysis for non-visible pollutant are met and check the appropriate box in "Pre-storm site inspection identified trigger for sampling?" column.

The five triggers for sampling non-visible pollutant sampling locations are:

1. Materials or waste containing non-visible pollutants are not stored under watertight conditions.
2. Materials or waste containing 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 before the storm event, and (3) a potential exists for discharge of non-visible pollutants.
3. A construction activity with potential to contribute non-visible pollutants (1) was occurring within 24 hours before the storm event; (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented; and (3) a potential exists for discharge of non-visible pollutants.
4. Soil amendments have been applied and the potential exist for a discharge of non-visible pollutants.
5. Stormwater runoff from an area contaminated by historic site use has the potential to combine with stormwater runoff from the site and potential exists for a discharge of non-visible pollutants.

Non-visible Pollutant Sampling Required?

- No—If no pollutant sources are present, sampling stormwater discharges for non-visible pollutants is not required.
- No—If pre-storm site visual monitoring inspection identified no triggers that require sampling for non-visible pollutants, sampling stormwater discharges for non-visible pollutants is not required.
- Yes—If the pollutant source is present and the answer to any trigger question above is "yes," check the box in the "Storm Event Sample Locations" column.

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

Page 7 of 13

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM
WATER POLLUTION CONTROL MANAGER NAME	PROJECT IDENTIFIER NUMBER
DATE	WDID NUMBER

Qualifying Rain Event Sampling and Analysis Plan Worksheets, continued**Worksheet for Determining Rain Event Sampling Locations for Turbidity and pH for Risk Level 2 and Risk Level 3 Projects for Qualifying Rain Events****Determining Sampling Locations Based on Turbidity**

Instructions: List on Table C all project stormwater discharge sampling locations shown in SWPPP Attachment EE Table, "Project Site Discharge Sampling Locations for Turbidity and pH." Basing your decision on pre-storm site visual monitoring inspection, determine if any disturbed soil areas exist at each location and check the appropriate box in Table C. Enter the drainage area in acres for each location from SWPPP Attachment EE. During the pre-storm site monitoring inspection, for locations with disturbed soil area, determine the current disturbed soil area in acres and enter the information into Table C. Calculate and enter the percentage of drainage area that is disturbed soil area in Table C.

Verify with your RWQCB that this is acceptable.

Determine the Number of Sampling Locations for Representative Sampling Based on Turbidity

Check the appropriate following box used to determine representative sampling locations.

- If fewer than five discharge locations have disturbed soil area, sample them all. Check the box in the "Storm event sample location" column on Table C for all locations with disturbed soil area.
- If the project has 25 or fewer stormwater discharge sampling locations and if more than five discharge locations have disturbed soil area, select the five locations with the highest percentage of disturbed soil area to determine the storm event sampling locations. Check the box in the "Storm event sample location" column in Table C for all five locations.
- If more than 25 stormwater discharge sampling locations exist, determine the number of locations that must be sampled based on 20 percent of the total stormwater discharge sampling locations.

_____ (stormwater discharge locations) x .20 = _____ (number of sampling locations)

To determine the storm event sampling locations, select the required number of sampling locations with the highest percentage of drainage area that has disturbed soil area. Check the "Storm event sample location" column on Table C for each sampling location selected.

- If a previous storm event had a numeric effluent limitation exceedance, check the "Storm event sample location" column for all locations with disturbed soil area.

Determining Sampling Locations Based on pH

Project sites may have construction activities that affect the pH of stormwater discharges.

To ensure that selection of discharge locations with construction activities that may affect pH are included in project site representative sampling, follow this selection process:

Instructions: Based on pre-storm site visual monitoring inspection, determine if construction activity within each drainage area could affect the pH of stormwater discharges, and check the appropriate box in the column of Table C for each discharge location. Check the box in Table C Column A if both questions in the previous two columns have been answered "yes."

Basis for the Number of Sampling Locations for Representative Sampling

Check the appropriate box used to determine representative sampling location for pH.

- If fewer than five discharge locations have disturbed soil area and additional discharge locations have construction activities that could affect pH, base storm event representative sampling on locations selected using turbidity. Check the "Storm event sample location" column in Table C for all locations with disturbed soil area.
- If fewer than five discharge locations have disturbed soil area and no additional discharge locations have construction activities that could affect pH, sample all discharge locations with disturbed soil area and select the two additional locations with the highest potential for pH discharges, based on current construction activities that may affect the pH of stormwater discharges. Check the "Location selected for sampling based on pH?" box for each selected location, based on the highest potential for pH discharges. For locations with the box checked in the "Location selected for sampling based on disturbed soil area?" column or locations with the box checked in the "Location selected for sampling based on pH" column, check the "Storm event sample location" column in Table C.
- If five or more discharge locations have disturbed soil area and at least two boxes in Column A are checked, base your storm event representative sampling on sampling locations you selected based on disturbed soil area. In Table C, check the "Storm event sample location" column for sampling locations with the box checked in "Location selected for sampling based on pH?" column.
- If five or more discharge locations have disturbed soil area and one or no box is checked in Column A, base additional sampling locations on pH. For discharge locations with no disturbed soil area but with construction activities that could affect pH, base all storm event sample locations on turbidity, and select two locations with the highest potential for pH discharges based on current construction activities. Check Table C in the "Storm event sample location" column for locations with the box checked in "Location selected for sampling based on disturbed soil area?" column or locations with the box checked in "Location selected for sampling based on pH" column.

QUALIFYING RAIN EVENT SAMPLING AND ANALYSIS PLAN

CEM-2049 (NEW 4/2012)

PROJECT NAME	CONTRACT NUMBER/CO/RTE/PM
WATER POLLUTION CONTROL MANAGER NAME	PROJECT IDENTIFIER NUMBER
DATE	WDID NUMBER

Qualifying Rain Event Sampling and Analysis Plan Worksheets, continued**Worksheet for determining additional storm event sampling locations based on previous storm event test results near numeric action levels**

Has the daily average for any discharge location exceeded the NTU daily average of 200 NTU, or was pH daily average outside the 6.5 to 8.5 range for any storm event?

- Yes—Complete the worksheet.
- No—Stop. No additional sampling locations are necessary for this storm event.

Instructions: If stormwater sample test results have exceeded limitations set for representative sampling, select additional sampling locations to sample and analyze 50 percent of the project site's stormwater discharge locations.

Determine the number of locations that must be sampled base on 50 percent of the total stormwater discharge sampling locations. (Section 700.2.4.3.3, SWPPP/WPCP preparation Manual, Jan 2012)

_____ (stormwater discharge locations) x .50 = _____ (number of sampling locations)

Check the box below used to determine representative sampling locations.

- If the number of sampling locations is five or fewer, no additional sampling locations need to be selected.
- If the number of sampling locations is determined to be more than 5, complete Table D. Copy the information from Table C for the first six columns of Table D. Use the information in the last column of Table C, "Storm event sample location," for column 7. If the NTU limit was exceeded, select additional sampling locations to meet the required number of representative sampling locations based on additional locations with the highest percentage of drainage area that is disturbed soil area. If pH range was exceeded, select additional sampling locations to meet the required number of representative sampling locations based on discharge locations with construction activities that could affect pH. Check the box in the "Additional Location selected for sampling based on disturbed soil area?" column for each additional discharge location selected for sampling.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
**SAMPLE INFORMATION, IDENTIFICATION,
 AND CHAIN-OF-CUSTODY RECORD**

CEM-2050 (REV. 2/2012)

Page1 of 3

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. 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 2 <input type="checkbox"/> Risk Level 3
Submitted by contractor (print and sign name)	Date

Daily Sample Record

Location	Date of sampling
Sample location identification number	Sampled collected for <input type="checkbox"/> Storm event <input type="checkbox"/> Discharge of stored stormwater <input type="checkbox"/> Dewatering discharge <input type="checkbox"/> Other _____
Sampled by (signature)	
Sampled by (print name)	Samples to be analyzed for parameters <input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Company	

Sample Information

Sample Identification	Sample Collection Time	Storm Event Precipitation Amount at Sample Time	Sample Preservative	Comments	Photos

Preservative Key
 0 - None
 1 - Stored at 4 Celsius
 2 - Other _____

**SAMPLE INFORMATION, IDENTIFICATION,
AND CHAIN-OF-CUSTODY RECORD**

CEM-2050 (REV. 2/2012)

Page 2 of 3

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

Sampling Exception

Sampling exception? <input type="checkbox"/> Yes <input type="checkbox"/> No	Sampling was not conducted because of the following conditions:
--	---

Chain of Custody

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Print name	Print name	Print name	Print name
Company	Company	Company	Company
Date and time	Date and time	Date and time	Date and time

Review and Record Keeping

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.

Has sampling information been entered into CEM-2051, "Stormwater Sampling and Testing Log"?

- Yes
 No

Water pollution control manager (name)	Date
Water pollution control manager (signature)	
Accepted by resident engineer (name)	Date
Resident engineer's (signature)	

**SAMPLE INFORMATION, IDENTIFICATION,
AND CHAIN-OF-CUSTODY RECORD**

Instructions

General Information

- This form is required for compliance with provisions in Section I of Attachments C, D, and E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002., as well as the Lake Tahoe Permit Order No. R6t-2011-0019, NPDES No. CAG616002.
- Sampling guidance is in the current edition of the *Construction Site Monitoring Program Guidance Manual*.
- Conduct sampling and sample preservation according to the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).
- Collect, maintain, and ship samples according to the Surface Ambient Monitoring Program's 2008 Quality Assurance Program Plan.
- Complete a separate Sample Information, Identification, and Chain-of-Custody Record for each sampling location daily.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan files.

Form

• Project Identifier Number

Caltrans projects starting July 1, 2010, will have a project identifier number. For projects without a project identifier number, write N/A in the field.

• Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the contract number field.

• Sample Identification

Establish sample identification code as shown below.

SSSSYYMMDDHmTT

Where

SSSS = sampling point number (for example, CCUP1, CCDN2)
 YY = last two digits of the year (for example, 09)
 MM = month (01-12)
 DD = day (01-31)
 HH = hour sample collected (00-23)
 mm = minute sample collected (00-59)
 TT = type or QAQC Identifier, if applicable
 G = grab
 FS = field duplicate

For example, the sample number for a grab sample collected at Station CCUP1 collected at 4:15 p.m. on December 8, 2009, would be **CCUP10912081615G**

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. 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 2
	<input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

STORMWATER SAMPLING AND ANALYSIS LOG REVIEW

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.

Are laboratory test results attached to this stormwater sampling and analysis log submittal?

YES NO

Water Pollution Control Manager Signature	DATE
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STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STORMWATER SAMPLING AND ANALYSIS LOG

CEM-2051 (REV. 2/2012)

CONTRACT NUMBER/CO/RTE/PM		PROJECT IDENTIFIER NUMBER		WDID NUMBER		DATE			
STORMWATER SAMPLING AND ANALYSIS LOG									
Log Number	Date of Sampling	Sampling Location	Time Sample Taken	Amount of Precipitation	Sample Identification	Analysis	Analysis Result	Daily Average Analysis Result	Lab Report Attached
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No

Instructions

GENERAL INFORMATION

- The information shown on this form is required for projects with a Stormwater Pollution Prevention Plan (SWPPP) to document stormwater sampling and analysis. This information is required for the stormwater annual report for SWPPP projects.
- Complete this form after every storm event that requires sampling and analysis.
- Complete this form weekly for logging non-stormwater sampling and analysis, and indicate in the sampling location column the reason for non-stormwater samples, such as sample from dewatering operation.

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 a project identifier number write N/A in the field.

Log No.

Log numbering should be consecutive starting from the first storm event to the last storm event for a project.

Amount of Precipitation

Enter the cumulative amount of precipitation from the storm event at the time each sample is taken.

Analysis Result

For turbidity and pH, a minimum of three samples is required to determine the daily average. If more than three daily samples are taken, use two rows to report all samples, and report the daily average in second row.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STORMWATER SAMPLE FIELD TEST REPORT

CEM-2052 (REV. 12/2012)

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"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
Submitted by contractor (print and sign name)	
	Date

Stormwater Samples Analysis

Location	Date of sampling
Sample location identification number	Date of Analysis
Sample Analyzed By (signature)	Samples to be analyzed for parameters <input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Sampled Analyzed by (print name)	
Analyzer Phone Number ()	
Company	

Stormwater Sample Analysis Results

Sample Identification	Turbidity Analysis (NTU)	pH Analysis		
		Time Sample Collected	Time Sample Read	Sample Value (pH units)
Qualifying Rain Event Daily Average Analysis Result				

Comments:

STORMWATER SAMPLE FIELD TEST REPORT

CEM-2052 (REV. 12/2012)

Page 2 of 3

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

Turbidity Analysis Information

Turbidity Meter Manufacturer	Model Number	Serial Number	Calibration Date
Analytical Method	Method Reporting Unit	Method Detection Limit	

pH Analysis Information

pH Meter Manufacturer	Model Number	Serial Number	Calibration Date
Analytical Method	Method Reporting Unit	Method Detection Limit	

Analysis Information

Turbidity Meter Manufacturer	Model Number	Serial Number	Calibration Date
Analytical Method	Method Reporting Unit	Method Detection Limit	

Note: Meter calibration information available in the Storm Water Pollution Prevention Plan (SWPPP) Files.

Comments

Review and Record Keeping

Test results entered into sampling and testing activity log? <input type="checkbox"/> Yes <input type="checkbox"/> No	Numeric action level exceedance? <input type="checkbox"/> Yes <input type="checkbox"/> No	Numeric effluent limitation violation? <input type="checkbox"/> Yes <input type="checkbox"/> 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	Date
Water pollution control manager signature	
Accepted by resident engineer (name)	Date
Resident engineer's signature	

Instructions

GENERAL INFORMATION

- This form is required for compliance with provisions in Section I of Attachments C, D, and E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002.
- The *Construction Site Monitoring Program Guidance Manual*, contains sampling guidance.
- Sampling and sample preservation must be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).
- Collect, maintain, and ship samples according to the Surface Ambient Monitoring Program's (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).
- Complete a separate stormwater sample field analysis report daily for each sampling location.
- Include a copy of the completed form in the project SWPPP files.

FORM

Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

Analysis Result

Analytical results less than the method detection limit must be reported as "less than the method detection limit".

Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number. For projects without a project identifier number write N/A in the field.

Qualifying Rain Event Daily Average Analysis Result

A minimum of three daily samples are required to calculate the daily average for a qualifying rain event.

Sample pH Analysis

Sample pH reading must be done within 15 minutes of sample collection.

Numeric Action Level Exceedance

In the event that any daily average effluent samples analysis results exceeds an applicable Numeric Action Level (NAL), complete form Cem-2062 "Numeric Action Level Exceedance Report," and submit all storm event sampling results to the State Water Board no later than ten days after the conclusion of the storm event.

Numeric Effluent Limitation violation

In the event that any daily average effluent samples analysis results exceeds an applicable Numeric effluent Limitation, complete form CEM-6063, "Numeric Effluent Limitation Violation Report," and submit information to the State Water Board within 24 hours after the numeric effluent limitation violation was identified. Submit all storm event sampling results to the State Water Board no later than five days after the conclusion of the storm event.

STORMWATER SAMPLE LABORATORY TEST REPORT

CEM-2054 (REV. 2/2012)

Page 2 of 3

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

Analysis Information

Equipment manufacturer	Model number	Serial number	Calibration date
Analytical method	Method reporting unit	Method detection limit	

Analysis Information

Equipment manufacturer	Model number	Serial number	Calibration date
Analytical method	Method reporting unit	Method detection limit	

Analysis Information

Equipment manufacturer	Model number	Serial number	Calibration date
Analytical method	Method reporting unit	Method detection limit	

Comments

Review and Record Keeping

Test results entered into the Sampling and Testing Activity Log?

 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	Date
--------------------------------------	------

Water pollution control manager signature

Accepted by resident engineer name	Date
------------------------------------	------

Resident engineer signature

STORMWATER SAMPLE LABORATORY TEST REPORT

Instructions

General Information

- This form is required for compliance with provisions in Section I of Attachments C, D, and E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002, as well as the Lake Tahoe Hydrologic Unit Permit. Order No. R6T-2011-0019, NPDES No. CAG-616002
- The *Construction Site Monitoring Program Guidance Manual* dated July 2010 contains sampling guidance.
- All sampling and sample preservation must be in accordance with the current American Public Health Association edition of "Standard Methods for the Examination of Water and Wastewater."
- Collect, maintain, and ship samples in accordance with the Surface Ambient Monitoring Program's 2008 Quality Assurance Program Plan.
- Complete a separate Stormwater Sample Laboratory Analysis Report for each sampling location daily.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan files.

Form Instructions**Project Identifier Number**

Caltrans projects starting July 1, 2010, will have a Project Identifier Number. For projects without a PID write N/A in the field.

Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

Sample Analyzed By Signature

If form is completed by the WPCM, write "See attached laboratory report" in the field "sample analyzed by (signature)" and attach laboratory report.

Analysis Results

Report analytical results less than the method detection limit as "less than the method detection limit."

STORMWATER EQUIPMENT MAINTENANCE LOG

CEM-2055 (NEW 4/2011)

Instructions

GENERAL INFORMATION

- The information shown on this form is required to document maintenance on stormwater field analyses equipment, such as turbidity meters and pH meters.
- Completed forms must be filled in project file category 20.55, Field Testing Equipment Maintenance and Calibration Records.

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 a project identifier number write "N/A" in the field.

WDID

For projects with Water Pollution Control Program enter "WPCP" in this field.

Projects Site Risk Level

Check the box for the appropriate SWPPP risk level.

Meter

Enter the meter manufacturer, model number, and serial number. Use a separate form for each field meter used on a project site.

STORMWATER TURBIDITY METER CALIBRATION RECORD

CEM-2056 (REV. 2/2012)

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. 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 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	
	DATE

Turbidity Meter

Meter manufacturer	Meter model number	Meter serial number
Standard Solution (NTU) (Nephelometric Turbidity Unit)	Control Number	Date
0.02		
10.0		
1000		

Turbidity Calibration Date _____

Standard Solution (NTU)	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time:		Time:		Time:			
		Cal	Read	Cal	Read	Read	Acceptable performance		
0.02									
10.0									
1,000									

Turbidity Calibration Date _____

Standard Solution (NTU)	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time:		Time:		Time:			
		Cal	Read	Cal	Read	Read	Acceptable performance		
0.02									
10.0									
1,000									

STORMWATER TURBIDITY METER CALIBRATION RECORD

CEM-2056 (REV. 2/2012)

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

Turbidity Calibration Date _____

Standard Solution (NTU)	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time:		Time:		Time:			
		Cal	Read	Cal	Read	Read	Acceptable performance		
0.02									
10.0									
1,000									

Date	Notes

Review

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

STORMWATER pH METER CALIBRATION RECORD

Instructions

GENERAL INFORMATION

- Projects with Construction Site Monitoring Program require the information on this form as part of the Stormwater Pollution Prevention Plan for stormwater analysis meter calibration.
- Completed forms must be filed in project file category 20.55, Field Testing Equipment Maintenance and Calibration Records.

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 a PID, write "N/A" in the field.

ELECTRODE MAINTENANCE

- To pass calibration, the pH meter must display a slope between 95 percent and 105 percent. If the pH meter does not display such a slope, take the following corrective action:
 1. Change the standard pH and buffers and recalibrate.
 2. Change the 3M KCl fill in the electrode, or binding up the volume and recalibrate.
 3. Clean the electrode with the pH Electrode Cleaning Solution (follow manufacturer's instructions), and recalibrate.
 4. If the meter does not recalibrate using the three steps above, consult the manufacturer's technical manual, and discontinue use of the meter until it functions properly.
- Corrective actions to calibrate the pH meter must be recorded in the calibration notes section on form CEM-2056, "Stormwater pH Meter Calibration Record."
- Any pH meter maintenance activities must be recorded under the calibration notes section on form CEM-2056, "Stormwater pH Meter Calibration Record."

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STORMWATER METER CALIBRATION RECORD

CEM-2058 (REV. 2/2012)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL
	<input type="checkbox"/> Risk Level 1 <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 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

Meter

Meter manufacturer	Meter model number	Meter serial number
--------------------	--------------------	---------------------

Conductivity Meter Calibration Date _____

Standard Solution (uS/cm)	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		
447									
1,413									
8,974									
15,000									

Dissolved Oxygen Meter Calibration Date _____

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		
Open Air (mg/L)									
Zero Oxygen Standard (MG/L)									
Barometer (mm Hg)									

STORMWATER METER CALIBRATION RECORD

CEM-2058 (REV. 2/2012)

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

Meter Calibration Date

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		

Meter Calibration Date

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		

Date	Notes

Review

I have reviewed this document and, based on my inquiry of the person or persons who manage the system of 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	DATE
Water pollution control manager signature	

STORMWATER METER CALIBRATION RECORD

Instructions

GENERAL INFORMATION

- Projects with Construction Site Monitoring Program require the information on this form as part of the Stormwater Pollution Prevention Plan for Stormwater analysis meter calibration
- Completed forms shall be filed in project file category 20.55, Field Testing Equipment Maintenance and Calibration Records.

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 a PID, write "N/A" in the field.

Acceptable performance for conductivity drift is ± 10 percent, and acceptable performance for dissolved oxygen is ± 10 percent.

NUMERIC ACTION LEVEL EXCEEDANCE REPORT

CEM-2062 (NEW 6/2011)

Page 2 of 4

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

Exceedance Location Information

	Photographs
Visual observation of location	<input type="checkbox"/> YES <input type="checkbox"/> NO
The nature and cause of the water quality standard exceedance, base on a visual observation of the discharge location	<input type="checkbox"/> YES <input type="checkbox"/> NO
BMPs currently installed at the location of the discharge	<input type="checkbox"/> YES <input type="checkbox"/> NO
Additional BMPs that will be implemented to prevent or reduce pollutants causing or contributing to exceedance of a water quality standard	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for additional BMPs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Maintenance or repair of BMPs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for BMPs maintenance or repair	<input type="checkbox"/> YES <input type="checkbox"/> NO
Other required corrective actions	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for corrective actions	<input type="checkbox"/> YES <input type="checkbox"/> NO

NUMERIC ACTION LEVEL EXCEEDANCE REPORT

CEM-2062 (NEW 6/2011)

Page 3 of 4

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

Additional Information

Run-on samples taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Run-on samples identification
--	-------------------------------

Numeric Action Level Exceedance Report 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 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 person 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	Date
Water pollution control manager signature	
Resident engineer name	Date
Resident engineer signature	

Numeric Action Level Exceedance Report submitted to State Board SMARTS database within 24 hours after NAL exceedance was identified? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date input	Resident engineer initials
All storm event sampling results submitted to State Water Board SMARTS database within 10 days after the conclusion of the storm event? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date input	Resident engineer initials

Notice of Discharge Reporting

Discharge reported by telephone or email to the Regional Water Quality Control Board (RWQCB) within 48 hours of discovery? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date discharge reported to RWQCB	Resident engineer initials
Notice of Discharge Report submitted to RWQCB within 14 days (3 days for District 7 and District 11)? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date report submitted to RWQCB	Resident engineer initials

NUMERIC ACTION LEVEL EXCEEDANCE REPORT

Instructions

GENERAL INFORMATION

- This form is required for compliance with provisions for Numeric Action Level (NAL) Exceedance Report in Section I of Attachment D or E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002.
- Sampling guidance is found in *Construction Site Monitoring Program Guidance Manual*.
- In the event that any daily average effluent samples analysis result exceeds an applicable NAL, submit all storm event sampling results to the State Water Board no later than 10 days after the conclusion of the storm event.
- Regional boards have the authority to require the submittal of an NAL Exceedance Report.
- You may submit an NAL Exceedance Report to RWQCB instead of a Notice of Discharge Report.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPP) files.

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 a PID, write N/A in the field.

Storm Event Precipitation Amount at Sample Time

At time of sample collection record amount of precipitation from onsite rain gauge.

Analysis Results

Analytical results that are less than the method detection limit shall be reported as "Less than the method detection limit."

Qualifying Rain Event Daily Average Analysis Result

A minimum of three daily samples is required to calculate the daily average for a qualifying rain event.

NUMERIC EFFLUENT LIMITATION VIOLATION REPORT

CEM-2063 (NEW 1/2011)

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 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	
	DATE

Numeric Effluent Limitation Violation Information

Location	Parameter Violation <input type="checkbox"/> Turbidity <input type="checkbox"/> pH	Discharge Location Parameter Daily Average	Project Site Parameter Daily Average
Sample location Identification number	Date of sampling		
Samples collected by	Date of analysis		
Samples analysis by	Date and time water pollution control manager notified of results		
Analyzer phone number	Date and time resident engineer notified of results		

Sample Identification	Sample Collection Time	Storm Event Precipitation Amount at Sample Time	Analysis (_____)

Qualifying rain event daily average _____

Analysis Information

Meter manufacturer	Model number	Serial number	Calibration date
Analytical method	Method reporting unit	Method detection limit	

Storm Event Information

Attach a copy of governmental rain gauge information.

Start of storm event _____ Date _____ Time	End of storm event _____ Date _____ Time	Duration of storm event _____ Hours : Minutes.	Storm event precipitation amount recorded from site rain gauge _____ inches	Storm event precipitation amount recorded from governmental rain gauge _____ inches
Storm event 24-hour maximum precipitation amount recorded from onsite rain gauge _____ inches	Storm event 24-hour maximum precipitation amount from governmental rain gauge _____ inches	Compliance storm 5-year, 24-hour storm? _____ inches	Compliance storm exception (5-year, 24-hour storm?) <input type="checkbox"/> Yes <input type="checkbox"/> No	

NUMERIC EFFLUENT LIMITATION VIOLATION REPORT

CEM-2063 (NEW 1/2011)

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

Violation Location Information

	Photographs
Visual observation of location	<input type="checkbox"/> YES <input type="checkbox"/> NO
The nature and cause of the water quality standard exceedance, base on a visual observation of the discharge location	<input type="checkbox"/> YES <input type="checkbox"/> NO
BMPs currently installed at the location of the discharge	<input type="checkbox"/> YES <input type="checkbox"/> NO
Additional BMPs that will be implemented to prevent or reduce pollutants causing or contributing to exceedance of a water quality standard	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for additional BMPs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Maintenance or repair of BMPs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for BMPs maintenance or repair	<input type="checkbox"/> YES <input type="checkbox"/> NO
Other required corrective actions	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for corrective actions	<input type="checkbox"/> YES <input type="checkbox"/> NO
Summary of actions taken to reduce the pollutants causing or contributing to the water quality standard exceedance	

NUMERIC EFFLUENT LIMITATION VIOLATION REPORT

CEM-2063 (NEW 1/2011)

Page 3 of 4

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

Additional Information

Run-on samples taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Receiving water samples taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	For turbidity NEL violation Samples taken for suspended sediment concentration (SSC)? <input type="checkbox"/> Yes <input type="checkbox"/> No
Run-on sample identification	Receiving water sample identification	SSC sample identification

Numeric Effluent Limitation Violation Report 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 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 person 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	Date	
Water pollution control manager signature		
Resident engineer name	Date	
Resident engineer signature		
Numeric effluent limitation Violation Report submitted to State Board SMARTS database within 24 hours after NEL exceedance was identified? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date input	Resident engineer initials
All storm event sampling results submitted to State Water Board SMARTS database within 5 days after the conclusion of the storm event? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date input	Resident engineer initials

Notice of Discharge Reporting

Discharge reported by telephone or email to the Regional Water Quality Control Board (RWQCB) within 48 hours of discovery? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date discharge reported to RWQCB	Resident engineer initials
Notice of Discharge Report submitted to RWQCB within 14 days (3 days for District 7 and District 11)? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date report submitted to RWQCB	Resident engineer initials

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

NUMERIC EFFLUENT LIMITATION VIOLATION REPORT

Instructions

GENERAL INFORMATION

- This form is required for compliance with provisions for Numeric Effluent Limitation (NEL) Level Violation Report in Section I of Attachment E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002.
- Sampling guidance is found in *Construction Site Monitoring Program Guidance Manual*, dated July 2010.
- When the daily average of effluent samples analysis results exceeds an applicable NEL, submit the Numeric Effluent Limitation Level Violation Report to the State Water Board within 24 hours after an NEL Exceedance has been identified.
- When the daily average of effluent samples analysis results exceeds an applicable NEL, submit all storm event sampling results to the State Water Board within 5 days after the conclusion of the storm event.
- Regional boards have the authority to require the submittal of an NEL Violation Report.
- You may submit an NEL Violation Report to RWQCB instead of a Notice of Discharge Report.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPPP) files.

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 a PID, write N/A in the field.

Storm Event Precipitation Amount at Sample Time

At time of sample collection record amount of precipitation from onsite rain gauge.

Analysis Results

Analytical results that are less than the method detection limit shall be reported as "Less than the method detection limit."

Qualifying Rain Event Daily Average Analysis Result

A minimum of three daily samples is required to calculate the daily average for a qualifying rain event.

Compliance Storm Event

The 5-year, 24-hour storm (expressed in tenths of an inch of rainfall), as determined by using the maps.

<http://www.wrcc.dri.edu/pccpnfreq/nca5y24.gif>

<http://www.wrcc.dri.edu/pccpnfreq/sca5y24.gif>

Compliance storm verification must be done by reporting the onsite rain gauge readings as well as nearby governmental rain gauge readings. Attach a copy of the governmental rain gauge readings to this report.

Instructions

GENERAL INFORMATION

- The information shown on this form is required for projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) to document discharges.
- Use this CEM-2065 to log discharges including Stormwater, authorized non-stormwater, and non-authorized non-stormwater discharges with an exceedance of an Applicable Water Quality Standard
- Log all discharge incidents reported on forms:
 - CEM-2061, Notice of Discharge Report
 - CEM-2062, Numeric Action Level Exceedance Report
 - CEM-2063, Numeric Effluent Limitation Violation Report
- The resident engineer will notify the Regional Water Quality Control Board and record the date notified.

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 a project identifier number write N/A in the field.

WDID Number

For projects with Water Pollution Control Program enter "WPCP" in this field.

- Enter information about discharge incidents from forms:
 - CEM-2061, Notice of Discharge Report
 - CEM-2062, Numeric Action Level Exceedance Report
 - CEM-2063, Numeric Effluent Limitation Violation Report
 - CEM-2062T, Numeric Action Level Exceedance Report—Lake Tahoe Hydrologic Unit
 - CEM-2063T, Numeric Effluent Limitation Violation Report—Lake Tahoe Hydrologic Unit
- The resident engineer will notify the Regional Water Quality Control Board and record the date notified.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2009-F-1058-R002-1

APR 02 2014

Ms. Melanie Brent, Office Chief
Caltrans District 4 Environmental Analysis
California Department of Transportation
P.O. Box 23660
Oakland, California 94623-0660

Subject: Reinitiation of Section 7 Formal Consultation and Amendment to the Biological Opinion for the State Route 152 Hecker Pass Safety Improvement Project, Santa Clara County, California (Caltrans EA 2A250)

Dear Ms. Brent:

This letter is in response to your January 21, 2014, letter requesting reinitiation of formal consultation for the State Route 152 (SR-152) Hecker Pass Safety Improvement Project, Santa Clara County, California. Your request was received on January 23, 2014. The biological opinion was previously amended on May 29, 2012, (81420-2009-F-1058-R001). This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

Reinitiation of formal consultation was sought to address changes to the project design, temporary construction easements (TCEs) and permanent and temporary effects to listed species not considered under the July 14, 2010 biological opinion, as amended. This action is subsequently modified in a manner that causes an effect to the listed species not considered in this opinion. This document represents an amendment to the Service's biological opinion dated July 14, 2010, (Service File No.: 81420-2009-F-1058) on the effects of the proposed action on the federally threatened California red-legged frog (*Rana draytonii*), and threatened California tiger salamander (*Ambystoma californiense*) Central Valley Distinct Population Segment (Central California tiger salamander).

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation (23 U.S.C. 327) allows the Secretary of the U.S. Department of Transportation acting through the Federal Highway Administration (FHWA) to establish a Surface Transportation Project Delivery Pilot Program, whereby a State may assume the FHWA responsibilities under the National Environmental Policy Act (NEPA) for environmental review, agency consultation and other action pertaining to the review or approval of a specific project. Caltrans assumed these responsibilities for the FHWA on July 1, 2007 through a Memorandum

of Understanding (MOU) within the State of California
(http://www.dot.ca.gov/ser/downloads/MOUs/nepa_delegation/sec6005mou.pdf).

The following changes are made to the July 14, 2010, biological opinion:

1. Add the following to the **Consultation History** on page 2:

December 13, 2013	The Service attended an interagency meeting with Caltrans to address tree removal activities between January 17, 2014 and February 14, 2014.
December 20, 2013	The Service received an electronic copy of the advanced tree removal plan for review.
December 23, 2013	The Service submitted comments on the advanced tree removal plan to Caltrans.
January 14, 2014	The Service conducted a compliance site visit with Caltrans to assess tree removal activities.
January 23, 2014	The Service received a request dated January 21, 2014 to reinitiate formal consultation to address changes in the project description, temporary construction easements (TCEs) and permanent and temporary effects to California red-legged frogs and Central California tiger salamanders.
February 4, 2014	The Service received more specific information regarding construction of the soldier pile wall and soil nail walls from Caltrans.
February 6, 2014	The Service attended a site visit with Caltrans to discuss wildlife exclusion fencing and environmentally sensitive area installation and location.
February 7, 2014	The Service received detailed layouts of proposed wildlife exclusion fencing locations and proposed contractor specifications.
February 7, 2014	The Service received the post-construction environmental compliance report from Caltrans for the advanced tree removal activities.
July 22, 2013 - March 18, 2014	Electronic and phone correspondence between Caltrans, California Department of Fish and Wildlife (CDFW), Central Coast Regional Water Quality Control Board, NOAA Fisheries West Coast Region, U.S. Army Corps of Engineers, and the Service.

2. Change the **Description of the Action Area** on Page 3 from:

1. Location 1: PM 0.14/0.26
2. Location 2: PM 0.94/1.11
3. Location 3: PM 1.22/1.47
4. Location 4: PM 2.57/3.20
5. Location 5: PM 4.77/5.20

To:

6. Location 1: PM 0.14 to PM 0.31
7. Location 2: PM 0.91 to PM 1.11
8. Location 3: PM 1.18 to PM 1.48
9. Location 4: PM 2.50 to PM 3.21
10. Location 5: PM 4.77 to PM 5.20

3. Change the **Description of the Action Area** on page 4 from:

Location 3:

The existing infrastructure at Location 3 (PM 1.22/1.47) includes 12 foot traveled lanes with no road shoulder. A turnout on the northern side of the road has a 15 foot shoulder. This location also includes three existing culverts; a 30 inch, 36 inch, and 18 inch diameter corrugated metal pipe culvert (culverts C5, C6, and C7). At Location 3, Caltrans proposes to:

1. Remove trees;
2. Construct 3 soil nail retaining walls;
3. Widen existing 12-foot lanes;
4. Improve shoulders;
5. Overlay pavement; and
6. Install warning signs.

Location 4:

The existing infrastructure at Location 4 (PM 2.57/3.20) includes 12 foot traveled lanes with no road shoulder. Two T-intersections in this location on the northern side provide access to the Sprig Lake parking lot and a horse trailhead and parking area. This location also includes six existing culverts; one 21 inch diameter steel inlet pipe/corrugated metal pipe (Culvert C8), two 18-inch diameter corrugated metal pipes (culverts C9 and C10), two 24 inch diameter corrugated metal pipes (culverts C11 and C12), and one 12 to 18 inch diameter corrugated metal pipe (Culvert C13). At Location 4, Caltrans proposes to:

1. Construct five soil nail walls and one Type 5 retaining wall;
2. Widen existing 12 foot lanes;
3. Improve shoulders; and

4. Overlay pavement.

Location 5:

The existing infrastructure at Location 5 (PM 4.77/5.20) includes 12 foot traveled lanes, eight-foot shoulders, and areas where shoulder width varies from two to four feet. There is a T-intersection on the northern side where Watsonville Road intersects with SR 152, as well as nine commercial and residential driveways in this location. This location also includes two existing culverts; one 32 inch diameter corrugated metal pipe (Culvert C14) and one 40 x 28inch corrugated steel pipe arc (Culvert 15). At Location 5, Caltrans proposes to:

1. Widen existing 12 foot lanes;
2. Provide left turn channelization at the Watsonville Road intersection;
3. Improve shoulders; and
4. Overlay pavements.

To:

Location 3

The existing infrastructure at Location 3 includes 12-foot traveled lanes with no road shoulder. A turnout on the northern side of the road has a 15-foot shoulder. This location also includes several existing culverts whose specific locations, culvert types, and dimensions are described in Table 1. At Location 3, Caltrans proposes to:

1. Acquire 0.97 acre of additional right-of-way on both sides of the roadway.
2. Remove trees (details below).
3. Construct one soil nail retaining wall with end treatments.
4. Widen the existing roadway to accommodate standard 12-foot lanes and 8-foot shoulders with isolated turnouts.
5. Modify or extend existing culverts to accommodate the widened shoulders.
6. Add drainage systems on and around the roadway.
7. Overlay and reconstruct existing pavement to improve roadway super-elevation.
8. Install warning signs.

Table 1: Existing Culverts

Culvert ID	Location/ Feature Type	PM	Stationing	Culvert Type	Diameter (inches)	Location
1B	CWUS 11	0.15	8 + 27.887	CMP	18	Location 1
1D	CWUS 1	0.22	11 + 58.613	RCP	42	Location 1
1H	CWUS 2	0.27	14 + 68	CMP	18	Location 1
2B	CWUSNJ 1	0.93	50 + 50.211	CMP	18	Location 2
2D	CWUS 3	1.11	58 + 36.84	CMP	24	Location 2
—	CWUS 5	1.20	64 + 67.4499	unknown	unknown	Location 3
3C	CWUS 7	1.32	69 + 78.95	CMP	36	Location 3

3D	CWUS 4	1.39	73 + 42.739	CMP	18	Location 3
3D	CWUS 6	1.50	78 + 39.123	CMP	18	Location 3
—	CWUS 13	2.40	132 + 82.522	unknown	unknown	Location 4
4B	CWUS 9	2.61	137 + 88.247	SIP/CMP	21	Location 4
4C	CWUSNJ 4	2.67	141 + 76.164	CMP	18	Location 4
4D	CWUSNJ 6	2.76	145 + 9.557	CMP	24	Location 4
4E	CWUSNJ 3	2.83	149 + 5.751	CMP	24	Location 4
4F	CWUSNJ 5	2.98	157 + 90.875	CMP	12/18	Location 4
—	CWUSNJ 7	3.05	161 + 49.73	unknown	unknown	Location 4
4L	CWUS 19	3.20	168 + 28.925	CMP	24	Location 4
—	CWUSNJ 12	3.20	168 + 28.925	unknown	unknown	Location 4
5A1	CWUS 14	4.53	253 + 26	RCP	42x29	Location 5
5B	CWUSNJ 11	4.80	257 + 24.213	CMP	12	Location 5
—	CWUS 20 ¹	4.90	259	unknown	unknown	Location 5
5C	CWUS 15	4.98	260 + 20.79	CSPA	42x29	Location 5

¹ Added culvert per request of United States Army Corps of Engineers. No information on culvert type or size available.

— = not available

CMP = corrugated-metal pipe

CSPA = corrugated-steel pipe arch

CWUS = culverted water of the U.S.

CWUSNJ = non-jurisdictional culverted water of the U.S.

PM = post mile

RCB = reinforced-concrete box

RCP = reinforced-concrete pipe

SIP = steel-inlet pipe

Location 4

The existing infrastructure at Location 4 includes 12-foot traveled lanes with shoulders that vary from 0 to 2 feet. Two T-intersections on the northern side at this location provide access to the Sprig Lake parking lot, an equestrian trailhead, and the parking area for Mount Madonna County Park. This location has several existing culverts whose specific locations, culvert types, and dimensions are described in Table 1. At Location 4, Caltrans proposes to:

1. Acquire 4.89 acres of additional right-of-way on both sides of the roadway.
2. Remove or impact approximately 424 trees (details below).
3. Construct five soil nail walls with end treatments and one soldier pile retaining wall.
4. Widen the existing shoulders to 8 foot
5. Modify or extend existing culverts to accommodate the widened shoulders.
6. Add drainage systems on and around the roadway.
7. Overlay and reconstruct parts of the existing pavement.
8. Relocate utility poles and underground conduits.

Location 5

The existing infrastructure at Location 5 includes 12-foot traveled lanes, 8-foot shoulders, and areas where shoulder width varies from 2 to 4 foot A T-Intersection is present on the northern side where Watsonville Road intersects with SR 152; nine commercial and residential driveways are also present at this location. In addition, this location includes

existing culverts whose specific locations, culvert types, and dimensions are described in Table 1. At Location 5, Caltrans proposes to:

1. Acquire 2.28 acres of additional right-of-way on both sides of the roadway.
 2. Remove or impact approximately 223 trees (details below).
 3. Widen the existing shoulders to 8 foot.
 4. Modify or extend existing culverts to accommodate the widened shoulders.
 5. Add drainage systems on and around the roadway.
 6. Overlay and reconstruct parts of the existing pavement.
 7. Provide left-turn channelization at the Watsonville Road intersection.
 8. Construct three biofiltration swales.
 9. Relocate utility poles and underground conduits.
 10. Install warning signs.
4. Change the Construction Activities under the **Description of the Action Area** on page 5 from:

Shoulder and Lane Widening

Shoulder and lane widening will require excavation and fill to develop new surface for expanding the shoulder. The shoulders will be graded and compacted with graders, rollers, and water trucks to prepare for paving. The existing pavement will be saw cut and the new pavement expanded outward from the cut. Asphalt emulsion will be applied to the saw cut edge and asphalt concrete paving machines will place pavement to the design edge of pavement with a suitable lift to match the existing pavement edge. The equipment required for this work will include a blade, backhoe, paver, roller, and spreader. Vehicles required include a truck for materials, a labor pick-up truck, and a water truck.

Retaining Walls

A total of 12 retaining walls will be constructed within the project footprint. The following are the locations and expected dimensions of the walls:

Location 1:

1. Wall W1A (Soil Nail Wall); Station 08+50 to 11+06.808
Maximum Dimensions: 17.2 feet high, 256.81 feet long, 3 feet wide.
2. Wall W1B (Soil Nail Wall); Station 12+59.223 to 14+66.359.
Maximum Dimensions: 19.2 feet high, 207.14 feet long, 3 feet wide.

Location 2:

1. Wall W2A (Soil Nail Wall); Station 50+85.276 to 55+15.896.
Maximum Dimensions: 29 feet high, 430.62 feet long, 3 feet wide.

Location 3:

1. Wall W3A (Soil Nail Wall); Station 65+75 to 67+42.847.
Maximum Dimensions: 11.2 feet high, 167.85 feet long, 3 feet wide.

2. Wall W3B (Soil Nail Wall); Station 70+64.695 to 72+72.49.
Maximum Dimensions: 10.2 feet high, 207.80 feet long, 3 feet wide.
3. Wall W3C (Soldier Pile Wall); Station 75+00 to 76+25.
Maximum Dimensions: 5.19 feet high, 125 feet long, 3 feet wide.

Location 4:

1. Wall W4A (Soil Nail Wall); Station 134+60 to 137+52.496.
Maximum Dimensions: 31.2 feet high, 292.50 feet long, 3 feet wide.
2. Wall W4B (Soil Nail Wall); Station 138+24.999 to 138+82.296.
Maximum Dimensions: 14.18 feet high, 57.30 feet long, 3 feet wide.
3. Wall W4C (Soil Nail Wall); Station 139+51.102 to 150+07.177.
Maximum Dimensions: 32.17 feet high, 1,056.08 feet long, 3 feet wide.
4. Wall W4D (Soil Nail Wall); Station 151+65.208 to 157+49.309.
Maximum Dimensions: 23.17 feet high, 584.10 feet long, 3 feet wide.
5. Wall W4E (Type-5 Retaining Wall); Station 159+73.082 to 161+77.527.
Maximum Dimensions: five feet high, 204.45 feet long, 3 feet wide.
6. Wall W4F (Soil Nail Wall); Station 163+49.982 to 166+594.956.
Maximum Dimensions: 12 feet high, 344.97 feet long, 3 feet wide.

Soil Nail Walls

Soil nail walls function as retaining walls. They are essentially vertical masonry slabs that are held against a hillside by means of long “nails” drilled horizontally into the ground. The nails are about 0.7 to 1.5 times as high as the wall is long, depending on the soil condition of the site. They are placed in rows at five-foot intervals, starting approximately two feet below the top of the wall, and are driven in at a 15 to 20 degree downward angle using horizontal drilling equipment. Air or water is used during the drilling process to remove the loosened soil. The construction of the soil nail walls will involve excavating the hillside, drilling holes, installing the soil nails, and providing connectivity with existing drainage systems. The equipment required for this work will include a drilling machine, pump, forklift, crane, backhoe, and materials including wire mesh and soil nails (about 30 feet long). The slurry that is produced by the use of water during drilling will be fully contained and disposed of at an approved facility and will not be allowed to enter any drainage systems or waterways. The contractor will stage the construction of these walls from the roadbed. A long-armed backhoe will be used to cut back the hillside. From the roadway, a crane will suspend the backhoe and/or drilling machine at the required height for earth moving and drilling, or an earthen berm could be built at the base of the wall for the backhoe and drilling machine to work from.

Type-5 Wall:

A Type-5 wall is a retaining wall that consists of a reinforced vertical concrete wall stem and a concrete footing. A single Type-5 retaining wall will be installed in Location 4.

Drainage System

Within the boundaries of the BSA, a total of 16 culverts cross under SR 152. The diameters of the culverts range from 12 to 72 inches. Table 2 shows their post mile locations, types, and dimensions. Repairs to the existing drainage culverts include

replacing or extending inlets and outlets, extending downdrains to the bank of the creek, and trenching for culvert placement. Increase of runoff from the increase in paved surface is expected to be minor because most of the runoff flowing through the project drainage systems is from the upland areas. Runoff from the upland areas, except those that shed directly through Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek, will discharge to the unlined gutters on the northern side of SR 152 and then drain through the culverts. Runoff from the roadway surface in the project area will also drain into the unlined gutters on both sides of the roadway, and then through the culverts as required. The collected runoff will then flow through Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek into Uvas Creek, and eventually to the receiving water, the Pajaro River.

Table 2. Existing Culverts

Culvert ID	PM	Culvert Type ¹	Diameter (inches)	Location Crossed
1A	0.02	CMP	18	Location 1
1B	0.22	RCP	42	Location 1
2A	1.11	CMP	24	Location 2
3A	1.22	CMP	30	Location 3
3B	1.32	CMP	36	Location 3
3C	1.39	CMP	18	Location 3
4A	2.61	SIP/CMP	21	Location 4
4B	2.67	CMP	18	Location 4
4C	2.69	CMP	18	Location 4
4D	2.76	CMP	24	Location 4
4E	2.82	CMP	24	Location 4
4F	2.99	CMP	12/18	Location 4
4G	3.07	RCP	72	Location 4
5A	4.81	CMP	36	Location 5
5B	4.87	CMP	12	Location 5
5C	4.93	CMP	30	Location 5

¹ Type
 CMP corrugated metal pipe
 RCP reinforced concrete pipe
 SIP steel inlet pipe

Treatment Best Management Practices (BMPs)

Three potential treatment BMPs have been proposed within the action area: one biofiltration strip and two biofiltration swales, located in Locations 1, 4, and 5.

Biofiltration Strip:

Biofiltration strips are vegetated surfaces that remove pollutants by filtration through grass, sedimentation, adsorption to soil or grass, and infiltration into the soil. Biofiltration strips are mainly effective at removing debris and solid particles, although

some constituents may be removed by adsorption to the soil. Preliminary investigation into the site conditions of the Project suggests that the climate and site conditions are favorable for the establishment of vegetation within the available ROW. The preliminary proposed locations for biofiltration strips are Locations 1, 4, and 5.

Biofiltration Swale:

Biofiltration swales are vegetated channels that remove pollutants by filtration through grass, sedimentation, adsorption to soil or grass, and infiltration through the soil. Biofiltration swales are mainly effective at removing debris and solid particles, although some constituents may be removed by adsorption to the soil.

Biofiltration swales are feasible and are considered the secondary preferred treatment method, as the feasibility requirements are similar to biofiltration strips. Preliminary investigation into the site conditions of the Project suggests that the climate and site conditions are favorable for the establishment of vegetation within the available ROW. The preliminary proposed locations for biofiltration swales are Locations 1, 4, and 5.

Pavement Friction and Overlay

On all locations open grade asphalt concrete will be used for overlay to improve surface friction.

Equipment Staging

The contractor will determine the location of the equipment staging area in coordination with the resident engineer and Caltrans biologist. The biologist will work with the contractor and resident engineer to ensure that equipment is not staged in an Environmentally Sensitive Area (ESA). Two potential staging areas have been identified, including the Mount Madonna Inn Restaurant parking lot (Station 417+75) in Santa Cruz County along SR 152, and an area west of Location 5 (Station 252+00) within Caltrans' right-of-way (ROW) north of SR 152.

Access Roads

Access (haul) roads are limited to Route 152 because it is the primary east-west route between Gilroy and Watsonville. No access roads outside of the temporary construction easements and staging areas shown on the plans will be required.

Site Clean-up and Restoration

All construction-related materials including the ESA fencing will be removed after construction activities are completed. The temporary construction easements and staging areas will be cleaned up, recontoured to original grade, and revegetated with appropriate native species, as necessary. Permanent erosion control, including soil stabilization measures such as hydroseeding and coir netting, will be applied to all temporarily affected project areas to minimize erosion after construction.

Post-project Maintenance

When the project is completed, maintenance will be performed by Caltrans or by approved contractors hired by Caltrans for those tasks. Standard Caltrans practices for cleaning, repairing, and otherwise maintaining SR 152 throughout the length of the project area will be followed.

To:

Shoulder Widening

Shoulder widening would require excavation and fill to develop new surfaces onto which the shoulders will be expanded. The shoulders would be graded and compacted with graders, rollers, and water trucks to prepare for paving. The existing pavement would be reconstructed and the new pavement would be expanded outward from the cut. Asphalt emulsion would be applied to the saw-cut edge, and asphalt concrete paving machines would place pavement to the design edge of pavement with a suitable lift to match the existing pavement edge. The equipment required for this work would include a blade, backhoe, paver, roller, and spreader. A truck for materials, a labor pick-up truck, and a water truck would also be required.

Retaining Walls

A total of ten retaining walls would be constructed within the project footprint. Nine of these would be soil nail walls, and one would be a soldier pile wall. All walls would include end treatments to include architectural treatment and anti-graffiti coating. The locations and dimensions of the walls are listed in Table 3.

Soil Nail Walls

Soil nail walls function as retaining walls. They are essentially vertical masonry slabs that are held against a hillside by means of long "nails" drilled horizontally into the ground. The nail-shaft length is typically 0.7 to 1.5 times the height of the wall, depending on the soil condition of the site. The soil nails are placed in rows at 5-foot intervals, starting approximately 2 feet below the top of the wall, and are driven in at a 15- to 20-degree downward angle using horizontal drilling equipment. Air or water is used to remove the loosened soil during the drilling process.

The construction of the soil nail walls would involve excavating the hillside, drilling holes, installing the soil nails, and providing connectivity with existing drainage systems. The equipment required for this work would include a drilling machine, pump, forklift, crane, backhoe, and materials, including wire mesh and the soil nails.

Table 3: Proposed Retaining Walls by Location

Location	Wall Number	Wall Type	STA start	STA end	Length (foot)	Width (foot)	Height (foot) ¹	Depth of Foundation (foot) ²
1	RW1	Soil nail	008+40	010+60	220	1	13.42	2.00
	RW2	Soil nail	012+86	015+07	221	1	14.70	5.35
2	RW3	Soil nail	049+94	055+60	566	1	14.09	4.94
3	RW4	Soil nail	065+61	068+33	272	1	32.61	5.35
4	RW7	Soil nail	134+40	137+55	315	1	31.79	4.97
	RW8	Soil nail	138+12	138+82	70	1	10.5	2.00
	RW9	Soil nail	139+78	150+15	1,037	1	30.38	5.30
	RW10	Soil nail	152+29	157+97	568	1	19.25	5.63
	RW11	Soil nail	163+20	167+00	380	1	10.63	4.99
	RW166	Soldier Pile Wall	165+20 "RWD1 Line"	166+90 "RWD1 Line"	170	1.17 (Barrier 736 Height)	8.00	30

Notes:

- ¹ This height is the maximum wall height from top of wall to finished grade; it does not include a 2- to 6-foot-high concrete top cap that would be installed onto each wall.
- ² This depth is the maximum foundation depth from finished grade to bottom of the foundation. Maximum height and maximum foundation depth are not necessarily at the same location.

The slurry that is produced by the use of water during drilling would be fully contained and disposed of at an approved facility and would not be allowed to enter any drainage system or waterway.

The contractor would stage the construction of these walls from the roadbed. A long-armed backhoe would be used to cut back the hillside. From the roadway, a crane would suspend the drilling machine at the required height for earth moving and drilling, or an earthen berm could be built at the base of the wall, and the backhoe and drilling machine would work from the berm.

Soldier Pile Wall

A soldier pile wall is a retaining wall that uses vertical steel piles with horizontal lagging. A single soldier pile wall would be installed at Location 4.

Drainage System

There are 22 culverts in the project footprint. Table 4 shows their PM locations, types, and dimensions.

Repairs or improvements to the existing drainage culverts include replacing or extending inlets or outlets and trenching for culvert placement. Additional culverts, steel-pipe inlets, grate line drains, and other drainage system infrastructure would be placed. New culverts would generally be placed at a maximum depth of 5 feet, as measured from finished

grade. Exceptions to this placement depth would include where pipe inlets are placed behind structures to capture concentrated flow, where new inlets would be placed, or where grate line drains are installed. The grate line drains would be installed at a maximum depth of two feet.

Increased runoff from the new paved surface is expected to be minor because most of the runoff flowing through the project drainage systems is from the upland areas. Runoff from the upland areas, except the areas that shed directly through Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek, would discharge to gutters on the northern side of SR 152 and then drain through the improved or additional culverts to the south side of the roadway. Runoff from the roadway surface in the project area would also drain into the improved drainage system and then through the culverts, as required. The collected runoff would flow through the unnamed tributary to Bodfish Creek, into Blackhawk Creek and Uvas Creek, and eventually to the receiving water, the Pajaro River.

Staging Locations

The contractor will determine the location of the equipment staging area in coordination with the resident engineer and Caltrans biologist. The biologist will work with the contractor and the resident engineer to ensure that equipment is not staged in an ESA.

Two potential staging areas have been identified: the Mount Madonna Inn Restaurant parking lot (Station 417+75), in Santa Cruz County along SR 152, and an area west of Location 5 (Station 252+00) within the Caltrans right-of-way north of SR 152. The first of these locations is in a paved parking lot, so no biological impacts would occur there. The second of these locations is included in the Location 5 project footprint, so any biological impacts from activities at that staging area are included in the assessment presented here.

Utility Pole Relocation

The proposed work would require that several existing utility poles or underground cables be relocated to retain functionality after the project. These utility conflicts would occur in the areas identified as permanent or temporary impacts at Locations 4 and 5. No utility relocations would be required at Locations 1, 2, or 3. Table 3 summarizes the locations and conflict types for the affected utility infrastructure components.

Table 4: Utility Conflict Summary

Location	Conflict Type
4	11 Verizon poles
	4 Verizon and PG&E poles
	1 Verizon underground telephone cable
	1 Verizon underground fiber optic cable
5	9 Verizon and PG&E poles
	2 PG&E poles
	1 PG&E road crossing
	1 Verizon underground telephone cable w/ crossing
	1 Verizon underground fiber optic cable
	1 Verizon vault
	1 Verizon road crossing
	1 guy wire (unspecified)

Treatment Best Management Practices

Biofiltration swales, a form of Best Management Practices (BMPs) to treat runoff, have been proposed within the project limits. Biofiltration swales are vegetated channels that remove pollutants by filtration through grass, sedimentation, absorption to soil or grass, and infiltration through the soil. Biofiltration swales are mainly effective at removing debris and solid particles, though some constituents may be removed by adsorption to the soil. Preliminary investigation into the site conditions of the project suggests that the climate and site conditions are favorable for the establishment of vegetation within the available right-of-way. The proposed locations for biofiltration swales are one swale at Location 1 and three swales at Location 5.

Access Roads

Access (haul) roads are limited to SR 152 because it is the primary east-west route between Gilroy and Watsonville. No access roads outside of the temporary construction easements and staging areas shown on the plans will be required.

Site Cleanup and Restoration

All construction-related materials, including the environmentally sensitive area fencing, will be removed after the construction activities are completed. The temporarily impacted areas and staging areas will be cleaned up, recontoured to original grade, and revegetated with appropriate native species, as necessary. Permanent erosion-control measures, including soil stabilization measures (e.g., hydroseeding, coir netting) will be applied to all temporarily affected project areas to minimize erosion after construction.

Post-Project Maintenance

When the project is completed, Caltrans will perform ongoing maintenance or will hire an approved contractor to perform those tasks. Standard Caltrans practices for cleaning,

repairing, and otherwise maintaining SR-152 throughout the length of the project footprint will be followed.

Construction Schedule

The proposed construction schedule is as follows:

- The earliest construction work (utility relocation) began in September 2013. The project would be completed by November 2018.
 - Advance tree removal will occur from January through March of 2014, prior to the first construction season. Subsequent tree removal will occur from September through February of each construction season.
 - All ground-disturbing activities, including but not limited to paving, grading and excavating, shall be conducted between April 15 and October 15 to avoid the rainy season.
 - Per the draft CDFW 1600 agreement, work within the bed, bank, and riparian habitat was to be confined to the period of June 15 to October 15. Caltrans requests this work window be extended to the period of April 15 through October 15 during each year of construction. The same permission is requested of NOAA Fisheries with regard to its Letter of Concurrence.
 - Outside of CDFW jurisdiction (i.e., in upland areas not specifically claimed by CDFW), Caltrans would perform roadway work, year-round with no work window restrictions.
 - Revegetation work is not confined to these time periods.
 - Night work will be minimized to the maximum extent practicable to avoid effects to listed species that are most active at dusk or night; however, Caltrans requests permission to work at night during the April 15 – October 15 work window for the riparian areas and during the year-round work windows for non-riparian areas.
5. Change the General Conservation Measures under the **Description of the Action Area** on page 12 from:

Vegetation Removal. Any vegetation that is within the cut and fill line or growing in locations where permanent structures will be placed (e.g., road alignment, shoulder widening, soil-nail walls, etc.) will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level except in areas that will be excavated for roadway construction. This will allow plants that reproduce vegetatively to resprout after construction. A Service-approved biologist will be present during all vegetation clearing and grubbing activities. If at any point California red-legged frogs, California tiger salamanders or other listed species are discovered during these activities, the protocol for observance and handling California red-legged frogs or California tiger salamanders outlined below will be implemented. All clearing and grubbing of woody vegetation will occur by hand or using light construction equipment such as backhoes and excavators. If clearing and grubbing occurs between February 1 and August 31, a qualified biologist(s)

will survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 100 feet for passerines and 500 feet for raptors before clearing activities begin. All nest avoidance requirements of the MBTA and CDFG Code will be observed. All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site. The contractor will be responsible for obtaining all permits, licenses and environmental clearances for properly disposing of such materials. After project completion, all temporarily affected areas will be returned to original grade and contours to the maximum extent practicable, protected using appropriate erosion control methods, and revegetated with native species appropriate for the region and habitat communities on site.

To:

Vegetation Removal. Any vegetation that is within the cut and fill line or growing in locations where permanent structures will be placed (e.g., road alignment, shoulder widening, soil-nail walls, etc.) will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level except in areas that will be excavated for roadway construction. This will allow plants that reproduce vegetatively to resprout after construction. A Service-approved biologist will be present during all vegetation clearing and grubbing activities. If at any point California red-legged frogs, California tiger salamanders or other listed species are discovered during these activities, the protocol for observance and handling California red-legged frogs or California tiger salamanders outlined below will be implemented. All clearing and grubbing of woody vegetation will occur by hand or using light construction equipment such as backhoes and excavators. If clearing and grubbing occurs between February 1 and August 31, a qualified biologist(s) will survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 100 feet for passerines and 300 feet for raptors before clearing activities begin. All nest avoidance requirements of the MBTA and CDFG Code will be observed. All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site. The contractor will be responsible for obtaining all permits, licenses and environmental clearances for properly disposing of such materials. After project completion, all temporarily affected areas will be returned to original grade and contours to the maximum extent practicable, protected using appropriate erosion control methods, and revegetated with native species appropriate for the region and habitat communities on site.

6. Add the following to the **Description of the Action Area** on page 9:

Tree and Vegetation Removal

In order to limit effects of the project to nesting birds, Caltrans will minimize tree and brush removal during the bird nesting season by trimming and removing existing trees and brush down to ground level from September through February. Prior to the first construction season, advance tree removal was performed from January through March of 2014. Subsequent tree removal for 5 consecutive years would occur from September through the end of February. Root systems will be left in place until after the rainy

season, and when construction occurs in the area to minimize ground disturbance outside of the construction season.

Tree removal conducted during the nesting season would only occur as necessary and following a nesting bird survey conducted by an approved biologist. The rainy season tree removal operation for this project would include an excavator, crane or other mechanical logging equipment located along the roadway or any flat portion of the hillside that could support the equipment. The excavator's arm would extend up the hillside to remove falling trees and/or brush. There will be some areas that will not be reachable with this equipment and other means would need to occur. Other means may include smaller equipment such as a bobcat that could traverse the hillside, or construction of temporary access roads. The Contractor, Service-approved and Resident Engineer would conduct field inspections to determine potential access routes for staging of the equipment.

Large trunks from downed trees will be cut into smaller logs. These logs will then be removed from the slopes using specialized logging equipment, cranes, or loaders. In many instances the trees will likely be cut down with chainsaws because the root systems will be left in place until the upcoming construction season. Falling trees would likely be pulled with the excavator or other equipment down to the roadside and loaded onto trucks. The contractor may come up with other ways for tree removal but ground disturbance will occur as a result of tree removal activities. The tree logs will be loaded onto a haul truck and removed from the Project site. The fallen tree branches and cleared brush will be collected from the site and placed into a wood chipper. Limbs, branches and small trunks 4 inches in diameter and smaller will be chipped. The wood chipper will shoot the chipped material into a truck to be hauled away. Removal of stumps and below ground roots will be conducted as part of the roadway construction activities. As discussed in the schedule section below, the roadway construction activities had formerly been scheduled from April 15-October 15 but are now being extended to year-round in all areas that are outside of the jurisdiction of the California Department of Fish and Wildlife.

Outside of the rainy season, the remaining stem will be ground down to a sufficient depth in order to proceed with subsequent construction activities. Each season at the end of the winter clearing operations and once all vegetation is cut and removed from the project area, the Contractor and Resident Engineer will inspect the site and determine which locations have areas of soil disturbance. Permanent and temporary erosion control measures (i.e., hydro-seeding, fiber rolls, etc.) would be considered and the appropriate measures would be applied to disturbed soil areas.

Any vegetation that is within the cut-and-fill line or in locations where permanent structures will be placed (e.g., culvert extensions) will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level except in areas that will be excavated for roadway construction. This procedure will allow plants that reproduce vegetatively to resprout after construction. All temporarily affected areas will be

regraded to their original contours wherever feasible, protected with erosion-control measures, and revegetated after the roadway construction is completed.

As above, most clearing will be scheduled outside of the bird-nesting season. If for any reason this schedule cannot be met, surveys for nesting migratory birds will be conducted before clearing begins. The nest avoidance measures required by the Migratory Bird Treaty Act and the California Fish and Game Code will be implemented. A qualified biological monitor will be present on-site during tree and vegetation removal to inspect for federally listed species and migratory birds, and ensure that all clearing is done according to the contract special provisions and permits. To facilitate inspections for federally listed species, vegetation will first be cleared by hand to 2 feet above ground level. The Service-approved biologist will then survey the cleared area to identify any listed species before clearing closer to ground level is conducted.

During the roadway construction phase, an excavator and other standard construction equipment will be used to clear, grub and grade the work areas as per the Project's Contract Plans. For each construction season, all temporarily disturbed soil areas will be stabilized as per the projects Storm Water Pollution Prevention Plan. All completed disturbed areas will be stabilized as per the Project's Erosion Control Plan and Final Mitigation and Monitoring Plan.

7. Change the Proposed Conservation Measures under the **Description of the Action Area** on page 14 from:

Proposed Compensation

To minimize effects to the California red-legged frog and California tiger salamander, Caltrans in coordination with the Service will create, restore, or set aside in perpetuity at a ratio of 3:1 for permanent effects and 1.1:1 for temporary effects, suitable habitat for each species or suitable multi-species habitat if appropriate (Table 5). Alternatively, credits will be purchased at a Service-approved conservation bank. On-site restoration of temporarily affected areas (i.e., coyotebrush scrub, purple needlegrass/native grasslands, and landscaped/agricultural lands) may qualify as compensation at a 1:1 ratio once conditions are returned to baseline conditions as determined by the Service.

Table 5: Proposed Compensation for Temporary and Permanent Effects

Species	Effects						Total Compensation
	Temporary (acres)			Permanent (acres)			
	Effect	Compensation		Effect	Compensation		
		Ratio	Need		Ratio	Need	
California red-legged frog	0.76	1.1:1	0.836	6.32	3:1	18.96	19.796
California tiger salamander	0.67	1.1:1	0.737	2.30	3:1	6.90	7.637

To:

Proposed Compensation

To minimize effects to the California red-legged frog and California tiger salamander, Caltrans shall contribute toward the acquisition of habitat approved by the Service in accordance with the Selected Review Criteria for Section 7 Off-Site Compensation requirements (Appendix A).

Table 5: Proposed Compensation for Temporary and Permanent Effects

Species	Effects						Total Compensation
	Temporary (acres)			Permanent (acres)			
	Effect	Compensation		Effect	Compensation		
		Ratio	Need		Ratio	Need	
California red-legged frog	5.40	1.1:1	5.94	9.12	3:1	27.36	33.30
California tiger salamander	1.68	1.1:1	1.85	3.00	3:1	9.00	10.85

- Change the second paragraph under the **Effects of the Action** on page 25 from:

The proposed project will likely adversely affect the threatened California red-legged frog by killing, harming and/or harassing juveniles and adults inhabiting areas of suitable non-breeding aquatic, upland and dispersal habitat; and adversely affect the threatened California tiger salamander by killing, harming and/or harassing juveniles and adults inhabiting burrows and other upland refugia within grasslands and ruderal habitat. Project effects were minimized by Caltrans by reducing the project footprint to the minimum area necessary to construct the proposed safety project. The project as proposed in the Biological Assessment (Caltrans 2009) and in the project description of this Biological Opinion would result in the permanent removal of 6.32 acres of California red-legged frog upland and dispersal habitat and 2.30 acres of California tiger salamander upland and dispersal habitat, and will temporarily affect 0.76-acre of California red-legged frog upland and dispersal habitat and 0.67 acres of California tiger salamander upland and dispersal habitat. The Service has determined that the permanent and temporary loss and/or degradation of California red-legged frog and California tiger salamander habitat will result in take of all California red-legged frogs and California tiger salamanders within these areas as a direct result of habitat loss. As outlined in Table 2, Caltrans has proposed a habitat compensation measure to provide minimization for the effects on the California red-legged frog and California tiger salamander by creating, restoring, or setting aside suitable habitat for each species at a ratio of 3:1 for permanent effects and 1.1:1 for temporary effects. This habitat will be conserved in perpetuity with appropriate management which will benefit both the California red-legged frog and California tiger salamander.

To:

The proposed project will likely adversely affect the threatened California red-legged frog by killing, harming and/or harassing juveniles and adults inhabiting areas of suitable

non-breeding aquatic, upland and dispersal habitat; and adversely affect the threatened California tiger salamander by killing, harming and/or harassing juveniles and adults inhabiting burrows and other upland refugia within grasslands and ruderal habitat. Project effects were minimized by Caltrans by reducing the project footprint to the minimum area necessary to construct the proposed safety project. The project as proposed in the Biological Assessment (Caltrans 2009), letter from Caltrans dated March 16, 2012, Appendix C of the Caltrans reinitiation letter dated January 21, 2014, and in the project description of this Biological Opinion would result in the permanent removal of 9.12 acres of California red-legged frog upland and dispersal habitat and 3.0 acres of California tiger salamander upland and dispersal habitat, and will temporarily affect 5.40-acre of California red-legged frog upland and dispersal habitat and 1.68 acres of California tiger salamander upland and dispersal habitat. The Service has determined that the permanent and temporary loss and/or degradation of California red-legged frog and California tiger salamander habitat will result in take of all California red-legged frogs and California tiger salamanders within these areas as a direct result of habitat loss. As outlined in Table 2, Caltrans has proposed a habitat compensation measure to provide minimization for the effects on the California red-legged frog and California tiger salamander by creating, restoring, or setting aside suitable habitat for each species at a ratio of 3:1 for permanent effects and 1.1:1 for temporary effects. This habitat will be conserved in perpetuity with appropriate management which will benefit both the California red-legged frog and California tiger salamander.

9. Change **Term and Condition 1.d.** on page 30 from:

Caltrans shall compensate for the effects of take of California red-legged frogs and California tiger salamanders resulting from the net loss of habitat and temporal loss between the time the effects are incurred and the time when the compensation habitat is fully functional. As described in the project description, Caltrans shall protect 19796 acres of California red-legged frog habitat and 7.637 acres of California tiger salamander habitat acres in perpetuity through on- or off-site habitat restoration, the purchase of conservation bank credits, acquisition of land, or a combination of these options. The Service encourages Caltrans to seek habitat that comprises high quality breeding, foraging, sheltering, migration and/or dispersal habitat, or provides a functional linkage to areas of occupied habitat(s) to facilitate the (re)colonization from source populations. The habitat shall have a conservation easement, management plan, and funding endowment to manage the habitat in perpetuity; all of which shall be reviewed and approved by the Service/CDFG and completed within 18 calendar months following the date of project ground-breaking. Within 6 month following the issuance of this Biological Opinion, Caltrans shall submit a Conceptual Compensation Plan to the Service/CDFG detailing a comprehensive compensation scheme(s) and timelines to achieve full habitat functions and values. Caltrans shall comply with all applicable CDFG regulations pertaining to mitigation for species designated as fully protected and/or listed by the State.

1. On-Site Habitat Restoration. At a minimum, Caltrans shall restore temporarily disturbed habitat(s), i.e. coyotebrush scrub, purple

needlegrass/native grasslands, and landscaped/agricultural lands, to original contours and baseline conditions. Credit for on-site restoration of areas subject to temporary disturbance at a ratio of 1:1 shall be achieved once the habitat is returned to and functions at baseline conditions or better as determined by the Service. Additional compensation at a ratio of 0.1:1 will help offset the temporal effect of the disturbance during which time the habitat is unsuitable for California red-legged frogs and California tiger salamanders during the construction phase of the proposed action.

2. **Conservation Bank Credits.** Caltrans shall purchase conservation bank credits at a Service/CDFG-approved conservation bank whose service area encompasses the action area for the species listed above. Conservation bank credits shall be purchased and documentation provided to the Service and CDFG comprising the Agreement for Sale of Conservation Credits, Bill of Sale, Payment Receipt and Updated Credit Ledger within 30 calendar days prior to project ground-breaking.
3. **Off-Site Habitat Acquisition & In-perpetuity Preservation.** Caltrans shall contribute toward the acquisition of habitat approved by the Service and CDFG. Acquisition of land shall either be through a conservation easement or fee title. The conservation easement shall name the Service and CDFG as third-party beneficiaries or grantees, and shall be held by an entity qualified to hold conservation easements subject to Service and CDFG approval. The endowment to manage the land and monitor the conservation easement shall be based on the management plan or a PAR (or PAR-equivalent) analysis. The endowment shall be secured with a Funding Assurance Letter stating that sufficient funds to compensate for the effects to listed species, i.e. mitigate impacts, have been budgeted into the State Route 152 Hecker Pass Safety Improvement Project Expenditure Authorization. The Funding Assurance letter shall be signed by the District Deputy Director of Project Management and the District Deputy Director of Environmental Planning and Engineering and approved by Service and CDFG's Offices of the General Counsel. The Funding Assurance Letter provides evidence that Caltrans has allocated sufficient funding to implement the proposed compensation/mitigation, monitoring and reporting requirements including habitat conservation credits or land acquisition costs, costs of managing the compensation/mitigation lands, and an endowment. The Funding Assurance Letter shall be provided to the Service and CDFG for approval prior to project ground-breaking. The endowment shall be held by a Service/CDFG-approved entity in an amount agreed to by the Service and CDFG. A management plan shall be developed prior to or concurrent to the acquisition of land and shall include at a minimum: a description of existing habitats and proposed habitat creation, restoration and/or enhancement; success criteria for habitat modification; monitoring criteria for California red-legged frogs and California tiger salamanders; an integrated pest management plan; and adaptive management

strategies. Caltrans shall submit the management plan to the Service/CDFG for approval.

To:

The compensation measures proposed by Caltrans and outlined in Table 5 will minimize the effects of harm on the California red-legged frog and California tiger salamander. Habitat considered for compensation shall comprise high quality breeding, foraging, sheltering, migration and/or dispersal habitat. Caltrans shall comply with all applicable CDFW regulations pertaining to mitigation for species designated as fully protected and/or listed by the State. Compensation shall be implemented in accordance with the Selected Review Criteria for section 7 Off-Site Compensation provided in Appendix A. If the proposed compensation scheme is not fully implemented, Caltrans shall provide an alternative compensation scheme to be reviewed and approved by the Service.

The remainder of the July 14, 2010, biological opinion is unchanged. This concludes the reinitiation of formal consultation on the SR-152 Hecker Pass Safety Improvement Project located in Santa Clara County, California. If you have questions concerning this reinitiation of consultation on the SR-152 Hecker Pass Safety Improvement Project, please contact Jerry Roe or Ryan Olah at (916) 414-6600.

Sincerely,



for Jennifer M. Norris
Field Supervisor

cc:

Melissa Escaron, California Department of Fish and Wildlife, Napa, California

APPENDIX A
Sacramento Fish and Wildlife Office
Review Criteria for Section 7 Compensation
Revised January 30, 2014

Property Assurances and Conservation Easement

- Title Report [*preliminary at proposal, and Final Title Insurance at recordation*]; no older than six months;
- Property Assessment and Warranty;
- Subordination Agreement [*include if any outstanding debts or liens on the property; may be needed for existing easements*];
- Legal Description and Parcel Map;
- Conservation Easement [*use the current SFWO standardized CE template*]; or
- Non-Template Conservation Easement [*this requires additional review*]

Site Assessment and Development

- Phase I Environmental Site Assessment;
- Habitat Development Plan [*include if habitat will be constructed, restored, or enhanced*];
- Construction Security Analysis [*applicable if habitat is being constructed/enhanced/restored*];
- Performance Security Analysis [*applicable if there are performance standards*];

Site Management

- Interim Management Plan;
- Interim Management Security Analysis and Schedule;
- Long-Term Management Plan;
- Endowment Fund Analysis and Schedule;
- Endowment Funding Agreement or Trust Agreement or Declaration of Trust [*DFW calls this a "mitigation agreement"*]

Guidelines

Real Estate Assurances and Conservation Easement (CE)

Title Report

1. Who holds fee title to property?
2. Exceptions to title. Are there any liens or encumbrances (existing debts, leases, or easements) on the property? Note that any existing exceptions to title will have priority over a conservation easement for the mitigation project.
 - a. Review Preliminary Title Report to evaluate liens and encumbrances (see Property Assessment and Warranty, below).
 - b. Could any of these exceptions to title potentially interfere with either biological habitat values or ownership? If existing easements can potentially interfere with the conservation values/habitat of the property, those portions of the land should be deducted from the total compensation acreage available on the site.
 - c. Split estates. Have the water or mineral rights been severed from title? If so, property owner should be encouraged to re-acquire those rights, or at least to acquire the surface-entry rights to remove or limit access for mineral exploration/development.

Property Assessment and Warranty

1. Property owner should submit a Property Assessment and Warranty, which discusses every exception to title listed on the Preliminary Title Report and Final Title Insurance Policy, evaluating any potential impacts to the conservation values that could result from the exceptions to title (see below).
2. The Property Assessment and Warranty should include a summary and full explanation of all exceptions remaining on the title, with a statement that the owner/Grantor accepts responsibility for all lands being placed under the CE as available for the primary purposes of the easement, as stated in the easement, and assures that these lands have a free and clear title and are available to be placed under the CE.

Subordination Agreement

1. A Subordination Agreement is necessary if there is any outstanding debt on the property; it could also be used to subordinate liens or easements. Review Subordination Agreement language for adequacy—the lending bank or other lien or rights holder must agree to fully subordinate each lien, encumbrance, or easement under the CE.

Legal Description and Parcel Map

1. Ensure accuracy of map, and location and acreage protected under the CE.
2. Both the map and the legal description should explain the boundaries of the individual project compensation site. The site should *not* have 'leftover' areas for later use.
3. Ask for an easement map to be prepared (if applicable), showing all easements on the property.

Conservation Easement from Template

1. Who will hold the easement?
 - a. Conservation easements require third-party oversight by a qualified non-profit or government agency (=easement holder or Grantee). Minimum qualifications for an easement holder include:
 - i. Maintaining accreditation by the Land Trust Accreditation Commission
<http://www.landtrustaccreditation.org/home>.
 - ii. Organized under IRS 501(c)(3);
 - iii. Qualified under CA Civil Code § 815;
 - iv. Bylaws, Articles of Incorporation, and biographies of Boards of Directors on file at;
 1. Must meet requirements of SFWO, including 51% disinterested parties on the Board of Directors;
 - v. Approved by SFWO
2. Project Applicant should submit a redline version showing all of their proposed revisions in track changes or other editable electronic format, along with an explanation of all deviations from the template.

Non-Template Conservation Easement

1. If not using the CE template, the Project Applicant should specify objections they have to the template. This may substantially delay processing as the non-template CE will require review by the Solicitor's Office. Alternate CEs are subject to SFWO approval prior to being granted and recorded.
2. The Project Applicant must either 1) add SFWO as a third-party beneficiary, or 2) add language throughout the document, in all appropriate places, that will assure SFWO the right to enforce, inspect, and approve any and all uses and/or changes under the CE prior to occurrence (including land use, biological management or ownership).
3. Include, at a minimum, language to:
 - a. Reserve all mineral, air, and water rights under the CE as necessary to maintain and operate the site in perpetuity;
 - b. Ensure all future development rights are forfeited;
 - c. Ensure all prohibited uses contained in the CE template are addressed; and

- d. Link the CE, Management Plan, and the Endowment Fund within the document (e.g., note that each exists to support the others, and where each of the documents can be located if a copy is required).
4. Insert necessary language, particularly, but not exclusively, per: (can compare to CE template):
 - a. Rights of Grantee
 - b. Grantee's Duties
 - c. Reserved Rights
 - d. Enforcement
 - e. Remedies
 - f. Access
 - g. Costs and Liabilities
 - h. Assignment and Transfer
 - i. Merger
 - j. Notices
5. Include a signature block for USFWS to sign "approved as to form".

Site Assessment and Development

Phase I Environmental Site Assessment

1. The Phase I ESA must show that the compensation site is not subject to any recognized environmental conditions as defined by the American Society for Testing and Materials (ASTM) Standard E1527-05 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, available at <http://www.astm.org/Standards/E1527.htm>, (i.e., the presence or likely presence of any Hazardous Substances or petroleum products).
2. If the Phase I ESA identifies any recognized environmental conditions, the Project Applicant must represent and warrant to the SFWO that all appropriate assessment, clean-up, remediation, or removal action has been completed.
3. If the Phase I ESA identifies any recognized environmental conditions, a Phase II ESA may be needed for sampling and laboratory analysis.

Restoration or Habitat Development Plan *[not required if the site is preservation only]*

1. The overall plan governing construction and habitat establishment activities required to be conducted on the Property, including, without limitation, creation, restoration, and enhancement of habitat.
 - a. This plan should include the baseline conditions of the Property including biological resources, geographic location and features, topography, hydrology, vegetation, past, present, and adjacent land uses, species and habitats occurring on the property, a description of the activities and methodologies for creating, restoring, or enhancing habitat types, a map of the approved modifications, overall habitat establishment goals, objectives and Performance Standards, monitoring methodologies required to evaluate and meet the Performance Standards, an approved schedule for reporting monitoring results, a discussion of

possible remedial actions, and any other information deemed necessary by the SFWO.

2. Any permits and other authorizations needed to construct and maintain the site shall be included and in place prior to the start of construction of the habitat.
3. Full construction plans for any habitat construction are subject to SFWO approval and must be *SFWO-approved prior* to the start of construction of the habitat.

Construction Security

1. Construction Security in the amount of 100% of a reasonable third party estimate or contract to create, restore, or enhance habitats on the property in accordance with the Restoration or Habitat Development Plan.
2. Construction Security can be drawn on should the project proponent default.
3. The Construction Security should be in the form of an irrevocable standby letter of credit or a cashier's check.
 - a. LOC: issued for a period of at least one year, and provide that the expiration date will be automatically extended for at least one year on each successive expiration date unless, until extension is no longer necessary.
 - b. Beneficiary: a third party subject to approval by the SFWO.
 - c. Language in a draft letter of credit subject to approval by the SFWO.

Performance Security [only necessary if habitat if performance standards have been identified]

1. Performance Security in the amount of 20% of the Construction Security.
2. Performance Security can be drawn on should the Performance Standards not be met, if remedial action becomes necessary.
3. The Performance Security in the form of an irrevocable standby letter of credit or a cashier's check.
 - a. LOC: issued for a period of at least one year, and provide that the expiration date will be automatically extended for at least one year on each successive expiration date unless, until extension is no longer necessary.
 - b. Beneficiary: a third party who is subject to approval by the SFWO.
 - c. Language in a draft letter of credit is subject to SFWO approval.

Site Management

Interim Management Plan

1. The Interim Management Plan should identify the short-term management, monitoring, and reporting activities to be conducted from the time construction ends until the Endowment Fund has been fully funded for three years and all the Performance Standards in the Development Plan have been met. This may be the same as the Long-term Management Plan.

Interim Management Security Analysis and Schedule

The purpose of the Interim Management Security is to allow the endowment to grow for at least three years without any disbursements, and is a safeguard to ensure that there will be enough funds in the endowment to pay for future management costs. The period can be longer than three years; a 5 year period is recommended by many land trusts.

1. Interim Management Security (in the form of a standby letter of credit) in the amount equal to the estimated cost to implement the Interim Management Plan during the first three years of the Interim Management Period, as set for in the Interim Management Security Analysis and Schedule.
2. The Interim Management Security Analysis and Schedule should be in the form of a table and/or spreadsheet that shows all of the tasks (management, monitoring, reporting), task descriptions, labor (hours), cost per unit, cost frequency, timing or scheduling of the tasks, the total annual funding necessary for each task, and any associated assumptions for each task required by the Interim Management Plan. The total annual expenses should include administration and contingency costs.
3. The Interim Management Security:
 - a. Held by a qualified, non-profit organization or government agency, subject to SFWO approval [see requirements under CE above], and
 - b. Held according to minimum standards for assuring maximum success in earning potential, and will include assurances to safeguard against loss of principle.
 - c. Instructions for disbursements or releases from the fund must be outlined in the Endowment Management Agreement/Trust Agreement/Declaration of Trust.

Long-Term Management Plan (LTMP)

1. The LTMP template identifies the long-term management, monitoring and reporting activities to be conducted.
2. The LTMP should include at minimum:
 - a. Purpose of the Project and purpose of the LTMP;
 - b. A baseline description of the setting, location, history, and types of land use activities, geology, soils, climate, hydrology, habitats present (once project meets Performance Standards), and species descriptions;
 - c. Overall management, maintenance and monitoring goals; specific tasks and timing of implementation; and discussion of any constraints, which may affect goals;
 - d. The Endowment Fund Analysis and Schedule (see below);
 - e. Discussion of Adaptive Management actions for reasonably foreseeable events and possible thresholds for evaluating and implementing Adaptive Management;
 - f. Rights of access to the Property and prohibited uses of the Property as provided in the CE; and
 - g. Procedures for Property transfer, land manager replacement, amendments, and notices.
3. The LTMP must be incorporated by reference in the CE.

4. The LTMP is considered a living document and may be revised as necessary upon agreement of the land manager, easement holder, and SFWO.

Endowment Fund Analysis and Schedule

1. Can use a PAR or PAR-like analysis and must be based upon the final LTMP, subject to SFWO approval.
 - The analysis should be developed with input by the land manager and conservation easement holder.
2. The analysis and schedule should be in the form of a table and/or spreadsheet that shows, at a minimum:
 - all of the tasks (management, monitoring, reporting)
 - task descriptions, with tasks numbers cross-referenced in management plan(s)
 - labor (hours)
 - materials
 - cost per unit (hr., linear feet, each, etc.).
 - cost frequency
 - timing or scheduling of the tasks,
 - the total annual funding necessary for each task, and
 - the assumptions required for each task by the Management Plan.
3. The total annual expenses should include administration and contingency costs (contingency can be included on each line item – identify the percentage). Unless there is a separate endowment for the purpose of monitoring and reporting on the CE conditions, then, the analysis should also include costs of
 - Monitoring and reporting CE conditions;
 - Defending the CE; and
 - Liability insurance.
4. The Endowment Fund::
 - Held by a qualified, SFWO-approved, non-profit organization or government agency [see requirements under CE above],
 - Held according to minimum standards for assuring maximum success in earning potential, and should include assurances for no loss of principle.
 - Disbursements or releases from the fund must be for documented expenditures, as they occur.

Endowment Funding Agreement

1. This is the agreement between the endowment holder and the Project Applicant, as to how the endowment is to be funded, held and disbursed;
2. USFWS is not signatory to this agreement, but there should be a signature block on the agreement for SFWO to sign “approved as to form”;
3. USFWS has approval authority over the language in the document, and it must state that modifications or transfer of the endowment to another holder are subject to USFWS approval;
4. This agreement can also be called: “Trust Agreement”, “Declaration of Trust”

5. When the CA Dept. of Fish and Wildlife is involved, this is called "Mitigation Agreement".



DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

REPLY TO
ATTENTION OF

APR -3 2014

Regulatory Division

Subject: File Number 2009-00377S

California Department of Transportation (Caltrans), District 4
Mr. Hardeep Takhar
111 Grand Avenue
Mail Station 8A
Oakland, California 94612

Dear Mr. Takhar:

This correspondence is in reference to your submittal of May 31, 2012, amended on January 23, 2014 concerning Department of the Army (DA) authorization to implement the Hecker Pass Safety Improvement Project located along State Route (SR) 152 (Hecker Pass) at five locations between post mile (PM) 0.14 and 5.20 near the city of Gilroy, Santa Clara County, California (37.0004, -121.68359). This authorization letter supersedes the letter issued by this office on May 10, 2013.

Work will include widening of existing shoulders, overlaying the existing pavement, removing trees to increase sight distance, constructing retaining walls, and adding a left-turn lane from eastbound SR 152 to Watsonville Road. At four locations 10 retaining walls will be installed. Two retaining walls (222' x 13.42' and 221' x 14.7') will be installed at location 1. One retaining wall (566' x 14') will be installed at location 2. One soil nail retaining wall (272' x 32.6') with end treatments will be installed at location 3. Six retaining walls (315' x 31.79', 70' x 10.5', 1,037' x 30.38', 568' x 19.25', 380' x 10.63', and 170' x 5') will be installed at location 4. Five of the retaining walls will be soil nail walls with end treatments and one will be a soldier pile wall. The soldier pile wall (Wall No. 166) will be constructed from the existing roadside at location 4, at approximately PM 3.1, between June 15 and October 15. The wall's outer edge will be constructed about 24 feet from the road centerline and over 50 feet laterally and 30 feet above the creek. The catch point beyond the wall will be above the ordinary high water mark. This wall will be built by placing 22, 14" by 30' long steel H-shaped piles spaced at 8 foot increments along the alignment of the wall. These piles will be installed by drilling a 30" diameter hole and setting the pile in concrete. The barrier cap (8' minimum width) will be constructed above the piles and will extend toward the roadway centerline. In total 22 culverts will be repaired or improved including replacing or extending inlets or outlets, extending downdrains toward the bank of Bodfish Creek, and trenching for culvert replacement. Several existing utility poles or underground cables will require relocation. Work will include tree removal. Advanced tree removal has already occurred between January and March of 2014. Tree removal will occur in

all areas, including in riparian zones, from September through February, for five consecutive years.

Work will not require fill in wetlands. Work will result in the permanent fill of 4,288 square feet (0.10 acre) and temporary disturbance of 2,077 square feet (0.05 acre) of Other Waters of the U.S. All work shall be completed in accordance with the plans and drawings titled "*USACE File #2009-00377S, Hecker Pass Safety Improvement Project - State Route 152 (EA 2A250), May 2, 2013, Figures 1 to 20*" (figure 10 has been replaced since the May 10, 2013 authorization letter, enclosure 1).

Section 404 of the Clean Water Act (CWA) generally regulates the discharge of dredged or fill material below the plane of ordinary high water in non-tidal waters of the United States, below the high tide line in tidal waters of the United States, and within the lateral extent of wetlands adjacent to these waters. Section 10 of the Rivers and Harbors Act generally regulates construction of structures and work, including excavation, dredging, and discharges of dredged or fill material, occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States. Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide; and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce. An approved jurisdictional determination was completed and dated certified May 2, 2013.

Based on a review of the information in your submittal, the project qualifies for authorization under Department of the Army Nationwide Permit(s) (NWP) 14 for Linear Transportation Projects and NWP 12 for Utility Lines, 77 Fed. Reg. 10,184, February 21, 2012, pursuant to Section 404 of the CWA of 1972, as amended (33 U.S.C. § 1344 *et seq.*). The project must be in compliance with the terms of the NWP, the general conditions of the Nationwide Permit Program, and the San Francisco District regional conditions cited in enclosure 2. You must also be in compliance with any special conditions specified in this letter for the NWP authorization to remain valid. Non-compliance with any term or condition could result in the revocation of the NWP authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification will remain valid until March 18, 2017, unless the NWP authorization is modified, suspended, or revoked. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon a NWP will remain authorized provided the activity is completed within 12 months of the date of a NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 C.F.R. § 330.4(e) and 33 C.F.R. §§ 330.5 (c) or (d). This verification will remain valid if, during the time period between now and March 18, 2017, the activity complies with any subsequent modification of the NWP authorization. The Chief of Engineers will periodically review NWPs and their conditions and will decide to either modify, reissue, or revoke the permits. If a NWP is not modified or reissued within five years of its effective date, it automatically expires and becomes null and void. It is incumbent upon you to remain informed of any changes to the NWPs. Changes to the NWPs would be announced by Public Notice posted on our website (<http://www.spn.usace.army.mil/Missions/Regulatory.aspx>). Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, enclosure 3, verifying that you have complied with the terms and conditions of the permit.

This authorization will not be effective until you have obtained a Section 401 water quality certification from the Central Coast Regional Water Quality Control Board (RWQCB). If the RWQCB fails to act on a valid request for certification within two months after receipt of a complete application, the Corps will presume a waiver of water quality certification has been obtained. You shall submit a copy of the certification to the Corps prior to the commencement of work.

General Condition 18 stipulates that project authorization under a NWP does not allow for the incidental take of any federally-listed species in the absence of a biological opinion (BO) with incidental take provisions. As the principal federal lead agency for this project, Caltrans initiated consultation with the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) to address project related impacts to listed species, pursuant to Section 7(a) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*). Special conditions below indicate required compliance with consultation documents.

In order to ensure compliance with this NWP authorization, the following special conditions shall be implemented:

1. To remain exempt from the prohibitions of Section 9 of the Endangered Species Act, the non-discretionary Terms and Conditions for incidental take of federally-listed California red-legged frog and California tiger salamander shall be fully implemented as stipulated

in the Biological Opinion entitled, “*Biological Opinion on the Effects of the Proposed State Route 152 Hecker Pass Safety Improvement Project, Santa Clara County May 10, 2013. California (Caltrans EA 2A2599) on the Threatened California Red-Legged Frog and Threatened California Tiger Salamander (Central Valley Distinct Population Segment)*” (pages 1 - 41) dated July 14, 2010 and titled, “*Reinitiation of Section 7 Formal Consultation and Amendment to the Biological Opinion for the State Route 152 Hecker Pass Safety Improvement Project, Santa Clara County, California (Caltrans EA 2A250)*” amended on April 2, 2014 (enclosure 4). Project authorization under the NWP is conditional upon compliance with the mandatory terms and conditions associated with incidental take. Failure to comply with the terms and conditions for incidental take, where a ‘take’ of a federally-listed species occurs, would constitute an unauthorized take and non-compliance with the NWP authorization for your project. The USFWS is, however, the authoritative federal agency for determining compliance with the incidental take statement and for initiating appropriate enforcement actions or penalties under the Endangered Species Act.

2. The NMFS concurred with the determination that the project was not likely to adversely affect South-Central California coast steelhead (*Oncorhynchus mykiss*) Distinct Population Segment and designated critical habitat for this species. This concurrence was premised, in part, on project work restrictions outlined in enclosed letter dated March 13, 2013 and additional measures outlined in a February 24, 2014 correspondence (enclosure 5). These work restrictions are incorporated as special conditions to the NWP authorization for your project to ensure unauthorized incidental take of species and loss of critical habitat does not occur.
3. The permittee shall notify the Corps in writing of the anticipated start and stop dates of construction, at least 5 days prior to the initiation of construction.
4. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, if temporary structures, work, and discharges, including cofferdams, are required. 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. Within 1-year of initiation of temporary impact to a jurisdictional feature, you shall re-contour the temporarily impacted area and replant it with appropriate soil-stabilizing native species.

5. A post construction report shall be submitted 45 days after the conclusion of construction activities. The report shall document construction activities and contain as-built drawings (if different from drawings submitted with application) and include before and after photographs. Efforts to restore temporarily impacted areas shall be documented.
6. Access roads will only be constructed immediately in front of the soil nail wall and shall not be constructed within identified waters of the U.S. unless construction would occur within areas designated as "permanent impact" in the enclosed drawings (enclosure 6). Construction of access roads shall only occur between April 15 and October 15.
7. To minimize adverse impacts to fish and wildlife all work within the bed, bank, and channel and associated riparian areas will be confined to the period of April 15 to October 15.
8. Vegetation and other tree removal must occur between September 1 and February 28, outside of the bird-nesting season, to the maximum extent practicable. Root systems will be left in place until construction occurs in the area to minimize ground disturbance. Construction of access roads for the purpose of tree removal is not authorized. When tree removal occurs between October 16 and April 14, ground disturbance shall be minimized by restricting equipment to paved surfaces, except where ground must be disturbed to place crane outriggers. Trees and large vegetation must be cut no more than 4 inches above the ground and a crane or other fixed rigging must be used to lower cut limbs and trunk sections to paved surfaces. Limbs or trunk sections shall not be dragged along the ground.
9. Caltrans shall monitor forecasted precipitation. When 1/4 inch or more of precipitation is forecasted to occur, Caltrans shall stop work before precipitation commences. No activity of the project may be started if its associated erosion control measures cannot be completed prior to the onset of precipitation. After any storm event, the Caltrans shall inspect all sites currently under construction and all sites scheduled to begin construction within the next 72 hours for erosion and sediment problems and take corrective action as needed. Seventy-two hour weather forecasts from National Weather Service shall be consulted and work shall not start back up until runoff ceases and there is less than a 30% forecast for precipitation for the following 24-hour period.

You may refer any questions on this matter to Paula Gill of my Regulatory staff by telephone at 415-503-6776 or by e-mail at Paula.C.Gill@usace.army.mil. All correspondence should be addressed to the Regulatory Division, South Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner, while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,



Jr Jane M. Hicks
Chief, Regulatory Division

Enclosures

Copies Furnished (w/o enclosures):

CA RWQCB, San Luis Obispo, CA
U.S. EPA, San Francisco, CA
CA SWRCB, Sacramento, CA
CDFW, Yountville, Ca
USFWS, Sacramento, Ca
NMFS, Santa Rosa, Ca