

INFORMATION HANDOUT

WATER QUALITY

CONCEPTUAL STORM WATER POLLUTION PREVENTION PLAN

MATERIALS INFORMATION

OPTIONAL DISPOSAL/MATERIAL SITES

WATER QUALITY

CONCEPTUAL STORM WATER POLLUTION PREVENTION PLAN

The attached Conceptual Storm Water Pollution Prevention Plan (SWPPP) for the Crawford Slide Permanent Restoration project located on Route 96 in Siskiyou County at PM 27.7 has been prepared to allow you to begin work as soon as:

1. You submit the following sections of the Conceptual SWPPP:
 - 1.1. Section 300.6 Contract Information for Responsible Parties,
 - 1.2. Section 300.7 List of Subcontractor and Material Suppliers,
 - 1.3. Section 300.8 Training, and
 - 1.4. Section 500.7 Water Pollution Control Schedule
2. You complete the project specific information in the Conceptual SWPPP
3. The Engineer authorizes the signed Conceptual SWPPP
4. You have completed other contract requirements for start of job site activities

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER: Pending

STORMWATER POLLUTION PREVENTION PLAN

for

Crawford Creek Slide Removal 02-Sis-96-27.7

CONTRACT NO.: 02-4F6404

CALTRANS Project Identifier NUMBER: 0212000172

RISK LEVEL: 2

Prepared for:

California Department of Transportation
1745 Mott Road
Mt. Shasta, CA 96067

Submitted by:

California Department of Transportation
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Redding, CA 96049-6073
Richard Melvin
(530) 225-3147

Project Site Address

State Route 96 in Siskiyou County
PM 27.7

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

To be determined

() -

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

Dustin Miller
(530) 356-4648

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

To be determined

() -

SWPPP Developed by:

**ADH Environmental
PO Box 4457
Redding, CA 96049-4457
(530) 356-4648
Dustin Miller**

SWPPP Date

August 17, 2012

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Attachment A.....	Legally Responsible Person Authorization of Approved Signatory
Attachment B.....	Notice of Construction (NOC) / Notice of Intent (NOI)
Attachment C.....	Risk Level Determination
Attachment D	Vicinity Map and Site Map
Attachment E.....	Contractor Personnel Stormwater Training

Attachment F Other Plans/Permits/Agreements
Attachment AA SWPPP Amendments
Attachment BB Water Pollution Control Drawings
Attachment CC Water Pollution Control Best Management Practices List
Attachment DD Water Pollution Control Schedule
Attachment EE Stormwater Sampling Locations

SWPPP Appendices

Appendix A CEM-2008 SWPPP Amendment Certification and Approval Form
Appendix B CEM-2009 SWPPP Amendment Log Form
Appendix C CEM-2070 SWPPP/WPCP Annual Certification of Compliance Form
Appendix D Subcontractor/Material Supplier Notification Letter and Contact Information
Appendix E CEM-2023 Stormwater Training Record Form
Appendix F CEM-2024 Stormwater Training Log Form
Appendix G CEM-2030 Stormwater Site Inspection Report
Appendix H CEM-2034 Stormwater Best Management Status Report Form
Appendix I CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary
Appendix J CEM-2040 Weather Forecast Monitoring Form
Appendix K CEM- 2041 Weather Monitoring Form
Appendix L CEM-2045, CEM-2046, CEM-2047 Rain Event Action Plan Forms
Appendix M CEM- 2061 Notice of Discharge Form
Appendix N CEM-2048 Storm Event Sampling and Analysis Plan
Appendix O CEM-2049 Qualifying Rain Event Sampling and Analysis Plan
Appendix P CEM-2055 Stormwater Equipment Maintenance Log Form
Appendix Q CEM-2056 Stormwater Turbidity Meter Calibration Record Form
Appendix R CEM-2057 Stormwater pH Meter Calibration Record Form
Appendix S CEM-2058 Stormwater Meter Calibration Record Form
Appendix T CEM-2050 Sample Information, Identification, and Chain-of-Custody Record Form
Appendix U CEM-2051 Stormwater Sampling and Testing Activity Log
Appendix V CEM-2052 Stormwater Sample Field Test Report Form
Appendix W CEM-2054 Stormwater Sample Laboratory Test Report Form
Appendix X CEM-2062 Numeric Action Level Exceedance Report Form
Appendix Y CEM-2063 Numeric Effluent Limitation Violation Report Form
Appendix Z CEM-2065 Discharge Reporting Log Form

SWPPP Files

File Category 20.01 Stormwater Pollution Prevention Plan

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	Rain /Storm Event Sampling and Analysis Plans
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	Active Treatment System 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

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 H, Provision 8.b; and Section M, Provision 10 of the Caltrans Permit (CAS000003, Order No. 99-06-DWQ) and Section IV.I of the Construction General Permit (CGP) (CAS000002, Order No. 2009-0009-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) 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 and
Caltrans Certification of the
Stormwater Pollution Prevention Plan**

Project Name: **Crawford Creek Slide Removal 02-Sis-96-27.7**

Caltrans Contract Number: **02-4F6404**

Caltrans Project Identification Number: **0212000172**

"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

RE's Name

RE's Telephone Number

This SWPPP complies with the applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ) issued by the State Water Resources Control Board. This SWPPP was developed pursuant to the contract Special Provisions, Caltrans Standard Specifications and the Caltrans Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual. The Contractor and Local Agency are responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA). Include copies of the SWRCB-issued WDID Number and NOI form as Attachment B.

"For Local Agency Use Only"
**Local Agency Legally Responsible Person Certification of the
Stormwater Pollution Prevention Plan**

Project Name: **Crawford Creek Slide Removal 02-Sis-96-27.7**

Caltrans Encroachment Permit
Number issued to Local Agency: **[Insert Caltrans Encroachment Permit Number Issued to Local
Agency /Private Entity]-then TAB to next field.**

Caltrans Encroachment Permit
Number issued to Contractor: **[Insert Caltrans Encroachment Permit Number Issued to
Contractor] then TAB to next field.**

Local Agency Name: **California Department of Transportation**

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

Legally Responsible Person's Signature	Date
Legally Responsible Person's Name	Telephone Number
Legally Responsible Person's Title	

For Use by Caltrans Only
CALTRANS OVERSIGHT ENGINEER'S CONCURRENCE OF SWPPP

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

Caltrans Oversight Engineer's Signature	Date of SWPPP Concurrence
Caltrans Oversight Engineer's Name	Telephone Number

100.2 Contractor and QSD SWPPP Certification

Contractor's Certification of SWPPP

Project Name:	Crawford Creek Slide Removal 02-Sis-96-27.7
Caltrans Contract Number:	02-4F6404
Caltrans Project Identification Number:	0212000172

"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
Contractor's Name	Telephone Number
Contractor's Title	

QSD's Certification of SWPPP

Project Name: Crawford Creek Slide Removal 02-Sis-96-27.7

Caltrans Contract Number: **02-4F6404**

Caltrans Project Identification Number: **0212000172**

"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). I certify that the 'required text' portions of this document are unaltered from the original required text and content."



Digitally signed by Dustin Miller
DN: cn=Dustin Miller, o, ou,
email=dmiller@adhenvironment
al.com, c=US
Date: 2012.08.15 14:26:36 -07'00'

QSD's Signature	Date
Dustin Miller	(530) 356-4648

QSD's Name	QSD's Telephone Number
CPESC, CPSWQ, QSD	
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.

This Conceptual SWPPP is prepared for informational purposes and shall be amended by Contractor's QSD prior to commencement of any construction or soil disturbing activity on or about the project site.

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 Caltrans Permit (SWRCB Order No. 99-06-DWQ, NPDES No. CAS000003) and with the required elements of the CGP (CAS000002, Order No. 2009-0009-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;
- Weekly Status Reports;
- Rain Event Action Plans;
- Sampling and Analysis Results;
- Equipment Maintenance and Calibration Records; 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 project is located in Siskiyou County on State Route 96 about 13.0 miles west of Happy Camp and about 0.8 mile west of Independence Bridge, within the boundaries of the North Coast Regional Water Quality Control Board. The project will remove material from a slide area north of and above the highway at post mile 27.7 in an attempt to eliminate the fall of before rock and debris down the mountain and onto the roadway. Clearing and grubbing will be performed to remove woody debris; earthen material will be excavated to re-contour the existing slope. The woody debris and excavated rock and soil will be off-hauled to the Bunker Hill maintenance disposal site. Woody debris will be stockpiled for mastication and or disposal by permitted burning at a later date by Caltrans Maintenance personnel. Rock and excavated soils hauled to the disposal site will be stored in stockpiles which will be stabilized for future use. Bunker Hill maintenance disposal site is operated under the Department's MS4 permit which is included in this CSWPPP by reference; see Section 400.

Disturbed soils at the project location will be hydro-seeded with a USDA approved seed mix, applied concurrently with a bonded fiber matrix, which will provide seed germination media and erosion control for the disturbed soil. Indirect and direct receiving waters include Crawford Creek, northerly of and adjacent to the project, and Klamath River, east and south of the project, roughly parallel to Route 96 at the project location. Klamath River receives runoff from the site via Crawford Creek, which crosses through a culvert pipe east-northeast of the project, and a roadside conveyance, which drains through a culvert pipe, crossing Route 96, southerly of the project. Per the Water Quality Control Plan for the North Coast Region, May, 2011 (Basin Plan), beneficial uses of Klamath River include COLD, SPAWN and MIGRATORY and the river is listed on the 303d. list for multiple constituents; Klamath River is a high risk receiving water and Native Amerindian resource. A Native Amerindian Monitoring Plan will be included in the contract.

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 3.67 acres

- Percentage impervious area before construction 11.4%
- Runoff coefficient before construction Unimproved area - 0.10-0.30
- Percentage impervious area after construction 11.4%
- Runoff coefficient after construction Unimproved area - 0.10-0.30

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.

The tributary area contributing stormwater run-on to the project area estimated at approximately 3 acres of moderate to steep heavily wooded terrain. Per the Rainfall Frequency Atlas of the United States (Technical Paper No.40) available at www.nws.noaa.gov the approximate average rainfall at the project site area for a 10-year 24-hour storm event is 0.21-inches per hour; for a 100-year 24-hour event, the approximate average is 0.34 inches per hour. With an estimated runoff coefficient for moderate to steep wooded terrain ranging from 0.10 to 0.30, and using a method comparable to the Rational Method ($Q = CIA$ where Q is the runoff in cubic feet per second, C is the runoff coefficient, I is the average intensity of the rain event in inches, and A is the tributary area in acres) stormwater run-on to the project site from the contributing area can vary in volume..

For a 10-year 24-hour storm, the estimate is 0.06 to 0.19 cubic foot per second. ($3 \times 0.21 \times 0.10$ to $3 \times 0.21 \times 0.30$).

For a 100-year 24-hour storm, the estimate is 0.10 to 0.31 cubic foot per second ($3 \times 0.34 \times 0.10$ to $3 \times 0.34 \times 0.30$).

Run-on control BMPs (gravel bag berms, fiber rolls, etc.) will be deployed and or grading activities will be conducted in a manner that will facilitate diversion of run-on flows around the project areas, into stable vegetated area, or to be conveyed through additional BMPs, such as temporary down-drains, and or temporary gravel bag check dams and fiber rolls.

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

300.4 Vicinity and Site Map

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

This project is located in Siskiyou County on State Route 96 at post mile 27.7, about 13.0 miles west of Happy Camp and about 0.8 mile west of Independence Bridge. Indirect and direct receiving waters include Crawford Creek, northerly of and adjacent to the project, and Klamath River, east and south of the project, roughly parallel to Route 96 at the project location. Klamath River receives runoff from the site via Crawford Creek, which crosses through a culvert pipe east-northeast of the project, and a roadside conveyance, which drains through a culvert pipe, crossing Route 96, southerly of the project.

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

This project will remove material from a slide area north of and above the highway at post mile 27.7 in an attempt to eliminate the fall of before rock and debris down the mountain and onto the roadway. Clearing and grubbing will be performed to remove woody debris; earthen material will be excavated to re-contour the existing slope.

Indirect and direct receiving waters include Crawford Creek, northerly of and adjacent to the project, and Klamath River, east and south of the project, roughly parallel to Route 96 at the project location. Klamath River receives runoff from the site via Crawford Creek, which crosses through a culvert pipe east-northeast of the project, and a roadside conveyance, which drains through a culvert pipe, crossing Route 96, southerly of the project. Per the Basin Plan, beneficial uses of Klamath River include COLD, SPAWN and MIGRATORY and the river is listed on the 303d. list for multiple constituents; Klamath River is a high risk receiving water and Native Amerindian resource. A Native Amerindian Monitoring Plan will be included in the contract.

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**

Qualified SWPPP Developer (QSD)

Name: **Dustin Miller**
Title: **Qualified SWPPP Developer**
Company: **ADH Environmental**
Address: **PO Box 4457**
Redding, CA 96049-4457
Phone Number: **(530) 356-4648**
Email Address: **dmiller@adhenvironmental**

Resident Engineer

Name: **-**
Title: **Resident Engineer**
Agency: **California Department of Transportation**
Address: **1745 Mott Road**
Mt. Shasta, CA 96067
Phone Number: **-**
Emergency Phone Number (24/7): **To be determined**
Email Address: **-**

Contractor **To be determined**
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): **To be determined**

Email Address: To be determined

Contractor Site Manager

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

Qualified SWPPP Practitioner (QSP)

Name: To be determined

Title: To be determined

Company: To be determined

Address: To be determined

Phone Number: () - -

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

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. **To be determined**
SWPPP Responsibility: As described in pending amendment to CSWPPP.

2. **To be determined**
SWPPP Responsibility: As described in pending amendment to CSWPPP.

3. **To be determined**
SWPPP Responsibility: As described in pending amendment to CSWPPP.

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. **To be determined**
2. **To be determined**
3. **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 following permits issued by the SWRCB.

- SWRCB Order No. 99-06-DWQ, NPDES No. CAS000003, National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation, July 15, 1999.
- SWRCB Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, 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:

- As described in pending amendment to CSWPPP.

The WPC Manager has received the following training.

- As described in pending amendment to CSWPPP.

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

- As described in pending amendment to CSWPPP.

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

- Qualified SWPPP Developer No. 00011
- Certified Professional in Storm Water Quality No. 0266
- Certified Professional in Erosion and Sediment Control No. 3440

The QSD has received the following training.

- Preparation of erosion and sediment control and SWPPP development study guide materials for Caltrans construction personnel (2011)
- Various IECA and StormCon workshops 0.5 hr. to 4 hr. (2006-2012)
- Various Surface Water Ambient Monitoring Program training modules (2006-2012)
- QSD Pilot Training Program 24 hr.-course (2010)
- Principles and Practices for Constructed Wetlands - 6hr course (2009)
- Designing for Effective Erosion and Sediment Control - 8hr course (2008)
- CPSWQ 24-hour review course and exam (2007)
- CPESC 24-hour review course and exam (2006)

The QSD has the following SWPPP development experience.

- Storm Water Pollution Prevention Plan Trinity River Restoration, Upper Junction City Site for T. L. Peterson Construction and United States Bureau of Reclamation. 2012.
- Storm Water Pollution Prevention Plan Columbia Elementary School for Halcyon Solar Construction, Inc. and Columbia Elementary School District. 2011.
- Storm Water Pollution Prevention Plan Red Bluff Stockpile at Red Bluff Diversion Dam for Meyers Earthwork. 2011.
- Storm Water Pollution Prevention Plan Shasta View Dr.-Old Alturas Rd. Improvements for Sierra National Construction and City of Redding. 2011.
- Storm Water Pollution Prevention Plan Hydropower Facility Modification Stage 1 Inskip Powerhouse for Ray Toney Associates/RTA Joint Venture and United States Bureau of Reclamation. 2011.
- Storm Water Pollution Prevention Plan Redding Airport Solar Array for Halcyon Solar Construction, Inc. and City of Redding. 2011.
- Storm Water Pollution Prevention Plan Mountain View Middle School for Halcyon Solar Construction, Inc. and Columbia Elementary School District. 2010.
- Storm Water Pollution Prevention Plan Phase 1 Oasis Road Interstate 5 Interchange for J. F. Shea Construction, Inc. and City of Redding. 2010.
- Storm Water Pollution Prevention Plan Yreka Storm Drain Improvements for N & T Digmire, Inc. and City of

Yreka. 2010.

- Water Quality Management Plan and Storm Water Pollution Prevention Plan Nine Mile Hill Ranch for Nine Mile Hill Ranch Development Company. 2010.
- Storm Water Pollution Prevention Plan Jenny Creek Sewer Replacement Project for Cox & Cox Construction Company, Inc. and City of Redding. 2010.
- Storm Water Pollution Prevention Plan Foothill 30-inch Water Supply Pipe for Cox & Cox Construction Company, Inc. and City of Redding. 2010.
- Storm Water Pollution Prevention Plan Buckeye Pressure Zone Water Main Replacement Project for Cox & Cox Construction Company, Inc. and City of Redding. 2009.
- Storm Water Pollution Prevention Plan Esplanade and East Avenue Sewer Replacement Project for Cox & Cox Construction Company, Inc. and City of Chico. 2009.
- Preparation and or oversight of more than 20 additional SWPPPs and or SWPPP amendments similar in scope to the above, and over 30 WPCP and or Wet Weather Erosion and Sediment Control Plans in city, county, state and federal jurisdictions throughout California.

A QSP will be assisting the WPC Manager to ensure that: required BMPs are implemented; non-stormwater and stormwater visual observations and sampling and analysis are performed; BMP maintenance is completed; and weekly training is provided. By September 2, 2011, the QSP for this project, must meet the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

As described in pending amendment to CSWPPP.

The QSP has received the following training.

- As described in pending amendment to CSWPPP.

The QSP has the following SWPPP implementation experience.

- As described in pending amendment to CSWPPP.

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

- As described in pending amendment to CSWPPP.

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

- As described in pending amendment to CSWPPP.

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 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.
- As described in pending amendment to CSWPPP.

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 May 2006.
- Contract Plans and Special Provisions for Contract No.02-4F6404, dated August 2012, prepared by Caltrans.
- SWRCB Order No. 99-06-DWQ, NPDES No. CAS000003, National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans), July 1999
- SWRCB-Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (Construction General Permit), September 2009
- *Caltrans Statewide Storm Water Management Plan (SWMP)*, dated May, 2003
- *Caltrans SWPPP/WPCP Preparation Manual*, dated June, 2012
- *Caltrans Construction Site Monitoring Program Guidance Manual*,
- Information Handout for Contract No. 02-4F6404, dated August 2012, prepared by Caltrans.
- Water Quality Control Plan for the North Coast Region, May, 2011 (Basin Plan)
- Standard Operating Procedures for Manual Field Measurement of Turbidity, pH, Dissolved Oxygen, and Conductivity, January, 2012
- Caltrans Construction Site Best Management Practices (BMPs) Manual, March, 2003
- 2010 Caltrans Standard Plans and Specifications
- Native Amerindian Monitoring Plan for Contract 02-4F6404
- Pending Lead Compliance Plan for Contract 02-4F6404
- Pending Asbestos Compliance Plan for Contract 02-4F6404
- Pending Dust Control Plan and Sample Analysis Plan for Naturally Occurring Asbestos for Contract 02-4F6404

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.

- No other local, state, or federal plans, permits, or agreements.

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 type="checkbox"/> Demolition	<input 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 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 type="checkbox"/> Landscaping, Planting and Plant Maintenance, Amending of Soil and Mulching <input type="checkbox"/> Material and Equipment Use over Water
<input type="checkbox"/> Masonry, Concrete, Asphalt Work	<input type="checkbox"/> Saw Cutting (cement and brick dust, saw cut slurries) <input type="checkbox"/> Paving and Grinding <input type="checkbox"/> Concrete Placement (colored chalks) <input type="checkbox"/> Concrete Curing (curing and glazing compounds) <input type="checkbox"/> Concrete Finishing (surface cleaners)

TABLE 500.1.1 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
	<input type="checkbox"/> Concrete Waste Management
<input 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 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.

- None anticipated

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

- None anticipated

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

- Vehicle and equipment fluids and lubricants
- Bonded fiber matrix and hydraulic mulch
- Polymer and copolymer tackifiers
- Fertilizers and other amendments

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

- Any dumpster onsite or at contractor support facility for the project

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

- Portable toilets
- Vehicle and equipment staging and fueling areas
- Dumpster locations
- Material storage 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

- None known except as described below.

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

- Lead in soil.
- Naturally occurring asbestos (NOA).

Per the initial site assessment dated July 9, 2012 for the project site:

"It is expected that lead will be present in soils within the project, however will not occur at Hazardous Waste levels. Specifications should be included to require the Contractor to have and implement a lead compliance plan prepared by a Certified Industrial Hygienist (CIH). It must be used whenever any disturbance of earth material (e.g., soil) that could result in lead exposure will occur, but the lead concentrations are expected to be below hazardous waste thresholds (below 1,000 mg/kg total lead and below 5 mg/l soluble lead) and disposal in a permitted landfill is not required. Based upon a field review, review of geologic maps and data from previous studies, there is some potential that Naturally Occurring Asbestos (NOA) occurs within the project limits. NOA is most commonly found in ultramafic rock that has undergone partial or complete alteration to serpentine bedrock-serpentine and often contains chrysotile asbestos. NOA excavation and disposal is regulated by the State of California Air Resources Board (CARB) and any work will require notification to and appropriate permits regarding dust management of NOA containing material from the delegated

authority, the Siskiyou County Air Pollution Control District. All work which will disturb native material must conform to the requirements of the CARB- Section 93105, Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations."

500.1.3 Risk Level Determination

A risk assessment for the Crawford Creek Slide Removal project was completed August 1, 2012 based on the required factors defined in the Construction General Permit. The assessment concluded the project is risk level 2 based on sediment risk and receiving water risk. The sediment risk factors are as follows: R-factor (rainfall erosivity for anticipated project duration)-22.45, K-factor (soil erodibility) 0.2, and LS-factor (slope length and steepness)-16.38; the calculated sediment loss for the project duration based on the above factors is approximately 73.5 tons, or medium risk. The receiving water risk for Klamath River is high; per the Basin Plan, beneficial uses of Klamath River include COLD, SPAWN and MIGRATORY and the river is listed on the 303d. list for multiple constituents; Klamath River is a high risk receiving water. With a medium sediment risk and a high receiving water risk, the combined risk level matrix is risk level 2. See supporting risk level determination documentation dated August 1, 2012 (prepared by Caltrans) in Attachment C of this CSWPPP.

500.2 Pre-Construction Existing Stormwater Control Measures

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

Existing natural vegetation along the creek, the roadside conveyance, and the river can provide incidental treatment of stormwater runoff, however, there are no specific permanent stormwater treatment BMPs at the project site. At the conclusion of recent slide repair work completed under an erosivity waiver, the area was hydroseeded with a USDA approved seed mix; much of the recent seeded area will be disturbed by clearing and grubbing and earthwork activity under Contract No. 02-4F6404. There are two culvert pipes crossing Route 96 near to and at either end of the project; Klamath River receives runoff from the site via Crawford Creek, which crosses through a culvert pipe east-northeast of the project, and a roadside conveyance, which drains through a culvert pipe, crossing Route 96, southerly of the project.

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:

- Stockpiles of soil at the project site or contractor support facility for the work on the contract
- Inactive disturbed soil areas (inactive for more than 14 days)
- Inactive disturbed soil areas prior to forecasted rain events
- Inactive disturbed soil areas during extended rain events
- Project site disturbed soil areas at the conclusion of earthwork activities

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 within 72 hours of identification, and completed as soon as possible. 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.

- Job site management as required by the Special Provisions
- Preserve existing vegetation beyond clearing limits and within work area as practicable to completion of work
- Develop and implement an appropriate schedule, revise as necessary to ensure optimum effectiveness
- Install and maintain run-on controls as appropriate
- Sweep and or vacuum roadways affected by work at the end of each workday, prior to forecasted rain events, and or as needed to prevent tracking of sediment off site
- Ensure all soil hauling activities from the site adhere to California Vehicle Code and Air Quality Management District applicable requirements

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

Construction General Permit Attachment D, Paragraph F requires effective management of storm water run on to a project site. Run-on must be diverted around and away from disturbed areas or it shall be collectively in compliance with the effluent requirements for discharges of storm water from the project site. Temporary run-on control BMPs included in, and selected for use during the execution of work on, Contract No. 02-4F6404 are identified in the following table and subsequent narrative descriptions. Approximate locations of run-on control BMPs are depicted in the Water Pollution Control Drawing in Attachment BB.

TABLE 500.3.1 TEMPORARY RUN-ON CONTROL BMPs						
CONSTRUCTION BMP ID NO.⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SS-1	Scheduling		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SS-2	Preservation of Property/ Preservation of		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

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

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

Run-on control BMPs (gravel bag berms, fiber rolls, etc.) will be deployed and grading activities will be conducted in a manner that will facilitate diversion of run-on flows around or through the project areas, into stable vegetated area, or to be conveyed through additional BMPs, such as drainage swales, gravel bag check dams and fiber rolls. The diversion of storm water run-on and conveyance of concentrated flows must be considered in determining the appropriateness of the BMPs chosen. BMPs to divert or manage concentrated flows in a non-erodible fashion may be required on a project-by-

project basis to divert off-site drainage through or around the construction site or to properly manage construction site storm water runoff. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for installation, inspection, maintenance, and removal requirements as applicable.

- **SS-1 Scheduling** - construction scheduling shall consider the amount and duration of soil exposed to erosion by wind, rainfall, run-on, runoff, and vehicle tracking and seek to minimize disturbed soil area during rain events. A schedule shall be prepared that shows the sequencing of construction activities with the installation and maintenance of temporary run-on control BMPs, soil stabilization and sediment control BMPs. The schedule shall include detail on implementation and deployment of run-on control BMPs, temporary soil stabilization BMPs, temporary sediment control BMPs, tracking control BMPs, wind erosion control BMPs, non-stormwater BMPs, and waste management BMPs. Contractor to prepare and submit a schedule which conforms to the requirements of the Standard Specifications, the Special Provisions for Contract No. 02-4F6404, and Section 500.7 of this CSWPPP.
- **SS-2 Preservation of Property/Preservation of Existing Vegetation** - preserving existing vegetation to the maximum extent possible and for as long as possible on a construction site reduces or eliminates erosion in those areas. To facilitate this practice, adhere to the schedule and ensure all personnel on the project site are informed of the clearing limits for the work; appropriate training shall be provided and visible demarcations installed as appropriate prior to commencement of clearing and grubbing operations or other soil-disturbing activities.
- **SS-9 Earth Dikes/Drainage Swales and Lined Ditches** - structures that intercept, divert and convey surface run-on, generally sheet flow, to prevent erosion. Earth dikes/drainage swales and lined ditches may be used to: convey surface runoff down sloping land, intercept and divert runoff to avoid sheet flow over sloped surfaces, divert and direct runoff towards a stabilized watercourse, drainage pipe, or channel, intercept runoff from paved surfaces. Earth dikes/drainage swales and lined ditches also may be used: below steep grades where runoff begins to concentrate, along roadways and facility improvements subject to flood drainage, at the top of slopes to divert run-on from adjacent or undisturbed slopes, bottom and mid-slope locations to intercept sheet flow and convey concentrated flows. This type of BMP will primarily be implemented by diverting flows through the existing roadside conveyance and possibly along the in sloped portions of the existing benches in the work area. Additional locations upgradient of the work area and to convey runoff and or run-on into temporary down drains may be implemented as approved by the Resident Engineer.
- **SC-4 Temporary Check Dam** - check dams reduce scour and channel erosion by reducing flow velocity and encouraging sediment settlement. A check dam is a small device constructed of rock, gravel bags, fiber rolls, or other proprietary product placed across a natural or man-made channel, drainage ditch, or along diversion BMPs where flows will concentrate. Check dams will primarily be implemented along the existing roadside conveyance and along the in sloped portions of the existing benches in the work area. Additional locations upgradient of the work area where runoff and or run on is conveyed into temporary down drains may be required to reduce flow velocities prior to entering down drains.
- **SC-5 Temporary Fiber Roll** - typically installed as a linear sediment barrier, fiber rolls can also be an effective means of run-on control to reduce velocity release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations. Use of fiber rolls for diversion should be limited only to areas where installation of a more effective run-on control BMP such as a gravel bag berm is not feasible. Fiber rolls will primarily be used as perimeter sediment controls and along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow or below the toe of exposed and erodible slopes. Fiber rolls may be used as check dams in unlined ditches if approved by the Resident Engineer and installed in accordance with SC-4 Temporary Check Dam.
- **SC-6 Gravel Bag Berm** - a single row of gravel bags that are installed end to end to form a barrier across a slope to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide some sediment

removal. Gravel bags can be used where flows are moderately concentrated, such as ditches, swales, and storm drain inlets to divert and/or detain flows. Primary use of gravel bag berms will include diversion of run-on to the project site and or diversion of runoff from the slope and or road surface into the roadside conveyance or into other BMPs to prevent or minimize sediment laden discharges from the site.

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.

- Scheduling
- Preservation of Property/Preservation of Existing Vegetation
- Temporary Cover
- Earth Dikes/Drainage Swales and Lined Ditches

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 ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SS-1	Scheduling	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SS-2	Preservation of Property/ Preservation of Existing Vegetation	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SS-3	Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Bonded fiber matrix included in contract will be applied as permanent erosion control, with USDA approved seed mix
	Temporary Hydraulic Mulch (Polymer Stabilized Fiber Matrix)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract

TABLE 500.3.2 TEMPORARY EROSION CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SS-4	Temporary Erosion Control (With Temporary Seeding)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-5	Temporary Soil Stabilizer		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-6	Temporary Erosion Control (Straw Mulch with Stabilizing Emulsion)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-7	Temporary Erosion Control Blanket (On Slope)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
	Temporary Erosion Control Blanket (In swale or ditch)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-7	Temporary Cover (Geotextiles and Mats)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SS-8	Temporary Mulch (Wood)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-9	Earth Dikes / Drainage Swales & Lined Swales		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SS-10	Outlet Protection/ Velocity Dissipation Devices		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-11	Slope Drains		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-12	Streambank Stabilization		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SS-13	Polyacrylamide		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
ALTERNATIVE SEDIMENT CONTROL BMPs USED ⁽³⁾						IF USED, STATE REASON
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						

TABLE 500.3.2 TEMPORARY EROSION CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME					
SS-3	Bonded Fiber Matrix w/ USDA approved Seed Mix					Applied to disturbed soil areas at the conclusion of earthmoving activity for permanent erosion control and revegetation of slopes

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-1 Scheduling** - construction scheduling shall consider the amount and duration of soil exposed to erosion by wind, rainfall, run-on, runoff, and vehicle tracking and seek to minimize disturbed soil area during rain events. A schedule shall be prepared that shows the sequencing of construction activities with the installation and maintenance of temporary run-on control BMPs, soil stabilization and sediment control BMPs. The schedule shall include detail on implementation and deployment of run-on control BMPs, temporary soil stabilization BMPs, temporary sediment control BMPs, tracking control BMPs, wind erosion control BMPs, non-stormwater BMPs, and waste management BMPs. Contractor to prepare and submit a schedule which conforms to the requirements of the Standard Specifications, the Special Provisions for Contract No. 02-4F6404, and Section 500.7 of this CSWPPP.
- **SS-2 Preservation of Property/Preservation of Existing Vegetation** - preserving existing vegetation to the maximum extent possible and for as long as possible on a construction site reduces or eliminates erosion in those areas. To facilitate this practice, adhere to the schedule and ensure all personnel on the project site are informed of the clearing limits for the work; appropriate training shall be provided and visible demarcations installed as appropriate prior to commencement of clearing and grubbing operations or other soil-disturbing activities.
- **SS-7 Geotextiles and Mats** - used to stabilize and protect stockpiles or exposed disturbed soil during a sudden rain event. On slopes and in channels, installation should be in accordance with the manufacturer's recommendations. The contractor should install matting material in such a manner that continuous contact between the material and the soil occurs. The use of plastic should be limited to covering stockpiles or very small graded areas for short periods of time (such as through one imminent storm event) until alternative measures may be installed or earthwork activity resumes.

- SS-9 Earth Dikes/Drainage Swales and Lined Ditches - structures that intercept, divert and convey surface runoff, generally sheet flow, to prevent erosion. Earth dikes/drainage swales and lined ditches may be used to: convey surface runoff down sloping land, intercept and divert runoff to avoid sheet flow over sloped surfaces, divert and direct runoff towards a stabilized watercourse, drainage pipe, or channel, intercept runoff from paved surfaces. Earth dikes/drainage swales and lined ditches also may be used: below steep grades where runoff begins to concentrate, along roadways and facility improvements subject to flood drainage, at the top of slopes to divert run-on from adjacent or undisturbed slopes, bottom and mid-slope locations to intercept sheet flow and convey concentrated flows. This type of BMP will primarily be implemented by diverting flows through the existing roadside conveyance and possibly along the in sloped portions of the existing benches in the work area. Additional locations upgradient of the work area and to convey runoff and or run-on into temporary down drains may be implemented as approved by the Resident Engineer.

Temporary erosion control BMPs shall be deployed and grading activities will be conducted in a manner that will minimize or prevent erosion. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for installation, inspection, maintenance, and removal requirements as applicable.

500.3.3 Sediment Control

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

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

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

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.

CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SC-2	Temporary Sediment Basin		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SC-4	Temporary Check Dam		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

TABLE 500.3.3 TEMPORARY SEDIMENT CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SC-5	Temporary Fiber Rolls		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SC-6	Temporary Gravel Bag Berm		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SC-7	Street Sweeping	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SC-8	Temporary Sandbag Barrier		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SC-9	Temporary Straw Bale Barrier		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
SC-10	Temporary Drain Inlet Protection	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SC-11	Temporary Chemical Treatment		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
ALTERNATIVE SEDIMENT CONTROL BMPs USED ⁽³⁾						IF USED, STATE REASON
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 - check dams reduce scour and channel erosion by reducing flow velocity and encouraging sediment settlement. A check dam is a small device constructed of rock, gravel bags, fiber rolls, or other proprietary product placed across a natural or man-made channel, drainage ditch, or along diversion BMPs where flows will concentrate. Check dams will primarily be implemented along the existing roadside conveyance and along the in sloped portions of the existing benches in the work area. Additional locations upgradient of the work area where runoff and or run on is conveyed into temporary down drains may be required to reduce flow velocities prior to entering down drains.

SC-5 Temporary Fiber Roll - typically installed as a linear sediment barrier, fiber rolls can also be an effective means of

run-on control to reduce velocity release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations. Use of fiber rolls for diversion should be limited only to areas where installation of a more effective run-on control BMP such as a gravel bag berm is not feasible. Fiber rolls will primarily be used as perimeter sediment controls and along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow or below the toe of exposed and erodible slopes. Fiber rolls may be used as check dams in unlined ditches if approved by the Resident Engineer and installed in accordance with SC-4 Temporary Check Dam.

SC-6 Gravel Bag Berm - a single row of gravel bags that are installed end to end to form a barrier across a slope to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide some sediment removal. Gravel bags can be used where flows are moderately concentrated, such as ditches, swales, and storm drain inlets to divert and/or detain flows. Primary use of gravel bag berms will include diversion of run-on to the project site and or diversion of runoff from the slope and or road surface into the roadside conveyance or into other BMPs to prevent or minimize sediment laden discharges from the site.

SC-7 Street Sweeping - includes practices to remove tracked sediment to prevent the sediment from entering a storm drain or watercourse. These practices are implemented anywhere sediment is tracked from the project site onto public or private paved roads, typically at points of ingress/egress. Given the nature of the work and limited space available, excavated soils will be on the paved road surface daily and throughout contractor operations on the project. As such, sweeping and or vacuuming of roadways affected by work shall be completed at the end of each workday, prior to forecasted rain events, and or as needed to prevent tracking of sediment off site. Sweeping and vacuuming may not be effective when soil is wet or muddy; Contractor shall ensure activities are conducted in a manner which prevents or minimizes the deposition of wet or muddy soils on paved surfaces. Washing-down of paved surfaces shall only be permitted after the surface has been thoroughly swept and or vacuumed.

SC-10 Temporary Drain Inlet Protection - devices used at storm drain inlets that are subject to runoff from construction activities to detain and/or to filter sediment-laden runoff to allow sediment to settle and/or to filter sediment prior to discharge into storm drainage systems or watercourses. Requires an adequate area for water to pond without encroaching upon traveled way and should not present itself to be an obstacle to oncoming traffic or be used where ponding will encroach into highway traffic. There are two culvert pipe crossings adjacent to the project and potentially impacted by project activities. Crawford Creek, northerly of and adjacent to the project, crosses Route 96 through a culvert pipe east-northeast of the project, and the roadside conveyance, which drains through a culvert pipe, crossing Route 96, southerly of the project. Crawford Creek is a live stream and no inlet protections or other BMPs shall be implemented within a live stream; the inlet to the culvert pipe draining the roadside conveyance shall be protected by an appropriate BMP or combination of BMPs.

Temporary erosion control BMPs shall be deployed and project activities will be conducted in a manner that will minimize or prevent sediment transport. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for installation, inspection, maintenance, and removal requirements as applicable.

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 MINIMUM 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 type="checkbox"/>	
TC-1	Temporary Construction Entrance		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
TC-2	Stabilized Construction Roadway		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Note required for contract
TC-3	Temporary Entrance / Outlet Tire Wash		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
ALTERNATIVE SEDIMENT CONTROL BMPs USED ⁽³⁾						IF USED, STATE REASON
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 - includes practices to remove tracked sediment to prevent the sediment from entering a storm drain or watercourse. These practices are implemented anywhere sediment is tracked from the project site onto public or private paved roads, typically at points of ingress/egress. Given the nature of the work and limited space available, excavated soils will be on the paved road surface daily and throughout contractor operations on the project. As such, sweeping and or vacuuming of roadways affected by work shall be completed at the end of each workday, prior to forecasted rain events, and or as needed to prevent tracking of sediment off site. Sweeping and vacuuming may not be effective when soil is wet or muddy; Contractor shall ensure activities are conducted in a manner which prevents or minimizes the deposition of wet or muddy soils on paved surfaces. Washing-down of paved surfaces shall only be permitted after the surface has been thoroughly swept and or vacuumed.

Tracking control BMPs shall be implemented and project activities will be conducted in a manner that will minimize or prevent sediment transport. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for implementation, inspection, maintenance, and other requirements as applicable.

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 MINIMUM 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TC-1	Temporary Construction Entrance		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
TC-2	Stabilized Construction Roadway		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
----	All Soil Stabilization Measures included in Section 500.3.2		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ALTERNATIVE SEDIMENT CONTROL BMPs USED⁽³⁾ <input type="checkbox"/> Yes <input type="checkbox"/> No						IF USED, STATE REASON

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 - consists of applying water and/or other dust palliatives as necessary to prevent or alleviate erosion by the forces of wind. Dust control shall be applied in accordance with Caltrans standard practices. Covering of small stockpiles or areas is an alternative to applying water or other dust palliatives. This practice is implemented on all exposed soils subject to wind erosion. Effectiveness depends on soil, temperature, humidity and wind velocity. Water shall be applied by means of pressure-type distributors, i.e. water trucks, portable water tanks, or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution without generating excessively wet conditions. All distribution equipment shall be maintained in good working order and equipped with a positive means of shutoff.

BMPs shall be implemented and project activities will be conducted in a manner that will minimize or prevent erosion and sediment transport. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for implementation, inspection, maintenance, and other requirements as applicable.

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 MINIMUM 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NS-2	Dewatering ⁽³⁾		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-3	Paving, Sealing, Sawcutting, and Grinding Operations		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-4	Temporary Stream Crossing ⁽³⁾		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-5	Clear Water Diversion ⁽³⁾		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-6	Illegal Connection and Illegal Discharge Detection	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

TABLE 500.4.1 TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
	Reporting					
NS-7	Potable Water / Irrigation		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-8	Vehicle and Equipment Cleaning	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NS-9	Vehicle and Equipment Fueling	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NS-10	Vehicle and Equipment Maintenance	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NS-11	Pipe Driving Operations		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-12	Concrete Curing		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-13	Material and Equipment Used Over Water		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-14	Concrete Finishing		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
NS-15	Structure Demolition / Removal Over or Adjacent to Water		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
ALTERNATIVE SEDIMENT CONTROL BMPs USED⁽⁴⁾						IF USED, STATE REASON
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
CONSTRUCTION BMP ID NO⁽¹⁾	BMP NAME					

TABLE 500.4.1 TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	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 Conservation Practices - water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and/or the transport of pollutants off site. Keep watering equipment in good working condition, stabilize the water truck filling area, and repair water leaks promptly.

NS-6 Illicit Discharge/ Illegal Dumping - designed to provide the contractor with the proper procedures in both detecting and reporting any illicit discharges. The Contractor shall inspect the construction site and the site perimeter before beginning work for evidence of illegal connections, discharges, or dumping. Subsequently, the construction site and perimeter shall be inspected on a frequent, predetermined schedule.

NS-8 Vehicle and Equipment Cleaning - Contractor shall limit vehicle and equipment cleaning or washing on the construction site to that necessary to control vehicle tracking or hazardous waste. Vehicles and equipment shall not be cleaned on the construction site with soap, solvents, or steam until the Engineer has been notified. The resulting waste shall be contained and recycled, or disposed of as provided in "Liquid Waste" or "Hazardous Waste" of these special provisions, whichever is applicable. The Contractor shall not use diesel or other solvents to clean vehicles or equipment. The Contractor shall clean or wash vehicles prior to mobilization to the site as needed. If washing onsite cannot be avoided, vehicles and equipment shall be cleaned or washed in area with the following characteristics: kick brooms or sweeper attachments shall not be used, located at least 50 feet from storm drainage systems or watercourses, paved with asphalt concrete or Portland cement concrete, surrounded by a containment berm, and equipped with a sump to collect and dispose of wash water. When washing vehicles or equipment with water, the Contractor shall use as little water as possible. Hoses shall be equipped with a positive shutoff valve. No wash rack will be allowed onsite.

NS-9 Vehicle and Equipment Fueling: Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Absorbent spill cleanup materials and spill kits must be available and clearly identifiable in fueling areas and on fueling trucks; used cleanup materials shall be disposed of properly after use. Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area. Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly. Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and large excavators, most vehicles should reasonably be able to travel to a designated area with little lost time. Dedicated fueling areas shall be protected from stormwater run-on and runoff, and must be located at least 50 ft. away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas. Protect fueling areas with berms and dikes to prevent run-on, runoff, and to contain spills. Nozzles used in vehicle and equipment fueling must be equipped with an automatic shutoff to control drips. Fueling operations shall not be left unattended. Provide secondary containment and covers for fuel containers if stored onsite. Train employees and subcontractors in proper fueling and spill cleanup procedures.

NS-10 Vehicle and Equipment Maintenance - onsite vehicle and equipment maintenance shall only be used for minor repairs and regular maintenance, i.e. lube, flat repair, battery change, etc. and where it is impractical to send vehicles and equipment offsite for maintenance and repair. Vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or adding fluids, and outdoor equipment storage and parking (engine fluid leaks). For further information on vehicle or equipment. Use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater run-on and runoff, and shall be located at least 50 ft. from drainage facilities and watercourses. Drip pans or absorbent pads must be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area that is bermed. Place a stockpile of spill cleanup materials where it will be readily accessible. All fueling and maintenances trucks and fueling areas are required to have clearly identifiable and easily accessible spill kits and/or use other spill protection devices. Use adsorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly. Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately. Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease. Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite. Train employees and subcontractors in proper maintenance and spill cleanup procedures.

BMPs shall be implemented and project activities will be conducted in a manner that will minimize or prevent non-stormwater discharges and or prevent stormwater runoff from contacting pollutants other than sediment. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for implementation, inspection, maintenance, and other requirements as applicable.

500.4.2 Waste Management and Materials Pollution Control

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

TABLE 500.4.2 TEMPORARY WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WM-2	Material Use	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WM-3	Stockpile Management	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WM-4	Spill Prevention and Control	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WM-5	Solid Waste Management	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WM-6	Hazardous		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

TABLE 500.4.2 TEMPORARY WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME	CONTRACT MINIMUM REQUIRE- MENT ⁽²⁾	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
	Waste Management ⁽³⁾					
WM-7	Contaminated Soil Management ⁽³⁾		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WM-8	Concrete Waste Management		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
	Temporary Concrete Washout Facility		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
	Temporary Concrete Washout (Portable)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not required for contract
WM-9	Sanitary/Septic Waste Management	√	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
WM-10	Liquid Waste Management		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ALTERNATIVE SEDIMENT CONTROL BMPs USED⁽⁴⁾						IF USED, STATE REASON
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
CONSTRUCTION BMP ID NO ⁽¹⁾	BMP NAME					

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 & Storage - minimize or prevent non-stormwater discharges and pollutant contact with stormwater runoff. Materials shall be delivered and used for this contract in a manner that minimizes or eliminates discharge of material into the air, storm drain systems, or watercourses. These procedures are suitable for use at all construction sites with delivery and storage of the following materials: soil stabilizers and binders, pesticides and herbicides, fertilizers, detergents, plaster, petroleum products such as fuel, oil, and grease, asphalt and concrete components, hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds, concrete compounds, other materials that may be detrimental if released to the environment. Temporary storage area should be

located away from vehicular traffic. Material Safety Data Sheets (MSDS) shall be supplied for all materials stored. Construction site material delivery and storage areas must be located near the construction entrances, away from waterways, if possible. Avoid transport near drainage paths or waterways. Surround storage areas linear barriers and maintain an ample and clearly identifiable supply of spill cleanup materials at material staging areas. Storage of reactive, ignitable, or flammable liquids must comply with the fire codes and other applicable regulations. Hazardous materials storage onsite should be minimized. Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and, when possible, in secondary containment. If drums must be kept uncovered, store them at a slight angle to reduce ponding of rainwater on the lids to reduce corrosion or install domed plastic covers. Chemicals must be kept in their original labeled containers. Employees and subcontractors must be trained on the proper material delivery and storage practices. Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded. If significant residual materials remain on the ground after construction is complete, properly remove materials and any contaminated soil. See WM-7, Contaminated Soil Management.

WM-2 Material Use - implemented to prevent materials being used from polluting a storm drain system or water way. All materials will be used according to the manufacturer's instructions. Minimize use of hazardous materials onsite. Follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals. Train all personnel in proper material use procedures. Do not over-apply fertilizers, herbicides, and pesticides. Prepare only the amount needed, follow the recommended usage instructions, and do not apply these chemicals within 24-hours prior to a rain event. Supply Material Safety Data Sheets (MSDS) for all materials. Use the entire product before disposing of the container.

WM-3 Stockpile Management - locate stockpiles a minimum of 50 ft. away from concentrated flows of stormwater, drainage courses, and inlets. Protect all stockpiles from stormwater run-on using a temporary perimeter sediment barrier; for inactive stockpiles and prior to precipitation, cover and surround with a properly installed linear sediment barrier. Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control. Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management. Place bagged materials on pallets and under cover. Stockpiles of "cold mix" must be placed on and covered with plastic or comparable material.

WM-4 Spill Prevention and Control - to be implemented anytime chemicals or hazardous substances are used or stored on the construction site. Use to prevent any material spills from entering a drainage system or water course. Be aware that different materials pollute in different amounts. Make sure that each employee can identify what a "significant spill" is for each material they use, and the appropriate response for "significant" and "insignificant" spills. Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks. To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110, 117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately. Store hazardous materials and wastes in covered containers and protect from vandalism. Place a stockpile of spill cleanup materials where it will be readily accessible and identifiable. Train employees in spill prevention and cleanup. Designate responsible individuals to oversee and enforce control measures. Spills should be covered and protected from stormwater run-on during rainfall to the extent that it doesn't compromise cleanup activities. Do not bury or wash spills with water. Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs. Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management. Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location. Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function. Clean up leaks and spills immediately. Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste. Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information. For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:

- Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the Resident Engineer and appropriate other officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110, 119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report. The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc.

WM-6 Hazardous Waste Management - included as a precaution; hazardous waste must be stored in sealed containers constructed of a suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179. All hazardous waste must be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263. Waste containers must be removed from the site promptly; liquid waste containers must be stored in appropriate, covered secondary containment facilities. Containers of dry waste must be stored on pallets and covered. Containers must not be overfilled and wastes cannot be mixed.

WM-7 Contaminated Soil Management - included as a precautionary measure to minimize or eliminate discharges of pollutants to the drainage system or to watercourses from contaminated soil. The procedures and practices presented herein are general. Contaminated soils that cannot be treated onsite must be disposed of offsite by a licensed hazardous waste hauler. The contractor shall identify appropriate practices and procedures for the specific contaminants encountered or discovered on site, or in the event that the lead in soil or naturally occurring asbestos proves to be of concentrations above allowable limits identified in the contract or appropriate regulation.

WM-9 Sanitary/Septic Waste Management - procedures and practices to minimize or eliminate the discharge of construction site sanitary/septic waste materials to the storm drain system or to watercourses. Temporary sanitary facilities shall be located away from drainage facilities, watercourses, and from traffic circulation. Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning. Wastewater must not be discharged or buried within the project site. Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, shall comply with the local health agency, city, county, and sewer district requirements. Only reputable, licensed sanitary and septic waste haulers should be used. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system, drainage courses or surface waters.

WM-10 Liquid Waste Management - included as a precautionary measure; procedures and practices to prevent discharge of pollutants to the storm drain system, watercourses and minimize or prevent contact of pollutants with stormwater runoff as a result of the creation, collection, and disposal of liquid wastes. Contractor's Water Pollution Control Manager (WPCM) shall oversee and enforce proper liquid waste management procedures and practices. Store the following liquid wastes (until proper transport and disposal) in properly marked watertight containers (with appropriate secondary containment) to prevent any spillage or leakage) or in a completely enclosed storage shed:

- Slurries and drilling fluids
- Grease-free and oil-free wastewater and rinse water

- Other non-stormwater liquid discharges not permitted by separate permits. Instruct employees and subcontractors how to safely differentiate between non-hazardous liquid waste and potential or known hazardous liquid waste.
- Instruct employees, subcontractors, and suppliers that it is unacceptable for any liquid waste to enter any storm drainage device, waterway, or receiving water.
- Educate employees and subcontractors on liquid waste generating activities and liquid waste storage and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Verify which non-stormwater discharges are permitted by the statewide NPDES permit; different regions might have different requirements not outlined in this permit.
- Apply NS-8, Vehicle and Equipment Cleaning for managing wash water and rinse water from vehicle and equipment cleaning operations.
- Containment devices must be structurally sound and leak free.
- Containment devices must be of sufficient quantity or volume to completely contain the liquid wastes generated.

BMPs shall be implemented and project activities will be conducted in a manner that will minimize or prevent non-stormwater discharges and or prevent stormwater runoff from contacting pollutants other than sediment. All BMPs (and any others as described in an amendment to this CSWPPP) identified for use and implemented shall conform to the requirements of the Standard Plans and Specifications, Contract Special Provisions, and the Construction Site BMP Manual for implementation, inspection, maintenance, and other requirements as applicable.

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-off 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 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 72 hours of identification (the contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews)
- 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
- preparing and implementing qualifying rain event sampling and analysis plans
- 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
- 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 Site Inspection Report 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 Site Inspection Report 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 State Route 96 in Siskiyou County.

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 on CEM-2040 Weather Forecast Monitoring Form, in Appendix J. The completed CEM-2040 Weather Forecast Monitoring forms shall be filed in File Category 20.40: Weather Monitoring Logs. Within 2 working days of the last date shown on a completed Weather Forecast Monitoring Log form, a copy of the completed log will be submitted to the RE.

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.

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 on the CEM-2041 Weather Monitoring Log form.

When there is precipitation, the WPC Manager shall ensure that storm precipitation data is obtained from the project site rain gauge. Precipitation monitoring will be performed at least every two hours during normal working hours and 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 implement a Qualifying Rain Event Sampling and Analysis Plan as soon as possible.

Weather monitoring will be documented daily on the CEM-2041 Weather Monitoring Log form, available in Appendix K. Completed weather monitoring log forms shall be kept in File Category 20.40: Weather Monitoring Logs. Within 2 working days of the last date shown on a completed weather monitoring log, a copy of the completed log will be submitted to the RE.

600.5 Best Management Practices Status Report

The WPC Manager shall prepare a weekly status report of the water pollution control BMPs (site BMPs) installed on the project site and BMPs that will be deployed during the following week. The weekly 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 weekly BMP status report should be a “snapshot” of which BMPs are deployed on the project site and which BMPs will be deployed the following week, so a project inspector or reviewer can easily determine what could be expected to be seen on the project site that week. The weekly 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 weekly status of stormwater BMPs will be documented on CEM-2034 Stormwater Best Management Practices Status Report form, in Appendix H. Completed weekly 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: Best Management Practices Weekly Status Reports.

600.6 Rain Event Action Plans

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 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 chronological 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 NELs 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

2 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 1.3.e of Attachments C, D, and E of the CGP. Drainage area(s) are shown on the WPCDs in Attachment BB and are listed by drainage area location number and location description in Table 700.1.1.1: Drainage Areas.

TABLE 700.1.1.1 DRAINAGE AREAS	
Drainage Area No.	Location
1	Location of work on contract at slide removal location; Siskiyou County, Route 96 post mile 27.7
2	Bunker Hill disposal site

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
N/A	N/A

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

3 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
DL1	Approximate station 9+50 Rt, at outfall of culvert pipe crossing Route 96, above Klamath River
RW1	Approximate station 18+10 Lt, where site may discharge to Crawford Creek
DL2	Potential discharge location at Bunker Hill disposal site, if applicable

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.

2 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 project site for discharges and report any discharges to the WPC Manager.

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: () ___ - ___
- Alternate inspector: To be determined Contact phone: () ___ - ___

Daily Visual Monitoring of the Site

On a daily basis, the contractor personnel on the site shall be observant of any discharges or evidence of a prior discharge. 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 M.

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 Office of Emergency Services (OES) 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 followup 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.

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 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 within 72 hours of identification and completed as soon as possible. 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, implemented within 72 hours of identification and completed as soon as possible. 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 within 72 hours of identification and completed as soon as possible. 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 Site Inspection Report 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 of changes will begin within 72 hours of identification of the deficiency and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended, including the WCBMPL and WPCDs. If NALs are exceeded, corrective actions shall be approved by the WPC Manager and implemented immediately.

Deficiencies identified on site inspection reports, as well as corrections of deficiencies, will be tracked on the CEM-2035 Stormwater Site Inspection Report 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 Site Inspection Report 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 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 inspection report and shall be kept in the SWPPP Category 20.33.

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 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 M. 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.

Sampling and analysis for Risk Level 1 projects will be documented on the CEM-2048 Storm Event Sampling and Analysis Plan, available in Appendix N. For Risk Level 2 and Risk Level 3 projects, sampling and analysis will be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan, available in Appendix O.

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 program, the following monitoring preparation activities are required:

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

700.2.1.2.1 Qualified Sampling Personnel

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

Samples on the project site will be collected by the contractor sampling personnel:

Samples on the project site will be collected by the following To be determined:

Company Name:	To be determined
Address:	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**

- 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:

- As described in pending amendment to this CSWPPP

The primary stormwater sampler has the following stormwater sampling experience:

- As described in pending amendment to this CSWPPP

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

- As described in pending amendment to this CSWPPP

The alternate stormwater sampler has the following stormwater sampling experience:

- As described in pending amendment to this CSWPPP

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

Safety practices for sample collection will be in accordance with the Standard Operating Procedures for Manual Field Measurement of Turbidity, pH, Dissolved Oxygen, and Conductivity, January, 2012 and Contractor's Injury and Illness Prevention Plan and or Standard Operating Procedures Plan as described in pending amendment to this CSWPPP.

700.2.1.2.2 Monitoring Supplies

An adequate stock of monitoring supplies and equipment for sampling will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will prevent the supplies/equipment from coming into contact with rain or direct sunlight. Supplies maintained at the project site will include, but are not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and the CEM-2050 Sample Information, Identification, and Chain-of-Custody Record forms.

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

To be determined will provide monitoring supplies and equipment, including, but not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and CEM-2050 Sample Information, Identification, and Chain-of-Custody Record forms.

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

700.2.1.2.3 Field Instruments

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

TABLE 700.2.1.2.3 FIELD INSTRUMENTS	
Field Instrument	Constituent
To be determined	pH
To be determined	Turbidity

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 manufacture’s instructions shall be attached to the SOP so that they are readily available.

Instrument maintenance shall be documented on the CEM-2055 Stormwater Equipment Maintenance Log, in Appendix P. Instrument calibration shall be documented using the following forms:

- CEM-2056 - Stormwater Turbidity Meter Calibration Record (Appendix Q)
- CEM-2057 - Stormwater pH Meter Calibration Record (Appendix R)
- CEM-2058 - Stormwater Meter Calibration Record (Appendix S)

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**

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

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

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

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

700.2.1.3.3 Identification of Actual Sampling Locations

For each forecasted storm event, actual sampling locations will be determined by the WPC Manager based on the strategy described in each specific SAP. Sampling and analysis locations for Risk Level 1 projects will be documented on the CEM-2048 Storm Event Sampling and Analysis Plan, in Appendix N. For Risk Level 2 and Risk Level 3 projects, sampling and analysis locations will be documented on CEM-2048 Storm Event Sampling and Analysis Plan, in Appendix N, or CEM-2049 Qualifying Rain Event Sampling and Analysis Plan, in Appendix O, based on the forecasted storm event.

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 shall be collected using the collection procedures 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 Stormwater Sampling Information, Identification, and Chain-of-Custody Record form,

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 CEM-2050 Stormwater Sample Information, Identification and Chain-of-Custody Record form, and the CEM-2051 Stormwater Sampling and Testing Activity Log, 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 forms, used for sample documentation, are provided in the SWPPP appendices:

- CEM-2050 Stormwater Sampling Information, Identification, and Chain-of-Custody Record, in Appendix T
- CEM-2051 Stormwater Sampling and Testing Activity Log, in Appendix U

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 shall be identified in the CEM-2051 Stormwater Sampling and Testing Activity Log.

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

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

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 CEM-2059 Sample Information, Identification and Chain-of-Custody Record form. The samplers will sign the Sample Information, Identification and Chain-of-Custody Record form 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, or the CEM-2054 Stormwater Sample Laboratory Test Report form, and entered on the CEM-2051 Stormwater Sampling and Testing Activity Log. 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 CEM-2050 Sample Information, Identification and Chain-of-Custody Record form and CEM-2052 Stormwater Sample Field Test Report form. Appendix V contains the CEM-2052 Stormwater Sample Field Test Report form, which must accompany the Sample Information, CEM-2050 Identification and Chain-of-Custody Record form from Appendix T. The test results shall be recorded on the CEM-2051 Stormwater Sampling and Testing Activity Log, in Appendix U.

For laboratory testing, all laboratory analysis results shall be reported on CEM-2054 Stormwater Sample Laboratory Test Result form, in Appendix W. If the CEM-2054 Stormwater Sample Laboratory Test Report form is not completed by the testing laboratory, then the laboratory report used to complete the CEM-2054 Stormwater Sample Laboratory Test Report form shall be attached to the completed CEM-2054 Stormwater Sample Laboratory Test Report form. For each test report, the CEM-2054 Stormwater Sample Laboratory Test Report and CEM-2050 Sample Information, Identification and Chain-of-Custody Record form shall be reviewed for consistency among laboratory methods, sample identifications, dates, and times for both primary samples and QA/QC samples. The test results shall be recorded on the CEM-2051 Stormwater Sampling and Testing Activity Log form.

All sampling and testing documentation, including CEM-2050 Sample Information, Identification, and Chain-of-Custody Record forms, CEM-2051 Stormwater Sampling and Testing Activity Logs, CEM-2052 Stormwater Sample Field Test Reports, and CEM-2054 Stormwater Sample 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 Site Inspection Report 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 Stormwater Sampling and Testing Log 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 *the Engineer* 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*. This SAP for monitoring non-visible pollutants includes all of the components listed in Section 700.2.1.

700.2.2.1 Scope of Monitoring Activities

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

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

- Vehicle and equipment cleaning,
- Vehicle and equipment fueling,
- Vehicle and equipment maintenance,
- Vehicle and equipment batteries,
- Hazardous waste management,
- Solid waste management,
- Liquid waste management, and
- Sanitary-septic waste management.
- Hydroseeding fertilizers, tackifiers, polymers and copolymers

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

- Lead in soil and naturally occurring asbestos if discovered to be above thresholds identified in initial site assessment and contract Special Provisions

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.

- Hydroseeding fertilizers, tackifiers, polymers and copolymers

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 and 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 contain 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**

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

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

TABLE 700.2.2.3.2.2 POTENTIAL UNCONTAMINATED NON-VISIBLE POLLUTANT SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description
UNVP1	Crawford Creek, upstream of all potential point sources from site activity
UNVP2	Bunker Hill disposal site upgradient of all stockpile activity

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 working hours.

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 POLLUTANTS						
Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
pH	EPA 150.1	100 ml	Polypropylene	None	Unitless	Immediate
Bacteria (Total Coliform)	SM 9221B, SM 9222B (25-tube dilution)	2x100 ml or volume sufficient for both fecal and total coliform analyses	Polypropylene, glass	Cool to 4°C, dark	2 MPN/100 ml	6 hours at 4°C, dark if data for regulatory purposes; otherwise, 24 hrs. at 4C, dark if nonregulatory purpose.
Metals	EPA 200.8 (Metal)	60 ml (one bottle) if salinity <0.5 ppt 180 ml (three bottles) if salinity >0.5 ppt	60 ml polyethylene bottle, precleaned in lab using HNO3	Filter at sample site using 0.45 micron in-line filter, or syringe filter. Cool to 4°C, dark. Acidify in lab, within 48 hrs., using pre-acidified container (ultrapure HNO3) for pH<2.	0.01 mg/l	Once sample is filtered and acidified, can store up to 6 months at room
Lead	EPA 200.8 (Metal)	250ml	250ml QCP polyethylene	Add HNO3 to pH<2	0.500 ug/l	180 days

**TABLE 700.2.2.5
 SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING NON-VISIBLE POLLUTANTS**

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Sulfuric Acid	EPA 300.0 (Sulfate)	250 ml	250ml polyethylene	refrigerate	1.00 mg/l	28 days
Nitrogen Total Kjeldahl Nitrogen (TKN)	EPA 351.3 (TKN)	600 ml	Polyethylene bottles	Cool to 4°C, dark	0.5 mg/l	Recommend: 7 days Maximum: 28 days Either one at 4°C, dark
Nitrate	EPA 300.0 (Nitrate)	250ml	250ml polyethylene	refrigerate	0.0500 mg/l	48 hrs.
Phosphorous Total phosphate (P)	EPA 365.1-4	300 ml	Polyethylene bottles	Cool to 4°C, dark	0.05 mg/l	Maximum: 28 days
Sulfate	EPA 300.0 (Sulfate)	250 ml	250ml polyethylene	refrigerate	1.00 mg/l	28 days
Semi-volatile Organic Compounds (SVOC)	EPA 625 (SVOC)	1000 ml (one container)	1-L I-Chem 200-series amber glass bottle, with Teflon lid-liner (per each sample type)	Cool to 4°C, dark If chlorine is present, add 0.1g sodium thiosulfate	10 µg/l	Keep at 4°C, dark, up to 7 days. Extraction must be performed within the 7 days; analysis must be conducted within 40 days.

Notes: Insert additional notes here, otherwise delete this line. (use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

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 within 72 hours of identification, completed as soon as possible, and documented on the CEM-2035 Stormwater Site Inspection Report 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*. 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 or non-exempt where runoff is discharged off site, sampling and testing of the discharge must be conducted in compliance with the CGP and Caltrans Permit.

Conditionally exempt non-stormwater discharges include: water line and fire hydrant flushing, irrigation water, landscape irrigation, uncontaminated ground water dewatering, and other discharges not subject to a separate general NPDES permit adopted by a region. Conditionally exempt discharges are not prohibited (i.e., they are authorized) if they are identified as not being sources of pollutants to receiving waters, or if appropriate control measures (BMPs) to minimize the adverse impacts of such sources are developed and implemented.

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.

Non-stormwater from dewatering operations or impounded stormwater may be discharged off site during this project. Stored stormwater is defined as rain collected in trenches, foundation excavations, and excavations for pavement structural sections. Non-stormwater dewatering discharges or discharges of impounded stormwater shall be monitored for turbidity, pH and potential 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*. Sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE:

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

TABLE 700.2.3.3.2.1 POTENTIAL NON-STORMWATER DEWATERING SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description
N/A	N/A

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

TABLE 700.2.3.3.2.2 POTENTIAL IMPOUNDED STORMWATER DISCHARGE SAMPLING LOCATIONS	
Sampling Location Identifier	Location Description
N/A	N/A

700.2.3.3.3 Actual Sampling Locations

Actual sampling locations will be determined by the WPC Manager when dewatering activities are in progress 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 a minimum of three (3) samples per day will be collected for analysis.

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

**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)
pH	Field test with calibrated portable instrument	Store at 4° C (39.2° F)	100 mL	Polypropylene	48 hours	0.2

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

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

700.2.3.6 Quality Assurance/Quality Control

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

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

700.2.3.7 Data Management and Reporting

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

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 and the WPC Manager or other personnel shall evaluate the dewatering BMPs to determine the probable cause for the exceedance.

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 a 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 and NELs.

As determined by the data evaluation and project site assesment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documents on the CEM-2035 Stormwater Site Inspection Report 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*. 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 ½ inch or more of precipitation 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*. 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
DL1	Approximate station 9+50 Rt, at outfall of culvert pipe crossing Route 96, above Klamath River
RW1	Approximate station 18+10 Lt, where site may discharge to Crawford Creek

The project receives run-on with the potential to combine with stormwater discharges at the locations listed in Table 700.2.4.3.2.4 “Run-on Locations With Potential to Combine With Stormwater Discharges.”

TABLE 700.2.4.3.2.4 RUN-ON LOCATIONS WITH POTENTIAL TO COMBINE WITH STORMWATER DISCHARGES	
Sampling Location Identifier	Location
RO1	M1 Line, approximate station

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

TABLE 700.2.4.3.2.5 RECEIVING WATER SAMPLING LOCATIONS	
Sampling Location Identifier	Location

Potential receiving water sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations Attachment EE:

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. Selection of stormwater discharge sampling locations shall be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan, in Appendix O. Completed qualifying rain event SAPs shall be kept in SWPPP File Category 20.46: Storm/Rain Event Sampling and Analysis Plans.

This project receives run-on from surrounding area that may contribute to exceedances of NALs or NELs. Potential sampling locations have been selected from locations where run-on enters the Caltrans right-of-way.

1 potential sampling location(s) have been identified for the collection of samples of run-on with the potential to combine with runoff from the construction site, which discharge either to an MS4 or to a sediment-sensitive water body. Run-on samples taken from these locations will be analyzed to identify potential turbidity and pH that originates off the project site and contributes directly to stormwater discharges from the construction site to the MS4 or sediment-sensitive

water body.

The selection of run-on sampling locations will be made by the WPC Manager. Run-on sampling locations will be selected based on stormwater discharge locations. If there is an NAL or NEL exceedance at a stormwater discharge location, any stormwater run-on location that contributes to the stormwater discharges from the construction site shall be selected for sampling. The selection of stormwater run-on sampling locations shall be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan by the WPC Manager for every forecasted qualifying rain event. Completed CEM-2049 plans shall be kept in SWPPP File Category 20.45: Storm/Rain Event Action and Sampling and Analysis Plans.

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 the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan that includes a list of sampling locations that must be sampled for the qualifying rain event.

The Qualifying Rain Event Sampling and Analysis Plan 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.

For the purposes of the sampling schedule, the sampling locations must be arranged in the following order: starting with the sampling location on the northwest corner of the WPCDs as the first entry, move clockwise on the WPCDs and enter all the sampling location identifiers on the Qualifying Rain Event SAP schedule.

Within 48 to 24 hours prior to a qualifying rain event, the Qualifying Rain Event SAP shall be distributed to the individual collecting stormwater samples, and to the RE.

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 identified on the Qualifying Rain Event SAP 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 on the Qualifying Rain Event SAP 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. The documentation for the sampling exception shall be filed in SWPPP 20.52, Turbidity and pH Sampling and Test Results.

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

**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)
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 = minutes

mL = milliliter

NTU = Nephelometric Turbidity Units

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

Samples collected for field analysis shall meet the requirements of the field instrument manufacturer’s instructions.

Refer to the general information regarding field instruments in General SAP Section 700.2.1.2.3, which includes field instrument calibration and maintenance documentation requirements.

700.2.4.6 Quality Assurance/Quality Control

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

700.2.4.7 Data Management and Reporting

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

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

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

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:

NAL = numeric action level

NTU = Nephelometric Turbidity Units

If an NAL 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 Site Inspection Report Corrective Actions Summary form and Appendix X 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 assesment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documented on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary. Any revisions/design changes to BMPs shall be implemented based onan 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

- Bonded fiber matrix with USDA approved seed mix.

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 construction
- long-term funding: Caltrans Maintenance

The responsible party for the long-term maintenance of post-construction BMPs is Caltrans 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 Supplier 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 Plans
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 Limitaion (NEL) Violation Reports
- sampling records and analysis reports
- Annual Compliance Certifications
- copies of all applicable permits

900.2 Stormwater Annual Report

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

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

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

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

- Documentation of all training for individuals responsible for all activities associated with compliance with the

CGP.

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

900.3 Discharge Reporting

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

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

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

900.4 Regulatory Agency Notice or Order Reporting

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

The report to the RE will contain the following items:

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

900.5 *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 A

Legally Responsible Person

Authorization of Approved Signatory – pending

Attachment B

Notice of Construction (NOC) / Notice of Intent – pending

Attachment C

Risk Level Determination

A	B	C	D	E	F	G
1	Version 8/17/2011					
2	Risk Determination Worksheet					
3						
4	Step 1	Determine Sediment Risk via one of the options listed:				
5		1. GIS Map Method - EPA Rainfall Erosivity Calculator & GIS map				
6		2. Individual Method - EPA Rainfall Erosivity Calculator & Individual Data				
7	Step 2	Determine Receiving Water Risk via one of the options listed:				
8		1. GIS map of Sediment Sensitive Watersheds provided				
9		2. Site Specific Analysis (support documentation required)				
10	Step 3	Determine Combined Risk Level				
11						
12						
13	EA:	02-4F4303				
14		02-SIS-96-PM 27.7				
15		Crawford Slide Project				
16	Lat	41.65348				
17	Long	123.46111				
18						
19	Const Start	9/27/2012				
20	CCD	11/26/2012				
21	Project Combined Risk Level 2					

	A	B	C
1	02-4F4303/02-SIS-96-PM 27.7/Crawford Slide Project		
2	Sediment Risk Factor Worksheet		Entry
3	A) R Factor		
4	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.		
5	http://cfpub.epa.gov/npdcs/stormwater/LEW/lewCalculator.cfm		
6	R Factor Value		22.45
7	B) K Factor (weighted average, by area, for all site soils)		
8	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.		
9	Site-specific K factor guidance		
10	K Factor Value		0.2
11	C) LS Factor (weighted average, by area, for all slopes)		
12	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.		
13	LS Table		
14	LS Factor Value		16.38
15			
16	Watershed Erosion Estimate (=R _x K _x LS) in tons/acre		73.54491249
17	Site Sediment Risk Factor		Medium
18	Low Sediment Risk: < 15 tons/acre		
19	Medium Sediment Risk: >=15 and <75 tons/acre		
20	High Sediment Risk: >= 75 tons/acre		
21			
22	See Screenshots in BACKUP worksheet for value documentation		

02-4F4303/02-SIS-96-PM 27.7/Crawford Slide Project

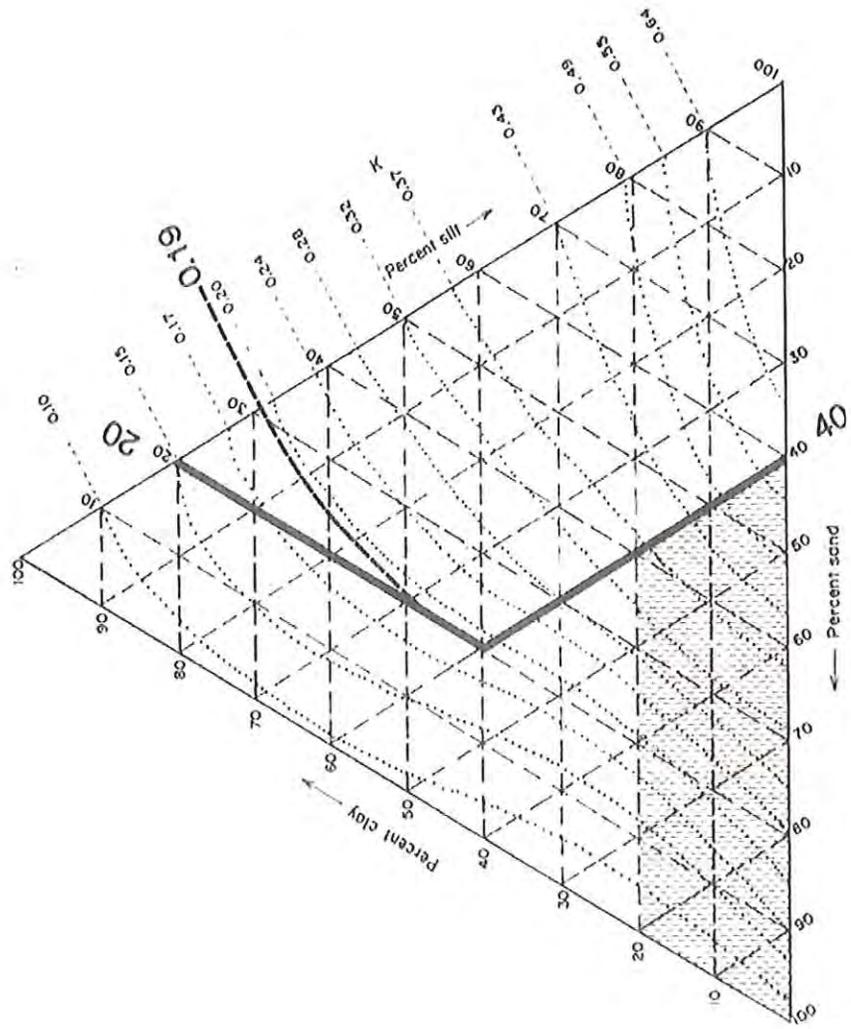
Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	yes/no	
<p>A.1. Does the disturbed area discharge (either directly or indirectly) to a 303(d)-listed waterbody impaired by sediment (For help with impaired waterbodies please visit the link below) or has a USEPA approved TMDL implementation plan for sediment?</p> <p>http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml</p> <p style="text-align: center;">OR</p>	yes	High
<p>A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan)</p> <p>http://www.waterboards.ca.gov/waterboards_map.shtml</p>		
<p>Region 1 Basin Plan</p> <p>Region 2 Basin Plan</p> <p>Region 3 Basin Plan</p> <p>Region 4 Basin Plan</p> <p>Region 5 Basin Plan</p> <p>Region 6 Basin Plan</p> <p>Region 7 Basin Plan</p> <p>Region 8 Basin Plan</p> <p>Region 9 Basin Plan</p>		

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

Project Sediment Risk: **Medium**
Project RW Risk: **High**
Project Combined Risk: **Level 2**

Soil Erodibility Factor (K)

The K factor can be determined by using the nomograph method, which requires that a particle size analysis (ASTM D-422) be done to determine the percentages of sand, very fine sand, silt and clay. Use the figure below to determine appropriate K value.



← Percent sand 40

Erickson triangular nomograph used to estimate soil erodibility (K) factor. The figure above is the USDA nomograph used to determine the K factor for a soil, based on its texture (% silt plus very fine sand, % sand, % organic matter, soil structure, and permeability). *Nomograph from Erickson 1977 as referenced in Goldman et. al., 1986.*

Sheet Flow Length (ft)	Average Watershed Slope (%)							
	0.2	0.5	1.0	2.0	3.0	4.0	5.0	6.0
<3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36
50	0.05	0.08	0.13	0.21	0.30	0.38	0.46	0.54
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82
150	0.05	0.09	0.17	0.33	0.50	0.68	0.86	1.05
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

8.0	10.0	12.0	14.0	16.0	20.0	25.0	30.0	40.0
0.32	0.35	0.36	0.38	0.39	0.41	0.45	0.48	0.53
0.32	0.37	0.41	0.45	0.49	0.56	0.64	0.72	0.85
0.32	0.38	0.45	0.51	0.56	0.67	0.80	0.91	1.13
0.32	0.39	0.47	0.55	0.62	0.76	0.93	1.08	1.37
0.32	0.40	0.49	0.58	0.67	0.84	1.04	1.24	1.59
0.45	0.57	0.71	0.85	0.98	1.24	1.56	1.86	2.41
0.70	0.91	1.15	1.40	1.64	2.10	2.67	3.22	4.24
0.91	1.20	1.54	1.87	2.21	2.86	3.67	4.44	5.89
1.10	1.46	1.88	2.31	2.73	3.57	4.59	5.58	7.44
1.43	1.92	2.51	3.09	3.68	4.85	6.30	7.70	10.35
1.72	2.34	3.07	3.81	4.56	6.04	7.88	9.67	13.07
1.99	2.72	3.60	4.48	5.37	7.16	9.38	11.55	15.67
2.24	3.09	4.09	5.11	6.15	8.23	10.81	13.35	18.17
2.70	3.75	5.01	6.30	7.60	10.24	13.53	16.77	22.95
3.52	4.95	6.67	8.45	10.26	13.94	18.57	23.14	31.89
4.24	6.03	8.17	10.40	12.69	17.35	23.24	29.07	40.29
4.91	7.02	9.57	12.23	14.96	20.57	27.66	34.71	48.29

50.0	60.0
0.58	0.63
0.97	1.07
1.31	1.47
1.62	1.84
1.91	2.19
2.91	3.36
5.16	5.97
7.20	8.37
9.13	10.63
12.75	14.89
16.16	18.92
19.42	22.78
22.57	26.51
28.60	33.67
39.95	47.18
50.63	59.93
60.84	72.15

WATERSHED MAP @ PM 27.7 NORTHCOAST BOARD
 TITUS CREEK-MIDDLE -KLAMATH RIVER

Stormwater | Project Lookup (01-06350) | Page | Tools

Stormwater
 Welcome to the Caltrans Stormwater Design Application. To find out more about the individual layers please read the [support documents](#).

Table of Contents

- Highways
- Boundaries
- Watersheds
- Pollutants
- Risk Level
 - Watershed PW
 - Web K Value
 - Risk Watershed (SMARTS)
 - GIS Map Method
- MS4/SUSMP
- REAP/SWM
- RUSLE 'R'
- NOT (in/yr, Arid & Semi-Arid)
- Water Bodies
- Caltrans Facilities
- Miscellaneous

Layer Description
 Hover over a layer name for a description

Map Tools

Fly To Location

Post Mile Lookup

PM Click PM Point PM Line

Validate PM Point County

SIS-Siskiyou

Route 96

PM 27.7

Lat: 41.65348
 Long: -123.46111

Validate Clear Map

Clear

K-VALUE MAP @ PM 27.7
 SOIL EROSION VALUE

Stormwater | Project Lookup (01-06350) | Page | Tools

Stormwater
 Welcome to the Caltrans Stormwater Design Application. To find out more about the individual layers please read the [support documents](#).

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SIS-Siskiyou

Route 96

PM 27.7

Lat: 41.65348
 Long: -123.46111

Validate Clear Map

Clear

LS-VALUE MAP @ PM 27.7
SLOPE LENGTH & SLOPE FACTOR VALUE

EROSIVITY WAVIER CALC'S

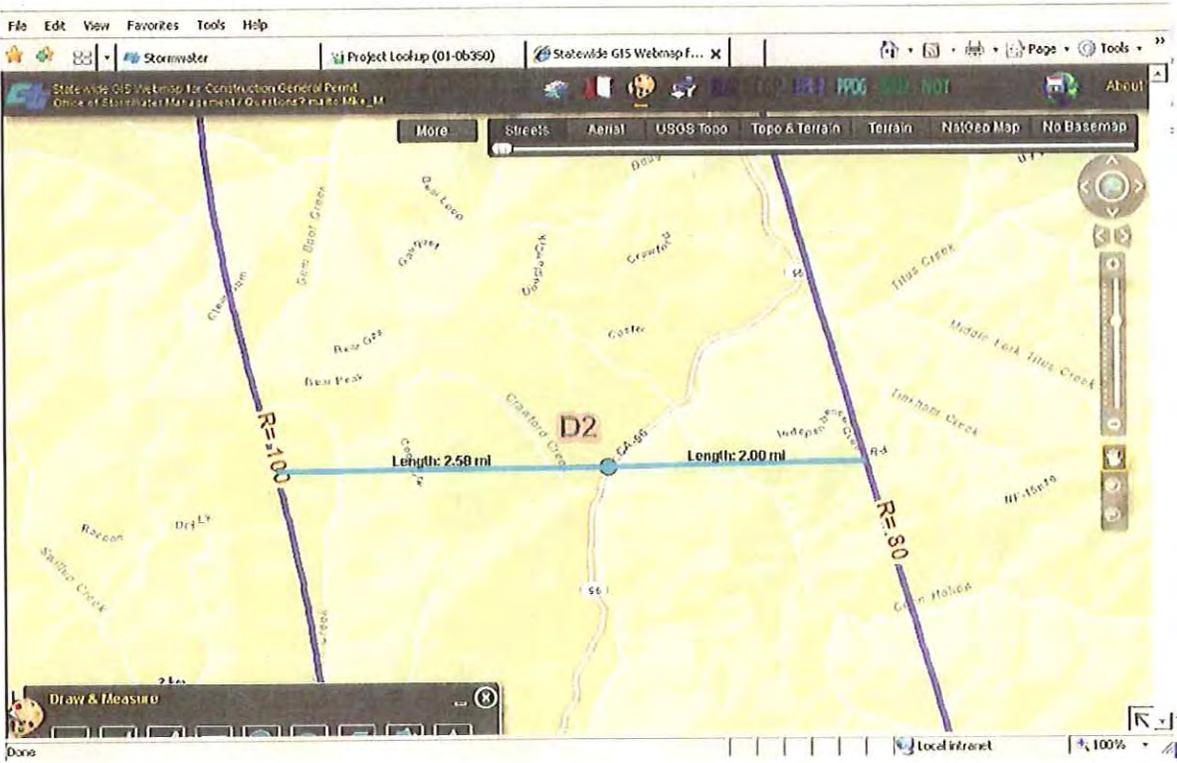
See CGP Risk Assessment R-Factor Calc Notification

http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/constpermits/cgp_r_factor.pdf
http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/cgp_r_factor.pdf

Erosivity Index Zone Map	20 Tbl 1	
Begin Const Date	9/27/2012	69.1 %
End Const Date	11/16/2012	85.4 %
% Erosivity Index (EI) for site		25.3 %
Closest R value=	80	From California Isoerodent Map
Length from GIS	2	mi
Length from GIS	2.58	mi
R value	88.7336245	
R factor for scheduled project	22.449697	

ISODENT MAP @ PM 27.7

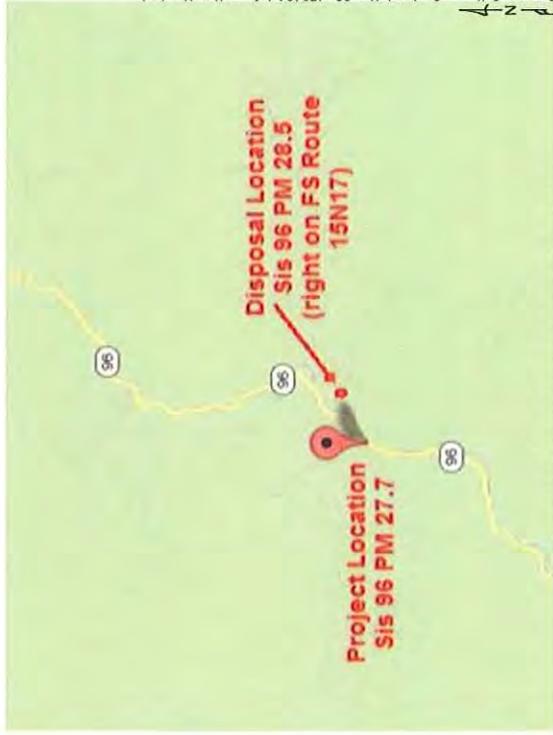
SITE IS @ halfway point between R 100 & R 60



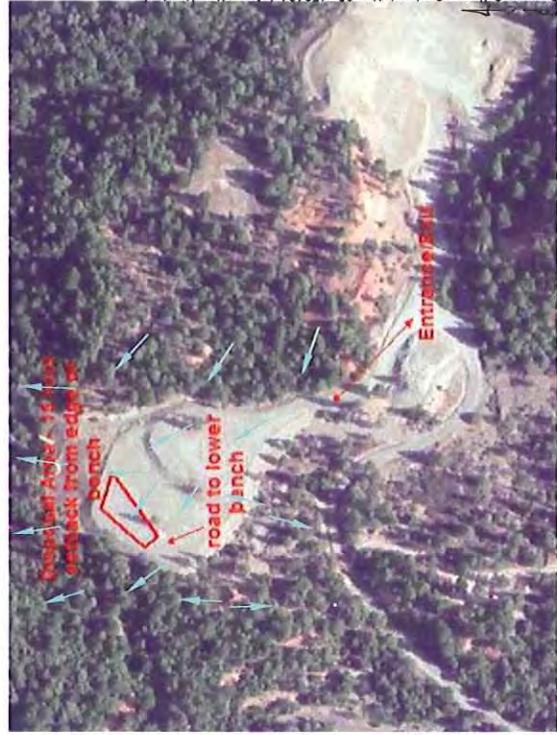
Attachment D

Vicinity Map and Site Map

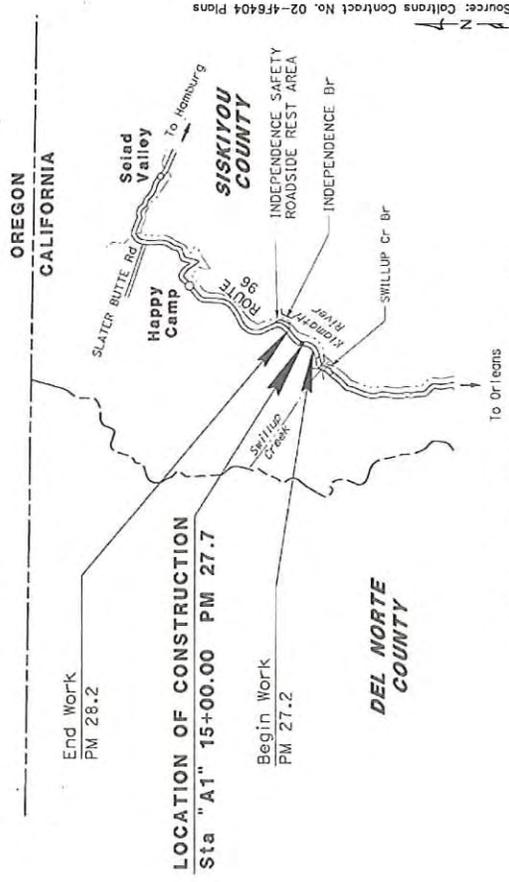
\\hwy\hwy\Drawings\02\0212000172\02-Sis-96-27.7\Crawford Slide Removal\0212000172.dwg 2012/08/15



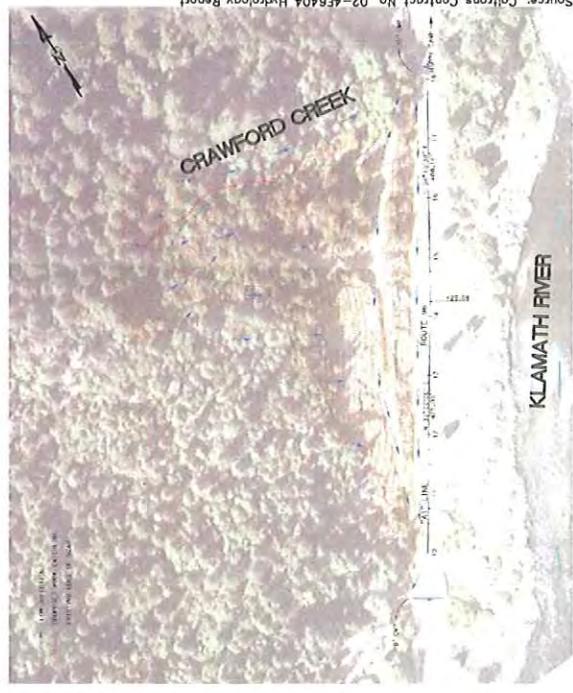
Disposal Site Vicinity Location Map



Disposal Site Approximate Surface Flows



Project Site Vicinity Location Map



Project Site Surface Flows

Attachment E

Training

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

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

Dustin Miller

January 12, 2011 - January 12, 2013

Certificate # 00011



California Stormwater Quality Association and
California Construction General Permit Training Team

MATERIALS INFORMATION

OPTIONAL DISPOSAL/MATERIAL SITES

INFORMATIONAL HANDOUT

FOR CONSTRUCTION CONTRACT
IN SISKIYOU COUNTY
ON ROUTE 96

Project Location

SIS-96-PM 27.7

Crawford Slide Permanent Restoration

OPTIONAL DISPOSAL SITE

Bunker Hill, SIS-96-PM 28.5

Note: The records from which this compilation was assembled, may be inspected in the District 2 Office at 1657 Riverside Drive, Redding, CA 96001 or Contact the Disposal Site Coordinator, Linda Garner (530) 225-3375, email: Linda_S_Garner@dot.ca.gov

Facts stated herein are as known to the State of California, Caltrans, and are to be verified by the Contractor.

Table of Contents

General Provisions.....	2
Location Map	4
Site Plan	5

General Provisions

This disposal site is provided by Caltrans, at the option of the Contractor for the disposal of excavated earthen materials generated from the Crawford Slide Permanent Restoration project, located on Route 96 in Siskiyou County, at PM 27.7. The earthen material may be deposited at an existing Caltrans disposal site area on an undeveloped lot located within Siskiyou County off of highway 96 at PM 28.5, on State owned property.

This site is used by Caltrans Maintenance and other contractors for various purposes, without exclusive use to anyone. All safety precautions must be observed. The Maintenance Supervisor contact Ryan Gomes, shall be contacted at least 48 hours prior to the beginning of work at (530) 496-3608. Maintenance will direct contractor to area of disposal.

Material Requirements for this disposal site:

- The only material to be disposed of at this site shall be earthen material quantity estimated at approximately 36,000 CY
- All slash and stumps may be taken to the Bunker Hill Disposal Site. Slash and stumps shall be placed neatly in a pit, with a layer of water proof paper barrier covering the bottom portion of slash, under the direction of the Maintenance Supervisor.

Road restrictions for the paved Forest Service road to the disposal site are as follows:

- Subject to winter restrictions and conditions, therefore the use of this site is strictly prohibited if the ground is frozen or if snow is present. During these conditions, the contractor must use an alternative disposal site.
- Proceed with extreme caution as the road is very narrow and is open to the public.
- BMPs shall be applied by the contractor to eliminate vehicle tracking during inclement conditions on both the USFS road and the State Highway.

Provisions that apply:

- Buried man-made objects may exist within areas designated for disposal.
- The State assumes no liability for damage to contractor's equipment. No compensation will be made to the contractor for the handling of non-hazardous man-made objects.
- Existing facilities at the disposal site shall be protected from damage by the contractor in accordance with Section 5-1.36, "Property and Facility Preservation", of the 2010 Standard Specifications.
- Materials are to be placed within the site limits in an organized and safe manner, with no risk of instability to embankments and shall be compacted in accordance with Section 19-5, "Compaction", of the 2010 Standard Specifications. The finished surface shall be uniformly graded and returned to a condition similar to the start of this project.

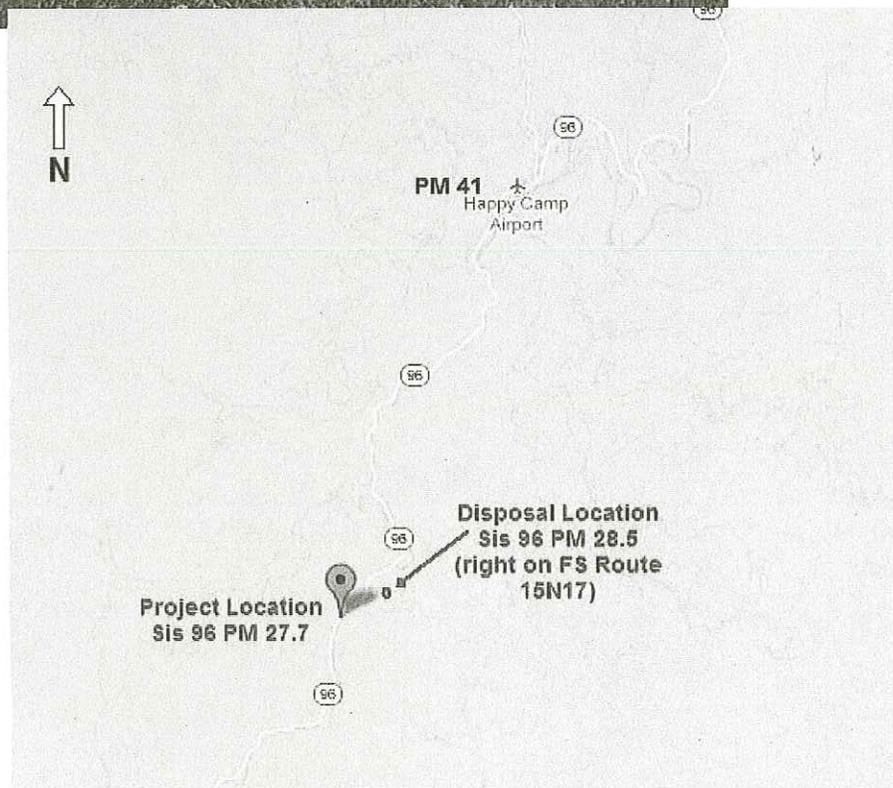
- All drainage ditches shall be protected and preserved by the contractor. A road may need to be pioneered from the top level to the bench, where material will be disposed. Maintain a 15 foot set back from edge to bench slope. The Maintenance Supervisor will advise prior to the beginning of the project.
- Construction Storm Water Best Management Practices shall apply to the disposal site. Include disposal site BMPs in the contractor's Storm Water Pollution Prevention Plan. Fiber rolls must be installed on slope contours of disposed material in accordance with Section 21-1.03P of the 2010 Standard Specifications and Standard Plans T56. Weed-free straw shall be applied to all disturbed surfaces in accordance with Section 21-1.03H.

Materials containing naturally occurring asbestos will be encapsulated as described in Section 14 of the 2010 Standard Specifications and the Special Provisions.

Full compensation shall be considered as included in the contract price paid for the item(s) involved and no separate compensation will be made therefor.

Location Map

Disposal Site SIS-96-PM 28.5



Site Plan

Use of this site will be under the direction of Maintenance staff and material should be disposed of in the general area indicated on the map, unless otherwise directed by Maintenance staff. Observe staked property lines. Earthen material is to be disposed of on the lower bench with a 15 foot setback from the top edge of bench slope.

Approved Disposal Site - Bunker Hill SIS-96-PM 28.5 (Right on Independence Creek Rd/Forest Service Route 15N17) State Property

