



**LOS ANGELES COUNTY  
DEPARTMENT OF PUBLIC WORKS**

# Stormwater Pollution Prevention Plan (SWPPP) Preparation Manual



**AUGUST 2010**

## **Stormwater Pollution Prevention Plan (SWPPP) Preparation Manual**

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### **References:**

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- Appendix A: Attachments for Use in Preparing a SWPPP
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# Section 1

## Introduction

### 1.1 Purpose of this Manual

This guidance manual has been prepared by the Los Angeles County Department of Public Works (LACDPW) Construction Division to assist Contractors in the process of preparing a Stormwater Pollution Prevention Plan (SWPPP). Section 7-8.6.3 (or Section 01055) of the contract Special Provisions requires the Contractor to prepare and implement a SWPPP for projects that disturb one or more acres. The SWPPP shall comply with the contract Special Provisions, National Pollutant Discharge Elimination System (NPDES) Permits (referenced in Section 1.3), the LACDPW Construction Site Best Management Practices (BMPs) Manual (BMP Manual) and the procedures and format set forth in this Manual. The SWPPP shall apply to all areas that are directly related to the construction activities, including but not limited to staging areas, storage/equipment yards, material borrow areas, access roads, etc., whether or not they are located within the project limits, right-of-way, or easements.

### 1.2 Organization of this Manual

The organization of this manual is as follows:

- Section 1: Introduction – identifies the purpose and use of this manual, including a brief discussion of the regulatory framework and permits associated with the LACDPW stormwater pollution prevention program.
- Section 2: Preparation of a SWPPP – provides details for the appropriate selection of BMPs and the preparation of a SWPPP.
- Appendix A provides Attachments A through U for inclusion into the SWPPP.
- Appendix B provides a list of abbreviations, acronyms, and definitions used in this manual.

### 1.3 Regulations and Permits

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. In 1987, the CWA was amended to establish a framework for regulating municipal and industrial storm water discharges under the NPDES Program. In 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that establish storm water permit application requirements for specified categories of industries. The current regulations provide that discharges of storm water to waters of the United States from construction projects that encompass one acre or more of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit.

The Regional Water Quality Control Board (RWQCB) regulates the discharge of storm water from municipalities and activities within their jurisdiction including construction. Part of the RWQCB regulations requires the County to have adequate enforcement capabilities for controlling storm water runoff. Los Angeles County Code Chapter 12.80.630 Stormwater and Pollution Runoff Control fulfills the requirement of the RWQCB for enforceable regulations.



The State Water Resources Control Board (SWRCB) issued the Small Municipal Separate Storm Sewer system (MS4) Permit (Small MS4 Permit) effective August 8, 2003 which will impact the County's unincorporated areas in the Antelope Valley. LACDPW requires the Antelope Valley portions of Los Angeles County to comply with the same requirements for Construction Site Storm Water Runoff Control as the rest of the County.

### **1.3.1 General Permit**

The SWRCB has elected to adopt one statewide Construction General Permit that will apply to all storm water discharges associated with construction and land disturbance activity.

In 2009, the SWRCB re-issued the General National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002, under *Order No.2009-0009-DWQ Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Construction General Permit) that requires all dischargers where construction activities disturb one or more acres to develop and implement a Storm Water Pollution Prevention Plan (SWPPP).

### **1.3.2 Municipal Permit**

On December 13, 2001, the RWQCB, Los Angeles Region, adopted Order No. 01-182, NPDES Permit No. CAS004001, Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharge within the County of Los Angeles, and Incorporated Cities Therein (Municipal Permit). This Permit was issued to the Los Angeles County Flood Control District, the County of Los Angeles, and the 84 cities within the county; and requires the preparation and implementation of a storm water pollution prevention program to control runoff from construction sites within its jurisdiction. The Municipal Permit jurisdiction includes all areas of Los Angeles County except the northern (Antelope Valley) area. This SWPPP Preparation Manual is part of the LACDPW program to control runoff from construction sites within Los Angeles County.

### **1.3.3 Los Angeles County Code**

The Contractor is subject to enforcement action by Chapter 12.80 of the Los Angeles County Code (12.80.630) that states, *"Any person, firm, corporation, municipality or district or any officer or agent of any firm corporation, municipality or district violating any provision of this chapter shall be guilty of a misdemeanor. Such violation shall be punishable by a fine of not more than \$1,000 or by imprisonment in the county jail for a period not to exceed six months, or by both fine and imprisonment. Each day during any portion of which such violation is committed, continued or permitted shall constitute a separate offense and shall be punishable as such (Ord. 98-0021§1(part), 1998)."* LACDPW applies this code to all their construction projects.



## Section 2

### Preparation of a Storm Water Pollution Prevention Plan (SWPPP)

#### 2.1 Preparation of a SWPPP

This Section provides detailed instructions, examples, and required text that the Contractor shall use in the preparation of the SWPPP. The instructions, examples and required text for the SWPPP is in a SWPPP template (Section 2.4) that can be revised as necessary to become the site-specific SWPPP.

##### **2.1.1 Information Provided by the LACDPW**

Unless specified differently in the contract Special Provisions (i.e., design/build projects), the LACDPW will apply for coverage under the Construction General Permit by submitting the Notice of Intent (NOI) to the SWRCB, pay the annual fee, and file the Notice of Termination (NOT). The LACDPW will submit a copy of the NOI and Waste Discharge Identification (WDID) Number to the Contractor for inclusion in the project site specific SWPPP.

##### **2.1.2 BMP Minimum Requirements**

The BMP Manual includes the minimum BMPs and procedures for identifying and selecting BMPs for a construction project. The Contractor shall use the BMP Manual and the contract Special Provisions to select BMPs for inclusion in the SWPPP.

The Contractor shall select and implement additional BMPs based upon actual field conditions, contractor activities, construction operations, and/or as directed by the Engineer.

##### **2.1.3 BMP Non-Compliance and Enforcement Actions**

The SWPPP Template Attachment H includes detailed instructions for completing the Best Management Practice (BMP) Checklist during required site inspections. Corrective actions may be required for the site to comply with the SWPPP or contract Special Provisions. The corrective actions identified on the BMP Checklist are required to be completed by the end of the day that the inspection was performed and documented. If the corrective actions identified on the BMP Checklist are not completed by the end of that day, enforcement actions identified in the contract Special Provisions will be triggered. One of the LACDPW enforcement tools is the Notice of BMP Noncompliance Form (Appendix C of the BMP Manual).

When the LACDPW Inspector identifies that one or more of the BMPs have not been properly implemented and maintained, the Notice of BMP Noncompliance form may be implemented. This process will only be used when compliance within 2 days would be adequate. If corrective action is necessary for compliance in less than 2 days other enforcement tools may be implemented (i.e., immediate monetary penalties).

1. Part 1 of the Notice of BMP Noncompliance Form will be completed to identify the date of noncompliance, (A) BMP Description, (B) Location and (C) Recommended corrective action(s), and (D) Date Corrective Action to be Completed (within 2 working days).



2. A copy of the form will be given to the Contractor.
3. When the corrective action is completed by the Contractor, the completion date will be entered in Column (E) "Date Corrective Action Completed."
4. If the corrective action is completed by the specified date, "Yes" will be checked in Column (F) corrective action completed within 2 days.
5. If the corrective action is not complete by the specified date, the LACDPW Staff will check "No" in Column (F) indicating the corrective action was not completed within two days, and immediately notify the Environmental Compliance Unit (ECU).
6. Part 2 of the form will be completed if a corrective action was not completed within two days. Contractual Sanctions will be implemented on a daily basis until the recommended corrective action is completed to the satisfaction of the LACDPW Staff and the ECU. The date will be written in Column (E) once the corrective action is completed.

The LACDPW, as a permittee, is subject to enforcement action by the State Water Resources Control Board, Environmental Protection Agency, private citizens, and citizen groups. The LACDPW will assess the Contractor a penalty of \$1,000 for each calendar day that the Contractor does not fully implement or comply with the provisions set forth in Section 7-8.6 (or Section 01055) of the contract Special Provisions, including but not limited to, compliance with the applicable provisions of the Special Provisions, manuals, permits and Federal, State and local regulations. The Contractor shall be responsible for the costs and for liabilities imposed by law as a result of the Contractor's failure to comply with the provisions. Costs and liabilities include, but are not limited to: fines, penalties, and damages, whether assessed against the LACDPW or the Contractor, including those levied under the Federal Clean Water Act and the State Porter Cologne Water Quality Act. The LACDPW will deduct from payments due the Contractor, the total amount of any legal fees, staff costs, and consultant fees as a result of the Contractor's non-compliance with these provisions.

## **2.2 Approval of SWPPP**

The Contractor shall submit the SWPPP to the LACDPW for review per section 7-8.6 (or Section 01055) of the contract Special Provisions. The SWPPP shall be certified by a Qualified SWPPP Developer as defined by the Construction General Permit, and by a Civil Engineer registered in the State of California and by a company corporate officer or person assigned the responsibility by a corporate officer, according to corporate procedures. Review by the LACDPW will not relieve the Contractor of the responsibility for the adequacy of the SWPPP or full compliance with all applicable Federal, State, and Local laws and regulations that govern water quality. The SWPPP shall be submitted to the LACDPW in a 3-ring binder with dividers and tabs for each section and attachments. No work having the potential to cause pollution, as determined by the LACDPW, shall be performed until the SWPPP has been certified by the LACDPW and a WDID has been received from the SWRCB.

Certification of a SWPPP in no way precludes the authority of the LACDPW to require modification to the plan as conditions warrant, nor does the LACDPW take responsibility for performance of BMPs provided for in the Plan.

## **2.3 Qualified SWPPP Developer and Qualified SWPPP Practitioner**

The Contractor shall designate a Qualified SWPPP Developer (QSD) and a Qualified SWPPP Practitioner (QSP) (previously referred to as a Water Pollution Control Manager in the 2007 version of this manual). The QSD shall be responsible for the preparation of the SWPPP and any required



revisions prior to certification or amendments during construction. The QSP shall be responsible for implementation of the SWPPP. In addition, the QSP shall be responsible for all required water quality sampling and analysis. The Contractor shall submit to the LACDPW a statement of qualifications, describing the required certification and training documentation of the QSD and QSP. The LACDPW will reject the Contractor's submission of a QSD and/or QSP if the submitted qualifications do not meet the minimum contract Special Provisions requirements. Compensation for the furnishing of the QSD and QSP shall be considered as included in the prices bid for Preparation of the SWPPP and Implementation of the SWPPP.

## 2.4 SWPPP Template

The section below provides detailed instructions, examples, and required text that the Contractor shall use in the preparation of the SWPPP.

### ***INSTRUCTIONS FOR SWPPP TEMPLATE***

▪ *Instructions for using the electronic version of the SWPPP template:*

1. Contractors shall use the SWPPP template included in this section of the manual to develop a site-specific SWPPP. To turn on/off the Hidden Text, hold down the Ctrl and Shift keys and press \* (the 8 key).
2. Once the contractor has developed the text for the site-specific SWPPP, a draft SWPPP can be printed.
3. The final SWPPP can be reviewed and final edits performed. To print the document in Word 1997-2003 without instructions and examples, go to "Tools" in the menu bar and select "Options." Choose the "Print" tab and make sure that the "Hidden text" boxes are cleared. For Word 2007, click on "Print" and click on "Options" and make sure the "Hidden Text" box is cleared. The hidden text can be shown or not on the screen by clicking on the show/hide toggle "¶".
4. Attachments for the SWPPP are individual Word documents and should be completed and revised as necessary and included in the SWPPP binder. Attachments are included in Appendix A of this Manual.

▪ *This SWPPP template includes:*

SWPPP Title Page

SWPPP Table of Contents

Section 100 SWPPP Certifications

Section 200 SWPPP Amendments

Section 300 Introduction and Project Description

Section 400 References

Section 500 Body of SWPPP

Section 600 Construction Site Monitoring Program

Section 700 Planning, Reporting and Recordkeeping Program



- *Appendix A includes the following attachments for preparation of the SWPPP:*
  - Attachment A: Vicinity Map/Site Map (Samples)
  - Attachment B: Water Pollution Control Drawings (WPCDs)
  - Attachment C: BMP Consideration Checklist
  - Attachment D: Legally Responsible Person (LRP) Authorization of Approved Signatory
  - Attachment E: Computation Sheet for Determining Run-on Discharges
  - Attachment F: Notice of Intent (NOI) & Waste Discharge identification (WDID) Number
  - Attachment G: Program for Inspection, Maintenance, and Repair of Construction Site BMPs
  - Attachment H: Best Management Practices (BMP) Checklist
  - Attachment I: Trained Contractor Personnel Log
  - Attachment J: Subcontractor Log and Sample Notification Letter
  - Attachment K: Accumulated Precipitation Procedure (APP)
  - Attachment L: Annual Report
  - Attachment M: Construction General Permit and Other Plans/Permits
  - Attachment N: Chain of Custody and Sampling Activity Log
  - Attachment O: BMP Fact Sheets, Details, and Manufacturer Specifications
  - Attachment P: Rain Event Action Plan (REAP)
  - Attachment Q: Weather Forecasts and Rain Gauge Documentation
  - Attachment R: Numeric Action Level (NAL) Exceedance Report
  - Attachment S: Pollutant Testing Guidance Table
  - Attachment T: Analytical Data
  - Attachment U: Field Meter Specifications and Calibration Logs



**INSTRUCTIONS:**

- ❑ Fill in the Project and Contractor information as indicated on the Title sheet

**REQUIRED TEXT:**

**STORM WATER POLLUTION PREVENTION PLAN**

**for**

**Insert Project Name**

**Contractor:**

**Insert Contractor's Company Name**

**Insert Contractors Address**

**Insert City, State and Zip Code**

**Insert Telephone**

**Insert Contractor's Authorized Representative's Name**

**Project Site Location/Address**

**Insert project site location and address, if any.**

**Qualified SWPPP Developer:**

**Insert Contractor's Qualified SWPPP Developer (QSD) Company Name**

**Insert Address**

**Insert City, State, ZIP**

**Insert Telephone Number**

**Insert QSD Name and Title**

**Qualified SWPPP Practitioner:**

**Insert Contractor's Qualified SWPPP Practitioner (QSP) Company Name**

**Insert Address**

**Insert City, State, ZIP**

**Insert Telephone Number**

**Insert QSP Name and Title**

**SWPPP Preparation Date**

**Insert Date**

**Risk Level: 2**

**WDID No.: Insert WDID No.**



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## **INSTRUCTIONS:**

- ❑ The SWPPP shall include all of the sections of this template.
- ❑ Include the numbers and names for each section of the SWPPP, from Section 100 to Section 700. List the first page number of each subsection.
- ❑ Include a Separator/Divider/Tab for each major section (100-700) of the SWPPP and for each of the attachments (A-U).

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## Attachments

Attachment A	Vicinity Map
Attachment B	Water Pollution Control Drawings (WPCDs)
Attachment C	BMP Consideration Checklist
Attachment D	Legally Responsible Person (LRP) Authorization of Approved Signatory
Attachment E	Computation Sheet for Determining Run-on Discharges
Attachment F	Notice of Intent (NOI) & WDID Letter
Attachment G	Program for Inspection, Maintenance and Repair of Construction Site BMPs
Attachment H	BMP Checklist
Attachment I	Trained Contractor Personnel Log
Attachment J	Subcontractor Notification Letter and Log
Attachment K	Accumulated Precipitation Procedure (APP)
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Attachment R	NAL Exceedance Report
Attachment S	Pollutant Testing Guidance Table
Attachment T	Analytical Data
Attachment U	Field Meter Specifications and Calibration Logs



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# Section 100

## SWPPP Certifications

### 100.1 Initial SWPPP Certification by Contractor

#### **INSTRUCTIONS:**

Include a Separator/Divider/Tab for Section 100.

The Contractor, Registered Civil Engineer, and QSD, that prepared the SWPPP, shall sign and certify the SWPPP in accordance with the contract Special Provisions.

- Fill in the project name and the contract number at the top of the form.

Certification shall be signed and dated by the:

- Contractor 's company corporate officer or person assigned the responsibility by a corporate officer, according to corporate procedures,
- QSD responsible for preparation of the SWPPP, and
- Registered Professional Civil Engineer in California

Fill in the name, title and telephone number of the person(s) signing the certification. Follow the instructions in this template for ensuring that the elements of the certification statement are met.

The Notice of Intent (NOI) and WDID are to be included in Attachment F. The completed NOI may be provided by the Agency, local agency or private entity administering the project.

#### **REQUIRED TEXT: To be completed by Contractor**

Project Name: \_\_\_\_\_

PCA No./Project ID No.: \_\_\_\_\_

As the Contractor and authorized qualified designee, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on storm water quality. I am aware that the selected BMPs must be installed properly, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



I am aware that submitting false and/or inaccurate information, failing to update the SWPPP to reflect current conditions, or failing to properly and/or adequately implement the SWPPP may result in revocation of grading and/or other permits or other sanctions provided by law or enforcement actions under the LACDPW contract Special Provisions.

_____ Contractor/Authorized Qualified Designee's Signature	_____ Date
_____ Contractor/Authorized Qualified Designee's Name and Title	_____ Telephone Number
_____ QSD Signature	_____ Date
_____ QSD Name and Title	_____ Telephone Number
_____ Registered Civil Engineer Signature	_____ Date
_____ Registered Civil Engineer Name and Title	_____ Telephone Number

**REGISTERED CIVIL ENGINEER STAMP**



## 100.2 LACDPW Certification of SWPPP

### **INSTRUCTIONS:**

The SWPPP will be reviewed and signed by the Agency.

### **REQUIRED TEXT:**

*For LACDPW use only*

### **LACDPW Certification of the Storm Water Pollution Prevention Plan**

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

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

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I am aware that submitting false and/or inaccurate information, failing to update the SWPPP to reflect current conditions, or failing to properly and/or adequately implement the SWPPP may result in revocation of grading and/or other permits or other sanctions provided by law or enforcement actions under the LACDPW contract Special Provisions."

\_\_\_\_\_  
Signature

Oscar R. Enriquez

Supervisor, Environmental Compliance Unit

\_\_\_\_\_  
Date

(626) 458-4970

Telephone Number

Review by the LACDPW will not relieve the Contractor of the responsibility for the adequacy of the SWPPP nor for full compliance with all applicable federal, state and local laws and regulations governing water quality.

The Legally Responsible Persons (LRPs) for the Los Angeles County Department of Public Works, Construction Division, have designated Oscar R. Enriquez as their Authorized Signatory. See Attachment D for documentation.



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## Section 200

### SWPPP Amendments

#### 200.1 SWPPP Amendment Preparation and Certification

##### **INSTRUCTIONS:**

Include a Separator/Divider/Tab for Section 200 for ready reference.

When changes of the approved SWPPP are required, the Contractor's QSD shall prepare and certify an amendment within 14 days and submit to the Agency for review and certification following the same process as the original SWPPP.

The SWPPP shall be amended:

Whenever there is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4); or

When based on visual monitoring or sampling and analysis corrective actions are required that require a SWPPP amendment; or

When the Contractor's activities or operations violate any condition of the Permits or the general objectives of reducing or eliminating pollutants in storm water discharges have not been achieved; and/or

When deemed necessary by the Agency.

All approved amendments shall be recorded in the SWPPP amendment log in Section 200.2.

All approved Amendments (including Agency certification) shall be inserted into the Contractor's on-site SWPPP. The SWPPP certification form for all amendments shall be inserted into this section.

The following items shall be included in each amendment:

- Discussion of who requested the amendment.
- Description of the location of proposed change.
- Description of the reason for change.
- Description of the existing BMP or condition.
- Description of the new BMP or other amendment proposed.

This SWPPP certification form shall be used as a cover sheet for each amendment.

- Fill in the project name and project number.
- The Contractor's QSD shall prepare the amendment, sign and date the certification form.
- Print the names and telephone numbers.



**REQUIRED TEXT:**

This SWPPP will be amended by the QSD:

- Whenever there is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4); or
- When based on visual monitoring or sampling and analysis corrective actions are required that require a SWPPP amendment; or
- When the Contractor's activities or operations violate any conditions of the Permits or the general objective of reducing or eliminating pollutants in storm water discharges has not been achieved; and/or
- When deemed necessary by the Agency.

The amendments for this SWPPP, along with the SWPPP Certification, can be found in the following pages. Amendments are listed in the Amendment Log in section 200.2.



**SWPPP Amendment No. \_\_\_\_\_**

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

---

***To be completed by Contractor***  
**Contractor's Certification of the**  
**Storm Water Pollution Prevention Plan Amendment**

"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 ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, 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. I am aware that submitting false and/or inaccurate information, failing to update the SWPPP to reflect current conditions, or failing to properly and/or adequately implement the SWPPP may result in revocation of grading and/or other permits or other sanctions provided by law or enforcement actions under the LACDPW contract Special Provisions."

_____ Contractor's QSD Signature	_____ Date
_____ Contractor's QSD Name and Title	_____ Telephone Number

---

***For LACDPW Use Only***  
**LACDPW Approval of the**  
**Storm Water Pollution Prevention Plan Amendment**

"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 ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, 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."

_____ Signature	_____ Date
_____ Name and Title	_____ Telephone Number





## Section 300

### Introduction and Project Description

#### 300.1 Introduction and Project Description

##### **INSTRUCTIONS:**

Include a Separator/Divider/Tab for Section 300 for ready reference.

Provide the project's legal description (County, city and address). Describe proximity to receiving waters to which the project will discharge, including surface waters, drainage channels, and drainage systems (identify who owns the drainage system; i.e., municipality or agency.)

Describe the Construction project and major construction activities.

Identify the project as Risk Level 2.

##### **REQUIRED TEXT:**

This project is Risk Level 2 based on the risk assessment submitted with the Project Registration Document (PRDs) for this project.

This SWPPP will be maintained on site [Type location of the on-site SWPPP here.].

[Type project description here.]

#### 300.2 Unique Site Features

##### **INSTRUCTIONS:**

Provide a brief description of any unique site features (water bodies, wetlands, environmentally sensitive areas, endangered or protected species, contaminated areas, etc.) and significant or high-risk construction activities (dewatering, remediation, work over water, etc.) that may impact storm water quality. Include any unique features or unique construction methods, activities or engineering technologies (such as dredging, large excavations, tunneling, watertight shoring, work within a water body, etc.).

##### **REQUIRED TEXT:**

[Type project features here.]

#### 300.3 Construction Site Estimates

##### **INSTRUCTIONS:**

Provide an estimate of the following site features (Refer also to Attachment E):

- construction site area (acres)
- anticipated storm water run-on to the construction site (Show calculations and include as Attachment E).

The calculation of run-on will be performed using the template in Attachment E.



If run-on to the construction site is controlled by existing systems that will not be disturbed by the construction activity, a calculation may not be necessary. Describe the run-on controls and how they will be maintained during construction (Section 500.4.1). Existing BMPs should also be included in the Section 500.3.2 discussion.

If there are no existing run-on controls or if existing run-on control BMPs (e.g., storm drain, down drains, culverts, lined ditches or diversions, etc.) will be removed during construction, the run-on calculation is required and adequate additional run-on control BMPs shall be included in the SWPPP. The BMPs needed to divert the run-on or ensure that the run-on is conveyed through the site without causing erosion or adding pollutants to the water must be designed to meet the calculated run-on flow and shall be included in Section 500.4.1.

**REQUIRED TEXT:**

The following are estimates of the construction site:

Construction site area	_____	acres
Anticipated storm water flow onto the construction site <sup>(1)</sup>	_____	cfs

<sup>(1)</sup> Calculations are shown in Attachment E

The existing BMPs to control run-on are described in Section 500.3.2. Temporary BMPs for run-on control are described in Section 500.4.1.

### 300.4 Contact Information/List of Responsible Parties

**INSTRUCTIONS:**

#### QSD Information

Identify a Qualified SWPPP Developer (QSD) who is responsible for development of the SWPPP, revisions, and amendments as required by the Construction General Permit and contract Special Provisions. Include the name, address and telephone number(s) of the Contractor's QSD. Include training and certification documentation for the QSD in Section 500.8 and Attachment I.

#### QSP Information

Identify a Qualified SWPPP Practitioner (QSP) who is responsible for implementation of the SWPPP, Construction General Permit, and contract SWPPP Special Provisions compliance during construction. Provide the Name, Address and Telephone number(s) of the QSP and include training and certification documentation for the QSP in Section 500.8 and Attachment I.

The QSP shall have the full authority and responsibility for the following:

- Implementation of the SWPPP, contract Special Provisions and Construction General Permit requirements.
- Required water quality sampling.
- Construction site inspections and corrective action implementation and documentation
- BMP implementation, maintenance and repair
- REAP preparation and implementation
- NAL Exceedance Report preparation
- Annual Report preparation
- Ensuring elimination of all unauthorized discharges



- The QSP shall be assigned authority by the Contractor to mobilize crews to make immediate repairs to the control measures.
- The QSP shall ensure all the necessary corrections/repairs are made immediately, and that the project complies with the SWPPP the contract SWPPP Special Provisions and the Construction General Permit.

**REQUIRED TEXT:**

The Agency's LRP is identified in Section 100.2 and Attachment D.

The Contractor's Qualified SWPPP Developer (QSD) for this project is:

Insert Contractor's QSP Name

Insert Contractor's QSP Company Name

Insert Address of Contractor's QSD

Insert City, State, ZIP

The QSD training and certification documentation is included in Attachment I.

The QSD has prepared and certified this SWPPP. Amendments required for this project SWPPP shall be prepared and certified by the QSD.

The Contractor's QSP for this project is:

Insert Contractor's QSP Name

Insert Contractor's QSP Company Name

Insert Address of Contractor's QSP

Insert City, State, ZIP

The QSP training and certification documentation is included in Attachment I.

The QSP has the full authority and responsibility for the following:

- Implementation of the SWPPP.
- Required water quality sampling.
- Construction site inspections and corrective action implementation and documentation
- BMP implementation, maintenance and repair
- REAP preparation and implementation
- NAL Exceedance Report preparation
- Annual report preparation
- Ensuring elimination of all unauthorized discharges
- The QSP has authority by the Contractor to mobilize crews to make immediate repairs to the control measures
- The QSP shall ensure all the necessary corrections/repairs are made immediately, and that the project complies with the SWPPP the contract SWPPP Special Provisions and the Construction General Permit.

[insert additional responsibilities and/or names here or delete this line.]



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## Section 400

### References

#### **INSTRUCTIONS:**

- Include a Separator/Divider/Tab for Section 400 for ready reference.
- Identify and prepare a list of the documents referenced in the SWPPP. Project plans & specifications, special provisions, reports, and storm water management related documents used to prepare the SWPPP shall also be included in the references.
- The SWPPP shall incorporate appropriate elements of other plans, permits and requirements. Provide a list of all the other plans, permits and requirements in this section and describe any special requirements for each permit. Insert additional bullets as needed.
- The SWPPP shall include a copy of the Construction General Permit (Order No. 2009-0009-DWQ). Available online at the SWRCB website ([http://www.swrcb.ca.gov/water\\_issues/programs/stormwater/](http://www.swrcb.ca.gov/water_issues/programs/stormwater/) or as updated).
- Include a copy of all other plans, permits and requirements used as references in Attachment M of the SWPPP.

Documents that shall be referenced are:

- All permits that apply to the project (federal, state and local), such as Fish and Game, U.S. Army Corps of Engineers, Regional Water Quality Control Board (dewatering permit, CWA 401 certification), Air Quality Management District, etc.
- All plans developed for controlling pollutants such as sewage control plan, aerially-deposited lead (ADL), accumulated precipitation plan (APP), dewatering plan, spill prevention countermeasures and control plan, clear water diversion, stream crossing, etc.
- All references for parameters used in run-on calculations.

Referenced materials may also include:

- On-site project information, such as Geotechnical Report, Drainage Report, other reports provided by the Agency, regulatory guidance from federal, state, and/or local agencies, and published technical specifications

The reference for each document shall include:

- Complete name of the referenced document
- Number of the document (if applicable)
- Author
- Date published
- Document date/revision that applies

Referenced documents shall be kept on-site and be readily available for review.

#### **EXAMPLE:**

The following documents are made a part of this SWPPP by reference:



- Project plans and specifications No. xx-xxxx
- State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities, September 2, 2009.
- California Regional Water Quality Control Board, Los Angeles Region, Clean Water Act Section 401 Water Quality Certification, dated xx/xx/xx.
- Hydrology Manual, Los Angeles County Department of Public Works, January 2006.
- LACDPW, Construction Site Best Management Practices Manual, dated August 2010.
- LACDPW, SWPPP/WPCP Preparation Manual, dated August 2010.

Attachment M includes copies of the following:

- State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities, September 2, 2009.
- US Army Corps of Engineers, Nationwide Permit - Authorization Letter, dated xx/xx/xx.
- State of California Department of Fish and Game Streambed Alteration Agreement No. x-xxx-xx, dated xx/xx/xx.

**REQUIRED TEXT:**

The following documents are made a part of this SWPPP by reference:

- Project plans and specifications No. INSERT NUMBER, dated INSERT DATE, prepared by ENTITY PREPARING THE PLANS AND SPECIFICATIONS.
- State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities, September 2, 2009.
- State Water Resources Control Board (SWRCB) Order No. 01-182; NPDES Permit No. CAS004001 Municipal Stormwater and Urban Runoff Discharges within the County of Los Angeles, and Incorporated Cities Therein, December 13, 2001.
- LACDPW Construction Site Best Management Practices (BMPs) Manual, dated August 2010.
- LACDPW, Storm Water Pollution Prevention Plan (SWPPP) Preparation Manual, dated August 2010.



- [Click and type other references here.]

Attachment M includes copies of local, state, and federal plans, permits, and requirements. Following is a list of the plans, permits and requirements included in Attachment M:

- State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities, September 2, 2009.
- [Insert name(s), date(s) and sources of other local, state, or federal plans or permits here and in the following bullets. Delete lines if not needed.
  - 
  - 
  -



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## Section 500

### Body of SWPPP

#### **INSTRUCTIONS:**

Include a Separator/Divider/Tab for Section 500 for ready reference.

#### **500.1 Objectives**

#### **INSTRUCTIONS:**

The SWPPP objectives described in the Construction General Permit are shown below in the “required text” section. Pollutant source identification and BMP selections shall be developed in the body of the SWPPP to support the SWPPP objectives.

#### **REQUIRED TEXT:**

The objectives of this Storm Water Pollution Prevention Plan (SWPPP) are:

- 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;
- Where not otherwise required under a Regional Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;
- Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity;
- Calculations and design details as well as BMP controls for site run-on are complete and correct, and;
- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

#### **500.2 Vicinity Map**

#### **INSTRUCTIONS:**

The SWPPP shall include a vicinity map and a site map as described below.

- The Vicinity Map shall be an 8-1/2” x 11” color copy of a USGS map or equal and shall extend approximately one-quarter mile beyond the property boundaries of the construction site (an 11” x 17” may be used if needed). Insert the vicinity map as Attachment A and place a reference in Section 500.2.
- The Vicinity shall include the project name and location.
- Provide a brief narrative description of the vicinity to support the map in Attachment A. Describe important features, drainage areas, or receiving waters that could not be shown on the map.

The vicinity map shall show:

- outline of the site’s perimeter;



- easily identifiable major roadways;
- geographic features or landmarks;
- water bodies within or adjacent to the construction limits;
- outline of the offsite drainage area(s) (run-on areas) that discharge or will discharge onto the construction site that corresponds to the run-on calculations or description in Section 300.3 and Attachment E;
- other geographic features surrounding the site; and
- general topography.

### **REQUIRED TEXT:**

The project vicinity map showing the project location, surface water boundaries, geographic features, construction site perimeter, general topography, and offsite areas that run-on to the site is included in Attachment A.

## **500.3 Pollutant Source Identification**

### **500.3.1 Inventory of Materials and Activities that May Pollute Stormwater**

#### **INSTRUCTIONS:**

- Make a list of potential pollutant sources.
- The Contractor shall conduct an inventory of the products used and/or expected to be used and the end products or wastes that are produced and/or are expected to be produced.
- List all construction materials and equipment (including potential pollutants from vehicles and equipment that will be used) that will have the potential to contribute to the discharge of pollutants to storm water.
- List all construction activities that have the potential to contribute sediment and other pollutants to storm water discharges.
- List all non-visible pollutants which are known, or should be known, to occur on the construction site.
- Insert as many bullets as necessary to complete the inventory. Do not copy the example bullets unless they pertain to the project.

#### **EXAMPLE:**

The following are lists of construction materials that will be used, wastes that will be generated and activities that will be performed that have the potential to contribute pollutants to storm water.

Construction materials or wastes that will be used that have the potential to contribute pollutants, including sediment, to storm water or non-storm water discharges include:

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Asphaltic emulsions associated with asphalt-concrete paving operations
- Cement materials associated with PCC concrete paving operations, drainage structures, bridge construction, etc.



- Joint and curing compounds
- Paints, solvents, and thinners.
- Soil stabilization products
- Wood products
- Metals and plated products
- Fertilizers, herbicides, and pesticides

Construction activities that have the potential to contribute sediment or other pollutants to storm water discharges include:

- Clear and grub operations
- Grading operations
- Excavation operations
- Paving, grinding and/or sawcutting operations
- Soil import operations
- Vehicle operation and maintenance
- Vehicle fueling
- Waste disposal activities
- Landscaping operations

**REQUIRED TEXT:**

The following are lists of construction materials that will be used and activities that will be performed that have the potential to contribute pollutants to storm water.

Construction materials or wastes that have the potential to contribute pollutants, including sediment, to storm water or non-storm water discharges include:

- 
- 
- 

Construction activities that have the potential to contribute sediment or other pollutants to storm water discharges include:

- 
- 
- 



### 500.3.2 Existing (pre-construction) Control Measures

#### **INSTRUCTIONS:**

- ❑ Identify and describe the existing storm water control measures and structures in place prior to construction. Pre-construction control measures may include any measures used to reduce erosion, sediment or other pollutants in storm water discharges. Pre-construction control measures may include but not limited to: curb and gutter, detention basins, infiltration basins, sediment basins, oil/water separators, slope protection, bridge slope protection, rock slope protection, existing erosion control, existing landscaping, lined or unlined ditches (v-ditches, swales, etc.), energy dissipaters, etc.
- ❑ Describe how these structures/control measures will be integrated into the SWPPP and used during construction to reduce sediment and other pollutants in all discharges.
- ❑ If these structures/control measures are removed or their effectiveness is reduced during construction, describe how they will be replaced by temporary BMPs.
- ❑ Include any BMPs that protect the site from run-on and describe whether the existing run-on controls will be removed or their effectiveness is reduced during construction. The run-on calculated in Section 300.3 and Attachment E must be considered.

#### **EXAMPLE:**

Existing Control	Location	Removed		Temporary Replacement BMP
		Yes	No	
Curb and Gutter	1+00 to 3+00	X		SC-6 Gravel Bag Berm
Storm Drain Inlets	All 10 storm drain inlets shown on WPCDs		X	



**REQUIRED TEXT:**

Existing Control	Location	Removed <sup>1</sup>		Temporary Replacement BMP
		Yes	No	
Complete this table for all existing BMPs and add rows as necessary				

<sup>(1)</sup>Removed or reduced in effectiveness during construction.

**500.3.3 Existing Soil Conditions**

**INSTRUCTIONS:**

- Describe the existing soil(s) (i.e. types of soils) and the source and conditions of the soil at the construction site. A general description can usually be found in the project geotechnical report, if available.
- Show and/or describe existing site conditions or features that, as a result of known past usage, may contribute pollutants to storm water, (e.g., toxic materials that are known to have been treated, stored, disposed, spilled, and/or leaked onto the construction site). Review the contract special provisions and available environmental documents to determine the known site contaminants and list them in this section.
- Include Special Excavation Criteria Area (SECA) as identified in the Special Provisions.

**EXAMPLE:**

The site soil is a mixture of well graded sand and silt with approximately 7% clay. (See referenced geotechnical report 2009) Toxic materials that are known to have been treated, stored, disposed, spilled, or leaked onto the construction site) include:

- Currently a former retail gasoline station is along the project alignment. Potential spills or leaks of petroleum hydrocarbons may have impacted the surface and subsurface soil. These areas have been identified as Special Excavation Criteria Areas (SECAs) by the Agency. The location(s) of the SECAs are shown on WPCD-3.



## **REQUIRED TEXT:**

[DESCRIBE CONDITIONS OF EXISTING SOILS AND STRUCTURES AT THE PROJECT SITE.]

Existing site features that, as a result of past usage, may contribute pollutants to storm water (e.g., toxic materials that are known to have been treated, stored, disposed, spilled, or leaked onto the construction site) include:

- 
- 
- 

### **500.4 BMP Selection Process**

#### **INSTRUCTIONS:**

The BMP selection process is an iterative process that selects the BMPs based on the potential sources of pollution (Section 500.3) necessary to develop and implement an effective SWPPP.

- Identify any areas of the site where BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.
- Identify all BMPs identified as Minimum Requirements in Section 7-8.6 "Water Pollution Control" of the contract special provisions.
- Select the appropriate BMPs to eliminate or reduce the pollutants identified (Section 500.3). See Section 2 of the LACDPW *Construction Site Best Management Practices (BMPs) Manual* (BMP Manual), for instructions for selecting and implementing construction site BMPs and working details for construction site BMPs. Refer to the BMP Consideration Checklist in Attachment C to select BMPs in each of the following sections:

500.4.1 Soil Stabilization (Erosion Control)

500.4.2 Sediment Control

500.4.3 Tracking Control

500.4.4 Wind Erosion Control

500.4.5 Non-Stormwater Control

500.4.6 Waste Management and Materials Pollution Control

- Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.
- Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.
- Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges.
- Provide a narrative description of the BMPs selected in the appropriate sections below. Attach all fact sheets for all selected BMPs (minimum and selected BMPs) from the BMP Manual in Attachment O.



## **REQUIRED TEXT:**

BMPs were selected as part of an iterative process based on the potential sources of pollution (Section 500.3). The BMP selection process will continue through the construction project as construction operations change, additional pollutant sources are identified, or the selected BMPs are determined to be ineffective based on inspection.

### **500.4.1 Soil Stabilization (Erosion Control)**

## **INSTRUCTIONS:**

The Contractor shall include erosion control (run-on and runoff control, soil stabilization, and grade break) BMPs required by the contract Special Provisions. The Contractor shall:

- Select temporary soil stabilization BMPs to be used and complete the Temporary Soil Stabilization and Temporary Sediment Control section of the BMP Consideration Checklist in Attachment C. See Section 2 of the LACDPW Construction Site Best Management Practices (BMPs) Manual (BMP Manual), for instructions for selecting and implementing construction site BMPs and working details for construction site BMPs.
- Limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the Contractor shall consider the use of plastic materials resistant to solar degradation
- All runoff control BMPs shall be maintained and protected from activities that reduce their effectiveness.
- Include the minimum required BMPs of the contract Special Provisions of Section 7-8.6.3 and the Construction General Permit.
- List temporary soil stabilization BMPs to be used for the project. Provide a narrative description of temporary soil stabilization BMPs.
- Select and describe BMPs to protect the site from the run-on calculated in Section 300.3 and Attachment E. Run-on controls include but are not limited to SS-9, SC-5, SC-6, and SC-8. Show BMPs used to divert and convey off-site drainage around and/or through the construction project.
- Select and describe BMPs for runoff controls to be used in conjunction with run-on controls.
- Select and describe soil stabilization BMPs for inactive areas, finished grades and slopes, open space, utility back fill, completed areas and portions thereof.
- Describe how appropriate erosion control BMPs will be implemented in conjunction with sediment control BMPs for areas under active construction. Contractor shall implement runoff controls and soil stabilization BMPs on active areas 24 hours prior to a likely precipitation event and include active area protection in the Rain Event Action Plan implementation requirements (Section 700.1).
- Describe how grade break BMPs will be implemented to meet the sheet flow length (maximum spacing) requirements of the contract Special Provisions.
- Include the manufacturer's specifications for the products used in Attachment O.

## **EXAMPLE:**

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming suspended in storm water runoff.



The most effective way to address erosion control is to preserve existing vegetation where feasible, to limit disturbance, and to stabilize and re-vegetate disturbed areas. Soil stabilization BMPs protect the soil surface by covering and/or binding soil particles. This project incorporates soil stabilization BMPs as required by Section 7-8.6.3 (or Section 01055) of the contract Special Provisions. The locations of the soil stabilization BMPs are shown on the WPCDs in Attachment B. Copies of the details of the selected BMPs and manufacturer's specifications are included in Attachment O. The BMP Consideration Checklist in Attachment C indicates the BMPs that will be implemented to control erosion on the construction site.

This project implements the following principles for effective temporary and final soil stabilization during construction:

- 1) Preserve existing vegetation at areas where no construction activity is planned. Protect existing vegetation as long as possible in areas where land will be disturbed at a later date. (SS-2 Preservation of Existing Vegetation)
- 2) Limit the use of plastic materials when more sustainable environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the use of plastic materials resistant to solar degradation will be considered.
- 3) Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation. Contractor shall apply erodible landscape material at quantities and application rates according to manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel.
- 4) Apply permanent erosion control to disturbed soil areas as required by the contract Special Provisions.
- 5) Implement soil stabilization, grade break BMPs, run-on controls, and runoff controls as described below.

### Soil Stabilization

Inactive areas and all finished slopes, open space, trench or utility backfill, completed areas and portions thereof shall be stabilized. Inactive areas are areas that have been disturbed and have not or will not be re-disturbed for at least 14 calendar days or areas designated by the Engineer as inactive.

Erosion control BMPs shall be implemented (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active construction. Active areas of construction are areas undergoing land surface disturbance. Active area erosion controls will be implemented at least 24 hours prior to a likely precipitation event (50% or more chance of precipitation). The active area BMPs implementation will be included in the REAP (Section 700.1).

- SS-1 Scheduling – The Construction activities will be scheduled with appropriate BMPs to minimize the potential for pollutant runoff.
- SS-2 Preservation of Existing Vegetation – Existing vegetation will be preserved until it is necessary to be removed for construction. There are no biologically sensitive areas on this project.
- SS-5 Soil Binders – Enough soil binder will be maintained onsite to protect all disturbed areas. The manufacturer's specifications for the soil binder are included in Attachment O. The soil binder can be added to the water truck and sprayed as necessary. Inactive disturbed areas will be stabilized as they become inactive. Active areas will be sprayed at least 24 hours prior to a likely precipitation and will be indicated in the REAP (Section 700.1).



- SS-7 Geotextiles, Plastic Covers, & Erosion Control Blankets/Mats – Plastic will be minimized and plastic that is resistant to solar degradation will be used when feasible. Rolled erosion control products are used as a backup for areas that cannot be adequately protected in time for rain using the soil binders. The manufacturer’s specifications for the actual product(s) used will be included in Attachment O.

Grade Break BMPs

Linear controls will be placed at the grade breaks of exposed soil to comply with sheet flow lengths in accordance with the following table:

SLOPE PERCENTAGE	Maximum Spacing
0-25% (flat to 1:4 V:H)	20 feet
25-50% (1:4 to 1:2 V:H)	15 feet
Over 50% (steeper than 1:2 V:H)	10 feet

- There are many slopes that are 0-25% but no slopes over 25% on this project. All disturbed soil areas will be broken up into 20 feet maximum lengths to slow and spread runoff flows. Fiber rolls SC-5 (or gravel bags SC-6 or sand bags SC-8) will be used for non-active areas. The same will be used for active areas but the linear barriers will be stockpiled near the active areas until there is a likely precipitation event. Active area disturbed soils will be broken up into 20 foot maximum spacing 24 hours prior to a likely precipitation event and will be included in the REAP (Section 700.1).

Run-on Controls

- Run-on shall be managed to prevent erosion and sediment discharges. Run-on from offsite shall be directed away from disturbed areas in conjunction with runoff controls.
- The existing concrete lined ditch at the up-gradient edge of the project currently diverts run-on from the site to the existing storm drain system. As part of this construction project the lined ditch will be removed. When the ditch is removed, temporary diversion BMPs will be deployed to control run-on. The run-on controls will be designed to handle the run-on calculated in Attachment E. The run-on controls will consist of a temporary lined ditch SS-9, and diversion with fiber rolls SC-5, or gravel bags SC-6 and/or sand bags SC-8.
- Along with the existing berm at the up-gradient edge of the project, additional diversion BMPs will be employed. Where the existing berm ends at the east end, a double row of sand bags will be used to divert flow to the lined ditch that flows off the site.
- Double rows of sand bags (or fiber rolls or gravel bags) will be placed at the tops of slopes 1:3 (V:H) or steeper.

Runoff Controls

All runoff within the site and all runoff that discharges off the site shall be managed to prevent erosion and sediment discharge.

Erosion in concentrated flow paths shall be controlled by applying erosion control blankets, lining swales, using velocity dissipation devices, check dams, slope drains and/or outlet protection.

The concentrated flow caused by the placement of the run-on diversion will be controlled with check dams (SC-4) along the sand bag barrier.

The concentrated flow to the southwest will be protected with SS-10 velocity dissipation devices.

The following BMPs shall be implemented:



- SC-4 Check Dams – Temporary check dams using sand bags, gravel bags or fiber rolls will be used in areas where concentrated flow is expected or observed during inspections. Expected locations are shown on the WPCDs. Additional locations will be added to the progress map during construction.
- SS-10 Outlet Protection/Velocity Dissipation Devices – Temporary protection and dissipation using sand bags, gravel bags, or rock will be used to slow and spread concentrated flows that are anticipated and others that are observed during inspections. Expected locations are shown on the WPCDs. Additional locations will be added to the progress map during construction.

Sufficient quantities of temporary soil stabilization materials will be maintained on-site to allow implementation as described in this SWPPP. This includes implementation requirements for active areas and non-active areas, and areas that require BMP maintenance.

**REQUIRED TEXT:**

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming suspended in storm water runoff. The most effective way to address erosion control is to preserve existing vegetation where feasible, to limit disturbance, and to stabilize and re-vegetate disturbed areas. Soil stabilization BMPs protect the soil surface by covering and/or binding soil particles. This project incorporates soil stabilization BMPs as required by Section 7-8.6.3 (or Section 01055) of the contract Special Provisions. The locations of the soil stabilization BMPs are shown on the WPCDs in Attachment B. Copies of the details of the selected BMPs and manufacturer’s specifications are included in Attachment O. The BMP Consideration Checklist in Attachment C indicates the BMPs that will be implemented to control erosion on the construction site.

This project implements the following principles for effective temporary and final soil stabilization during construction:

- 1) Preserve existing vegetation at areas where no construction activity is planned. Protect existing vegetation as long as possible in areas where land will be disturbed at a later date (SS-2 Preservation of Existing Vegetation).
- 2) Limit the use of plastic materials when more sustainable environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the use of plastic materials resistant to solar degradation will be considered.
- 3) Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation. Contractor shall apply erodible landscape material at quantities and application rates according to manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel.
- 4) Apply permanent erosion control to disturbed soil areas as required by the contract Special Provisions
- 5) Implement soil stabilization, grade break BMPs, run-on controls, and runoff controls as described below.



### **Soil Stabilization**

Inactive areas and all finished slopes, open space, trench or utility backfill, completed areas and portions thereof shall be stabilized. Inactive areas are areas that have been disturbed and have not or will not be re-disturbed for at least 14 calendar days or areas designated by the Engineer as inactive.

Erosion control BMPs shall be implemented (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active construction. Active areas of construction are areas undergoing land surface disturbance. Active area erosion controls will be implemented at least 24 hours prior to a likely precipitation event (50% or more chance of precipitation). The active area BMPs will be included in the REAP (Section 700.1).

- SS-1 Scheduling – The Construction activities will be scheduled with appropriate BMPs to minimize the potential for pollutant runoff.
- SS-2 Preservation of Existing Vegetation – Existing vegetation will be preserved until necessary to be removed for construction to minimize soil disturbance. [Describe site specific biologically sensitive areas and how they will be protected or state that there are none.]
- [Include one or a combination of SS-3, SS-4, SS-5, SS-6, SS-7 and SS-8 or other as approved by the Engineer for active and non-active areas]
- 

### **Grade Break BMPs**

Linear controls shall be placed as grade breaks in exposed soil to limit sheet flow lengths according to the following table:

Slope Percentage	Maximum Spacing
0-25% (flat to 1:4 V:H)	20 feet
25-50% (1:4 to 1:2 V:H)	15 feet
Over 50% (steeper than 1:2 V:H)	10 feet

- [Include a description of the slope inclinations at the site.]
- [Include and describe one or a combination of linear sediment barriers (SC-5, SC-6, or SC-8 or other approved by the Engineer).]

### **Run-on Controls**

Run-on shall be managed to prevent erosion and sediment discharges. Run-on from offsite shall be directed away from disturbed areas in conjunction with runoff controls.

- [Insert a site specific description of anticipated run-on consistent with Attachment E and describe existing controls.]
- [Include one or a combination of SS-9, SC-5, SC-6, and SC-8 or other as approved by the Engineer]

### **Runoff Controls**

All runoff within the site and all runoff that discharges off the site shall be managed to prevent erosion and sediment discharge.

Erosion in concentrated flow paths shall be controlled by applying erosion control blankets, lining swales, using velocity dissipation devices, check dams, slope drains and/or outlet protection.



The following BMPs shall be implemented:

- [Insert a site specific description of anticipated runoff areas. Describe existing controls.]
- [Include and describe one or a combination of SS-9, SS-10, SS-11, SC-4, SC-5, SC-6, and SC-8 or other as approved by the Engineer]

Sufficient quantities of temporary soil stabilization materials will be maintained on-site to allow implementation as described in this SWPPP. This includes implementation requirements for active areas and non-active areas, and areas that require BMP maintenance.

#### 500.4.2 Sediment Control

### **INSTRUCTIONS:**

- Apply linear sediment controls along the toe of the slope
  - Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site. Select sediment control BMPs to be used and complete the Temporary Sediment Control BMPs section of the BMP Consideration Checklist in Attachment C. See Section 2 of the BMP Manual for instructions for selecting and implementing construction BMPs. List all the temporary sediment control BMPs to be used in the project.
  - Show the selected temporary sediment control BMPs on the WPCDs. Provide a narrative description of selected temporary sediment control BMPs.
  - Discuss the on-site availability of temporary sediment control materials (materials kept for temporary sediment control BMPs) and proposed course of action (mobilization and implementation) of temporary sediment control BMPs. Explain how and when BMPs will be implemented.
  - Describe the implementation of sediment control BMPs in conjunction with erosion control BMPs for areas under active construction.
  - Apply linear sediment controls along the toe of exposed slopes.
  - Ensure that all storm drain inlets and perimeter controls are maintained and protected from activities that reduce their effectiveness.

### **EXAMPLE:**

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 sites. 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 the temporary sediment control measures required by Section 7-8.6.3 (or Section 01055) of the contract Special Provisions.

Sediment control BMPs will be installed along the perimeter and at all operational inlets to the storm drain system. If storm drain inlets are outside project limits, they shall be protected with BMPs at the project boundaries. All installed BMPs will be maintained to prevent sediment discharge to the storm drain system. Sufficient quantities of temporary sediment control materials will be maintained on-site throughout the duration of the project to protect the active disturbed soil areas prior to predicted rain events, to maintain sediment controls in active and inactive areas, and for rapid response to failures or emergencies. Sediment control BMPs shall be implemented for areas under active construction. Active areas of construction are areas undergoing land surface disturbance. Implementation and



location of temporary sediment control BMPs are shown on the WPCDs in Attachment B. The following temporary sediment control BMPs will be used on this project:

#### Toe of Slope and Perimeter Sediment Controls

- SC-1, Silt fence

Silt fences will be deployed along the toe of exposed slopes to pond storm water runoff and settle out sediment as shown on the WPCDs. Silt fence will be implemented in conjunction with erosion controls in areas of active construction.

- SC-5, Fiber rolls

Fiber rolls will be used as an option for linear barriers where silt fence is not implemented.

- SC-6, Gravel Bag Berms

Gravel bag berms will be used as an option for linear barriers where silt fence is not implemented.

- SC-8, Sandbag barriers

Sandbag barriers will be used as an option for linear barriers where silt fence is not implemented. Sandbags will also be maintained on site for emergency situations to place sediment barriers, check dams or to hold plastic covers in place.

#### Drain Inlet Sediment Controls

- SC-10, Storm Drain Inlet Protection

Storm drain inlet protection will be used at all operational storm drain inlets as shown on the WPCDs. Gravel bags in a “J”-configuration will be used in areas where the bags will not be exposed to traffic. Other SC-10 drain inlet protection options that conform to the curb and gutter line or that are implemented inside the drain inlet will be used where traffic may be an issue.

#### Street Sweeping and Vacuuming

- SC-7, Street Sweeping and Vacuuming

All streets will be inspected daily at a minimum. The paved access roads will be swept and/or vacuumed on a daily basis and prior to any predicted rain event. All swept sediment and other material will be disposed offsite or temporarily stored in protected stockpiles away from storm drains or concentrated flows.

#### Other Sediment Controls

- SC-4, Check dams

Check dams (gravel bags, sand bags or fiber rolls) will be used to slow flows and trap sediment in the temporary concentrated flows as shown on the WPCDs and as concentrated flows are identified during the project. Additional check dam locations added during construction will be added to the WPCDs.

#### Implementation of Temporary Sediment Controls

Sediment controls will be implemented at all times except in active areas where they would inhibit construction. Sediment controls will be implemented in active areas 24 hours prior to a likely precipitation event and will be included in the REAP (Section 700.1)

**REQUIRED TEXT:**

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 sites.



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 the temporary sediment control measures required by Section 7-8.6.3 (or Section 01055) of the contract Special Provisions.

Sediment control BMPs will be installed along the perimeter and at all operational inlets to the storm drain system. If storm drain inlets are outside project limits, they shall be protected with BMPs at the project boundaries. All installed BMPs will be maintained to prevent sediment discharge to the storm drain system. Sufficient quantities of temporary sediment control materials will be maintained on-site throughout the duration of the project to protect the active disturbed soil areas prior to predicted rain events, to maintain sediment controls in active and inactive areas, and for rapid response to failures or emergencies. Sediment control BMPs shall be implemented for areas under active construction. Active areas of construction are areas undergoing land surface disturbance. Implementation and location of temporary sediment control BMPs are shown on the WPCDs in Attachment B. The following temporary sediment control BMPs will be used on this project:

#### Toe of Slope and Perimeter Sediment Controls

- [List and Describe the BMPs for perimeter barriers (SC-1, SC-5, SC-6, and/or SC-8).]

#### Drain Inlet Sediment Controls

- [List and Describe the BMPs for storm drain inlet protection (SC-10).]

#### Street Sweeping and Vacuuming

- [List and Describe the BMPs for Sweeping and vacuuming (SC-7).]

#### Other Sediment Controls

- [List and Describe the BMPs for sediment basins and traps and check dams for potential concentrated flows.]

Sediment controls will be implemented at all times except in active areas where they would inhibit construction. Sediment controls will be implemented in active areas 24 hours prior to a likely precipitation event and will be included in the REAP (Section 700.1).

### 500.4.3 Tracking Control

#### **INSTRUCTIONS:**

Tracking controls shall be considered and implemented year round and throughout the duration of the project, at all access (entrance/exit) points to the project site where vehicles and/or equipment may track sediment from the construction site onto paved public or private roadways.

- Describe how all construction entrances and exits will be stabilized to control sediment discharges from the site.
- Ensure and describe how construction traffic to and from the project site will be limited to the stabilized entrance/exit locations to prevent offsite tracking of sediment.
- Ensure and describe how all pollutant controls at entrances and exits (e.g. stabilized exits, stabilized roadways, tire wash locations) are maintained and protected from activities that reduce their effectiveness.



- ❑ Show on the WPCDs the location of all entrance/exit points to the project site.
- ❑ Describe daily inspection and maintenance BMPs (street sweeping and vacuuming).
- ❑ Select and describe BMPs to prevent the off-site tracking of loose construction and landscape materials.

### **EXAMPLE:**

The following BMPs have been selected to reduce sediment tracking from the construction site onto paved private or public streets:

- SC-7, Street Sweeping and Vacuuming
- TC-1, Stabilized Construction Entrance/Exit
- TC-2, Stabilized Construction Roadway
- TC-3, Entrance/Outlet Tire Wash

All construction entrances and exits will be stabilized in accordance with TC-1. Construction activity traffic to and from the project will be limited to the stabilized entrances and exits. The entrance/exit stabilization will be maintained at all times.

All access roads and entrance and exits will be inspected daily. At a minimum, any sediment or other debris on the roads will be removed (by vacuuming or sweeping) daily and prior to any rain event.

### **BMPs to Reduce Sediment Tracking**

#### ***Stabilized Construction Entrance/Exit***

All construction entrances and exits will be stabilized to control erosion and sediment discharges from the site using TC-1. The stabilized entrance/exit locations are shown on the WPCDs and will be updated as they change during construction. Daily inspections will be conducted to ensure that access to and from the site is through the stabilized locations only. The daily inspections will also ensure that the stabilized locations are properly maintained and protected from activities that may reduce their effectiveness. Installation will consist of 3- to 6-inch coarse aggregate and ribbed steel plates. Length will be determined by site conditions and will be increased as needed to prevent tracking. The entrance will be flared where it meets the existing road to provide an adequate turning radius.

#### ***Stabilized Construction Roadway***

The construction roadway through the site will also be designated and stabilized to prevent erosion and to control tracking of mud and soil material onto adjacent streets. The roadways will be clearly marked for limited speed to control dust. Refer to the WPCD for stabilized construction roadway locations. Stabilization material will be 3- to 6-inch aggregate. A filter fabric will be placed beneath the aggregate. A regular maintenance program will be conducted to replace sediment-clogged stabilization material with new stabilization material.

#### ***Entrance/Outlet Tire Wash***

An entrance/outlet tire wash station will be used during the soil import operations to ensure that sediment tracking to public streets is minimized.

#### ***Street Sweeping and Vacuuming***

Street sweeping and vacuuming will be occur as described in Section 500.4.2. Washing of sediment tracked onto streets into storm drains will not occur.



## **REQUIRED TEXT:**

The following BMPs have been selected to reduce sediment tracking from the construction site.

- SC-7, Street Sweeping and Vacuuming
- TC-1, Stabilized Construction Entrance/Exit
- [List and Describe the other BMPs for tracking controls selected or delete this line.]

All construction entrances and exits will be stabilized in accordance with TC-1. Construction activity traffic to and from the project will be limited to the stabilized entrances and exits. The entrance/exit stabilization will be maintained at all times.

All access roads and entrance and exits will be inspected daily. At a minimum, any sediment or other debris on the roads will be removed (by sweeping and vacuuming) daily and prior to any rain event.

[Insert narrative of additional tracking control practices here or delete this line.]

### **500.4.4 Wind Erosion Control**

## **INSTRUCTIONS:**

The Contractor shall implement effective wind erosion control. Wind erosion control BMPs shall be implemented year-round and throughout the duration of the project on all disturbed soils on the project site, and when significant wind and dry conditions are anticipated during project construction.

- Select BMPs and provide a narrative description of BMPs that will be used to prevent wind erosion during construction operations, including stockpile operations.
- Implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.

## **EXAMPLE:**

The following BMPs have been selected to control dust from the construction site:

- WE-1, Wind Erosion Control

### ***Wind Erosion Control***

- Effective wind erosion control will be implemented. Potable water will be applied to disturbed soil areas of the project site to control dust and maintain optimum moisture levels for compaction. The water will be applied using water trucks. As shown on the project schedule, project soils will be disturbed and exposed from approximately May 1 through December 15. Water applications will be concentrated during the late summer and early fall months and especially during the embankment construction operations scheduled for July. The total water to be applied is expected to be between 106,000 and 180,000 ft<sup>3</sup>.
- Soil binders and covers will be used as called out in Section 500.4.1. The same soil binders will be used for wind erosion control if water application does not provide adequate protection. See the manufacturer's specifications for dust control concentrations in Attachment O.



- BMP WE-1-Wind Erosion Control, and BMP NS-1-Water Conservation Practices, will be implemented to provide dust control and prevent discharges from dust control activities and water supply equipment. Water application rates will be minimized as necessary to prevent runoff and ponding. Water equipment leaks will be repaired immediately.
- BMP WM-3-Stockpile Management, using silt fences and plastic covers will be implemented to prevent wind dispersal of sediment from stockpiles.

### **REQUIRED TEXT:**

The following BMPs have been selected to control wind erosion from the construction site:

- WE-1, Wind Erosion Control

Effective wind erosion control will be implemented.

[Add additional narrative description of wind erosion control BMPs.]

- [Describe soil stabilization BMPs from Section 500.4.1 that will also be used for wind erosion control (e.g., SS-3, SS-4, SS-5, SS-6, SS-7, SS-8)]
- [Describe stockpile BMPs for wind erosion control here or in Section 500.4.6.]

[Insert narrative of additional wind erosion control practices here or delete this line.]

### **500.4.5 Non-Stormwater Control**

### **INSTRUCTIONS:**

Non-storm water discharge is defined as any discharge off site that is not comprised entirely of storm water. Non-storm water discharges shall be eliminated to the extent feasible.

#### **PROHIBITED (ILLICIT) DISCHARGES:**

Non-storm water discharges into storm drain systems or waterways, which are not authorized under a separate NPDES permit, are prohibited. Examples of prohibited discharges common to construction activities include:

- Discharges from vehicle and equipment cleaning, fueling and maintenance operations
- Vehicle and equipment wash water, including concrete washout water
- Slurries from concrete cutting and coring operations, PCC and AC grinding or recycling operations
- Slurries from concrete or mortar mixing operations
- Slurries from drilling or boring operations
- Rinse water and residue from high-pressure washing of structures or surfaces
- Wash water or solvents from cleaning painting equipment
- Runoff from dust control applications of water, dust palliatives, or water truck leaks
- Sanitary and septic wastes
- Utility vault dewatering
- Discharges of construction materials and wastes, such as fuel or paint, resulting from dumping, spills, or direct contact with rainwater or storm water runoff are also prohibited



and shall be addressed in Section 500.4.7, Waste Management and Materials Pollution Control.

All non-storm water discharges must be approved by the Agency prior to discharge. All potential non-storm water discharges shall be listed, along with narrative description of BMPs designed to control potential pollutants in such discharges.

Follow the contract Special Provisions regarding sewage pipeline breaks and spills and include a summary of the procedures to protect the storm drain system from sewage. Refer to the Sewage Spillage and Control Plan or other plan developed for sewage control, if required by contract Special Provisions.

The RWQCB may require a separate NPDES permit or specific monitoring and reporting requirements for non-storm water discharges (including groundwater discharges).

Use the following process to identify, quantify, and select BMPs to prevent or eliminate non-storm water discharges. List each potential non-storm water discharge and provide the information addressed by each step. Complete the BMP Consideration Checklist in Attachment C to show selected BMPs.

- Identify all potential non-storm water discharges within the project. Examine all project activities and determine what discharges will be generated or may be required in order to complete each activity, including mobile-type operations. Discuss how mobile operations, such as maintenance and fueling for large or stationary equipment, will be addressed.
- Describe each potential non-storm water source or activity that may generate a discharge; containment facilities and appurtenances that would be employed; and potential flow paths of discharge to downstream inlets, drainage facilities, and receiving waters. Show BMP locations on the WPCDs.
- Indicate the time period and frequency of each activity that may potentially generate a discharge.
- Describe non-storm water control BMPs and practices required by other NPDES permits, or other federal, state, or local agencies (such as requirements from RWQCB, Army Corps, Fish and Game, etc). Provide details and schedules as appropriate. Include maintenance, inspection, testing, monitoring and reporting requirements. Provide permit information for discharges covered by a separate NPDES permit or other federal, state, or local agencies
- Describe Contractor-selected non-storm water control BMPs and practices to minimize, contain, and dispose of prohibited discharges or to minimize adverse impacts of authorized discharges from the project into the storm drain system or waterway.
- Drain inlets downstream of construction activities (e.g., paving, grinding and saw-cutting operations) shall be covered to prevent non-storm water discharges. The SC-10 Storm Drain Inlet BMPs are not adequate for this type of drain inlet cover. BMPs that completely prevent any discharge of non-storm water to the drain inlet are required.
- Indicate how illicit connections and illegal discharges will be handled.
- All construction groundwater dewatering shall be in full compliance with the NPDES Permit included in the contract documents. If groundwater is encountered and there were no provisions included in the contract for dewatering, the contractor shall immediately notify the Agency. No groundwater shall be discharged to the sanitary sewer, street/gutter, or any other location whether contaminated, treated or not.



- ❑ Accumulated precipitation that is allowed to mix with groundwater or pollutants other than sediment shall be handled as groundwater as described above. See Section 500.5 for accumulated precipitation.
- ❑ Refer to and summarize contract special provisions requirements for sewage pipeline spills and leaks controls that will prevent discharges of sewage from the storm drain system.

### **EXAMPLE:**

Measures to control all non-storm water discharges will be implemented during construction.

An inventory of construction activities and potential non-storm water discharges is provided in Section 500.3.1. The BMP Consideration Checklist in Attachment C and the list below indicates the BMPs that have been selected to control non-storm water pollution on the construction site. Subcontractors and employees whose activities may generate non-storm water discharges will be trained to minimize the potential for such discharges. A narrative description of each BMP follows.

- NS-1, Water Conservation Practices
- NS-3, Paving and Grinding Operations
- NS-6, Illicit Connection/Illegal Discharge Detection and Reporting
- NS-8, Vehicle and Equipment Cleaning
- NS-9, Vehicle and Equipment Fueling
- NS-10, Vehicle and Equipment Maintenance
- WM-8, Concrete Waste Management

No dewatering BMPs were identified for this project. Groundwater is not expected to be encountered and there are very few excavations and low lying areas where precipitation may accumulate. Any accumulated precipitation will be kept on site and will not be allowed to enter the storm drainage system unless in compliance with Accumulated Precipitation Procedure (Attachment K). The water may be collected into water trucks and used for dust control, or it may be allowed to infiltrate and evaporate as long as it takes less than a week to infiltrate or evaporate. Water that cannot be used for dust control and that does not infiltrate or evaporate within 7 days will be disposed of properly offsite.

#### **Water Conservation Practices**

- The Contractor will implement BMP NS-1, Water Conservation Practices throughout the duration of the project.

#### **Street Cleaning**

- Streets will be cleaned by sweeping as much as possible. No water is planned to be used to clean streets. If water must be used to clean streets or other paved areas, measures will be implemented to prevent the discharge of wash or rinse water to the storm drain system. Measures will include covering any down-stream drain inlets. The SC-10 BMPs are not adequate to protect inlets since they allow water to filter through them. The drain inlets will be covered with plastic to prevent any water from getting into them. The plastic covers will be a contingency as the devices upstream will be the primary capturing devices. Sand bag checks and chevrons will be placed upstream of drain inlets. Water use will be minimized and BMPs will be designed to completely



contain all water used. If collected wash water is not contaminated with pollutants other than sediment, it may be used for wind erosion control, or placed in landscaped area for infiltration.

### **Paving Operations**

- The project will include placement of approximately 10 ac of AC pavement. Paving locations and adjacent storm drain inlets are shown on WPCDs. Paving operations will be conducted during the times as shown on the project schedule in Section 300.4. BMP NS-3, Paving and Grinding Operations, will be implemented to prevent paving materials from being discharged off-site. Covers will be placed over each inlet adjacent to paving operations. The covers will consist of scrap carpeting placed over, and tucked under, each inlet grate. Following paving operations, the area will be swept, inlet covers will be removed, and the inlets will be inspected for paving materials and cleaned as deemed necessary. The drain inlet covers used for protection during paving are not replacements for the storm water BMPs for drain inlet protection (SC-10). Nor are SC-10 BMPs adequate for drain inlet protection against non-storm water discharges. The drain inlets will be covered with plastic and the drain inlet protection will not be the primary protection device but a contingency. The primary containment devices will include sand bag checks and other containment devices upstream of the drain inlets.

### **NS-8, NS-9, and NS-10 - Vehicle and Equipment Operations**

- Vehicles and equipment will be cleaned off site as much as possible. If vehicle or equipment cleaning must be done on site it will be in accordance with NS-8. Rinse or wash waters or materials disposal to impervious or pervious surfaces or to the storm drain system will be prevented. If vehicles and equipment are cleaned on site, they will be washed in such a manner as to prevent non-storm water discharges to surface waters or the storm drain system.
- Several types of vehicles and equipment will be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, forklifts, generators and compressors. All vehicle and equipment fueling and maintenance will be conducted in the Contractors yard as shown on the WPCDs. BMPs NS-9, Vehicle and Equipment Fueling, and NS-10, Vehicle and Equipment Maintenance will be utilized to prevent discharges of fuel and other vehicle fluids. Except for concrete washout, which is addressed in Section 500.3.9, vehicle cleaning will not be performed on-site.
- A paved temporary fueling area will be constructed in the contractor's yard as shown on sheet 4 of the WPCDs. All self-propelled vehicles will be fueled off-site or at the temporary fueling area. Fuel trucks, each equipped with absorbent spill clean-up materials, will be used for all on-site fueling, whether at the temporary fueling area or for mobile fueling elsewhere on the site. Drip pans will be used for all mobile fueling. The fueling truck will be parked on the paved fueling area for overnight storage.
- Drip pans or plastic sheeting will be used for all vehicle and equipment maintenance activities that involve grease, oil, solvents, or other vehicle fluids.
- All vehicle maintenance and mobile fueling operations will be conducted at least 50 ft away from operational inlets and drainage facilities and on a level graded area.

### **Concrete Saw-cutting**

- The project will include approximately 400 ft of concrete saw-cutting locations. Saw-cutting locations and adjacent storm drain inlets are shown on WPCDs. Saw-cutting operations will not be conducted during or immediately prior to rainfall events. Saw-cutting operations are expected to produce about 2 cy of waste slurry consisting of water and fine PCC grit.



- BMP WM-8, Concrete Waste Management, will be implemented to contain and dispose of saw-cutting slurries. Sandbags will be used as a contingency to address any slurry or wastes not contained by the WM-8 BMPs to prevent discharges to the storm drain system. Once contained by the sandbag barrier, the slurry will be vacuumed the same day and discharged to the designated concrete washout facility located in the Contractor yard and shown on the WPCDs. Dried and cured concrete wastes will be disposed off-site during concrete washout maintenance activities.

### **REQUIRED TEXT:**

Measures to prevent all non-storm water discharges will be implemented during construction. An inventory of construction activities and potential non-storm water discharges is provided in Section 500.3.1. The BMP Consideration Checklist in Attachment C and the list below indicates the BMPs that have been selected to control non-storm water pollution on the construction site. Implementation and locations of some non-storm water control BMPs are shown on the WPCDs in Attachment B. Subcontractors and employees whose activities may generate non-storm water discharges will be trained to minimize the potential for such discharges. A narrative description of each BMP follows.

- Paved surfaces will be cleaned by sweeping and vacuuming. No streets or other surfaces will be washed.
- Vehicle washing will only be allowed if approved by the Engineer. If approved, vehicle washing will be conducted in accordance with NS-8.
- [List BMPs that include the minimum BMPs of the Special Provisions and additional BMPs that match the potential non-storm water sources on site.]
- [Insert narrative of additional non-storm water control practices here or delete this line.]

#### **500.4.6 Waste Management and Materials Pollution Control**

### **INSTRUCTIONS:**

Waste management consists of implementing procedural and structural BMPs for collecting, handling, storing and disposing of wastes generated by a construction project to prevent the release of waste materials into storm water discharges. Construction site wastes can range from residues collected from non-storm water discharges (i.e. paint removal) to general site litter and debris (i.e. empty marker paint cans).

Materials pollution controls (materials handling) consist of implementing procedural and structural BMPs for handling, storing and using construction materials to prevent the release of those materials into storm water discharges. The amount and type of construction materials to be utilized at the site will be dependent upon the type of construction and the length of the construction period. The materials may be used continuously, such as fuel for vehicles and equipment, or the materials may be used for a discrete period, such as fertilizer for landscaping.

Waste management pollution control BMPs shall be implemented to minimize storm water contact with construction wastes and service areas, and to prevent construction wastes or waste residues from being discharged off-site. The primary mechanisms for storm water contact that shall be addressed are:

- Direct contact with precipitation



- Contact with storm water run-on and runoff
- Wind dispersion of loose materials
- Direct discharge to the storm drain system through spills or dumping

Extended contact with some materials and wastes, such as plated metals and treated wood products can also leach pollutants into storm water.

Use the following process to identify and select BMPs for waste management and materials pollution control.

- Review construction activities to identify and quantify likely construction materials and wastes. Identify materials and wastes with special handling or disposal requirements, such as contaminated soils, concrete waste, waste chemicals and empty chemical containers. (See Section 500.3.1)
- Substitute safer, less polluting products where possible. Substitution of products and materials require approval pursuant to the contract specifications.
- Select and describe BMPs to protect stockpiles of construction materials or waste from contact with storm water.
- Select and describe BMPs to prevent chemicals from contact with precipitation. Liquid materials shall be stored within enclosed shed or with appropriate secondary containment.
- Select and describe BMPs to prevent disposal of any rinse or wash waters or materials on pervious or impervious surfaces or into the storm drain system.
- Select and describe BMPs to ensure the containment of sanitation facilities (e.g. portable toilets), and inspect regularly for leaks and spills.
- Select and describe BMPs to ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.
- Use the BMP Consideration Checklist in Attachment C to identify minimum requirements and additional BMPs selected to address project-specific activities.
- List the selected BMPs and describe proposed facilities for materials storage and waste management (including on-site storage and disposal of waste). Include scheduled inspection, and maintenance requirements.
- Show BMPs on the WPCDs.
- Describe proposed waste collection and removal schedules.

### **EXAMPLE:**

An inventory of construction activities, materials, and wastes is provided in Section 500.3.1. Measures will be implemented to control all non-storm water discharges during construction. The BMP Consideration Checklist in Attachment C and the following list indicates the BMPs that have been selected to handle materials and control construction site wastes. Implementation and locations of materials handling and waste management BMPs are shown on the WPCDs in Attachment B. A narrative description of each BMP follows.

- Stockpiles that are not actively being used will be covered and bermed.
- Chemicals will be stored in watertight containers with secondary containment to prevent spillage or leakage, and covered to prevent storm water contact.



- Sanitary facilities (i.e., portable toilets) will be contained to prevent discharges of pollutants to the storm drain system. Sanitary facilities will be inspected regularly for leaks and spills. Sanitary facilities will be cleaned and replaced as necessary.
- Spill cleanup equipment and materials will be available on site. Appropriate spill response personnel are assigned and trained. See Attachment I for documentation of the training. Spills and leaks will be cleaned up immediately. There will be a minimum of 3 approved spill response cleanup kits available on site. One will be located at the fuel storage area and one will be located on the fuel truck. The other spill kit will be available in the Contractor's yard. Spills and leaks will be cleaned up immediately and disposed of properly offsite.
- All concrete waste will be contained in an approved concrete washout only. There will be no discharge, spills or leaks of concrete waste into the underlying soil or onto surrounding areas. Concrete waste includes but is not limited to any slurries, cement, wash waters, additives, or grout. Containment of other washout wastes (including but not limited to paints, thinners, solvents, etc.) will be contained so there is no discharge into the underlying soil and onto the surrounding areas. All concrete and other wastes will be properly disposed of offsite.
- Oil, grease or fuel will be prevented from leaking onto the ground or into storm drains or surface waters. Spills and leaks will be cleaned up immediately and disposed of properly offsite.
- Stockpiles of waste material will be contained and securely protected from wind and rain at all times unless actively being used (adding or removing waste).
- Waste disposal containers will be covered at the end of every working day and during rain events.

#### **Landscape Material Use and Storage**

- Mulches, topsoil, fertilizers and other materials will be contained at all times when not actively being used.
- Application of any erodible landscape materials will be discontinued at least 2 days prior to forecasted rain events or during rain events.
- Erodible landscape materials will be applied at quantities and application rates according to manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel.
- Erodible landscape material will be stacked on pallets and cover or stored in stockpiles in accordance with WM-3 when not being actively being used or applied.

The following BMPs are included in Attachment O.

- WM-1, Material Delivery and Storage
- WM-2, Material Use
- WM-3 Stockpile Management
- WM-4, Spill Prevention and Control
- WM-5, Solid Waste Management
- WM-6, Hazardous Waste Management
- WM-8, Concrete Waste Management



- WM-9, Sanitary Waste Management
- WM-10, Liquid Waste Management

### **Material Delivery, Storage and Use**

- In general, BMPs WM-1 and WM-2 will be implemented to help prevent discharges of construction materials during delivery, storage, and use. The general material storage area will be located in the contractor's yard as shown on the WPCDs. A sandbag barrier (BMP SC-8) will be provided around the storage area to prevent run-on from adjacent areas. Two types of storage/containment facilities will be provided within the storage area to minimize storm water contact with construction materials:
  - A separate covered storage/containment facility will be constructed adjacent to the shipping containers to provide storage for larger items such as drums and items shipped or stored on pallets. The containment facility will consist of a 10 ft by 20 ft raised concrete pad with 5-in curbed sides. The facility will provide about 530 gal of containment volume. The volume of the containment facility may be increased with higher walls if more liquids are stored inside it to ensure 150% of the volume of all stored liquid containers. A wood frame and corrugated tin roof will be constructed to protect the facility from sun and rain. Corrugated tin sides will be added when necessary to provide additional protection from wind and rain.
  - Large items, such as concrete pipes, framing materials, and stockpiled lumber, will be stored in the open in the general storage area. Such materials will be elevated with wood blocks to minimize contact with run-on.
- Spill clean-up materials, material safety data sheets, a material inventory, and emergency contact numbers will be maintained and stored in the shipping containers.

### **Stockpile Management**

- BMP WM-3 will be implemented to prevent discharge of pollutants from all stockpiles. Loose stockpiled materials that are not actively being used will be covered and bermed. Plastic will be used to cover the stockpiles and fiber rolls or sand bags will be used to berm the stockpiles.

### **Spill Prevention and Control**

- BMP WM-4, Spill Prevention and Control, will be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. Appropriate spill response personnel will be assigned and trained. Spill prevention is also discussed above under Material Delivery, Storage, and below in the following waste management and equipment maintenance sections.

### **Solid Waste Management**

- BMP WM-5, Solid Waste Management, will be implemented to minimize storm water contact with waste materials and prevent waste discharges. Solid wastes will be loaded directly into trucks for off-site disposal. When on-site storage is necessary, solid wastes will be stored in watertight dumpsters in the general storage area of the contractor's yard. Dumpsters will be covered at the end of each day and during rain events. Dumpster locations are shown on the WPCDs.
- AC and PCC rubble will be stockpiled in the general storage area and will be surrounded with sediment controls (SC-8, Sandbag Barrier). Solid waste, including rubble stockpiles, will be removed and disposed off-site at least weekly. ABC Waste Disposal (License CA9999999) will provide solid waste disposal services.



- Covered trash containers will be provided for jobsite litter and lunch trash at all areas where workers congregate. The construction site will be policed daily to ensure litter and debris are contained and not allowed to be transported off site by wind or water.

### **Hazardous Waste Management**

- BMP WM-6 will be implemented to handle the hazardous waste that may be generated from vehicle and equipment leaks or spills. Although the spill control BMPs will be implemented, some cleanup waste is expected and some maintenance waste such as filters or used oil may be generated. Any waste other than solid waste will be handled in accordance with the WM-6 BMP.

### **Concrete Waste and Concrete Washout Wastes**

- This project will generate approximately 100-cy of concrete waste. The estimated maximum washout volume is 3 cubic feet. Discharges will consist of rinse water and residual concrete (Portland cement, aggregates, admixture, and water). Concrete pours will not be conducted during or immediately prior to rainfall events.
- BMP WM-8, Concrete Waste Management, will be implemented and a concrete washout facility will be constructed and maintained at the contractor's yard as shown on the WPCDs. All excess concrete and concrete washout slurries will be placed in the washout facility for drying. The minimum-sized washout, at 10-ft x 10-ft x 3.3-ft deep, will provide more than sufficient volume to contain concrete washout wastes and waste collected from concrete saw-cutting operations. BMP maintenance, waste disposal, and BMP removal will be conducted as described in WM-8. Washouts no longer in use will be removed prior to onset of precipitation. Washouts in use will be covered to preserve capacity and freeboard to prevent overflow.

### **Sanitary and Septic Wastes**

- BMP WM-9, Sanitary and Septic Waste Management will be implemented. Portable toilets will be located and maintained at the contractor's yard for the duration of the project. Weekly maintenance will be provided by ABC Sanitation (license CA0Q45W) and wastes will be disposed off-site. The toilets will be located away from concentrated flow paths and drainage inlets.

### **Liquid Waste Management**

- BMP WM-10 will be implemented for waste water generated from drilling operations. No pollutants other than sediment are expected. The water will be completely contained and disposed of offsite at an approved facility. If other liquid wastes are encountered on site that are not already addressed by other BMPs, WM-10 will be followed.

## **REQUIRED TEXT:**

An inventory of construction activities, materials, and wastes is provided in Section 500.3.1. Measures will be implemented to control all non-storm water discharges during construction. The BMP Consideration Checklist in Attachment C and the following list indicates the BMPs that have been selected to handle materials and control construction site wastes.

Implementation and locations of materials handling and waste management BMPs are shown on the WPCDs in Attachment B. A narrative description of each BMP follows.

- Stockpiles that are not actively being used (adding or removing waste) will be covered and bermed to protect them from wind and rain at all times.



- Chemicals will be stored in watertight containers with secondary containment to prevent spillage or leakage, and covered to prevent storm water contact.
- Sanitary facilities (i.e., portable toilets) will be contained to prevent discharges of pollutants to the storm drain system. Inspect sanitary facilities regularly for leaks and spills. Sanitary facilities will be cleaned or replaced as necessary.
- Spill cleanup equipment and materials will be available on site. Appropriate spill response personnel are assigned and trained (Attachment I). Spills and leaks will be cleaned up immediately.
- [List and describe the locations of a minimum of 3 spill cleanup kits required by the contract Special Provisions.]
- All concrete waste will be contained in an approved concrete washout only. There will be no discharge, spills or leaks of concrete waste into the underlying soil or onto surrounding areas. Concrete waste includes but is not limited to any slurries, cement, wash waters, additives, or grout. Containment of other washout wastes (including but not limited to paints, thinners, solvents, etc.) will be contained so there is no discharge into the underlying soil and onto the surrounding areas. All concrete and other wastes will be properly disposed of offsite.
- Oil, grease or fuel will be prevented from leaking onto the ground or into storm drains or surface waters. Spills and leaks will be cleaned up immediately and disposed of properly offsite. Contractor will assign appropriately trained spill response personnel documented in Attachment I.
- Waste disposal containers will be covered at the end of every working day and during rain events.
- [Describe spill containment and response plan including WM-4 at a minimum.]

***REQUIRED TEXT: If landscape materials are used or stored on site.***

- Mulches, topsoil, fertilizers and other materials will be contained at all times when not actively being used. Stockpiles of these materials will be covered and bermed when not actively being used.
- Application of any erodible landscape materials will be discontinued at least 2 days prior to forecasted rain events or during rain events.
- Erodible landscape materials will be applied at quantities and application rates according to manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel.
- Erodible landscape material will be stacked on pallets and covered or stored in stockpile covered and bermed in accordance with WM-3 when not actively being used or applied.
- [Insert and describe the selected BMPs from the BMP Checklist in Attachment C. Add bullets as necessary.]
- [Insert narrative of additional waste management and materials pollution control practices here.]



## 500.5 Accumulated Precipitation Procedure

### **INSTRUCTIONS:**

The Contractor shall prepare an Accumulated Precipitation Procedure (APP) as part of the SWPPP (Attachment K). The APP shall describe the location of proposed discharges, the sediment treatment BMPs (e.g., NS-2), and the actual equipment to be used. The APP shall be prepared and submitted in accordance with BMP NS-2, the LACDPW Construction Site BMPs Manual (BMP Manual) and this SWPPP Preparation Manual. Accumulated precipitation shall be sampled prior to discharge as specified in the SWPPP for storm water sampling Section 600.2. Any accumulated precipitation that mixes with groundwater or pollutants other than sediment shall be handled as non-storm water (groundwater) in Section 500.4.5.

### **EXAMPLE:**

See the Construction Site BMP Manual Section 7 for an example APP.

### **REQUIRED TEXT:**

The APP for this project is included in Attachment K.

## 500.6 Water Pollution Control Drawings (WPCDs)

### **INSTRUCTIONS:**

Prepare Water Pollution Control Drawings (WPCDs) in conformance with these instructions. Include all WPCDs in Attachment B to the SWPPP.

- Attachment B shall include a cover sheet(s) including the project name and location and listing the BMPs that will be used, along with construction notes and legend. Use the standard symbols as depicted on the BMP fact sheets in the LACDPW Construction Site Best Management Practices (BMPs) Manual.
- Include detailed sheets showing construction details for the BMPs that will be used. Details provided in the LACDPW Construction Site Best Management Practices (BMPs) Manual may be used as appropriate. Additional details may be necessary to describe site-specific BMP applications. Use project layout, grading, construction, drainage sheets and/or erosion control sheets as base sheets for the WPCDs. Show the locations of all selected BMPs for the project on the WPCDs. Include additional detail drawings if necessary to convey site-specific configurations.

The SWPPP shall apply to 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 project site. Therefore:

- If the Contractor's yard, staging area, storage yard borrow area and access roads for the project is not within the project site, the WPCDs shall show all BMPs to be used at such areas.

The WPCDs shall reflect the project phasing and/or construction staging, and shall address the entire scope of the contract work.



## **REQUIRED TEXT:**

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

The WPCDs show the construction project in detail, including:

- The site layout and construction site boundary/perimeter.
- Geographic features within or immediately adjacent to the site. Include surface waters such as lakes, streams, springs, wetlands, estuaries, ponds, and the ocean. Include locations of existing wells.
- Site topography before and after construction. Include roads, paved areas, buildings, slopes, drainage facilities, and areas of known or suspected contamination.
- Permanent (post-construction) BMPs.
- Discharge points from the project to off-site storm drain systems or receiving waters and sample locations
- Drainage areas, tributary areas and drainage patterns across the project area (shown using flow arrows) into each on-site storm water inlet or receiving water.
- Relevant drainage areas or watershed boundaries of off-site areas that drain onto the construction project as calculated in Attachment E.
- Temporary and permanent on-site drainage(s) to carry concentrated flows.
- Drainage patterns and slopes anticipated after major grading activities are completed
- Locations of sensitive habitat, watercourses, areas of existing vegetation, soil cover, or native vegetation that will be protected/preserved and which are not to be disturbed during the project.
- Temporary and permanent, active and non-active areas of soil disturbance (e.g., excavation, grading, trenching, etc.)
- Location(s) of contaminated or hazardous soils.
- Locations of potential non-storm water discharges and activities, including construction dewatering, concrete saw-cutting or coring, waterline flushing, diversions, cofferdams, and vehicle and equipment cleaning.
- Locations for all construction site BMPs. Include additional detail drawings if necessary to convey site-specific configurations.
- Temporary soil stabilization and temporary sediment control BMPs that will be used during construction. Including temporary on-site drainage(s) to carry concentrated flows (runoff controls), BMPs implemented to divert off-site drainage (run-on) around or through the construction site, and BMPs that protect storm water inlets.
- Locations of site entrance/exit points and temporary construction roads.
- BMPs to mitigate or eliminate non-storm water discharges.
- Locations of 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; areas designated for waste handling and disposal, storage areas for waste, vehicles, equipment, service, fueling, maintenance, cleaning and water storage, water transfer for dust control and compaction practices.

- Location(s) of temporary stockpiles and BMPs to protect stockpiles.
- The Contractor's yard and all BMPs that will be implemented.
- [Include additional items shown on the WPCDs or delete this line.]

## 500.7 BMP Inspection, Maintenance and Repair

### **INSTRUCTIONS:**

Describe the program to inspect, maintain, and repair all BMPs identified for the project. Insert the complete program as Attachment G. See Attachment G for a blank form to fill out for inclusion into the SWPPP.

### **REQUIRED TEXT:**

A program for Inspection, Maintenance and Repair of BMPs is included in Attachment G.

## 500.8 Post-Construction Storm Water Management

### **INSTRUCTIONS:**

Post-Construction BMPs are permanent measures installed or maintained during construction that are designed to reduce or eliminate pollutant discharges from the site after construction is completed. The Agency may provide requirements for the construction and implementation of post-construction BMPs. See the contract Special Provisions for permanent BMPs and list them.

Provide descriptions of the Post-Construction BMPs employed after all construction phases have been completed at the site. Examples of post-construction measures include those built as part of construction and those that were in place before construction such as:

- curb and gutter,
- infiltration basins,
- detention/retention devices,
- biofilters,
- catch basin filters,
- permanent erosion control, seeding, mulching, and planting,
- outlet protection/velocity dissipation devices,
- rock slope protection,
- other permanent structural BMPs.

- Show the locations of post-construction BMPs on the WPCDs. This may only require highlighting and notation of features existing on project plans.



- Describe the agency or parties to be responsible for long-term maintenance of these BMPs. Most often this will be the routine maintenance programs of the Agency (i.e., Flood Maintenance, Bridge Maintenance, Road Maintenance, Water Works, Water Resources, etc.). The Agency may provide this information.

### **EXAMPLE:**

The following are the post-construction BMPs that are to be used at this construction site after all construction is complete:

- Curb and gutter in place prior to construction were maintained during construction.
- Outlet protection/velocity dissipation devices at all culvert outlets.
- All other slopes will be seeded, planted and protected with wood mulch.
- All drainage swales and dikes will be concrete lined.
- An infiltration basin will be constructed.

The locations of the post-construction BMPs are shown on the WPCDs. These BMPs will be maintained short- and long-term by the Los Angeles County Department of Public Works (LACDPW) as part of their routine road maintenance program.

### **REQUIRED TEXT:**

The following are the post-construction BMPs that are to be used at this construction site after all construction is complete:

- [List and describe the project-specific post-construction BMPs.]
- 
- 

## **500.9 Training and Certification**

### **INSTRUCTIONS:**

All persons responsible for implementing the requirements of the Section 7-8.6.3 of the contract Special Provisions shall be trained and certified as required, and the SWPPP shall document all training. This includes those personnel responsible for SWPPP development and implementation, installation, inspection, maintenance, and repair of BMPs, and sampling and analysis. Training for the Contractor's QSD, QSP, sampling personnel, and others as described above shall be included in Attachment I.

Subcontractors and employees whose activities may generate non-storm water discharges shall be trained to minimize the potential for such discharges.

Training shall be both formal and informal and shall occur on an ongoing basis. For example, the findings of the weekly BMP checklist and corrective actions shall be the topic of ongoing training (e.g., weekly tailgate meetings).

Formal storm water pollution prevention or erosion and sediment control training sessions may include workshops offered by the SWRCB, RWQCB, or other locally recognized agencies or professional organizations. Contractors are encouraged to contact the RWQCB or the SWRCB to



inquire about availability of training. A statement of qualifications for the QSP shall be included in the SWPPP.

The Contractor's QSD and QSP shall have one of the certifications and training required by the contract Special Provisions. A statement of qualifications for the QSP and QSD shall be included in Attachment I.

- The person collecting water quality samples for the Contractor shall be the QSP or meet the qualifications for a QSP.
- Storm-water training shall be documented using the training log sheet provided as Attachment I and shall include copies of training certificates and other required certificates.

### **EXAMPLE:**

Informal training will include tailgate site briefings to be conducted weekly and will address the following topics:

- Erosion Control BMPs
- Sediment Control BMPs
- Non-Stormwater BMPs
- Waste Management and Materials Pollution Control BMPs
- Previous BMP Checklist findings and corrective actions
- Emergency Procedures specific to the construction site storm water management

The QSP is a Certified Professional in Erosion and Sediment Control (CPESC). The QSP attended a three (3) day construction storm water management course given by the Regional Water Quality Control Board (RWQCB) - Los Angeles Region in October of 2010. Certificate of training is attached. This project is expected to be completed prior to September 2, 2011. If the project is not completed by September 2, 2011, the QSP will document the required Water Board training prior to that date.

Other personnel attending tailgate training during construction will document attendance using the form in Attachment I.

This SWPPP was prepared by Mr. John Doe, a Registered Professional Civil Engineer in the State of California. Mr. Doe has attended a 24-hour training for SWPPP Management. The certificate for the training and professional engineer is included in Attachment I. This project is expected to be completed prior to September 2, 2011. If the project is not completed by September 2, 2011, the QSD will document the required training prior to that date.

The person collecting and analyzing samples for the Contractor is Don Doe. Mr. Don Doe has attended a 24-hour training for SWPPP Management. His training certification is documented in Attachment I. This project is expected to end prior to September 2, 2011. If the project is not completed by September 2, 2011, the water quality sampler will document the required training by the Water Board for a QSP prior to that date.



## **REQUIRED TEXT:**

Section 300.4 shows the name of the Owner/Developer/Contractor's Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD) and person collecting and analyzing samples for the Contractor. These persons have received the following certifications, training, and experience:

### QSD Qualifications

- 
- 
- 

### QSP Qualifications

- 
- 

### Sampling and Analysis Person Qualifications

- 
- 
- 

Training for others responsible for SWPPP or BMP implementation is included in the training log (Attachment I). Training will be ongoing during construction and the training log will be updated as training is conducted.

- [Describe ongoing training and frequency. Training shall include site-specific BMPs and BMP Checklist findings and corrective actions.]

All training documentation and certifications are included in Attachment I.

## **500.10 List of Subcontractors**

## **INSTRUCTIONS:**

List all contractors, subcontractors and individuals responsible for implementation of the SWPPP. All subcontractors must be directed by the QSP. This list shall include name of contractor, subcontractor, or individual, telephone numbers and addresses. Specific areas of responsibility of each (type of work to be performed) and emergency contact numbers shall also be included.

All contractors, subcontractors and individuals of their responsibility shall be notified regarding compliance with the SWPPP and Section 7-8.6.3 (or Section 01055) of the contract Special Provisions. A subcontractor log and sample notification letter are provided in Attachment J. Discuss pertinent conditions in the contractual agreement and/or letter of approval that address subcontractor responsibility for compliance.

Include a completed list in Attachment J in the SWPPP.

## **REQUIRED TEXT:**

All contractors and subcontractors will be notified of the requirements for storm water management measures and the prevention or elimination of non-stormwater discharges during the project. A list of



contractors will be maintained and included in the SWPPP. If subcontractors change during the project, the list will be updated accordingly. The subcontractor log and notification letter is included in this SWPPP as Attachment J.



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# Section 600

## Construction Site Monitoring Program

### INSTRUCTIONS:

Include a Separator/Divider/Tab for Section 600 for ready reference.

Inspections and sampling are triggered by the percentage chance of rain and the amount of precipitation. The Contractor's QSP shall monitor the weather forecast information on a daily basis from the National Weather Service Forecast Office. For example, by entering the zip code of the project's location at <http://www.srh.noaa.gov/forecast>, then scrolling down to the Additional Forecasts and Information section and clicking on Forecast Weather Table Interface. The 7-day forecast showing 6-hour increments of chance of rain and precipitation amount shall be printed (see example in Figure 600-1) and a copy shall be submitted to the on-site Engineer within 24 hours on a daily basis (working days). Printed forecasts shall be filed in the SWPPP (Attachment Q).

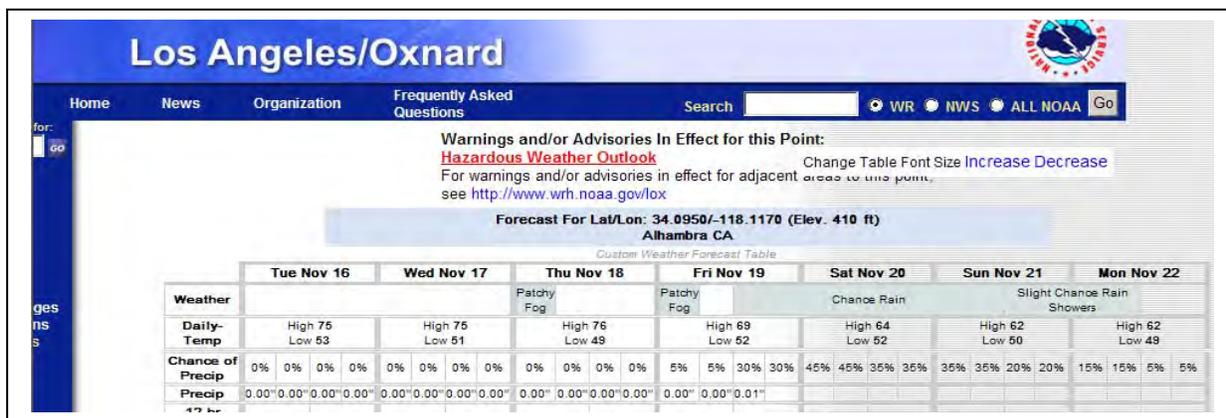


Figure 600-1 – Example weather forecast printout with 7-day forecast showing chance of rain and precipitation amount in 6-hour increments.

Evaluate the forecast to determine whether a precipitation event is likely or whether a qualifying precipitation event is predicted.

- If there is a likely precipitation event (50% chance or more of rain), the Contractor shall prepare a REAP (Section 700.1).
- If there is a predicted qualifying rain event (1/2 inch or more of rain), Contractor shall conduct pre-storm inspections and storm water sampling (Sections 600.1 and 600.2).

The Contractor's QSP shall monitor the Los Angeles County Department of Public Works, Water Resources Division rain gauge on a daily basis for the station located nearest to the project site. For example, go to [http://ladpw.org/wrd/precip/alert\\_rain/index.cfm](http://ladpw.org/wrd/precip/alert_rain/index.cfm) or current website approved by the Engineer. Click on the 24-hour tab to determine rainfall in inches. The rainfall in inches and rain gauge station identification shall be recorded in the BMP Checklist. A copy of the daily rain gauge data shall be submitted to the onsite Engineer.

The rain gauge information shall be evaluated to determine whether there was an actual qualifying rain event (1/2 inch or more with 48 hours or more between rain events). The rain gauge amounts for each day shall be added until there is 48 hours without measurable rain to determine total rainfall for a precipitation event.



No samples or inspections are required under the following conditions:

If a rain day is granted by the Engineer for dangerous weather conditions such as flooding and electrical storms; or

Outside of scheduled site working hours

If no samples are collected or no inspections are conducted due to these exceptions, an explanation shall be included in the SWPPP and the Annual Report documenting why the sampling or inspections were not conducted.

### **REQUIRED TEXT:**

The National Weather Service Forecast Office will be monitored daily by the QSP. A printed copy of the 7-day forecast in 6-hour increments showing percent chance of rain and precipitation amount will be printed and submitted to the on-site Engineer and a copy will be included in Attachment Q.

The Los Angeles County Department of Public Works, Water Resource Division [Fill in the name of the closest rain gauge station to the project site.] will be monitored daily by the QSP. A copy of the daily printout for the previous 24-hour period will be submitted to the on-site Engineer and a copy will be included in Attachment Q.

## **600.1 Site Inspections**

### **INSTRUCTIONS:**

This Section shall include site inspections for routine inspections, storm event inspections and non-storm water inspections. The BMP Checklist in Attachment H includes all necessary information for each type of inspection. Each inspection shall include the information required for all types of inspection regardless of when the inspection is conducted.

Describe the Site inspection frequency, objectives and documentation procedures. Include the following minimum requirements:

Inspection, maintenance and repair shall be performed by the QSP. The project site shall be inspected during scheduled working hours:

- At a minimum once every week
- Within 48 hours prior to a qualifying rain event (1/2 inch or more of rain).
- At least every 24 hours during an extended rain event (any measurable rain of 0.1 inch or more)
- Within 48 hours after a qualifying rain event.
- Quarterly, non-storm inspections required by the Construction General Permit (Any inspection conducted above will satisfy this requirement.)

The inspection will identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. The QSP shall use the BMP Checklist in Attachment H to document the inspection. One copy of the completed, signed BMP Checklist shall be submitted to the Engineer within 24 hours of each required inspection along with the printed copy of the forecast. One copy of the completed BMP Checklist shall be maintained with the SWPPP onsite.

The Contractor shall include all information required on the BMP Checklist including the time, date, and daily rain gauge reading during rain events. The rain gauge reading for the previous 24 hours



shall be obtained from the LACDPW's real-time rainfall data precipitation map at [http://ladpw.org/wrd/precip/alert\\_rain/index.cfm](http://ladpw.org/wrd/precip/alert_rain/index.cfm) or current website as approved by the Engineer.

### **REQUIRED TEXT:**

The QSP will inspect the site:

- At a minimum of once every week.
- Within 48 hours prior to a qualifying rain event (1/2 inch or more of rain).
- At least every 24 hours during extended precipitation events (any measurable rain of 0.1 inch or more).
- Within 48 hours after a qualifying rain event.
- Quarterly for non-storm water inspections.

The Contractor's QSP shall:

- Observe all drainage areas to identify spills, leaks, or uncontrolled pollutant sources.
- Observe the presence or absence of floating materials, a sheen on the surface, discolorations, turbidity (cloudiness), odors, and source(s) of any observed pollutants in storm water runoff.
- Observe any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard. Observe any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard to contain water. Inspections shall be done during the discharge or prior to the discharge if the water will likely discharge after working hours.
- Observe all BMPs to identify whether they have been properly implemented in accordance with the SWPPP/REAP. If needed, corrective actions shall be implemented by the Contractor.
- Inspect for non-storm water discharges. Inspections shall observe each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.
- The inspection shall monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of numeric action levels (NALs).
- Document explanation why sampling or inspections were not conducted before, during or after rain events of 1/2 inch or more based on dangerous weather conditions or rain outside of business hours.
- Identify whether BMPs were adequately designed, implemented, and effective, and whether additional BMPs are necessary. The SWPPP will be amended accordingly (See Section 200).

The inspection will identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. The QSP will use the BMP Checklist in Attachment H to document the inspection. One copy of the completed, signed BMP Checklist will be submitted to the Engineer within 24 hours of each required inspection along with the printed copy of the forecast. One copy of each completed BMP Checklist will be maintained with the SWPPP onsite.



## 600.2 Storm Water Effluent Monitoring

### **INSTRUCTIONS:**

Sampling and analysis of storm water discharges is required to characterize discharges associated with construction activity from the entire project disturbed area. Storm water grab samples shall be collected at all discharge points where storm water is discharged offsite. A minimum of three grab samples shall be collected each day of a qualifying rain event (1/2 inch or more of rain). The storm water grab samples shall be analyzed for pH and turbidity.

Describe sampling locations, and sample collection and handling procedures.

### **REQUIRED TEXT:**

Storm water grab samples will be collected at all discharge points where storm water is discharged offsite. A minimum of three grab samples will be collected each day of a qualifying rain event (1/2 inch or more of rain). The Contractor will maintain a pH meter and turbidity meter on site in accordance with the Special Provisions. The storm water grab samples shall be analyzed for pH and turbidity in accordance with the following:

- pH – field test with calibrated portable meter with a minimum detection limit of 0.2 pH units.
- Turbidity – field test with calibrated portable meter with a minimum detection limit of 1 NTU.

Sample results will be compared to numeric action levels (NALs):

- pH – lower 6.5, upper 8.5.
- Turbidity – 250 NTU.

### 600.2.1 Monitoring Strategy for Storm Water Effluent Sampling

### **INSTRUCTIONS:**

The QSP shall perform sampling and analysis of storm water discharges to characterize discharges associated with construction activity from the entire project disturbed area. Samples shall be collected once a discharge is observed during working hours.

Describe the sampling schedule for collecting samples of storm water effluent. Storm water effluent samples must be collected from each discharge location for each rain event that produces 1/2 inch or more of rain.

Describe the sampling locations for sampling storm water effluent.

- Describe the rationale for the selection of sampling locations. The discharge samples collected must represent the effluent in each drainage area based on visual inspection of the water and upstream conditions. For example, if there has been concrete work recently in an area, or drywall scrap is exposed to the rain, a pH sample shall be taken of drainage from the relevant work area. Similarly, if sediment laden water is flowing through some parts of a silt fence, samples shall be taken of the sediment-laden water even if most water flowing through the fence is clear.
- Monitor and report site run-on from surrounding areas. If there is reason to believe run-on may contribute to an exceedance of NALs, collect at least one sample of run-on to the site.



- Identify all discharge locations from the site. These include but are not limited to:
  - Storm drain inlets
  - Concentrated flow lines (gutters, v-ditches, channels, concrete-lined swales, other lined and unlined conveyances)
  - Perimeters areas where water could flow offsite
- Show all discharge locations on the WPCDs in Attachment B.
- Locate sampling locations in areas that are safe, out of the path of heavy traffic, and safely accessible.
- Pay attention to surrounding areas such as parks, vacant lots, agricultural areas, or other sites that may contribute run-on sediment to the site.

Collect a minimum of three samples per day of a qualifying rain event.

### **EXAMPLE:**

#### **Sampling Schedule**

Samples for storm water effluent will be collected and analyzed when there is runoff from a qualifying rain event. A minimum of three (3) samples will be collected and analyzed. Since it will not be known before it rains when a rain event will be “qualifying,” samples will be collected when there is runoff at the discharge points of the site.

#### **Sampling Locations**

The following locations were identified as discharge points from the projects. These discharge points are where storm water on the site is expected to discharge offsite or to the storm drain system. These discharge locations are shown on the WPCDs in Attachment B.

- Two sampling locations, designated numbers DP-1 and DP-2 have been identified for the collection of samples of runoff where storm water may leave the project site.
  - DP-1 - The northwest portion of the project drains to a concrete lined channel that flows offsite to the east. The point where the channel flows offsite is shown as a discharge point on the WPCDs.
  - DP-2 - The east portion of the project has one area that currently discharges offsite. The WPCDs show a diversion BMP of sandbags that will direct the flow from that area to the down-gradient perimeter along Stearns Street. This area is shown as a discharge point on the WPCDs but will not be sampled if the diversion BMPs are working adequately to prevent discharge from this area.
  - Other discharge points that are identified during inspection and sampling will be added when identified as an amendment to this SWPPP.
- One sampling location, designated number RO-1, has been identified for the collection of samples of run-on to the project site from offsite.
  - RO-1 - The project has the potential to receive storm water run-on with the potential to contribute high pH and sediment from a construction project upstream of the site. Locations of storm water run-on are shown on the WPCDs in Attachment B.



**REQUIRED TEXT:**

**Sampling Schedule**

Samples for storm water effluent will be collected and analyzed when there is runoff from a qualifying rain event. A minimum of Three (3) samples will be collected and analyzed. Since it will not be known before it rains when a rain event will be “qualifying,” samples will be collected when there is runoff at the discharge points of the site.

**Sampling Locations**

The following locations were identified as discharge points from the projects. These discharge points are where storm water on the site is expected to discharge offsite or to the storm drain system. These discharge locations are shown on the WPCDs in Attachment B.

- **[Enter number of location(s)]** sampling location(s), [designated number(s) \_\_\_\_\_], **[has or have]** been identified for the collection of samples of runoff where storm water may leave the project site.
  - [List sample numbers for each discharge point and describe.]
- **[Enter number of location(s)]** sampling location(s), [designated number(s) \_\_\_\_\_], **[has or have]** been identified for the collection of samples of run-on to the project site from offsite.
  - [List sample numbers for each run-on sample location and describe.]

**600.2.2 Monitoring Preparation**

**INSTRUCTIONS:**

- Identify the person that will collect and analyze the storm water effluent samples.
- Sampling and analysis personnel shall have appropriate training and experience in collecting water samples and shall be a QSP. Documentation of training and experience for the sampling and analysis personnel in the collection of water quality samples shall be presented in Attachment I.
- Designate alternate sampling personnel in case of emergency, sick leave, and/or vacations during storm water monitoring. Alternates need to meet the same training and certification requirements as the primary sampling and analysis personnel. Training and certification documentation must be approved in writing by the Engineer and must be included in the SWPPP.
- Include the appropriate required text to describe the procedures for ensuring that adequate sample collection supplies are available to the project for a sampling event.
- Identify the portable meter manufacturers and model numbers. Include the manufacturer’s specifications (user manual) for any field sampling meters in Attachment U.

**REQUIRED TEXT:**

Samples on the project site will be collected and analyzed by the following personnel:

QSP Name/Telephone Number: \_\_\_\_\_

Alternate QSP Name/Telephone Number: \_\_\_\_\_

Documentation of training and experience for the above personnel in the collection and analysis of environmental water quality sampling is presented in Attachment I.



All sampling and analysis personnel and alternates will review the SAP prior to being assigned to collect samples on the project. Sampling and Analysis personnel will be available to collect samples in accordance with the sampling schedule.

An adequate stock of monitoring supplies and equipment for monitoring pH and turbidity will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool-temperature environment (60-75°F) that will not come into contact with rain or direct sunlight. Monitoring supplies maintained at the project site will include, but are not limited to, surgical gloves, sample collection equipment (scoops, etc.), appropriate number and volume of sample bottles, meters, identification labels, paper towels, personal rain gear.

The following pH and turbidity meters will be maintained on site:

Type	Manufacturer	Model Number
pH		
Turbidity		

Field meters will be calibrated in accordance with manufacturer’s specifications (Attachment U).

### 600.2.3 Analytical Constituents

***REQUIRED TEXT:***

Samples shall be analyzed for turbidity and pH.

### 600.2.4 Sample Collection and Handling

***INSTRUCTIONS:***

Describe sample collection procedures to be used on the project.

- Samples at point of concentrated flow may be collected directly into the sample container if such collection can be done without touching the opening of the container to the ground surface.
- Scoops or other sample collection and transfer devices may be necessary to collect samples from shallow flows. Transfer devices may be placed flat within a ¼” of the surface to collect water without disturbing the soil surface. Collected water will be transferred to sample containers for analysis.
- Samples could be collected using the following methods for sheet flow:

Place several rows of sand bags 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 decontaminated or clean 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. Make sure to not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.



Place a decontaminated or clean dust pan with open handle in the path of the sheet flow so that water will pour through the handle and into sample bottles.

- Collected grab samples of water shall not be composited.
- If not using sterile equipment, decontaminate by washing equipment in a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- Describe sample handling procedures.
- Describe sample collection documentation procedures.
- A Sampling Activity Log is required to document details of all sampling events and to record results for samples analyzed in the field.

### **REQUIRED TEXT:**

#### **Sample Collection Procedures**

Samples of discharge will be collected at the designated sampling locations shown on the WPCDs in Attachment B or newly identified locations that will be added to the WPCDs. Collected grab samples of water will not be composited.

The QSP will be trained in proper water quality sampling and will collect samples. The QSP will collect the water up-gradient of where they are standing.

[Describe specific sample collection methods and procedures or delete this line.]

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle or sampling device by allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection or decontaminate.
- Not sample near a running vehicle where exhaust fumes may impact the sample.
- Not touch the exposed end of a sampling tube, if applicable.
- Not allow rain water to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- Not sneeze or cough in the direction of an open sample bottle.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

The collected samples will be analyzed as required in Section 600.2.5.

#### **Sample Handling Procedures**

Samples will be collected directly into the proper bottles for measuring with the pH and turbidity field meters. Or samples will be collected with a scoop or bailer or other decontaminated transfer



device and the collected water will be transferred to the proper bottles for meter measurements. Sampling devices will not be allowed to touch the ground.

**Sample Documentation Procedures**

All original data documented on the Sampling Activity Log will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by drawing a line through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated. The Sampling Activity Log is provided in Attachment N.

Sampling and field analysis activities will be documented using a log of each sampling event which shall include:

- Sampling date
- Separate times for collected samples recorded to the nearest minute
- Unique sample identification number and location
- Analysis constituent
- Names of sampling personnel
- Weather conditions (including precipitation amount)
- Field analysis results
- Other pertinent data

**600.2.5 Sample Analysis**

***INSTRUCTIONS:***

- Fill in the “Sample Collection, Preservation and Analysis for Monitoring Storm Water Effluent” table provided in this section. The Contractor’s field meters shall meet the minimum detection limits specified in this table.

***REQUIRED TEXT:***

Each grab sample will be analyzed for pH and turbidity in accordance with test procedures in the field meter specifications and/or user manual in Attachment U.

**Sample Collection and Analysis for Monitoring Storm Water Effluent**

Analytical Parameter	Analytical Method	Minimum Detection Limit
pH	Field Analysis	0.2
Turbidity	Field Analysis	1.0



Notes:	Field analysis must be performed with a calibrated field meter in accordance with attached manufacturer's specifications/user manual.
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**600.2.6 Quality Assurance/Quality Control**

**REQUIRED TEXT:**

The field instruments will be calibrated in accordance with manufacturer's specifications/ user manual included in Attachment U. Field calibration of the pH meter and turbidity meter will be documented in Attachment U. Field sampling and analysis will be documented on the Sample Activity Log (Attachment N).

**600.2.7 Data Management and Reporting**

**REQUIRED TEXT:**

All water quality analytical results will be submitted to the Engineer within 24 hours of each sampling event. The results will be submitted on Sample Activity Logs (Attachment N). All results in tabular format and Sample Activity Logs will be submitted to the Engineer electronically in PDF format within 5 days of the sampling event.

All data, including Sampling Activity Logs, and calibration records shall be kept with the SWPPP document, which is to remain at the construction site at all times until a Notice of Termination has been submitted and approved.

**600.2.8 Data Evaluation**

**INSTRUCTIONS:**

Results for samples collected of storm water discharge shall be compared to the NALs for turbidity and pH. If results exceed NALs, the Contractor shall prepare an NAL Exceedance report in accordance with Section 700.2. Samples for each parameter shall be averaged for each discharge point for each rain event. Discharge samples shall be compared with run-on samples to determine whether the discharge exceeding the NAL may be attributed to the run-on to the site.

**REQUIRED TEXT:**

An evaluation of the water quality sample analytical results, including figures with sample locations, will be submitted, within five working days of the sampling event, to the Engineer with the water quality analytical results. The evaluation will include a comparison of average discharge at each discharge point to run-on and NALs.

Should the average discharge at a discharge point exceed the numeric action limit (NAL) for turbidity (250 NTU) or the upper or lower limit for pH (<6.5 or > 8.5):

- An NAL Exceedance report will be prepared in accordance with Section 700.2,
- The BMPs will be assessed to determine the probable cause for the increase.
- Appropriate BMPs will be deployed, repaired or modified to address exceedances in turbidity and or pH concentrations and,
- Any revisions to the BMPs will be recorded as an amendment to the SWPPP.



## 600.3 Sampling and Analysis Plan for Non-Visible Pollutants

### **INSTRUCTIONS:**

The SWPPP must include a Sampling and Analysis Plan (SAP) for Non-Visible Pollutants. The purpose of a SAP for Non-Visible Pollutants is to determine if BMPs implemented on the construction site are effective for preventing non-visible pollutants from impacting water quality objectives.

### **REQUIRED TEXT:**

There is the potential to discharge non-visible pollutants with storm water discharges from the construction site and/or the contractor's yard. This Sampling and Analysis Plan (SAP) for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in storm water discharges from the project site and the contractor's yard in accordance with the requirements of the Construction General Permit.

### 600.3.1 Scope of Monitoring Activities

#### **INSTRUCTIONS:**

- Identify the general sources and locations of potential non-visible pollutants on the project in the following categories:
- Materials, wastes, or activities as identified in Section 500.3.1.

#### **EXAMPLE:**

The following construction materials, wastes or activities, as identified in Section 500.3.1, are potential sources of non-visible pollutants to storm water discharges from the project. Storage, use and operational locations are shown on the WPCDs in Attachment B.

- Solvents, thinners
- Concrete curing compound
- Treated wood
- Metals and plated products
- Fertilizers, herbicides, and pesticides
- The project has the potential to receive storm water run-on with the potential to contribute non-visible pollutants to storm water discharges from the project. Locations of storm water run-on are shown on the WPCDs in Attachment B.
- One location down-gradient of the Nasty Chemical Company chemical plant and the Progress Industrial Park is identified as a run-on location to the construction site.
- Two locations are identified as run-on locations along the eastern edge of the construction site boundary.
- The northern boundary of the construction site has one location where run-on is likely.



## **REQUIRED TEXT:**

The following construction materials, wastes or activities, as identified in Section 500.3.1, are potential sources of non-visible pollutants to storm water discharges from the project. Storage, use and operational locations are shown on the WPCDs in Attachment B.

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The project has the potential to receive storm water run-on with the potential to contribute non-visible pollutants to storm water discharges from the project. Locations of storm water run-on are shown on the WPCDs in Attachment B.

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### **600.3.2 Monitoring Strategy**

## **INSTRUCTIONS:**

Describe the sampling schedule for monitoring potential non-visible pollutants in storm water runoff. Note the specific conditions under which a sampling event for non-visible pollutants is triggered.

Describe the sampling locations for monitoring non-visible pollutants. The non-visible sample locations include an uncontaminated sample location and the locations of potential non-visible pollutant discharges. Potential non-visible pollutant discharge locations are a subset of the same discharge points identified in Section 600.2.1 for storm water effluent monitoring. These locations are discharge points down-gradient of a potential discharge of non-visually detectable pollutants.

- Describe the rationale for the selection of sampling locations.
- Identify a location for collecting an uncontaminated background sample of run-off that has not come into contact with the non-visible pollutants . Describe exactly where the sample will be collected.
- Show all sampling locations on the WPCDs in Attachment B.
- Select sampling locations in areas that are safe, out of the path of heavy traffic, and have attainable access.
- Pay attention to surrounding areas such as agricultural fields that may be sprayed with pesticides, or industrial sites that may contribute run-on or airborne constituents to the site.
- Describe how locations of a breach, malfunction, leakage, or spill will be identified and added to the WPCDs after sampling.



**REQUIRED TEXT:**

**Sampling Schedule**

Samples for the applicable non-visible pollutant(s) and a sufficiently large uncontaminated background sample shall be collected during the first two hours of discharge from rain events which result in a sufficient discharge for sample collection. Samples shall be collected during working hours.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any breach, malfunction, leakage, or spill is observed which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.

**Sampling Locations**

Planned sampling locations are based on non-visible pollutant storage areas and an uncontaminated area upgradient. Locations of breaches, malfunctions, leakage and spills must be added as identified by inspection. However, the discharge locations downgradient of the potential non-visible pollutant sources are a subset of those identified for storm water effluent sampling in Section 600.2. Planned sampling locations are shown on the WPCDs in Attachment B and include the following:

- ***[Enter number of location(s)]*** sampling location(s), [designated number(s) \_\_\_\_\_], on the project site and downgradient of the contractor's yard ***[has or have]*** been identified for the collection of samples of discharge off the site from planned material and waste storage areas and from areas where non-visible pollutant producing operations are planned.
- Sample location number(s)\_\_\_\_\_ is located\_\_\_\_\_.
- A location has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for pollutants. This location 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 500.3.1, (2) potential pollutants due to historical use of the site, or (3) disturbed soils areas.
- Sample location number \_\_\_\_\_ is located\_\_\_\_\_.

If a storm water inspection before or during a rain event identifies a breach, malfunction, leakage or spill with potential for the discharge of non-visible pollutants to surface waters or a storm drain system at a location not previously identified, sampling locations will be selected and added to the WPCDs after identification.

**600.3.3 Monitoring Preparation**

**INSTRUCTIONS:**

Include the appropriate required text to describe the procedures for ensuring that adequate sample collection supplies are available to the project in preparation for a sampling event.

**REQUIRED TEXT:**

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



Name/Telephone Number: \_\_\_\_\_

Company/Address: \_\_\_\_\_

Alternate Name/Telephone Number: \_\_\_\_\_

Company/Address: \_\_\_\_\_

Documentation of training and experience for the above personnel in the collection of environmental water quality sampling is presented in Attachment I.

All sampling personnel and alternates will review the SAP prior to assignment. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool-temperature environment (60-75°F) that will not come into contact with rain or direct sunlight. Monitoring supplies maintained at the project site will include, but are not limited to, surgical gloves, sample collection equipment (bailers, etc.), coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice chests, and laboratory Chain of Custody (COC) forms.

#### **600.3.4 Analytical Constituents**

### ***INSTRUCTIONS:***

Identify the specific non-visible pollutants on the construction site by completing the “Potential Non-Visible Pollutants and Water Quality Indicator Constituents” table.

- List the pollutant source, pollutant name, and water quality indicator
- Refer to the “Pollutant Testing Guidance Table for Non-Visible Pollutants” for a partial list of some of the common non-visible pollutants.
- Do not include visible pollutants such as:
  - Petroleum products: gas, diesel, and lubricants
  - Colored paints
  - Sand, gravel or topsoil
  - Asphalt cold mix

### ***REQUIRED TEXT:***

#### **Identification of Non-Visible Pollutants**

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

#### **Potential Non-Visible Pollutants and Water Quality Indicator Constituents**



Pollutant Source	Pollutant	Water Quality Indicator Constituent
<i>Example: Fertilizer</i>	<i>Phosphoric Acid</i>	<i>Phosphate</i>

### 600.3.5 Sample Collection and Handling

#### **INSTRUCTIONS:**

Describe sample collection procedures to be used on the project.

- Samples at point of concentrated flow may be collected directly into the sample container if such collection can be done without touching the opening of the container to the ground surface.
- Scoops or other sample collection and transfer devices may be necessary to collect samples from shallow flows. Transfer devices may be placed flat within a ¼" of the surface to collect water without disturbing the soil surface. Collected water will be transferred to sample containers for analysis.
- Sheet flow samples could be collected using the following:
  - Place several rows of sand bags in a half circle directly in the path of the run-on to pond water and wait for enough water to spill over. Then place a decontaminated or clean 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. Make sure to not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
  - Place a decontaminated or clean dust pan with open handle in the path of the run-on so that water will pour through the handle and into sample bottles.
- If not using sterile equipment, decontaminate by washing equipment in a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136.
- Describe sample handling procedures.
- Describe sample collection documentation procedures.
  - A Chain of Custody (COC) form is required to be submitted to the laboratory with the samples to trace the possession and handling of samples from collection through analysis.
  - A Sampling Activity Log is required to document details of all sampling events and to record results for samples analyzed in the field.
  - Each sample bottle is required to have a proper and complete identification label.



## **REQUIRED TEXT:**

### **Sample Collection Procedures**

Samples of discharge will be collected at the designated sampling locations shown on the WPCDs in Attachment B for locations of observed breaches, malfunctions, leakages, or spills, that triggered the sampling event.

Grab samples will be collected and preserved in accordance with the methods identified in the “Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants” table provided in section 600.3.6. Only personnel trained in proper water quality sampling will collect samples.

Samples will be collected by placing a separate lab-provided sample container or transfer device (i.e. scoop) directly into a stream of water downgradient and within close proximity to the potential non-visible pollutant discharge location. Water collected in the transfer device will be poured into the sample container for laboratory analysis or containers used for field analysis. The upgradient and uncontaminated background samples shall be collected first prior to collecting the downgradient to minimize cross-contamination. The sampling personnel will collect the water upgradient of where they are standing. Sample bottles will be filled to meet lab requirements.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave the cooler lid open for an extended period of time once samples are placed inside.
- Not sample near a running vehicle where exhaust fumes may impact the sample.
- Not touch the exposed end of a sampling tube, if applicable.
- Not allow rain water to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- 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.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

### **Sample Handling Procedures**

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, and documented on a Chain-of-Custody form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at or as near to 4 degrees Celsius as practicable, and delivered within 8 hours to the following California state-certified laboratory:



Laboratory Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_

### **Sample Documentation Procedures**

All original data documented on sample bottle identification labels, Chain-of-Custody forms, and Sampling Activity Log will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by drawing a line through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated. Copies of the Chain of Custody form and Sampling Activity Log are provided in Attachment N.

Sampling and field analysis activities will be documented using the following:

- **Sample Bottle Identification Labels:** Sampling personnel will attach an identification label to each sample bottle submitted for laboratory analysis. At a minimum, the following information will be recorded on the label, as appropriate:
  - Project name
  - Project number
  - Unique sample identification number and location
  - Collection date/time
  - Analysis constituent
- **Sampling Activity Logs:** A log of sampling events will identify:
  - Sampling date
  - Separate times for collected samples and QA/QC samples recorded to the nearest minute
  - Unique sample identification number and location
  - Analysis constituent
  - Names of sampling personnel
  - Weather conditions (including precipitation amount)
  - Field analysis results
  - Other pertinent data
- **Chain-of-Custody (COC) forms:** All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over to the lab. COC procedures will be strictly adhered to for QA/QC purposes.



## 600.3.6 Sample Analysis

### **INSTRUCTIONS:**

Identify the test method and specifications to be used to monitor the non-visible pollutants included in the “Potential Non-Visible Pollutants and Water Quality Indicator Constituents” table in Section 600.3.4.

- Fill in the “Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants” table provided in this section.
- There should be a test method identified for each Water Quality Indicator Constituent listed in the table in Section 600.3.4.
- Contact the selected laboratory for the appropriate test method and test specifications to be used for each constituent.

### **REQUIRED TEXT:**

Samples will be analyzed for the applicable constituents using the analytical methods identified in the “Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants” table in this section.





**REQUIRED Table:**

**600.3 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
<b>Notes:</b>						



### 600.3.7 Quality Assurance/Quality Control

#### **REQUIRED TEXT:**

For an initial verification of laboratory or field analysis, duplicate samples will be collected at a rate of 10 percent or 1 duplicate per sampling event. The duplicate sample will be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample will be collected at each location immediately after the primary sample has been collected. Duplicates will be collected where contamination is likely, not on the background sample. Duplicate samples will not influence any evaluations or conclusions; however, they will be used to check laboratory quality assurance.

### 600.3.8 Data Management and Reporting

#### **REQUIRED TEXT:**

All water quality analytical results and QA/QC data will be submitted to the Engineer within 5 days of each sampling event. The data will be in a tabular format and include copies of the signed laboratory data sheets, Sample Activity Logs, and COCs. All results and laboratory data sheets will be submitted electronically in Microsoft Excel (.xls) format.

Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. All data, including COC forms and Sampling Activity Logs, shall be kept with the SWPPP document, which is to remain at the construction site at all times until a Notice of Termination has been submitted and approved.

### 600.3.9 Data Evaluation

#### **INSTRUCTIONS:**

The discharge point sample analytical results will be evaluated to determine if they show significantly elevated concentrations of the tested analyte relative to the concentrations found in the uncontaminated background sample.

#### **REQUIRED TEXT:**

An evaluation of the water quality sample analytical results, including figures with sample locations, will be submitted, within Twenty (20) working days of the sampling event, to the Engineer with the water quality analytical results and the QA/QC data.

Should the downgradient sample show an increased level of the tested analyte relative to the background sample, the BMPs will be assessed to determine the probable cause for the increase. Appropriate BMPs will be repaired or modified to address increases in non-visual pollutant concentrations. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

Whenever SWPPP monitoring, pursuant to the Construction General Permit, indicates a change in site conditions that might affect the appropriateness of sampling locations or introduce additional non-visible pollutants of concern, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.



## 600.4 Sampling and Analysis Plan for Non-Storm Water Discharges

### **INSTRUCTIONS:**

Samples shall be collected of effluent from all discharge points where unauthorized non-storm water and/or authorized non-storm water is discharged off site. For example if a water or sewer line were to break and a discharge was observed, sampling and analysis of the discharge is required.

The Contractor shall identify the known or suspected non-storm water discharge sources in Section 500.4.5. Dewatering of accumulated rain water in accordance with the accumulated precipitation procedure (APP) shall be handled as stormwater and included in this sampling plan only if any pollutants other than sediment and pH are suspected. Otherwise, APP discharges will be sampled the same way storm water effluent is monitored in Section 600.2.

If non-storm water sampling will be conducted in accordance with another permit such as a dewatering permit, reference the other permit and collect samples in accordance with the monitoring and reporting requirements of the other permit.

See Pollutant Testing Guidance Table in Attachment S for a list of common construction pollutants and suggested laboratory analyses. The Contractor's QSD shall verify the suspected pollutants and analyses and add or revise the pollutant list and analyses based on site specific pollutant sources and laboratory confirmation.

### **REQUIRED TEXT:**

Potential non-storm water discharge sources have been identified in Section 500.4.5. If these non-storm water discharge sources or other non-storm discharges identified during inspections discharge off site, samples of the discharge will be collected. The samples will be analyzed for suspected pollutants by a State Department of Health Services certified laboratory.

#### **600.4.1 Scope of Monitoring Activities**

### **INSTRUCTIONS:**

- Identify the general sources and locations of potential non-storm water pollutants on the project in the Non-Storm Water Control Section 500.4.5.
- Describe the planned non-storm water discharges.

### **EXAMPLE:**

No non-storm water discharges are planned for this project. Potential non-storm water discharges may be identified during inspections since there are sources of non-storm water identified in Section 500.4.5. If the inspections identify a potential non-storm water discharge not previously identified, the SWPPP will be amended to include that potential source. If the inspections observe the discharge of non-storm water, samples will be collected when identified and the SWPPP will be amended to describe the location and non-storm water discharge.



## **REQUIRED TEXT:**

The following non-storm water discharges are planned as part construction activities identified in Section 500.4.5 and 500.4.6.

- [Include and describe any planned non-storm water discharges or state none.]

Potential non-storm water discharges may be indentified during inspections based on sources identified in Section 500.4.5 and 500.4.6. If non-storm water discharges are observed from these potential sources during inspection, they will be added to this sampling and analysis plan.

### **600.4.2 Monitoring Strategy**

## **INSTRUCTIONS:**

Describe the sampling schedule for monitoring planned discharges of non-storm water.

Describe the sampling locations for monitoring non-storm water discharge pollutants.

- Describe the rationale for the selection of sampling locations.
- Identify a location for collecting samples of non-storm water discharge from each location identified in Section 600.4.1. Describe exactly where the sample will be collected.
- Show all sampling locations on the WPCDs in Attachment B.
- Locate sampling locations in areas that are safe, out of the path of heavy traffic, and have attainable access.
- Pay attention to surrounding areas such as agricultural fields that may be sprayed with pesticides, or industrial sites that may contribute run-on or airborne constituents to the site.

## **REQUIRED TEXT:**

### **Sampling Schedule**

Samples for the non-storm water will be collected during any planned or observed discharge of the non-storm water

### **Sampling Locations**

Sampling locations are discharge points from the project site where non-stormwater is discharged. These are a subset of the discharge points identified in section 600.2. These include the location of the planned or observed non-storm water discharges. The following locations will be sampled for planned non-storm water discharges:

[Include locations of any planned non-storm water discharges or state none.]

If inspections identify a potential source of non-storm water discharge not previously identified or if the inspection observes a discharge of non-storm water, sampling locations will be selected and added to the WPCDs as a SWPPP amendment.

### **600.4.3 Monitoring Preparation**



## **INSTRUCTIONS:**

Identify whether samples will be collected by contractor personnel, commercial laboratory, or environmental consultant.

Individuals must have QSP required training and experience in collecting water samples.

Documentation of training and experience for the sampling personnel in the collection of water quality samples must be presented in Attachment I.

Designate alternate sampling personnel in case of emergency, sick leave, and/or vacations during storm water monitoring. Alternates are required to have the QSP required training.

Contact the laboratory for appropriate analyses and to determine whether they are certified for the required analyses.

For a list of California state-certified laboratories that are accepted by LACDPW, access the following web site: [www.dhs.ca.gov/ps/ls/elap/html/lablist\\_county.htm](http://www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm).

Include the appropriate required text to describe the procedures for ensuring that adequate sample collection supplies are available to the project in preparation for a sampling event.

## **REQUIRED TEXT:**

Samples for the non-storm water discharges from the project site will be collected by the following sampling personnel:

Name/Telephone Number: \_\_\_\_\_

Company/Address: \_\_\_\_\_

Alternate Name/Telephone Number: \_\_\_\_\_

Company/Address: \_\_\_\_\_

Documentation of training and experience for the above personnel in the collection of environmental water quality sampling is presented in Attachment I.

Prior to being assigned, all sampling personnel and alternates will review the SAP. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

An adequate stock of monitoring supplies and equipment for monitoring non-storm water 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 not come 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 (bailers, etc.), coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice chests, and laboratory Chain of Custody (COC) forms. The COC has been obtained from the laboratory and a copy is in the SWPPP Attachment N.



#### 600.4.4 Analytical Constituents

##### **INSTRUCTIONS:**

Identify the specific non-storm water pollutants expected on site (see Section 500.3.1 and 500.4.5 and 500.4.6). Identify the analytical constituents for the potential non-storm water discharge using Attachment S for guidance on common construction site pollutants.

##### **REQUIRED TEXT:**

##### **Identification of Non-Storm Water Pollutants**

The following pollutants are suspected in the potential non-storm water discharges identified:

- *[List the suspected pollutants]*

#### 600.4.5 Sample Collection and Handling

##### **INSTRUCTIONS:**

Describe sample collection procedures to be used on the project.

- Samples at point of concentrated flow may be collected directly into the sample container if such collection can be done without touching the opening of the container to the ground surface. Scoops of other sample collection and transfer devices may be necessary to collect samples from shallow flows.
- Samples of sheet flow could be collected using the following:
  - Place several rows of sand bags 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 decontaminated or clean 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. Make sure to not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
  - Place a decontaminated or clean dust pan with open handle in the path of the sheet flow so that water will pour through the handle and into sample bottles.
- If not using clean equipment, decontaminate by washing equipment in a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136.
- Describe sample handling procedures.
- Describe sample collection documentation procedures.
- A Chain of Custody (COC) form is required to be submitted to the laboratory with the samples to trace the possession and handling of samples from collection through analysis.
- A Sampling Activity Log is required to document details of all sampling events and to record results for samples analyzed in the field.
- Each sample bottle is required to have a proper and complete identification label.



**REQUIRED TEXT:**

**Sample Collection Procedures**

Samples of discharge will be collected at the designated sampling locations shown on the WPCDs in Attachment B for planned discharges. Discharges identified during inspections will be sampled and the locations will be added to the WPCDs.

Grab samples will be collected and preserved in accordance with the methods identified in the “Sample Collection, Preservation and Analysis for Monitoring Non-Storm Water Pollutants” table provided in section 600.4.6. Only personnel trained in proper water quality sampling will collect samples. Sample collection personnel qualifications are included in Attachment I.

Samples will be collected by placing a separate lab-provided sample container directly into a discharge stream of non-storm water. If samples cannot be collected directly without compromising the sample (i.e., container opening touching the ground), a decontaminated sample collection device will be used and the sample will be transferred to the sample container. The sampling personnel will collect the water up-gradient of where they are standing. Sample bottles will be filled completely.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave the cooler lid open for an extended period of time once samples are placed inside.
- Not sample near a running vehicle where exhaust fumes may impact the sample.
- Not touch the exposed end of a sampling tube, if applicable.
- Not allow rain water to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- 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.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

**Sample Handling Procedures**

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Sample Activity Log and Chain-of-Custody form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at or as near to 4 degrees Celsius as practicable, and delivered within 8 hours to the following California state-certified laboratory:

Laboratory Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_



## **Sample Documentation Procedures**

All original data documented on sample bottle identification labels, Chain-of-Custody forms, and Sampling Activity Log will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by drawing a line through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated. Copies of the Chain of Custody form and Sampling Activity Log are provided in Attachment N.

Sampling and field analysis activities will be documented using the following:

- **Sample Bottle Identification Labels:** Sampling personnel will attach an identification label to each sample bottle. At a minimum, the following information will be recorded on the label, as appropriate:
  - Project name
  - Project number
  - Unique sample identification number and location
  - Collection date/time
  - Analysis constituent
  
- **Sampling Activity Logs:** A log of sampling events will identify:
  - Sampling date
  - Separate times for collected samples and QA/QC samples recorded to the nearest minute
  - Unique sample identification number and location
  - Analysis constituent
  - Names of sampling personnel
  - Weather conditions (including precipitation amount)
  - Field analysis results
  - Other pertinent data
  
- **Chain-of-Custody (COC) forms:** All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over to the lab. COC procedures will be strictly adhered to for QA/QC purposes.

### **600.4.6 Sample Analysis**

#### **INSTRUCTIONS:**

Identify the test method and specifications to be used to monitor the non-storm water pollutants included in the list of "Potential Non-Storm Water Pollutants and Water Quality Indicator Constituents" in Section 600.4.4.

- Fill in the "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" table provided in this section.
- There should be a test method identified for each Water Quality Indicator Constituent listed in Section 600.4.4.
- Contact the selected laboratory for the appropriate test method and test specifications to be used for each constituent.



***REQUIRED TEXT:***

Samples will be analyzed for the applicable constituents using the analytical methods identified in the “Sample Collection, Preservation and Analysis for Monitoring Non-storm Water Discharges” table in this section.

***EXAMPLE Table:***

See example for non-visible pollutants in Section 600.3.6.



**REQUIRED Table:**

**Table 600.4 Sample Collection, Preservation and Analysis for Monitoring Non-Storm Water Pollutants**

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
<b>Notes:</b>						



## 600.4.7 Quality Assurance/Quality Control

### **REQUIRED TEXT:**

For an initial verification of laboratory analysis, duplicate samples will be collected at a rate of 10 percent or 1 duplicate per sampling event. The duplicate sample will be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample will be collected at each location immediately after the primary sample has been collected. Duplicates will be collected where contamination is likely, not on the background sample. Duplicate samples will not influence any evaluations or conclusions; however, they will be used to check laboratory quality assurance.

## 600.4.8 Data Management and Reporting

### **REQUIRED TEXT:**

All water quality analytical results and QA/QC data will be submitted to the Engineer within twenty (20) days of each sampling event. The data will be in a tabular format and include copies of the signed laboratory data sheets, Sample Activity Logs, and COCs. All results and laboratory data sheets will be submitted electronically in Microsoft Excel (.xls) format.

Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. All data, including COC forms and Sampling Activity Logs, shall be kept with the SWPPP document, which is to remain at the construction site at all times until a Notice of Termination has been submitted and approved.

## 600.4.9 Data Evaluation

### **INSTRUCTIONS:**

The water quality sample analytical results will be evaluated to determine if the non-storm water discharge samples show significantly elevated levels of the tested constituents. If other permits apply, the sample results must be compared to the permit limits.

### **REQUIRED TEXT:**

An evaluation of the water quality sample analytical results, including figures with sample locations, will be submitted, within twenty (20) days of the sampling event, to the Engineer with the water quality analytical results and the QA/QC data.

Should any non-storm water discharge sample indicate increased levels of the tested parameters, the BMPs will be assessed to determine the probable cause for the increase. Appropriate BMPs will be implemented, repaired or modified to address non-storm water discharges. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.



# SECTION 700

## Planning, Reporting and Recordkeeping Program

### **INSTRUCTIONS:**

**Include a Separator/Divider/Tab for Section 700 for ready reference.**

#### **700.1 Rain Event Action Plan (REAP)**

### **INSTRUCTIONS:**

A Rain Event Action Plan (REAP) is required to be developed 48 hours prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. In order to determine when a REAP is required, weather monitoring as described above in Section 600 must be conducted. The weather forecast must be printed from the National Weather Service to show the percent chance of rain and shall be included in the SWPPP (Attachment Q).

The REAP must be prepared by the QSP for all phases of construction (Utilities, grading/excavation/drilling, paving/general construction, vertical construction, final landscaping and soil stabilization). The QSP shall use the form in Attachment P to prepare the REAP.

The REAP must include:

- Site address
- Calculated Risk Level. The Risk Level is 2 unless otherwise specified by the Engineer.
- Water Pollution Control Manager information including name, company, and 24-hour emergency telephone number
- Erosion and sediment control provider information including the name(s), company(ies), and 24-hour emergency telephone number(s)
- Storm water sampling agent information including name, company, and 24-hour emergency telephone number
- Activities associated with each construction phase
- Subcontractors (trades) active on the construction site during each construction phase
- Subcontractor (trade) information
- Suggested actions

The REAP shall be consistent with the SWPPP.

A REAP shall be developed where construction activities are indefinitely halted or postponed (inactive construction).

The QSP shall begin implementation of the REAP and make the REAP available onsite no later than 24 hours prior to the likely precipitation event. Developed REAPs shall be maintained in Attachment P of the SWPPP.



## **REQUIRED TEXT:**

The QSP shall monitor the National Weather Service Office forecast daily (e.g., website <http://www.srh.noaa.gov/forecast>) and print a copy for inclusion in the REAP. The REAP shall include the date of the forecast, percent chance of rain from the forecast, and the predicted amount of rain. If there is a 50% or more chance of rain, the QSP shall develop and certify a REAP 48 hours prior to the predicted rain event.

The QSP will use the form in Attachment P for developing a rain event action plan (REAP). A REAP is required even when construction activities have been indefinitely halted or postponed (inactive construction)

The QSP shall include the following information in the REAP:

- Risk Level. The risk level is 2.
- Erosion and sediment control provider information: company, contact name, and 24-hour emergency telephone number.
- Storm water sampling agent information: company, contact name, and 24-hour emergency telephone number.
- Active subcontractor information: company, contact name, and 24-hour emergency telephone number.
- Indication of the current construction phase(s).
- Description of the current activities for each current phase of construction.
- Description of the suggested actions. The actions shall include plans for preparing for the rain event and plans for during the rain event. The suggested actions shall include at a minimum implementation of inspections, sampling and analysis, BMP implementation, and BMP maintenance and repair.

The QSP shall begin implementation of the REAP no later than 24 hours prior to the predicted rain event. Each completed and certified REAP will be included in Attachment P.

## **700.2 Numeric Action Level (NAL) Exceedance Report**

### **INSTRUCTIONS:**

In the event that any effluent sample exceeds an applicable NAL, the Contractor shall implement corrective actions to prevent further exceedance and shall prepare and submit an NAL exceedance report within 5 days of the date of sampling.

The NAL exceedance report shall include:

- The analytical methods, method reporting units, and method detection limits of each analytical parameter. Analytical results that are less than the method detection limit shall be reported as “less than the method detection limit.”



- The date, time and location of sampling, visual observation, and/or measurements, including precipitation (rain gauge).
- Description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.

The NAL Exceedance Report shall be prepared using the template in Attachment R.

### **REQUIRED TEXT:**

In the event that the average effluent sample exceeds an NAL (250 NTU, <6.5 pH, or >8.5 pH), the QSP will implement corrective actions to prevent further exceedance. The QSP will prepare and certify an NAL Exceedance Report using Attachment R. The completed and certified NAL Exceedance Report will be submitted to the Engineer no later than 5 days after the date of sampling that resulted in an NAL exceedance. A copy of each certified NAL Exceedance Report will be included in Attachment R.

## **700.3 Annual Report**

### **INSTRUCTIONS:**

For projects that are covered under the Construction General permit order No. 2009-0009-DWQ for more than 3 months, the Contractor shall prepare and submit an Annual Report to the Engineer no later than August 15, each year during the construction project. The Annual Report shall be included in Attachment L of the on-site SWPPP. The Annual Report shall cover work performed from July 1 to June 30 (or portion thereof) each year. For projects that end prior to June 30, the Contractor shall prepare an Annual Report at the end of the project.

Include the following information in the Annual Report:

- A summary and evaluation of all sampling and analysis results
- Attached copies of laboratory reports
- The analytical methods, method reporting units, and method detection limits of each analytical parameter (analytical results that are less than the detection limit shall be reported as “less than the method detection limit”)
- A summary of all corrective action taken during the compliance year
- Identification of any compliance activities or corrective actions that were not implemented
- A summary of all violations of the Construction General Permit
- The names of individuals who performed the facility inspections, sampling, visual observations (inspections), and/or measurements, including precipitation (rain gauge): and
- The visual observation and sample collection exception records and reports specified in Section 600.
- Documentation of all training for individuals responsible for all activities associated with compliance with this SWPPP
- 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.

### **REQUIRED TEXT:**

An Annual Report will be completed and certified by the QSP and submitted to the Engineer no later than August 15, each year during the construction project. The Annual Report will be prepared using the template in Attachment L. The Annual Report will cover the timeframe from July 1 through June 30 or portion thereof each year. If the Project ends prior to June 30, the Annual Report will be submitted at the end of the project.

The following information will be included in the Annual Report:

- A summary and evaluation of all sampling and analysis results.
- Attached copies of laboratory reports.
- The analytical methods, method reporting units, and method detection limits of each analytical parameter (analytical results that are less than the detection limit shall be reported as “less than the method detection limit”).
- A summary of all corrective action taken during the compliance year.
- Identification of any compliance activities or corrective actions that were not implemented.
- A summary of all violations of the Construction General Permit.
- The names of individuals who performed the facility inspections, sampling, visual observations (inspections), and/or measurements, including precipitation (rain gauge): and
- The visual observation and sample collection exception records and reports specified in Section 600.
- Documentation of all training for individuals responsible for all activities associated with compliance with this SWPPP.
- 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.

## **700.4 Record Keeping and Reports**

### **REQUIRED TEXT:**

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

- BMP Checklists
- Rain Event Action Plans
- Annual Reports
- NAL Exceedance Reports
- Analytical Data and Field Calibration Data



- Approved SWPPP document and amendments

## 700.5 Notice of Termination

### **REQUIRED TEXT:**

A Notice of Termination (NOT) will be submitted when the construction project is complete and within 90 days of meeting the requirements for termination and final stabilization including:

- The site will not pose any additional risk than it did prior to construction activity.
- All construction related equipment, materials and any temporary BMPs no longer needed are removed from the site.
- Post-construction storm water management measures are installed and a long-term maintenance plan that is designed for a minimum of five years has been developed.

The NOT shall demonstrate through photos, Revised Universal Soil Loss Equation (RUSLE) results, or results of testing and analysis that the project meets the requirements for termination and final stabilization by one of the following methods:

- 70% final cover method (no computational proof required); or
- RUSLE/RUSLE2 method (computational proof required); or
- Custom method (discharger demonstrates that site complies with final stabilization).



# Appendix A

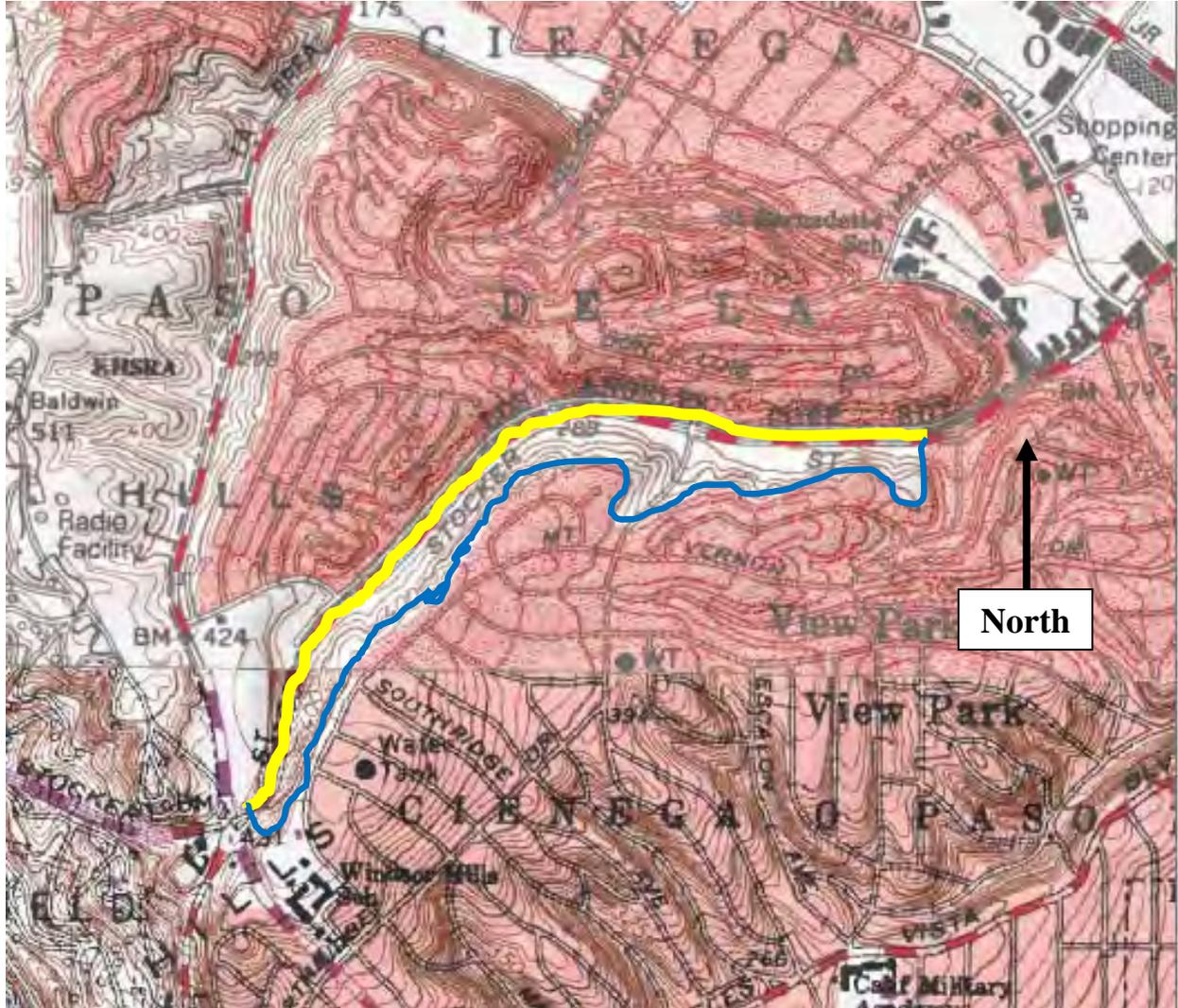
## Attachments for use in Preparing a SWPPP



**Attachment A**  
Vicinity Map / Site Map (Samples)

**STORM WATER POLLUTION  
PREVENTION PLAN  
VICINITY MAP**

for  
Stocker Street



Construction Site:   
Off-site run-on area:   
Discharge Points are drain inlets shown in detail on WPCDs.

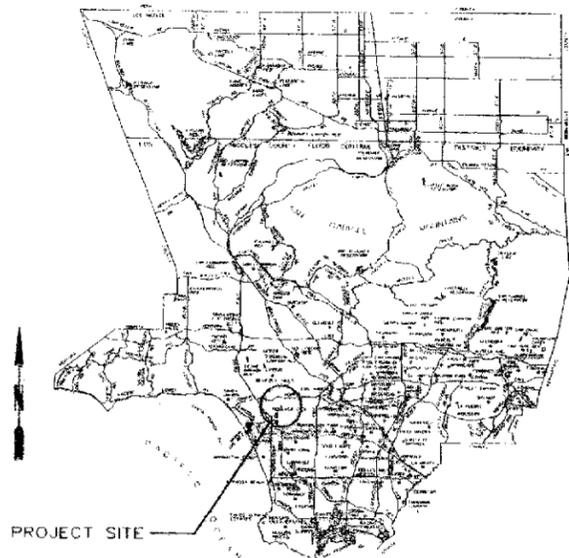


COUNTY OF LOS ANGELES  
DEPARTMENT OF PUBLIC WORKS

STOCKER STREET  
OVERHILL DR TO 50' W/O ANGELES VISTA BL  
TOTAL LENGTH 1.5 MILES

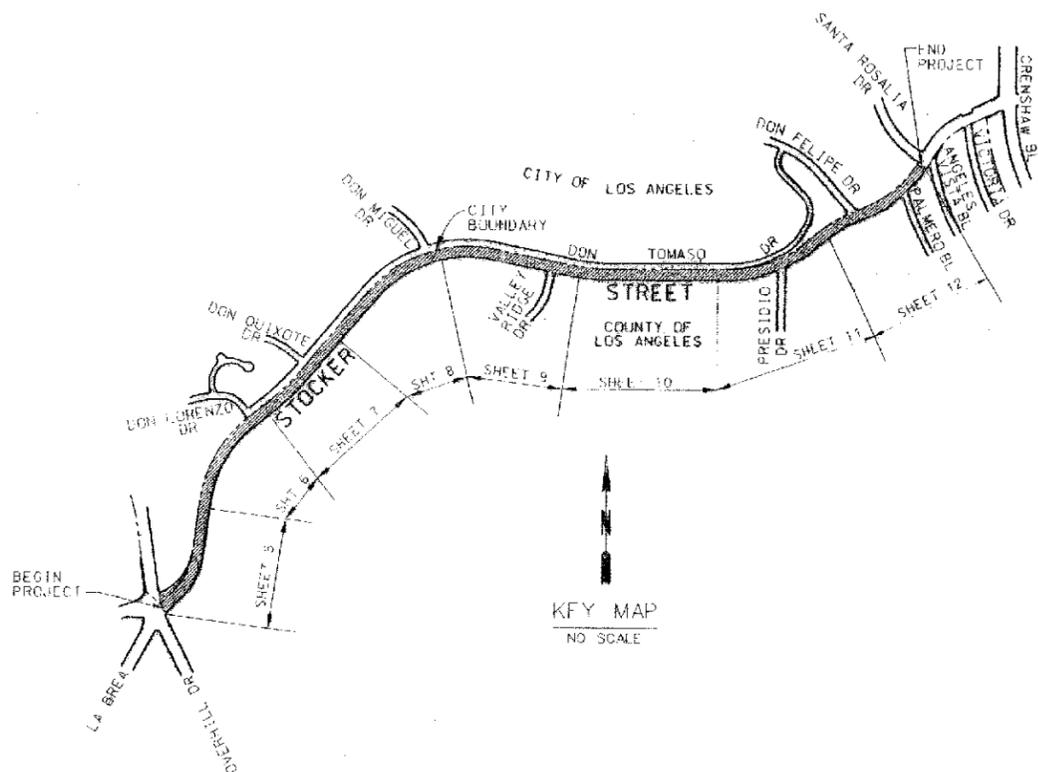
INDEX

SHEET 1	TITLE SHEET
SHEET 2	CONSTRUCTION NOTES AND REFERENCES
SHEET 3	TYPICAL SECTIONS
SHEET 4	DETAILS
SHEET 5-12	PLAN AND PROFILE
PLAN 10	LANDSCAPING PLAN
PLAN 5	SIGNING AND STRIPING PLAN
PLAN T	TRAFFIC SIGNAL PLAN
PLAN TC	TRAFFIC CONTROL PLAN



I.G. 673 (C4-E3)  
R.D. 233

LOCATION MAP



KFY MAP  
NO SCALE

PROJECT ID: RDC0013707  
STOCKER STREET  
RECONSTRUCT  
NO REFUND  
Bid Package Price: \$15,000



DRAWN BY: B. HAYS  
CHECKED BY: J. MELGAR  
CADD PROJECT FILE NAME: RDC0013707\_11\_E.DGN

<b>WILLIAM A. ROBERTSON</b> CITY OF LOS ANGELES BUREAU OF STREET SERVICES		TWO DAYS BEFORE YOU DIG CALL USA TOLL FREE 1-800-227-2600		APPROVED BY: [Signature] DATE: 8-17-03		COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS	
ASSISTANT DIRECTOR: [Signature] DATE: 4/25/02		APPROVED BY: [Signature] DATE: 8-1-03		DATE: 7-8-07		PROJECT INDEX REVISED SUPPL. #1 & ENERGY INDEX	
DIRECTOR: [Signature] DATE: 4/25/02		DATE: 8-17-03		DATE: 5-14-07		PROJECT ID NO. RDC0013707	
PROJECT NO. RDC0013707		DWG NO. PHG73634		SHEET 1 OF 12		PCA X2200321	

## Attachment B

### Water Pollution Control Drawings (WPCDs)

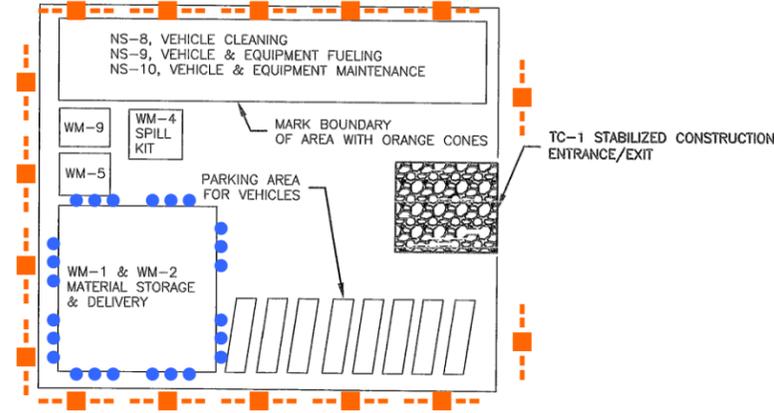
#### ***INSTRUCTIONS:***

- Include Water Pollution Control Drawings (WPCDs) in this Attachment in accordance with the instructions for Section 500.6 of the SWPPP template.
- The WPCDs shall be no smaller than the “Reduced Plans” (11” x 17”)



# Water Pollution Control Drawing (WPCD) Example

Legend		
~P&G~	NS-3	Paving and Grinding
---	SC-1	Silt Fence
□	SC-7	Street Sweeping
□	SC-10	Drain Inlet Protection
●●●	SC-6	Gravel Bag Berm (As needed)
■	TC-1	Stabilized Construction Entrance/Exit
--VEF--	NS-9	Vehicle Fueling area.
--VEM--	NS-10	Vehicle Maint. area.
MS	WM-1	Material Storage Area
WE	WE-1	Wind Erosion Control
CS	WM-3	Stockpile Mgmt. **
CWM	WM-8	Concrete Waste Management
SW	WM-9	Sanitary Septic Waste
--M--	SS-8	Wood Mulching
--ECM--	SS-7	Blankets; Mats; Plastic



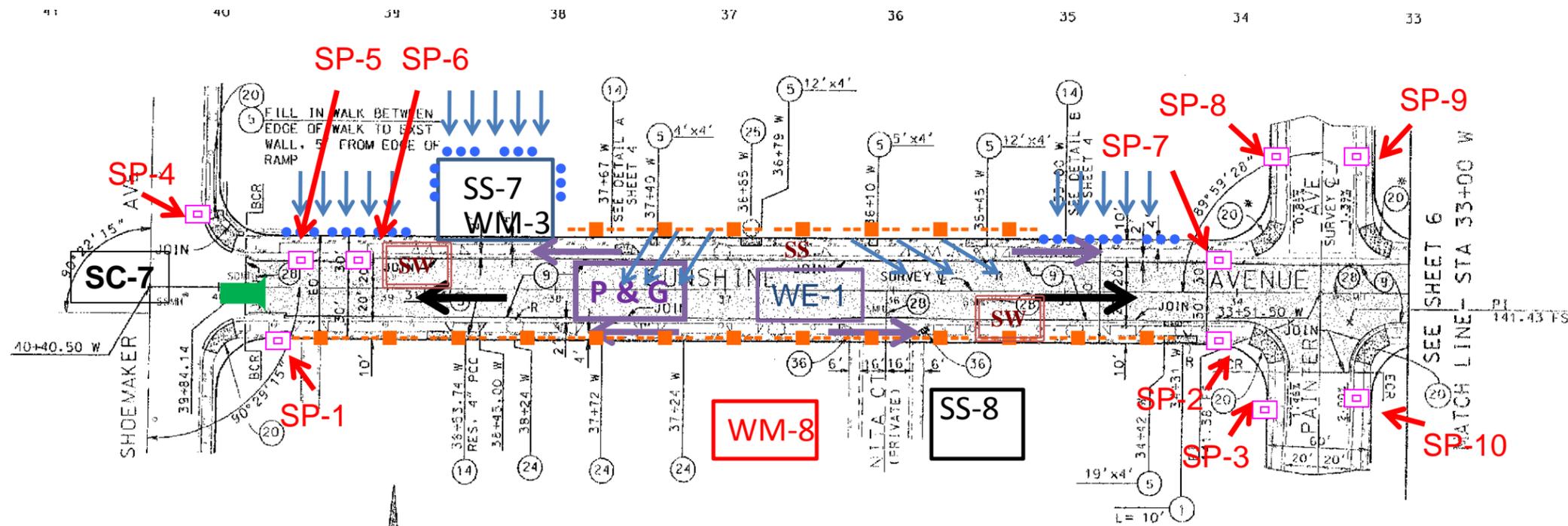
## GENERAL NOTES

1. THE INFORMATION ON THIS DRAWING IS ACCURATE FOR WATER POLLUTION CONTROL PUPOSES ONLY.
2. NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION SHALL BE PERFORMED ON THE CONSTRUCTION SITE UNTIL THE SWPPP HAS BEEN CERTIFIED BY THE AGENCY.
3. ALL INACTIVE STOCKPILES AND INACTIVE PORTIONS OF STOCKPILE SHALL BE MANAGED PER WM-3 STOCKPILE MANAGEMENT BMP.
4. CONCRETE WASHOUT AREAS SHALL BE WATERTIGHT ROLL-OFFS PLACED ON PLASTIC TO PREVENT SPILLAGE ON THE GROUND AND SURROUNDING AREAS



Sample Points SP-1, 2, 3, 4, 5, 6, 7, 8, 9, SP-10

Typical Legend



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS <b>SUNSHINE AVENUE</b> SHOEMAKER AVENUE TO CARMENITA ROAD PROJECT ID NO. RDC0013880 T.G. PAGE 707 B-7		
DATE NO. DESCRIPTION REVISIONS		JOB X2101523 DWG PH073745 SHEET 5 OF 7

# Attachment C

## BMP Consideration Checklist

<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>TEMPORARY SOIL STABILIZATION BMPs</b>						
SS-1	Scheduling	✓(2)				
SS-2	Preservation of Existing Vegetation	✓(2)				
SS-3	Hydraulic Mulch	(2)(3)				
SS-4	Hydroseeding	(2)(3)				
SS-5	Soil Binder	(2)(3)				
SS-6	Straw Mulch	(2)(3)				
SS-7	Geotextiles, Mats/Plastic Covers & Erosion Control Blankets	(2)(3)				
SS-8	Wood Mulching	(2)(3)				
<b>Temporary Concentrated Flow Conveyance Controls</b>						
SS-9	Earth Dikes/Drainage Swales & Lined Ditches					
SS-10	Outlet Protection/ Velocity Dissipation Devices					
SS-11	Slope Drains					
SS-12	Streambank Stabilization					

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.
- (3) The Contractor shall elect an effective combination of erosion and sediment controls which may require one or a combination of these soil stabilization BMPs.



<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>TEMPORARY SEDIMENT CONTROL BMPs</b>						
SC-1	Silt Fence	✓(2)				
SC-2	Desilting Basin					
SC-3	Sediment Trap					
SC-4	Check Dam					
SC-5	Fiber Rolls	✓(2)				
SC-6	Gravel Bag Berm	✓(2)				
SC-7	Sediment Sweeping and Vacuuming	✓(2)				
SC-8	Sand Bag Barrier	✓(2)				
SC-9	Straw bale Barrier					
SC-10	Storm Drain Inlet Protection	✓(2)				
<b>WIND EROSION CONTROL BMPs</b>						
WE-1	Wind Erosion Control	✓(2)				
<b>TRACKING CONTROL BMPs</b>						
TC-1	Stabilized Construction Entrance/Exit	✓(2)				
TC-2	Stabilized Construction Roadway					
TC-3	Entrance/Outlet Tire Wash					

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.



<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>Non-Storm Water Management BMPs</b>						
NS-1	Water Conservation Practices	✓(2)				
NS-2	Dewatering Operations	✓(4)				
NS-3	Paving and Grinding Operations	✓(2)				
NS-4	Temporary Stream Crossing					
NS-5	Clear Water Diversion					
NS-6	Illicit Discharge/Illegal Dumping Reporting	✓(2)				
NS-7	Potable Water/Irrigation	✓(2)				
<b>Vehicle and Equipment Operations</b>						
NS-8	Vehicle and Equipment Cleaning	✓(2)				
NS-9	Vehicle and Equipment Fueling	✓(2)				
NS-10	Vehicle and Equipment Maintenance	✓(2)				
NS-11	Pile Driving Operations					
NS-12	Concrete Curing					
NS-13	Material and Equipment Use Over Water					
NS-14	Concrete Finishing					

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.
- (4) Dewatering BMPs are required for discharging accumulated precipitation or if there is the potential for contact with groundwater during excavation. Separate permit requirements are applicable for construction dewatering of groundwater. See Special Provisions Section 7-5 Permits and Contract Specification Section 306-1.1 Open Trench Operations.



<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>Non-Storm Water Management BMPs</b>						
NS-15	Structure Demolition/Removal Over or Adjacent to Water					
NS-16	Temporary Batch Plant					
<b>Material Handling and Waste Management BMPs</b>						
WM-1	Material Delivery and Storage	✓(2)				
WM -2	Material Use	✓(2)				
WM -3	Stockpile Management	✓(2)				
WM -4	Spill Prevention and Control	✓(2)				
WM -5	Solid Waste Management	✓(2)				
WM -6	Hazardous Waste Management	✓(5)				
WM -7	Contaminated Soil Management					
WM -8	Concrete Waste Management	✓(2)				
WM -9	Sanitary/Septic Waste Management	✓(2)				
WM -10	Liquid Waste Management	✓(6)				

(1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations

(2) As required on all projects as determined by the Agency.

(5) Hazardous waste management BMPs are required if vehicles and equipment fueling, cleaning or maintenance on site generates hazardous waste or other construction activities generate other hazardous waste such as from sewage spills, concrete cure spills, or other material or waste spills, leaks or other sources.

(6) Liquid waste management BMPs are required for potential sewage spills as well as any plan for emergency spill cleanup and response under Section 7-8.5.3.



**EXAMPLE:**

## BMP Consideration Checklist

<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>TEMPORARY SOIL STABILIZATION BMPs</b>						
SS-1	Scheduling	✓(2)	✓	✓		
SS-2	Preservation of Existing Vegetation	✓(2)	✓	✓		
SS-3	Hydraulic Mulch	✓(2)(3)		✓		As Option
SS-4	Hydroseeding	✓(2)(3)			✓	Using other options
SS-5	Soil Binder	✓(2)(3)		✓		As Option
SS-6	Straw Mulch	✓(2)(3)	✓	✓		
SS-7	Geotextiles, Mats/Plastic Covers & Erosion Control Blankets	✓(2)(3)	✓	✓		As option
SS-8	Wood Mulching				✓	Using Other Methods
<b>Temporary Concentrated Flow Conveyance Controls</b>						
SS-9	Earth Dikes/Drainage Swales & Lined Ditches				✓	Not Anticipated
SS-10	Outlet Protection/ Velocity Dissipation Devices			✓		
SS-11	Slope Drains			✓		
SS-12	Streambank Stabilization				✓	No streams on site

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.
- (3) The Contractor shall elect an effective combination of erosion and sediment controls which may require one or a combination of these soil stabilization BMPs.



<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>TEMPORARY SEDIMENT CONTROL BMPs</b>						
SC-1	Silt Fence	✓(2)		✓		As option
SC-2	Desilting Basin				✓	Not Applicable
SC-3	Sediment Trap				✓	Not Applicable
SC-4	Check Dam			✓		If concentrated flows are identified
SC-5	Fiber Rolls	✓(2)		✓		
SC-6	Gravel Bag Berm	✓(2)		✓		
SC-7	Sediment Sweeping and Vacuuming	✓(2)		✓		
SC-8	Sand Bag Barrier	✓(2)		✓		
SC-9	Straw bale Barrier				✓	Using other methods
SC-10	Storm Drain Inlet Protection	✓(2)		✓		
<b>WIND EROSION CONTROL BMPs</b>						
WE-1	Wind Erosion Control	✓(2)		✓		
<b>TRACKING CONTROL BMPs</b>						
TC-1	Stabilized Construction Entrance/Exit	✓(2)		✓		
TC-2	Stabilized Construction Roadway				✓	No Haul Roads
TC-3	Entrance/Outlet Tire Wash				✓	Using Other Methods

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.



<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
<b>Non-Storm Water Management BMPs</b>						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
NS-1	Water Conservation Practices	✓(2)		✓		
NS-2	Dewatering Operations	✓(4)		✓		
NS-3	Paving and Grinding Operations	✓(2)		✓		
NS-4	Temporary Stream Crossing				✓	Not Applicable
NS-5	Clear Water Diversion				✓	Not Applicable
NS-6	Illicit Discharge/Illegal Dumping Reporting	✓(2)		✓		
NS-7	Potable Water/Irrigation	✓(2)		✓		
<b>Vehicle and Equipment Operations</b>						
NS-8	Vehicle and Equipment Cleaning	✓(2)		✓		
NS-9	Vehicle and Equipment Fueling	✓(2)		✓		
NS-10	Vehicle and Equipment Maintenance	✓(2)		✓		
NS-11	Pile Driving Operations				✓	No pile driving
NS-12	Concrete Curing				✓	No concrete curing
NS-13	Material and Equipment Use Over Water				✓	No water at site
NS-14	Concrete Finishing				✓	No concrete finishing

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.
- (4) Dewatering BMPs are required for discharging accumulated precipitation or if there is the potential for contact with groundwater during excavation. Separate permit requirements are applicable for construction dewatering of groundwater. See Special Provisions Section 7-5 Permits and Contract Specification Section 306-1.1 Open Trench Operations.



<b>BMP Consideration Checklist</b>						
The Contractor shall consider utilizing all BMPs listed. Those BMPs that are not included in the SWPPP shall be checked as such and shall include a brief statement describing why it is not included.						
BMP No.	BMP Description	Minimum Requirement (1)	Check if Contract Requirement	Will BMP Be Used		If No, State Reason
				Yes	No	
<b>Non-Storm Water Management BMPs</b>						
NS-15	Structure Demolition/ Removal Over or Adjacent to Water				✓	No work near water
NS-16	Temporary Batch Plant				✓	No batch plants
<b>Material Handling and Waste Management BMPs</b>						
WM-1	Material Delivery and Storage	✓(2)		✓		
WM -2	Material Use	✓(2)		✓		
WM -3	Stockpile Management	✓(2)		✓		
WM -4	Spill Prevention and Control	✓(2)		✓		
WM -5	Solid Waste Management	✓(2)		✓		
WM -6	Hazardous Waste Management	✓(5)		✓		
WM -7	Contaminated Soil Management				✓	No contamination at site
WM -8	Concrete Waste Management	✓(2)		✓		
WM -9	Sanitary/Septic Waste Management	✓(2)		✓		
WM -10	Liquid Waste Management	✓(6)		✓		

- (1) Additional BMPs may be required as a result of actual field conditions, Contractor activities, or construction operations
- (2) As required on all projects as determined by the Agency.
- (5) Hazardous waste management BMPs are required if vehicles and equipment fueling, cleaning or maintenance on site generates hazardous waste or other construction activities generate other hazardous waste such as from sewage spills, concrete cure spills, or other material or waste spills, leaks or other sources.
- (6) Liquid waste management BMPs are required for potential sewage spills as well as any plan for emergency spill cleanup and response under Section 7-8.5.3.



# Attachment D

## Legally Responsible Person (LRP) Authorization of Approved Signatory





GAIL FARBER, Director

# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

*"To Enrich Lives Through Effective and Caring Service"*

900 SOUTH FREMONT AVENUE  
ALHAMBRA, CALIFORNIA 91803-1331  
Telephone: (626) 458-5100  
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO  
P.O. BOX 1460  
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE  
REFER TO FILE: C-1

October 18, 2010

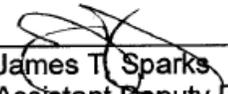
### APPROVED SIGNATORY AUTHORITY FROM LEGALLY RESPONSIBLE PERSON

#### Introduction

The reissued National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction and Land Disturbance Activities (CAS000002 and State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ), Section VII.B.4 requires the Legally Responsible Person (LRP) to list in the Storm Water Pollution Prevention Plan, the name of an Approved Signatory (AS), and provide a copy of the written agreement or other mechanism that provides this authority from the LRP in the SWPPP.

#### Authorization

I, James T. Sparks, as the Legally Responsible Person designated for the County of Los Angeles Department of Public Works for compliance with NPDES General Permit CAS000002 and SWRCB Order No. 2009-0009-DWQ, do hereby authorize Oscar R. Enriquez as the Approved Signatory. This authority provides legal authority to sign, certify, and electronically submit Permit Registration Documents (PRDs), Notices of Termination (NOTs), and other related documents on behalf of the County of Los Angeles Department of Public Works.

  
\_\_\_\_\_  
James T. Sparks  
Assistant Deputy Director



# Attachment E

## Computation Sheet for Determining Run-on Discharges

### INSTRUCTIONS:

- These computations are only necessary when there is a potential for run-on to the site from offsite areas. If run-on is controlled by existing drainage features, such as curb and gutter that will not be disturbed by the construction activities, describe such run-on controls in Sections 300.3 and 500.3.2 of the SWPPP.
- Refer to the Los Angeles County Department of Public Works, Water Resources Division, Hydrology Manual, January 2006 (Hydrology Manual), Appendix B Hydrology Maps. The Hydrology Manual is available online at: [http://dpw.lacounty.gov/wrd/publication/engineering/2006\\_Hydrology\\_Manual/2006%20Hydrology%20Manual-Divided.pdf](http://dpw.lacounty.gov/wrd/publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20Manual-Divided.pdf). The first map in Appendix B is the index map to locate the site and proper hydrology map. Click on the index map and the Hydrology Map will open. Locate your site on a Hydrology map and obtain the 50-year 24-hour rainfall in inches, and the soil classification area.
- **Item A.** Rainfall intensity, in inches per hour, is the average rainfall intensity for the selected frequency. The 2-year 1-hour rain event has been selected for temporary construction BMPs. The 50-year 24-hour rainfall in inches is converted to the 2-year 24-hour rainfall by using the multiplication factor of 0.387 in Table 5.3.1 of the Hydrology Manual. The rainfall intensity for a 2-year 24-hour storm event is calculated using Equation 5.1.2 of the Hydrology Manual:

$$\frac{i_t}{i_{1440}} = \left( \frac{1440}{t} \right)^{0.47}$$

Equation 5.1.2

Where:  $t$  = Duration in minutes  
 $i_t$  = Rainfall intensity for the duration in in/hr  
 $i_{1440}$  = 24-hour rainfall intensity in in/hr  
 $\frac{i_t}{i_{1440}}$  = Peak normalized intensity, dimensionless

Don't forget to divide the 2-hour rainfall by 24 hours.

$i_{1440}$  = rainfall in inches/24hours

- **Item B.** The runoff coefficient represents the percent of water, which will run off the ground surface during the storm. Values of the coefficient, "C", are calculated using Equation 6.3.2 of the Hydrology Manual. The coefficient for developed areas is 0.90. The coefficient for undeveloped areas is determined from the soil classification area where the site is located from the Hydrology Map.



$$C_d = (0.9 * IMP) + (1 - IMP) * C_u \quad \text{Equation 6.3.2}$$

Where:  $C_d$  = Developed area runoff coefficient  
 $IMP$  = Percent impervious  
 $C_u$  = Undeveloped area runoff coefficient

- **Item C.** Drainage area in acres includes impervious and pervious areas and surfaces covered by buildings. This shall be shown on the Vicinity Map in Attachment A and/or attached here.

A separate calculation shall be made for each drainage area to ensure BMPs are designed properly to handle the run-on for each area. BMPs to handle the calculated run-on shall be included in Section 500.4.1.

- The conversion to cfs is estimated. Inches/hour x 1 foot/12 inches x acres x 43,560ft<sup>2</sup>/acre x 1 hour/60 minutes x 1 minute/60 seconds ≈ 1cfs



**REQUIRED TEXT:**

Existing Site Conditions

$$\text{Area Rainfall Intensity}^1 = \underline{\text{Inches/hour}} \quad (\text{A})$$

$$\text{Area Runoff Coefficient}^2 = \underline{\hspace{2cm}} \quad (\text{B})$$

$$\text{Drainage Area}^3 = \underline{\hspace{2cm} \text{acres}} \quad (\text{C})$$

$$\text{Site Area Run-on Discharge} \quad (\text{A}) \times (\text{B}) \times (\text{C}) = \underline{\hspace{2cm} \text{cfs}} \quad (\text{D})$$

<sup>1</sup> [Insert reference and description of how area rainfall intensity was calculated or determined.]

<sup>2</sup> [Insert reference and description of how area runoff coefficient was calculated or determined.]

<sup>3</sup> [Insert reference and description of how drainage area was calculated or determined.]



**EXAMPLE:**

## Computational Sheet for Determining Run-on Discharges

### Existing Site Conditions

$$\begin{aligned} & \text{Run-on Area 1} \\ \text{Area Rainfall Intensity}^1 &= \underline{0.37 \text{ in/hr}} \quad (\text{A}) \\ \text{Area Runoff Coefficient}^2 &= \underline{0.1} \quad (\text{B}) \\ \text{Drainage Area}^3 &= \underline{0.75 \text{ acres}} \quad (\text{C}) \\ \text{Site Area Run-on Discharge} \quad (\text{A}) \times (\text{B}/6\text{hr}) \times (\text{C}) &= \underline{0.028 \text{ cfs}} \quad (\text{D}) \end{aligned}$$

1. Rainfall intensity, in inches per hour, is the average rainfall intensity for the selected frequency and duration (2 year, 1-hour storm). The rainfall in inches was obtained from the Hydrology Manual for the South Gate 50-year 24-hour Isohyet, Hydrology Map No. 1-H1.9 (page 6 of 7). The 50-year 24-hour event (6.0 inches of rainfall) was converted to a 2-year event using the multiplication factor (0.387) from Table 5.3.1 of the Hydrology Manual.

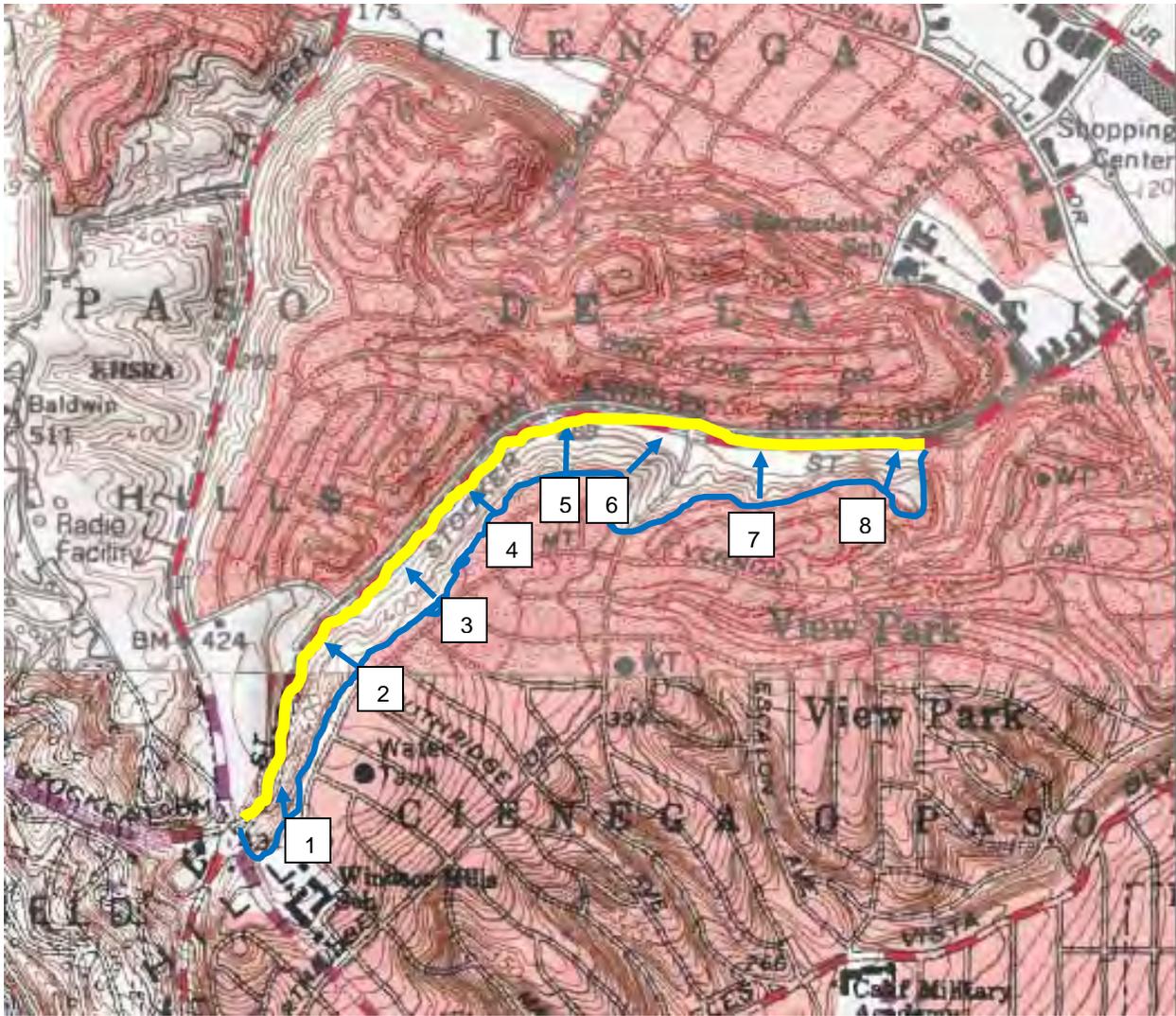
$$5.3 \text{ inches} \times 0.387 = 2.0 \text{ inches}$$

The rainfall intensity was calculated for the 2-year 1-hour storm using equation 5.1.2 of the Hydrology Manual:

$$\text{Area Rainfall Intensity (inches/hour)} = 2.0 \text{ inches}/24\text{hours} \times (1440/60)^{0.47} = 0.37 \text{ inches/hour}$$

2. The runoff coefficient represents the percent of water, which will run off the ground surface during the storm for the area depicted on the Vicinity Map (Attachment A). The value for the runoff coefficient, 0.1, was obtained from the Hydrology Manual Runoff Coefficient Curve for Soil Type 013 (page 7 of 7).
3. Drainage area, in acres, depicted on the Map attached on page 5 of 7.





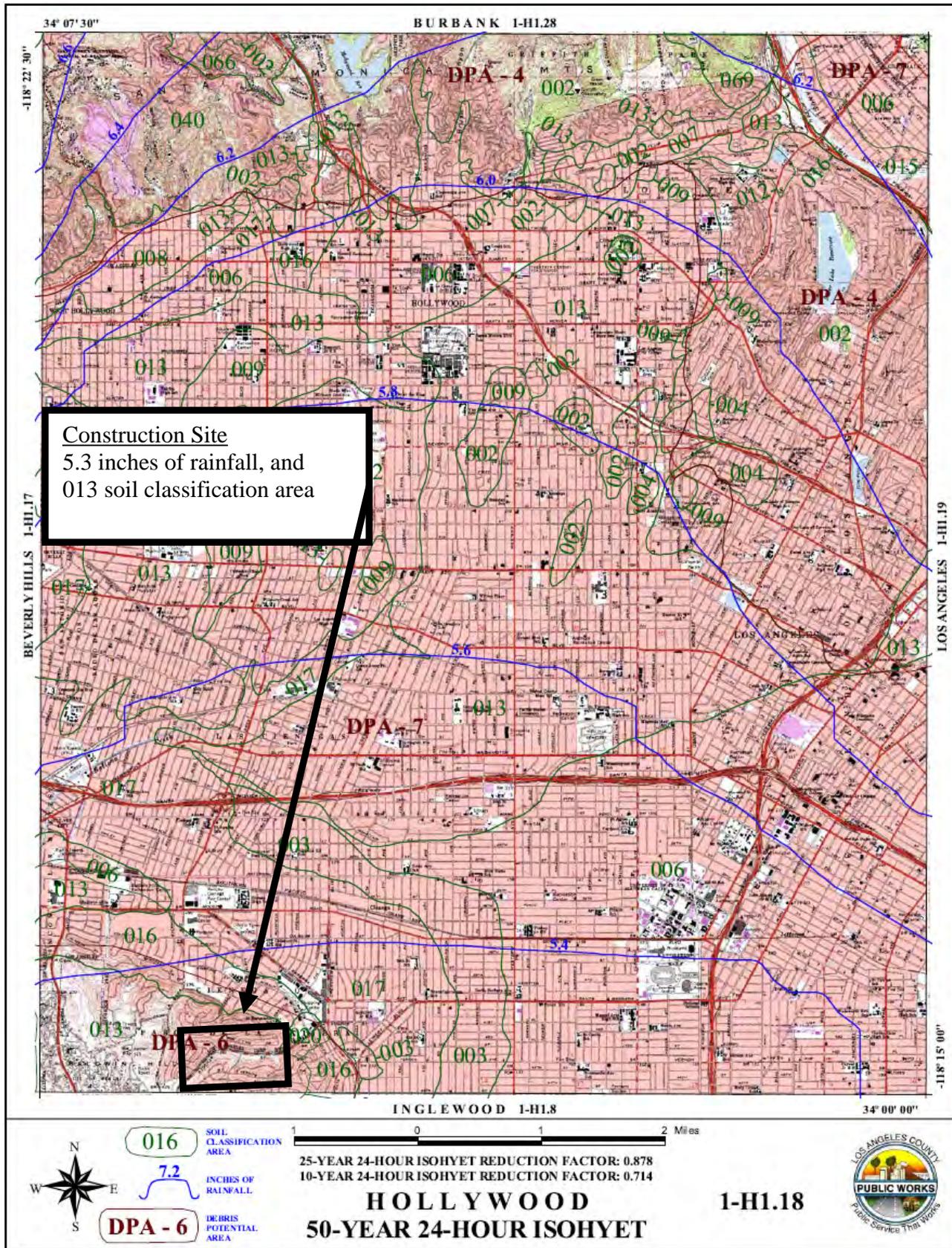
Construction Site: 

Run-on Area: 

Run-on flow area: 

Total Run-on area = 6.5 acres

- Run-on area 1 = 0.75 acre
- Run-on area 2 = 1.0 acre
- Run-on area 3 = 0.75 acre
- Run-on area 4 = 0.5 acre
- Run-on area 5 = 0.5 acre
- Run-on area 6 = 1.0 acre
- Run-on area 7 = 1.0 acre
- Run-on area 8 = 1.0 acre



- 016** SOIL CLASSIFICATION AREA
- 7.2** INCHES OF RAINFALL
- DPA - 6** DEBRIS POTENTIAL AREA



25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878  
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

**HOLLYWOOD**  
**50-YEAR 24-HOUR ISOHYET**

**1-HI.18**

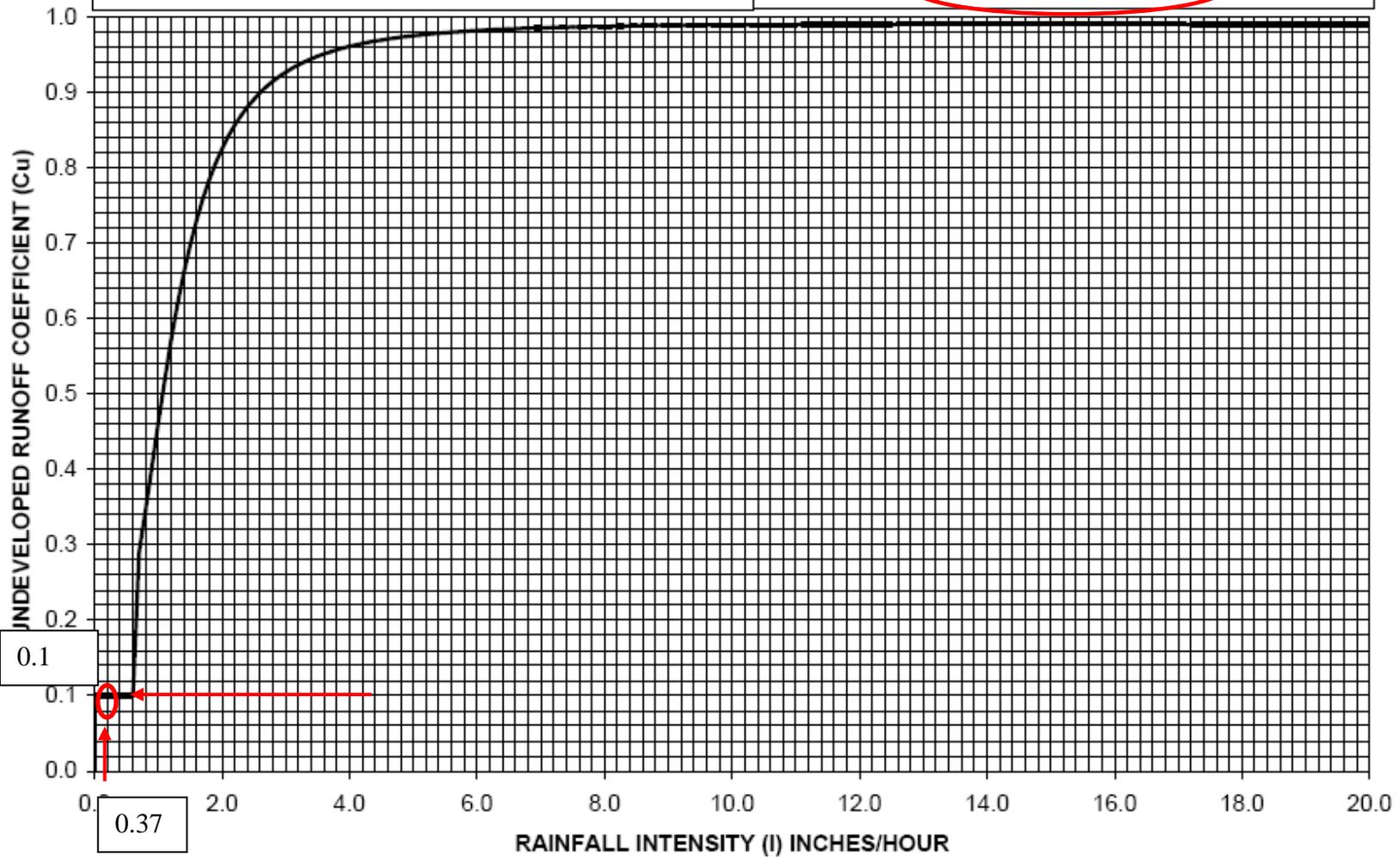


$C_D = (0.9 * IMP) + (1.0 - IMP) * C_U$   
 Where:  $C_D$  = Developed Runoff Coefficient  
 IMP = Proportion Impervious  
 $C_U$  = Undeveloped runoff coefficient



Los Angeles County Department of Public Works

RUNOFF COEFFICIENT CURVE  
 SOIL TYPE NO. 013



## Attachment F

### Notice of Intent (NOI) and Waste Discharge Identification (WDID) Number

#### ***INSTRUCTIONS:***

- The Notice of Intent (NOI) and Waste Discharge Identification (WDID) number will be provided by the LACDPW. The NOI and WDID number shall be inserted as this attachment.



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# Attachment G

## Program for Inspection, Maintenance and Repair of Construction Site BMPs

**INSTRUCTIONS:**

- Use this form as an outline for the inspection, maintenance and repair program described in SWPPP Section 500.7.
- Inspection frequency and maintenance/repair program must be included for all BMPs selected for the project (minimum BMPs and others selected)

<i>The contractor shall use the following guidelines for maintenance, inspection, and repair of BMPs identified in the SWPPP</i>		
BEST MANAGEMENT PRACTICES (BMPs)	INSPECTION FREQUENCY (all controls)	MAINTENANCE/REPAIR PROGRAM
<b>TEMPORARY SOIL STABILIZATION BMPs</b>		
		■
		■
<b>TEMPORARY SEDIMENT CONTROL BMPs</b>		
		■
		■
		■
<b>WIND EROSION CONTROL BMPs</b>		
		■
<b>TRACKING CONTROL BMPs</b>		
		■
<b>NON-STORM WATER MANAGEMENT BMPs</b>		
		■
<b>WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs</b>		
		■
		■



**EXAMPLE:**

<i>The contractor shall use the following guidelines for inspection, maintenance and repair of BMPs identified in the SWPPP</i>		
<b>BEST MANAGEMENT PRACTICES (BMPs)</b>	<b>INSPECTION FREQUENCY (all controls)</b>	<b>MAINTENANCE/REPAIR PROGRAM</b>
<b>TEMPORARY SOIL STABILIZATION BMPs</b>		
SS-2 Preservation of Existing Vegetation	Weekly	<ul style="list-style-type: none"> <li>■ Inspect protective fencing and repair or replace as necessary.</li> <li>■ Repair or replace damaged vegetation per SS-1 working detail.</li> <li>■ Repair damaged roots or compacted soils in the root zone.</li> </ul>
SS-3 Hydraulic Mulch SS-7 Plastic Covers	Weekly  Prior to forecast storm.  After a rain event that causes runoff from the construction site.  At 24-hour intervals during extended rain events.	<ul style="list-style-type: none"> <li>■ Maintain continuous mulch cover over area to be protected. Re-spray hydraulic mulch as necessary.</li> <li>■ As soon as weather and soil conditions permit, repair any slope damage and re-spray damaged or exposed areas.</li> <li>■ Replace and dispose torn or missing sections of plastic covers. Replace or supplement anchors as necessary to keep covers in place.</li> </ul>
<b>TEMPORARY SEDIMENT CONTROL BMPs</b>		
SC-1 Silt Fence SC-4 Check Dam SC-8 Sandbag Barrier SC-10 Storm Drain Inlet Protection	Weekly  Prior to forecast storm.  After a rain event that causes runoff from the construction site.  At 24-hour intervals during extended rain events.	<ul style="list-style-type: none"> <li>■ Remove, dispose, and replace damaged, deteriorated, or otherwise unsuitable BMPs.</li> <li>■ Repair any slope damage as soon as weather conditions permit.</li> <li>■ Replace torn sand bags as required.</li> <li>■ Replace torn sections of silt fences. Re-key bottom of fences as needed.</li> <li>■ Remove retained sediments before they reach 1/3 of the barrier height or 1/2 of the sediment holding capacity.</li> <li>■ Clean and dispose of accumulated sediment deposited in sediment traps around drainage inlets; re-secure silt fence as needed.</li> <li>■ Remove BMPs when no longer needed, as directed by the Engineer. Repair slopes/surfaces damaged by BMP removal.</li> </ul>
SC-7 Street Sweeping and Vacuuming	Daily	<ul style="list-style-type: none"> <li>■ Inspect site access points daily.</li> <li>■ Sweep tracked sediment.</li> </ul>
<b>WIND EROSION CONTROL BMPs</b>		
WE-1 Wind Erosion Control	Daily	<ul style="list-style-type: none"> <li>■ Maintain water trucks and water distribution equipment in good order and fix leaks immediately.</li> </ul>



<b>The contractor shall use the following guidelines for inspection, maintenance and repair of BMPs identified in the SWPPP</b>		
<b>BEST MANAGEMENT PRACTICES (BMPs)</b>	<b>INSPECTION FREQUENCY (all controls)</b>	<b>MAINTENANCE/REPAIR PROGRAM</b>
<b>TRACKING CONTROL BMPs</b>		
TC-1 Stabilized Construction Entrance/Exit	Weekly Prior to forecast storm. After a rain event that causes runoff from the construction site. At 24-hour intervals during extended rain events.	<ul style="list-style-type: none"> <li>■ Replace gravel as necessary.</li> <li>■ Remove excessive soil accumulation.</li> <li>■ Sweep surrounding areas.</li> </ul>
<b>NON-STORM WATER MANAGEMENT BMPs</b>		
NS-6 Illicit Connection/Illegal Discharge Detection and Reporting	Weekly Prior to forecast storm.	<ul style="list-style-type: none"> <li>■ Inspect site during project execution for evidence of illicit discharges or illegal dumping.</li> <li>■ Observe site perimeter for evidence or potential of illicitly discharged or illegally dumped material which may enter the job site.</li> <li>■ Notify the Resident Engineer of any illicit discharges or illegal dumping incidents at the time of discovery.</li> <li>■ Remove, dispose and replace damaged, deteriorated, or otherwise unsuitable BMPs.</li> <li>■ Remove vehicles and/or equipment that leak.</li> <li>■ Replace drip pans or absorbent materials as needed. Re-stock spill materials.</li> <li>■ Remove BMPs when no longer needed, as directed by the Engineer. Repair slopes/surfaces damaged by BMP removal.</li> </ul>
NS-8 Vehicle and Equipment Cleaning	After a rain event that causes runoff from the construction site.	
NS-9 Vehicle and Equipment Fueling	At 24-hour intervals during extended rain events.	
NS-10 Vehicle and Equipment Maintenance		
<b>WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs</b>		
WM-1 Material Delivery and Storage	Weekly Prior to forecast storm.	<ul style="list-style-type: none"> <li>■ Keep storage areas clean, well organized, and equipped with ample clean-up supplies as appropriate for the materials stored.</li> <li>■ Repair or replace perimeter controls, containment structures, covers and liners as needed to maintain proper function and protection.</li> <li>■ Properly remove and dispose accumulated rainwater from containment facilities.</li> <li>■ Cover any stockpiles with appropriate mats or covers.</li> <li>■ Maintain waste fluid containers in leak proof condition. Repair or replace dumpsters that leak.</li> <li>■ Provide timely service and removal to prevent dumpsters and sanitary facilities from overflowing.</li> <li>■ Schedule Refuse Contractor to pick up waste containers weekly.</li> </ul>
WM-2 Material Use	After a rain event that causes runoff from the construction site.	
WM-4 Spill Prevention and Control	At 24-hour intervals during extended rain events.	
WM-5 Solid Waste Management		
WM-9 Sanitary/Septic Waste Management		



**The contractor shall use the following guidelines for inspection, maintenance and repair of BMPs identified in the SWPPP**

<b>BEST MANAGEMENT PRACTICES (BMPs)</b>	<b>INSPECTION FREQUENCY (all controls)</b>	<b>MAINTENANCE/REPAIR PROGRAM</b>
WM-8 Concrete Waste Management	<p>Weekly for storage and disposal procedures.</p> <p>Daily for working tasks such as saw cutting, coring, grinding, grooving, use of slurry, grout, additives.</p> <p>Prior to forecast storm.</p> <p>After a rain event that causes runoff from the construction site.</p> <p>At 24-hour intervals during extended rain events.</p>	<ul style="list-style-type: none"> <li>■ Remove accumulated debris from concrete washouts. Replace lining and sand bags as necessary.</li> </ul>

EXAMPLE



# Attachment H

## Best Management Practices (BMP) Checklist



## INSTRUCTIONS:

### General

- The BMP Checklist is available as a separate Excel file.
- Use this BMP Checklist for documenting all inspections. This BMP Checklist meets the Construction General Permit requirements for BMP inspections, storm event inspections, and non-storm water inspections (quarterly inspections).
- In order to properly fill out the BMP Checklist, these instructions must be followed. The BMP Checklist does not provide instruction on how to conduct the inspection and fill out the BMP Checklist. BMP design, implementation, and maintenance for the BMPs numbered and named on the BMP Checklist are detailed in the BMP Fact Sheets attached to Sections 3 through 8 of this Manual.
- The BMP Checklist shall be completed and signed by the Contractor's Qualified SWPPP Practitioner (QSP).
- Evaluate BMPs for adequacy and proper maintenance and whether additional BMPs are required in accordance with the contract Special Provisions and the Construction General Permit (Order No. 2009-0009-DWQ).
- All paved areas that provide access to the project site shall be inspected daily. The question, "Are all paved roads that provide access to the project inspected daily for tracking of sediment and other debris?" shall be answered.
- If the answer is "no" to any of the questions listed in Columns B, C, or D of the BMP Checklist, describe the corrective action(s) to be taken and implementation dates of when corrective actions are completed. Should more space be needed to describe corrective actions, identify the corrective action numerically and use additional sheets as necessary.
- The inspection type is documented to ensure and document that inspections are conducted with the required frequency. Check either "Weekly," "Pre-storm," "Post-storm," "During" or "Other." If "other" is checked, describe what type of inspection in the space provided. For example, if an inspection is conducted more frequently than once per week, the "Other" box should be checked and the inspector shall fill in "additional weekly" for the inspection type. Another example would be a consultant or oversight inspection or audit.

### Project Information

- The Project Name and Project ID Number shall be obtained from the front cover of the contract Special Provisions.
- The PCA number is an internal LACDPW billing number not necessary for the Contractor to fill in. The Office Engineer and Area Supervisor and signature are not necessary for the Contractor to fill in.



- If the BMP Checklist is used for a catch basin cleanout contract, the user is referred to specific BMPs that may apply: SS-1, SS-7, SS-10, NS-6, WM-2, WM-4, WM-5, WM-6.

**Inspector's name, title, and signature.**

- The inspector shall be Contractor's Qualified SWPPP Practitioner (QSP). The QSP name, title and signature are required.

**SWPPP Projects**

- Whether the project requires a SWPPP is determined by Section 7-8.6 of the Contract Special Provisions. SWPPP projects are required to answer the question in Column "A" whether each BMP is included in the SWPPP. Projects that do not require a SWPPP are not required to answer the question in Column "A."
- Whether SWPPP revisions are necessary shall be based on the entire inspection and review of the SWPPP.
- The inspector shall review the SWPPP prior to an inspection in order to determine whether a SWPPP amendment is necessary.
- If the SWPPP adequately addresses installed BMPs and BMPs required for the project, and if the SWPPP matches the site, answer "no" to indicate that amendments to the SWPPP are NOT necessary.
- If the SWPPP does not match the site or if corrective actions need to be made on the site that do not match the current SWPPP, answer "yes" to indicate that SWPPP amendments are necessary.
- If "no" is checked, include SWPPP amendments as part of the corrective actions for the associated BMPs in the BMP Checklist Section 1 thru 6.
  - For example, if during an inspection a drain inlet is identified that was not shown on the project SWPPP, the question regarding whether the SWPPP revisions are necessary should be answered "yes." Then, under Section 2, SC-10 Storm Drain Inlet Protection, not only should any deficiencies, corrective actions and implementation dates for the BMP inspected be noted, but an additional deficiency, corrective action, and implementation date should be noted to amend the SWPPP to include the additional drain inlet location.
  - For another example, if the Contractor implements an additional BMP, approved by the Engineer, such as a fiber roll to break up slope lengths, and fiber rolls were not previously selected, included and described in the SWPPP, the corrective actions under SC-5 Fiber Rolls shall include a revision to the SWPPP to add fiber rolls.

**Inspection date, time, and date the inspection report was written.**

- The inspection report shall be completed the same day that the inspection was conducted. In order to document that the inspection was completed the same day, both the inspection



date and report date are required.

- The report number is a consecutive number from the first inspection conducted on the project.

### **Stage of construction, activities completed, and approximate area of the site exposed.**

- The area of construction exposed shall be approximated in acres. Exposed areas include:
  - Clearing of the land both for access (i.e. access roads) as well as preparing the site for construction,
  - constructing access roads,
  - excavation and grading of the site,
  - equipment staging, maintenance, and construction easement areas if they occur atop a soil surface,
  - material and/or soil staging or stockpiles if atop a soil surface (not if atop an impervious surface such as concrete or asphalt),
  - area of asphalt or concrete pavement removal if it is removed entirely to the soil surface,
  - area related to demolition and removal of existing structures if the work is to the soil surface,
  - concrete truck clean-out areas if atop a soil surface
- The stage of construction shall be documented by checking one or more of the boxes on the BMP Checklist for utilities, grading/excavating/drilling, paving/general construction, vertical, or final landscaping/stabilization.
- The activities completed shall be filled in. This information is project-specific and shall be updated for each inspection as construction progresses. For example, if sawcutting operations were completed and the project was working on utilities, write “sawcutting” as a completed activity. If paving operations were completed and the project was in landscaping, write “paving” as a completed activity. If the project had completed a portion of paving but was still conducting paving, write a percentage of paving as a completed activity (e.g., “40% paving”). There may be more than one activity completed. For example, if the excavation, backfill, and utility work were completed and the project was being paved, write “excavation, backfill and utility work” as completed activities.

### **Weather Information**

- If it is raining or drizzling during the inspection answer “yes” to was precipitation present during inspection. Otherwise, answer “no.”
- The beginning time of the storm event is easily documented when the rain event starts during working hours. If the rain event begins outside work hours, include an estimate of the start time. For example, if it started raining after leaving the site at 3:00 p.m. and before arriving at 7:00 a.m., the beginning must be estimated.
- The elapsed time since the last rain event shall be obtained by reviewing the previous rain event BMP Checklists and counting the days in between events.



- Rainfall/Rain gauge information shall be monitored daily during a rain event. The inches of rain that has fallen shall be obtained from the Los Angeles County Department of Public Works, Water Resources Division, Hydrology Precipitation Map. The rain gauge for the past 24 hours shall be obtained from the website. Select the closest rain gauge station to the project site location at [http://ladpw.org/wrd/precip/alert\\_rain/](http://ladpw.org/wrd/precip/alert_rain/) and click on the 24-hour tab at the top of the page. Record the rain in inches and the name of the selected rain gauge station on the BMP Checklist. The rain gauge shall be monitored at the same time each day.
- Estimate the time of the duration of the rain event for the day the inspection was conducted.

### **Odors, sheens, turbidity, floating or suspended material or discoloration**

Inspect water discharges for any odors, sheens, turbidity, floating or suspended material or discoloration on the surface. Answer “yes” or “no” to whether there are any odors, sheens, turbidity, floating or suspended materials or discoloration noticed during the inspection. If there is no water discharge noticed, answer not applicable “N/A.” If “yes” is the answer identify the source and describe in the space provided. For example, if a sheen is noticed on the surface of the discharge, look upgradient to find and identify the location of the oil/grease/fuel that may have been the source of the sheen and document the findings. The source may have been a leaking vehicle or equipment. The corrective action shall be documented under the BMP Checklist section that addresses vehicles and equipment (See Section 5, NS-8, NS-9, and NS-10)

### **Description of any BMPs evaluated and any deficiencies noted as well as locations.**

- Answer whether each BMP is deployed on site, whether the BMPs are adequately designed and implemented, and whether the BMPs are maintained and effective.
- Locations, deficiencies, corrective actions and implementation dates shall be noted in the space allotted or additional sheets shall be attached. The locations may be referenced to the SWPPP water pollution control drawings (WPCDs) or called out specifically. For example, if the Storm Drain Inlet Protection BMPs are implemented on all drain inlets as shown on the WPCDs, reference to the WPCDs would be adequate. If BMPs need maintenance, the locations of each BMP deficiency (e.g., BMP that requires maintenance) shall be identified. For example, “the gravel bag barrier along South St. between Broad Ave. and Park Ave. has broken bags that require replacement.”

### **Corrective actions required and the associated implementation dates.**

- The corrective actions may include implementation of BMPs, maintenance, repair or replacement. For example, the stockpile BMPs under WM-3 may have plastic covers on stockpiles that are no actively being used that have been displaced and need to be replaced. The corrective action shall require a cover and berm for stockpiles not actively being used. In addition, once the corrective actions have been implemented, the implementation date shall be entered. Corrective actions identified on the BMP Checklist shall be implemented by the end of the day of the inspection. If the corrective actions are not completed the same day, a Notice of BMP Noncompliance form shall be completed



and issued to the Contractor.

- The corrective action for SWPPP amendment may require more time than “by the end of day.” In case a corrective action requires more time than the end of the day, the inspector must track the implementation and document that the SWPPP was amended to complete the BMP Checklist. SWPPP amendments must be completed in accordance with the contract Special Provisions Section 7-8.6.3.7.
- The BMP Checklist must indicate implementation dates of when corrective actions are completed.

**Photographs taken during the inspection, if any.**

- Photographs if taken during the inspection shall be documented at the end of the inspection form and attached. If more space is needed, attach additional sheets.





LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

BEST MANAGEMENT PRACTICES (BMP) CHECKLIST

Project Name: \_\_\_\_\_ PCA No.: \_\_\_\_\_ Report No.: \_\_\_\_\_  
 Contractors Name: \_\_\_\_\_ Project ID No.: \_\_\_\_\_ Inspection Time: \_\_\_\_\_  
 Inspector: \_\_\_\_\_ Title: \_\_\_\_\_ Inspection Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Office Engineer: \_\_\_\_\_ Report Date: \_\_\_\_\_

Area Supervisor: \_\_\_\_\_ Does this project require a SWPPP?  Yes  No  
 Signature: \_\_\_\_\_ If yes, complete Columns A, B, C, and D. If no, complete Columns B, C, and D.  
 Approximate area of construction exposed (acres): \_\_\_\_\_ Are SWPPP amendments necessary?  Yes  No  N/A

Are all paved roads that provide access to the project inspected daily for tracking of sediment and other debris?  Yes  No

Inspection Type:  Weekly  Pre-Storm  Post-Storm  During  Other \_\_\_\_\_

Stage of construction:  Utilities  Grading/excavation/drilling  Paving/general construction  Vertical  Final landscaping/stabilization

Construction activities completed: \_\_\_\_\_

**Weather Information: (SWPPP Projects ONLY)**

Was precipitation present during inspection?  Yes  No Rainfall/Rain Gauge (in.) \_\_\_\_\_  
 Beginning time of storm event: \_\_\_\_\_ Rain Station: \_\_\_\_\_  
 Elapsed time since last rain event: \_\_\_\_\_ Duration of event: \_\_\_\_\_

Are there any odors, sheens, turbidity, floating or suspended materials, discoloration on any water discharges?  Yes  No  N/A

If yes, describe the source: \_\_\_\_\_

Catch Basin Cleanout Contract?  Yes  No If yes, see only: SS-1, SS-7, SS-10, NS-6, WM-2, WM-4, WM-5, WM-6

**1. Temporary Soil Stabilization Practices**

A. Included in SWPPP?		BMP Description		B. Deployed on Site?		C. Adequately designed/implemented?			D. Maintained/effective?			Location/Deficiencies/Corrective Actions/Implementation Dates
Yes	No			Yes	No	N/A	Yes	No	N/A			
<input type="checkbox"/>	<input type="checkbox"/>	SS-1	Scheduling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-2	Preserve Existing Vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-3	Hydraulic Mulch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-4	Hydroseeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-5	Soil Binders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-6	Straw Mulch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-7	Geotextiles/Plastic/EC Blankets/Mats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-8	Wood Mulching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-9	Earth dikes/drainage swales and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-10	Outlet Protection/Velocity Dissipation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-11	Slope Drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**2. Temporary Sediment Control Practices**

A. Included in SWPPP?		BMP Description		B. Deployed on Site?		C. Adequately designed/implemented?			D. Maintained/effective?			Location/Deficiencies/Corrective Actions/Implementation Dates
Yes	No			Yes	No	N/A	Yes	No	N/A			
<input type="checkbox"/>	<input type="checkbox"/>	SC-1	Silt Fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-2	Desilting Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-3	Sediment Trap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-4	Check Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-5	Fiber Rolls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-6	Gravel Bag Berm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-7	Street Sweeping and Vacuuming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-8	Sandbag Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-9	Straw Bale Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	SC-10	Storm Drain Inlet Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 3. Wind Erosion Control Practices

A. Included in SWPPP?		BMP Description	B. Deployed on Site?		C. Adequately designed/implemented?			D. Maintained/effective?			Location/Deficiencies/Corrective Actions/Implementation Dates
Yes	No		Yes	No	Yes	No	N/A	Yes	No	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	WE-1	Wind Erosion Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 4. Tracking Control Practices

A. Included in SWPPP?		BMP Description	B. Deployed on Site?		C. Adequately designed/implemented?			D. Maintained/effective?			Location/Deficiencies/Corrective Actions/Implementation Dates
Yes	No		Yes	No	Yes	No	N/A	Yes	No	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	TC-1	Stabilized Construction Entrance/Exit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	TC-2	Stabilized Construction Roadway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	TC-3	Entrance/Outlet Tire Wash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 5. Non-Storm Water Management

A. Included in SWPPP?		BMP Description	B. Deployed on Site?		C. Adequately designed/implemented?			D. Maintained/effective?			Location/Deficiencies/Corrective Actions/Implementation Dates
Yes	No		Yes	No	Yes	No	N/A	Yes	No	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	NS-1	Water Conservation Practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-2	Dewatering Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-3	Paving and Grading Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-4	Temporary Stream Crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-5	Clear Water Diversion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-6	Illicit Connection/ Illegal Discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-7	Potable Water/ Irrigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-8	Vehicle and Equipment Cleaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-9	Vehicle and Equipment Fueling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-10	Vehicle and Equipment Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-11	Pile Driving Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-12	Concrete Curing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-13	Material/Equipment Use Over Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-14	Concrete Finishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-15	Demo/Removal Over Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	NS-16	Temporary Batch Plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 6. Waste Management and Materials Pollution

A. Included in SWPPP?		BMP Description	B. Deployed on Site?		C. Adequately designed/implemented?			D. Maintained/effective?			Location/Deficiencies/Corrective Actions/Implementation Dates
Yes	No		Yes	No	Yes	No	N/A	Yes	No	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	WM-1	Material Delivery and Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-2	Material Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-3	Stockpile Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-4	Spill Prevention and Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-5	Solid Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-6	Hazardous Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-7	Contaminated Soil Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-8	Concrete Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-9	Sanitary/Septic Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	WM-10	Liquid Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Describe and attach any photos taken during the inspection, if any:

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

# Attachment I

## Trained Contractor Personnel Log

### **INSTRUCTIONS:**

- Use this sheet to record individuals attending formal training programs specified in section 500.9 of the SWPPP. This form shall also be used to record informal tailgate on-site meetings on storm water management. For example, training of spill cleanup personnel shall be documented using this log.
- Insert additional lines for attendees or comments as necessary.
- Attach prerequisite certificates for QSD and QSP (i.e., PE, PG, hydrologist, landscape architect, CPESC, CPSWQ, NICET, CISEC, CESSWI).
- Attach QSD and QSP training documentation as required by Construction General Permit (Order No. 2009-0009-DWQ).

### **Stormwater Management Training Log**

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Stormwater Management Topic: (check as appropriate)

- |  |   |
|--|---|
| <input type="checkbox"/> Temporary Soil Stabilization<br>(Erosion Control) | <input type="checkbox"/> Temporary Sediment Control                       |
| <input type="checkbox"/> Wind Erosion Control                              | <input type="checkbox"/> Tracking Control                                 |
| <input type="checkbox"/> Non-Storm Water Management                        | <input type="checkbox"/> Waste Management and Materials Pollution Control |
| <input type="checkbox"/> Water Quality Sampling and<br>Analysis            |   |

Specific Training Objective: \_\_\_\_\_

Location: \_\_\_\_\_

Date: \_\_\_\_\_

Instructor: \_\_\_\_\_

Telephone: \_\_\_\_\_



Attendee Roster (attach additional forms if necessary)

Name	Company	Phone

COMMENTS:

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## Attachment J

### Subcontractor Log and Sample Notification Letter

#### **INSTRUCTIONS:**

- Use this sample to prepare the subcontractor letter as required in Section 500.10 of the SWPPP.
- Use the attached log to list all the required information of each subcontractor.

#### **SWPPP Notification**

ABC Construction Inc,  
123 Sunset Blvd., Suite 456  
Hollywood, CA 90000

Dear Sir/Madam,

Please be advised that the California State Water Resources Control Board has adopted the Construction General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity (CAS000002, Order No. 2009-0009-DWQ). The goal of this permit is to prevent the discharge of pollutants associated with construction and land disturbance activity from entering the storm drain system, ground and surface waters.

[**Contractor**] has developed a Storm Water Pollution Prevention Plan (SWPPP) in order to implement the requirements of the Construction General Permit.

As a subcontractor, you are required to comply with the SWPPP and the Construction General Permit for any work that you perform on site. Any person or group who violates any condition of the Construction General Permit may be subject to substantial penalties in accordance with County, state and federal law. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP and the Construction General Permit. A copy of the Construction General Permit and the SWPPP are available for your review at the construction office. Please contact me if you have further questions.

Sincerely,

John Doe  
Project Superintendent





# Attachment K

## Accumulated Precipitation Procedure (APP)

### ***INSTRUCTIONS:***

- Include a copy of Accumulated Precipitation Procedure (APP).
- An example is included in the BMP Manual Section 7.



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# Attachment L

## Annual Report

### **INSTRUCTIONS:**

- Use this form to prepare the Annual Report.
- The Contractor should summarize the data for the Annual Report on a monthly basis.
- The Annual Report shall be prepared by August 15 each year. The Annual Report will cover work completed during the previous July 1 through June 30 or portion thereof. If the Construction project is completed prior to June 30, the Annual Report shall be prepared once all data is received, and shall be submitted before final payment in accordance with the contract Special Provisions.
- The Annual Report shall be developed and certified by the Contractor's Qualified SWPPP Practitioner (QSP). The Annual Report shall be submitted to the Engineer in hard copy format and electronically in .pdf or other format approved by the Engineer on a read/write compact disc.
- The Annual Report shall include storm water monitoring information consisting of the following:
  - 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. Analytical results that are less than the method detection limit shall be reported as "less than the method detection limit."
  - A summary of all corrective actions taken during the compliance year (July 1 through June 30 or portion thereof). At a minimum, this shall include the corrective actions on the County BMP Checklists and Notice of BMP Noncompliance forms.
  - Identification of any compliance activities or corrective actions that were not implemented.
  - A summary of all violations of the General Permit.
  - The names of individual(s) who performed the facility inspections, sampling, visual observation (inspections), and/or measurements.
  - The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation (rain gauge).
  - The visual observations and sample collection exception records and reports.
- The Annual Report shall include training information consisting of:
  - 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.



# Annual Report

PROJECT INFORMATION	
Project Name	
Project Number	
Site Address	
Contractor	
Annual Report Preparer	
QSP's Name	
QSP's Title	
QSP's 24-hour Emergency telephone number	
Date of Annual Report	
Construction period addressed	



Summary and evaluation of all storm water effluent sampling and analysis results for pH and turbidity. Complete this form for each sample collected and analyzed in the field for each qualifying rain event.		
Date:	Time:	Sampler's name:
Sample location as shown in the SWPPP:		
Rain Gauge (inches):	Rain Gauge Station:	
pH meter (describe):	Turbidity meter (describe):	
Average pH measurement (0.2 detection limit): _____pH units	Average Turbidity measurement (1.0 detection limit): _____NTU	
Date:	Time:	Sampler's name:
Sample location:		
Rain Gauge (inches):	Rain Gauge Station:	
pH meter (describe):	Turbidity meter (describe):	
Average pH measurement (0.2 detection limit): _____pH units	Average Turbidity measurement (1.0 detection limit): _____NTU	
Date:	Time:	Sampler's name:
Sample location:		
pH meter (describe):	Turbidity meter (describe):	
Average pH measurement (0.2 detection limit): _____pH units	Average Turbidity measurement (1.0 detection limit): _____NTU	
Date:	Time:	Sampler's name:
Sample location:		
pH meter (describe):	Turbidity meter (describe):	
Average pH measurement (0.2 detection limit): _____pH units	Average Turbidity measurement (1.0 detection limit): _____NTU	
Date:	Time:	Sampler's name:
Sample location:		
pH meter (describe):	Turbidity meter (describe):	
Average pH measurement (0.2 detection limit): _____pH units	Average Turbidity measurement (1.0 detection limit): _____NTU	





Attach additional sheets as necessary.	
Non-storm Water Sampling	[Summarize non-storm water sampling conducting during the reporting period. Attach any laboratory reports. If non-storm water discharge is authorized by a another NPDES permit, reference the permit and keep a copy with the on site SWPPP.]
Non-visible sampling Summary	[Summarize non-visible pollutant sampling and attach laboratory reports.]
Summary of Violations of the Permit	[Describe any violations of the Permit requirements for the project.]
Training Information	[Summarize the training and certification qualifications for the QSP, QSD, and other QSP-qualified personnel that are under the direction of the QSP (such as sampling and analysis personnel). Attach certificates as back up of training and certifications listed. ]
<p>I certify under penalty of law that this Annual Report 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.</p>	
<p>_____</p> <p>Contractor's Qualified SWPPP Practitioner <span style="float: right;">Date _____</span></p>	



## Attachment M

### Construction General Permit and Other Plans/Permits

#### ***INSTRUCTIONS:***

- Include in this attachment a copy of the Construction General Permit NPDES No. CAS000002 (Order No. 2009-0009-DWQ). A copy can be downloaded from the State Water Resources Control Board website. For example, [http://www.swrcb.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml).
- Include copies of other local, state, and federal plans, permits and requirements. A list of the other plans and permits shall be included in Section 400 of the SWPPP.





FIELD ANALYSIS		
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Identification	Test	Result



## Attachment O

### BMP Fact Sheets, Details and Manufacturer Specifications

#### ***INSTRUCTIONS:***

- Include copies of the BMP fact sheets for all selected BMPs (minimum BMPs and other selected BMPs) from the Construction Site BMPs Manual.
- Include copies of manufacturer's specifications for actual products/materials used for the BMPs.
- Include drawings of any BMPs that do not match the BMP Manual details that have been accepted by the Engineer.



# Attachment P

## Rain Event Action Plan (REAP)

### **INSTRUCTIONS:**

- Use this form for developing a rain event action plan (REAP) for each likely precipitation event. A likely precipitation event is a 50% or greater chance of rain.
- The REAP shall be developed by the Contractor's QSP.
- The QSP shall monitor the National Weather Service Forecast Office (e.g., enter the Project site address at <http://www.srh.noaa.gov/forecast>) and print the 7-day forecast daily with the chance of rain and precipitation amount. The REAP shall include the date of the forecast and percent chance of rain from the forecast and the hard copy print out of the forecast information.
- Include the Risk Level. The risk level is 2 unless otherwise specified by the Engineer.
- Include the erosion and sediment control provider information: company, contact name, and 24-hour emergency telephone number.
- Include the storm water sampling agent information: company, contact name, and 24-hour emergency telephone number.
- Include the active subcontractor information: company, contact name, and 24-hour emergency telephone number.
- Indicate the current construction phase(s).
- Describe the current activities for each current phase of construction.
- Describe the suggested actions. The actions shall include plans for preparing for the rain event and plans for during the rain event. The suggested actions shall include at a minimum implementation of inspections, sampling and analysis, BMP implementation, and BMP maintenance and repair.



# Rain Event Action Plan

REAP INFORMATION	
Project Name	
Project Number	
Site Address	
Contractor	
REAP Developer	
QSP's Name	
QSP's Title	
QSP's 24-hour Emergency telephone number	
Date of REAP Development	
Precipitation Forecast	Date: _____ Percent chance of rain: _____
Risk Level	2
Erosion and Sediment Control Provider 1	
Company Name	
Contact Name	
24-hour Emergency Telephone Number	
Erosion and Sediment Control Provider 2	
Company Name	
Contact Name	
24-hour Emergency Telephone Number	
Storm Water Sampling Agent	
Company Name	
Contact Name	
24-hour Emergency Telephone Number	



Current Construction Stage	<input type="checkbox"/> Utilities	<input type="checkbox"/> Grading/Excavation/Drilling
	<input type="checkbox"/> Final landscaping and Stabilization	<input type="checkbox"/> Paving/General Construction
	<input type="checkbox"/> Vertical Construction	<input type="checkbox"/> Other _____
Construction Activities associated with current construction phase		
Suggested actions to perform prior to rain event. Check the boxes of those actions that apply or fill in other actions.		
Inform & schedule	<input type="checkbox"/> Inform trade/subcontractor supervisors of predicted rain <input type="checkbox"/> Reschedule activities as needed <input type="checkbox"/> Inform erosion/sediment control provider <input type="checkbox"/> Inform sample collection agent <input type="checkbox"/> Check erosion/sediment control stock <input type="checkbox"/> Review BMP progress map <input type="checkbox"/> Other _____	
Material Storage	<input type="checkbox"/> Cover exposed materials <input type="checkbox"/> Check and install stockpile sediment barriers <input type="checkbox"/> Place liquids in secondary containment <input type="checkbox"/> Inspect and clean up spills/leaks <input type="checkbox"/> Other _____	
Waste Management	<input type="checkbox"/> Close dumpsters and cover open containers <input type="checkbox"/> Place and cleanout secondary containment for portable toilets <input type="checkbox"/> Close secondary containment drains <input type="checkbox"/> Check that concrete washouts have adequate freeboard or have them removed or covered <input type="checkbox"/> Other _____	
Trades	<input type="checkbox"/> Shutdown outdoor operations prior to rain (e.g., no paving) <input type="checkbox"/> Stop soil treatment (e.g., fertilizer) at least 24 hours prior to rain event <input type="checkbox"/> Close secondary containment drains <input type="checkbox"/> Check that concrete washouts have adequate freeboard or have them removed or covered <input type="checkbox"/> Other _____	
Site erosion and sediment control	<input type="checkbox"/> Check for and install drain inlet BMPs and/or clean drain inlets <input type="checkbox"/> Stabilize disturbed soil areas (active and inactive) <input type="checkbox"/> Install or maintain perimeter sediment barriers <input type="checkbox"/> Sweep paved surfaces that are exposed to rain <input type="checkbox"/> Other _____	
Spills and Leaks	<input type="checkbox"/> Cleanup spills/leaks <input type="checkbox"/> Cleanout drip pans or plastic under leaking equipment <input type="checkbox"/> _____ <input type="checkbox"/> Other _____	
Other _____	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	



I certify under penalty of law that this Rain Event Action Plan 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.

\_\_\_\_\_  
Qualified SWPPP Practitioner

\_\_\_\_\_  
Date

**FOLLOW-UP**

Was the REAP implemented 24 hours prior to the likely rain event?  Yes  No

I certify under penalty of law that this Rain Event Action Plan 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.

\_\_\_\_\_  
Qualified SWPPP Practitioner

\_\_\_\_\_  
Date





## Attachment Q

### Weather Forecasts and Rain Gauge Documentation

#### ***INSTRUCTIONS:***

- Include copies of the daily weather forecast described in Section 600. For example, going to the online website, <http://www.srh.noaa.gov/forecast>, then scrolling down to the Additional Forecasts and Information section and clicking on Forecast Weather Table Interface. The 7-day forecast showing 6-hour increments of chance of rain and precipitation amount shall be printed (see example in Figure 600-1) and a copy shall be submitted to the on-site Engineer within 24 hours on a daily basis (working days). Printed forecasts shall be filed in the SWPPP (Attachment Q.)
- Include copies of the daily rain gauge as described in Section 600. For example, go to [http://ladpw.org/wrd/precip/alert\\_rain/index.cfm](http://ladpw.org/wrd/precip/alert_rain/index.cfm) or current website approved by the Engineer. Click on the 24-hour tab to determine rainfall in inches. The rainfall in inches and rain gauge station identification shall be recorded in the BMP Checklist. A copy of the daily rain gauge shall be submitted to the onsite Engineer.



# Attachment R

## Numeric Action Level (NAL) Exceedance Report

### **INSTRUCTIONS:**

- Use this form to prepare the NAL exceedance report.
- The NAL Exceedance Report shall be developed by the Contractor's Qualified SWPPP Practitioner (QSP).
- The QSP shall compare sampling results for pH and turbidity to the action levels of 6.5 to 8.5 pH and 250 NTU. An exceedance report shall be prepared when pH results are less than 6.5 or greater than 8.5 and/or when turbidity results are greater than 250 NTU.

The exceedance report shall include:

- The analytical methods, method reporting units, and method detection limits of each analytical parameter (pH and turbidity). Analytical results that are less than the method detection limit shall be reported as less than the method detection limit.
- The date, place, and time of sampling, visual observation (inspections), and/or measurements, including rain gauge (inches of rain when sampling).
- A description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective action taken.
- Whenever the results from a storm event daily average indicate that the discharge is below the lower NAL for pH, exceeds the upper NAL for pH, or exceeds the turbidity NAL, the discharger shall conduct a construction site and run-on evaluation to determine whether pollutant source(s) associated with the site's construction activity may have caused or contributed to the NAL exceedance and shall immediately implement corrective actions if they are needed.
- The site evaluation shall be documented in the SWPPP and specifically address whether the source(s) of the pollutants causing the exceedance of the NAL:
  - Are related to the construction activities and whether additional BMPs are required to (1) meet BAT/BCT requirements; (2) reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives; and (3) determine what corrective action(s) were taken or will be taken and with a description of the schedule for completion.

AND/OR

- Are related to the run-on associated with the construction site location and whether additional BMPs measures are required to (1) meet BAT/BCT requirements; (2) reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives; and (3) what corrective action(s) were taken or will be taken with a description of the schedule for completion.



# NAL Exceedance Report

PROJECT INFORMATION	
Project Name	
Project Number	
Site Address	
Contractor	
NAL Exceedance Report Preparer	
QSP's Name	
QSP's Title	
QSP's 24-hour Emergency telephone number	
Date of NAL Exceedance Report	
Precipitation (Rain Gauge)	Inches: _____ Station ID: _____
Turbidity	Method: [Describe the meter used.]
	Average Result: _____ NTU
	Time: _____ Location: _____
pH	Method: [Describe the meter used.]
	Average Result: _____ pH units
	Time: _____ Location: _____
Visual Observations	[Describe the current BMPs associated with the effluent sample that exceeded the NAL. Investigate the potential source(s) of the condition that resulted in NAL exceedance.]



Evaluation	[Evaluate the potential source(s) of NAL exceedance. Describe whether the source may be related to construction activities or run-on.]
Corrective Action	[Describe the corrective action taken or that will be taken as a result of exceeding the NAL with a schedule of implementation.]
<p>I certify under penalty of law that this NAL Exceedance Report 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.</p>	
<p>_____ Qualified SWPPP Practitioner (Contractor's QSP)</p>	<p>_____ Date</p>



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# Attachment S

## Pollutant Testing Guidance Table

### ***INSTRUCTIONS:***

- This table shall be used for identifying potential non-storm water and non-visible pollutants. This table is a guide and is not necessarily comprehensive. Site-specific chemicals may require additional testing based on discussions with laboratory personnel.
- All of the pollutants are potential non-storm water pollutants. Non-storm Water sampling shall be conducted in accordance with Section 600.4.
- Only those indicated as “No” under the “Visually Observable?” Column are potential non-visible pollutants and would require sampling and analysis as part of the SAP for non-visible pollutants (Section 600.3).



Category	Construction Site Material	Visually Observable?	Pollutant Indicators <sup>2</sup>	Laboratory Method
<b>Asphalt Products</b>	Hot Asphalt	Yes - Rainbow Surface or Brown Suspension	Oil and Grease Polyaromatic hydrocarbons Volatile organics Semi Volatile Organics	EPA 1664 (oil & grease)
	Asphalt Emulsion			EPA 8015M (TPH)
	Liquid Asphalt (tack coat)			EPA 418.1 (TPH)
	Cold Mix			EPA 601/602 or EPA 624 (VOC)
	Crumb Rubber	Yes – Black, solid material		EPA 625 (SVOC)
	Asphalt Concrete (Any Type)	Yes - Rainbow Surface or Brown Suspension		
<b>Cleaning Products</b>	Acids	No	pH Acidity Anions (acetic acid, phosphoric acid, sulfuric acid, nitric acid, hydrogen chloride)	EPA 150.1 (pH)
				SM 2310B (Acidity)
				EPA 300.0 (Anion)
	Bleaches	No	Residual Chlorine	SM 4500-CL G (Res. Chlorine)
	Detergents	Yes - Foam	Surfactants	EPA 425.1 (MBAS)
	TSP	No	Phosphate	EPA 365.3 (Phosphate)
	Solvents	No	VOC	EPA 601/602 or EPA 624 (VOC)
SVOC			EPA 625 (SVOC)	

<b>Portland Concrete Cement &amp; Masonry Products</b>	Portland Cement (PCC)	Yes - Milky Liquid	pH	EPA 150.1 (pH)
	Masonry products	No	pH	EPA 150.1 (pH)
			Alkalinity	SM 2320 (Alkalinity)
	Sealant (Methyl Methacrylate - MMA)	No	Methyl Methacrylate	EPA 625 (SVOC)
			Cobalt	EPA 200.8 (Metal)
			Zinc	
	Incinerator Bottom Ash Bottom Ash Steel Slag Foundry Sand Fly Ash Municipal Solid Waste	No	Aluminum Calcium Vanadium Zinc	EPA 200.8 (Metal) EPA 200.7 (Calcium)
	Mortar	Yes - Milky Liquid	pH	EPA 150.1 (pH)
	Concrete Rinse Water	Yes - Milky Liquid	pH	EPA 150.1 (pH)
	Non-Pigmented Curing Compounds	No	Acidity	SM 2310B (Acidity)
			Alkalinity	SM 2320 (Alkalinity)
			pH	EPA 150.1 (pH)
			VOC	EPA 601/602 or EPA 624 (VOC)
SVOC			EPA 625 (SVOC)	

<b>Landscaping and Other Products</b>	Aluminum Sulfate	No	Aluminum	EPA 200.8 (Metal)
			TDS	EPA 160.1 (TDS)
			Sulfate	EPA 300.0 (Sulfate)
	Sulfur-Elemental	No	Sulfate	EPA 300.0 (Sulfate)
	Fertilizers-Inorganic	No	Nitrate	EPA 300.0 (Nitrate)
			Phosphate	EPA 365.3 (Phosphate)
			Organic Nitrogen	EPA 351.3 (TKN)
			Potassium	EPA 200.8 (Metals)
	Fertilizers-Organic	No	TOC	EPA 415.1 (TOC)
			Nitrate	EPA 300.0 (Nitrate)
			Organic Nitrogen	EPA 351.3 (TKN)
			COD	EPA 410.4 (COD)
	Natural Earth (Sand, Gravel, and Topsoil)	Yes - Cloudiness and turbidity	TSS Turbidity	EPA method 160.2 or Standard Method 2540D Standard Method 2130 or EPA Method 180.1
	Herbicide	No	Herbicide	Check lab for specific herbicide or pesticide
	Pesticide		Pesticide	
	Lime		Alkalinity	SM 2320 (Alkalinity)
pH			EPA 150.1 (pH)	

<b>Painting Products</b>	Paint	Yes	COD VOC SVOC Metals	EPA 410.4 (COD) EPA 601/602 or EPA 624 (VOC) EPA 625 (SVOC) EPA 200.8 (Metals)
	Paint Strippers	No	VOC	EPA 601/602 or EPA 624 (VOC)
			SVOC	EPA 625 (SVOC)
	Resins	No	COD	EPA 410.4 (COD)
			SVOC	EPA 625 (SVOC)
	Sealants	No	COD	EPA 410.4 (COD)
	Solvents	No	COD	EPA 410.4 (COD)
			VOC	EPA 601/602 or EPA 624 (VOC)
			SVOC	EPA 625 (SVOC)
	Lacquers, Varnish, Enamels, and Turpentine	No	COD	EPA 410.4 (COD)
			VOC	EPA 601/602 or EPA 624 (VOC)
			SVOC	EPA 625 (SVOC)
	Thinners	No	VOC	EPA 601/602 or EPA 624 (VOC)
			COD	EPA 410.4 (COD)
<b>Portable Toilet Waste Products</b>	Portable Toilet Waste	Yes	Fecal Coliform	EPA 9221 E



<b>Contaminated Soil</b>	Aerially Deposited Lead	No	Lead	EPA 200.8 (Metal)
	Petroleum	Yes – Rainbow Surface Sheen and Odor	Oil & grease Petroleum Hydrocarbons Volatile organics Semi-volatile organics	EPA 1664 (oil & grease) EPA 8015M (TPH) EPA 418.1 (TPH) EPA 601/602 or EPA 624 (VOC) EPA 625 (SVOCs)
	Mining or Industrial Waste, etc.	No	Contaminant Specific	Contaminant Specific – Check with laboratory
<b>Line Flushing Products</b>	Chlorinated Water	No	Total chlorine	SM 4500-CL G (Res. Chlorine)
<b>Adhesives</b>	Adhesives	No	COD	EPA 410.4 (COD)
			Phenols	EPA 420.1 (Phenol)
			SVOC	EPA 625 (SVOC)
<b>Dust Palliative Products</b> (Standard Specifications Section 18)	Salts (Magnesium Chloride, Calcium Chloride, and Natural Brines)	No	Chloride	EPA 300.0 (Chloride)
			TDS	EPA 160.1 (TDS)
			Cations (Sodium, Magnesium, Calcium)	EPA 200.7 (Cations)



<b>Vehicle</b>	Antifreeze and Other Vehicle Fluids	Yes - Colored Liquid	Ethylene glycol SVOC	EPA 625 (SVOC)
	Batteries	No	Sulfuric Acid	EPA 300.0 (Sulfate)
			Lead	EPA 200.8 (Metal)
			pH	EPA 150.1 (pH)
	Fuels, Oils, Lubricants	Yes - Rainbow Surface Sheen and Odor	Oil & grease Petroleum Hydrocarbons Volatile organics Semi-volatile organics	EPA 1664 (oil & grease) EPA 8015M (TPH) EPA 418.1 (TPH) EPA 601/602 or EPA 624 (VOC) EPA 625 (SVOCs)



<b>Soil Amendment/Stabilization Products</b>	Polymer/Copolymer <sup>5,6</sup>	No	Organic Nitrogen	EPA 351.3 (TKN)
			BOD	EPA 405.1 (BOD)
			COD	EPA 410.4 (COD)
			DOC	EPA 415.1 (DOC)
			Nitrate	EPA 300.0 (Nitrate)
			Sulfate	EPA 300.0 (Sulfate)
			Nickel	EPA 200.8 (Metal)
	Straw/Mulch	Yes - Solids	TSS Turbidity	EPA method 160.2 or Standard Method 2540D Standard Method 2130 or EPA Method 180.1
	Lignin Sulfonate	No	Alkalinity	SM 2320 (Alkalinity)
			TDS	EPA 160.1 (TDS)
	Psyllium	No	COD	EPA 410.4 (COD)
			TOC	EPA 415.1 (TOC)
	Guar/Plant Gums	No	COD	EPA 410.4 (COD)
			TOC	EPA 415.1 (TOC)
			Nickel	EPA 200.8 (Metal)
	Gypsum	No	pH	EPA 150.1 (pH)
			Calcium	EPA 200.7 (Calcium)
			Sulfate	EPA 300.0 (Sulfate)
Aluminum			EPA 200.8 (Metal)	
Barium				
Manganese				
Vanadium				



<b>Treated Wood Products</b>	Ammoniacal-Copper-Zinc-Arsenate (ACZA)	No	Arsenic	EPA 200.8 (Metal)
	Copper-Chromium-Arsenic (CCA)		Total Chromium	
Ammoniacal-Copper-Arsenate (ACA)	Copper			
Copper Naphthenate	Zinc			
	Creosote	Yes - Rainbow Surface or Brown Suspension	TPH PAHs Phenols PAHs Creosols SVOCs Metals	EPA 8015M (TPH) EPA 418.1 (TPH) EPA 420.1 (Phenol) EPA 625 (SVOCs) EPA 200.8 (Metal)

**Notes:**

1. If specific pollutant is known, analyze only for that specific pollutant. See MSDS to verify.
2. For each construction material, test for one of the pollutant indicators.
3. If the type of inorganic fertilizer is unknown, analyze for all pollutant indicators listed.
4. If used with a dye or fiber matrix, it is considered visually observable and non-visible testing is not required.



**Acronyms:**

BOD – Biochemical Oxygen Demand

COD – Chemical Oxygen Demand

DOC – Dissolved Organic Carbon

EPA – Environmental Protection Agency

HACH – Worldwide company that provides advanced analytical systems and technical support for water quality testing.

MBAS – Methylene blue active substances

PAH – Poly-aromatic hydrocarbon

SM – Standard Method

SVOC – Semi-Volatile Organic Compounds

TDS – Total Dissolved Solids

TKN – Total Kjeldahl Nitrogen

TOC – Total Organic Carbon

TPH – Total petroleum hydrocarbons

TSP – Tri-Sodium Phosphate

TSS – Total suspended solids

VOC - Volatile Organic Compounds

**References:**

*Construction Storm Water Sampling and Analysis Guidance Document*, California Stormwater Quality Task Force, October 2001.

*Environmental Impact of Construction and Repair Materials on Surface and Ground Waters, Report 448*, National Cooperative Highway Research Program, 2001

*Soil Stabilization for Temporary Slopes*, Environmental Programs, California Department of Transportation, October 1, 1999.

*Statewide Storm Water Management Plan*, Division of Environmental Analysis, California Department of Transportation, April 2002.

*Statewide Storm Water Quality Practice Guidelines*, Environmental Program, California Department of Transportation, August 2000.

*Soil Stabilization for Temporary Slopes and District 7 Erosion Control Pilot Study*, June 2000.

*Stormwater Monitoring Protocols, Guidance Manual*, California Department of Transportation, May 2000.



# Attachment T

## Analytical Data

### ***INSTRUCTIONS:***

- Include copies of analytical data from the laboratory.
- Copies of analytical data from the laboratory shall be submitted to the Engineer within 20 days.



# Attachment U

## Field Meter Specifications and Calibration Logs

### ***INSTRUCTIONS:***

- Include copies of manufacturer's specifications for the pH meter and turbidity meter required to be provided and maintained on site at all times.
- Include calibration logs for the pH meter and turbidity meter.
- Use the forms provided for logging the calibration or another form provided by the meter manufacturer. Or modify the attached forms to meet the manufacturer specifications.
- Perform a minimum of one field calibration for each meter prior to sample analysis on the Project Site. Perform additional field calibrations according to the meter manufacturer's specifications. Perform at least one field calibration between sampling and analysis events.
- Log actual measured readings to at least the required detection (1 NTU and 0.2 pH units).
- Include any action taken in the notes. For example, if the meter is adjustable, note that the meter was adjusted and then rechecked.



### Turbidity Meter Calibration Record

Turbidity Meter Manufacturer and Model Number: \_\_\_\_\_

Turbidity Meter Name: \_\_\_\_\_

Date & Time	Initials	Temperature of Calibration	Standard Used for Calibration				Re-check
			0 NTU	100 NTU	400 NTU	NTU:	NTU:
/ /							
	Notes:						
/ /							
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### pH Meter Calibration Record

pH Meter Manufacturer and Model Number: \_\_\_\_\_

pH Meter Name: \_\_\_\_\_

Date & Time	Initials	Temperature of Calibration	Slope (%)	Electrode No.	Buffers Used for Calibration				Re-check pH 7.0
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# Appendix B

## Abbreviations, Acronyms, and Definition of Terms

### Abbreviations

ac	acre(s)
cfs	cubic feet per second
cy	cubic yard(s)
ft	feet
gal	gallon(s)
gpm	gallons per minute
hr	hour(s)
in	inch(es)
lbs	pound(s)
lf	linear feet
mils	millimeters
mph	miles per hour
psi	pounds per square inch
s	second(s)

### Acronyms

AC	Asphalt Concrete
APP	Accumulated Precipitation Procedure
BAT/BCT	Best available technology economically achievable/.Best conventional pollutant control technology
BMP	Best Management Practice
CFR	Code of Federal Regulations
CSMP	Construction Site Monitoring Program
CWA	Clean Water Act
DSA	Disturbed Soil Area
NAL	Numeric Action Level
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
NTU	Nephelometric Turbidity Unit
PCC	Portland Cement Concrete
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
REAP	Rain Event Action Plan
RUSLE	Revised Universal Soil Loss Equation
RWQCB	California Regional Water Quality Control Board
SAP	Sampling and Analysis Plan
SMARTS	Storm water Multiple Application Reporting and Tracking System



SWPPP	Storm Water Pollution Prevention Plan	USGS	United States Geological Service
SWRCB	California State Water Resources Control Board	WDID	Waste Discharge Identification
US EPA	United States Environmental Protection Agency	WDR	Waste Discharge Requirement



## Definition of Terms

**Active Areas of Construction:** All areas subject to land surface disturbance activities related to the project including, but not limited to, the project site, project staging areas, immediate access areas and storage areas. All previously active areas are still considered active areas until final stabilization is complete. [The construction activity Phases are the Utility Phase, Grading /Excavation/Drilling Phase, Paving/General Construction Phase, and the Final Landscaping/Stabilization Phase.]

**Best Management Practice (BMP):** BMPs are scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. Any program, technology, process, siting criteria, operating method, measure, or device that controls, prevents, removes, or reduces pollution.

**Construction Activity:** Includes clearing, grading, or excavation and contractor activities that result in soil disturbance.

**Construction General Permit (CGP):** The General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity (NPDES Permit CAS000002, SWRCB Order No. 2009-0009-DWQ).

**Construction Site:** The area involved in a construction project as a whole.

**Construction Site BMPs:** Temporary control practices (BMPs) that are required only temporarily to address a short-term storm water contamination threat. For example, silt fences are located near the base of newly graded slopes that have a substantial area of exposed soil. Then, during rainfall, the silt fences filter and collect sediment from runoff flowing off the slope.

**Contamination:** An impairment of the quality of the waters of the state by waste to a degree that creates a hazard to the public health through poisoning or through the spread of disease including any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

**Contractor:** Party responsible for carrying out the contract per plans and specifications. The contract Special Provisions contain storm water protection requirements the contractor must address.

**Discharge:** Any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid or solid substance.

**Disturbed Areas:** Areas that have been purposefully cleared, grubbed, excavated, or graded by the contractor; ground surface that has been disrupted by construction activities, including construction access/roads, producing significant areas of exposed soil and soil piles. Staging and storage sites are considered as part of the total disturbed land area whether they are located on or off the project site.

**Drainage Area:** The area of land that drains water, sediment, pollutants, and dissolved materials to a common outlet.



**Effluent:** Any discharge of water by a discharger either to the receiving water or beyond the property boundary controlled by the discharger.

**Engineer:** Agency representative on a construction project. The Engineer may be the inspector or engineer representing the Agency on site.

**Environmental Protection Agency (EPA):** Agency that issued the regulations to control pollutants in storm water runoff discharges (The Clean Water Act and NPDES permit requirements).

**Erosion:** The process, by which soil particles are detached and transported by the actions of wind, water, or gravity.

**Erosion Control BMPs:** Vegetation, such as grasses and wildflowers, and other materials, such as straw, fiber, stabilizing emulsion, protective blankets, etc., placed to stabilize areas of disturbed soils, reduce loss of soil due to the action of water or wind, and prevent water pollution.

**Exempt Construction Activities:** Activities exempt from the Construction General Permit, including routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility; and emergency construction activities required to protect public health and safety. Local permits may not exempt these activities.

**Existing vegetation:** Any vegetated area that has not already been cleared and grubbed.

**Exposed Soil:** Any soil surface that has been disturbed by uncovering, removing vegetation, removing pavement, by grading, excavation, or any other construction activity that leaves the soil exposed. Soil protected with a soil stabilization BMP (SS-2, SS-3, SS-4, SS-5, SS-6, SS-7 or SS-8), is not considered exposed.

**Feasible:** Economically achievable or cost-effective measures which reflect a reasonable degree of pollutant reduction achievable through the application of available nonpoint pollution control practices, technologies, processes, site criteria, operating methods, or other alternatives.

**Field Measurements:** Testing procedures performed in the field with portable field-meters.

**Final Stabilization:** All soil disturbing activities within the site have been completed and soil is stabilized in a manner consistent with the requirements of the contract Special Provisions.

**Good Housekeeping:** A common practice related to the storage, use, or cleanup of materials, performed in a manner that minimizes the discharge of pollutants.

**Inactive Areas of Construction:** Areas of construction activity that are not active and those that have been active and are not scheduled to be re-disturbed for at least 14 consecutive days.

**Likely Precipitation Event:** Any weather pattern that is forecasted to have a 50% or greater chance of producing precipitation in the project area. The Contractor shall obtain likely precipitation



forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at <http://www.srh.noaa.gov/forecast>).

**MS4 Permit:** Regional Water Quality Control Board (RWQCB): Los Angeles Region, adopted Order No. 01-182, NPDES Permit No. CAS004001, Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharge within the County of Los Angeles, and Incorporated Cities Therein. This is commonly referred to as MS4 permit or local NPDES permit.

**National Pollutant Discharge Elimination System (NPDES) Permit:** A permit issued pursuant to the Clean Water Act that requires the discharge of pollutants to Waters of the United States from storm water be controlled.

**Non-active Construction Area:** Any area not considered to be an active construction area. Active construction areas become non-active construction areas whenever construction activities are expected to be discontinued for a period of 14 days or longer.

**Non-Storm Water Discharges:** Discharges that do not originate from precipitation events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, water truck water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

**Non-Visible Pollutants:** Pollutants associated with a specific site or activity that can have a negative impact on water quality, but cannot be seen through observation (ex: chlorine). Non-visible pollutants being discharged is not authorized.

**Numeric Action Level (NAL):** Level (250 NTU and 6.5-8.5 pH) used as a warning to evaluate if best management practices are effective and require necessary corrective actions. Not an effluent limit.

**Permit:** Construction General Permit or MS4 permit, whichever or both are applicable to the construction project.

**pH:** Unit universally used to express the intensity of the acid or alkaline condition of a water sample. The pH of natural waters tends to range between 6 and 9, with neutral being 7. Extremes of pH can have deleterious effects on aquatic systems.

**Pollution:** The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water. An alteration of the quality of the water of the state by waste to a degree which unreasonably affects either the waters for beneficial uses or facilities that serve these beneficial uses.

**Qualifying Rain Event:** Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events. Qualifying rain event forecast information shall be obtained from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at <http://www.srh.noaa.gov/forecast>). Qualifying rain event actual precipitation amounts shall be obtained from the closest Agency rain gauge station (e.g., by checking the 24 hour rain amounts on the Agency rain gauge website: [http://ladpw.org/wrd/precip/alert\\_rain/index.cfm?cont=24hr.cfm](http://ladpw.org/wrd/precip/alert_rain/index.cfm?cont=24hr.cfm))



**Qualified SWPPP Developer (QSD):** Individual who is authorized to develop, revise and amend SWPPPs.

**Qualified SWPPP Practitioner (QSP):** Individual assigned responsibility for non-storm water and storm water visual observations, sampling and analysis, and responsibility to ensure full compliance with the contract Special Provisions and implementation of all elements of the SWPPP.

**Rain Event Action Plan (REAP):** Written document, specific for each rain event, that when implemented is designed to protect all exposed portions of the site within 48 hours of any likely precipitation event.

**Receiving Waters:** All surface water bodies within the permit area.

**Regional Water Quality Control Board (RWQCB):** California agencies that implement and enforce Clean Water Act Section 402(p) NPDES permit requirements, and are issuers and administrators of these permits as delegated by EPA. There are nine regional boards working with the State Water Resources Control Board.

**Revised Universal Soil Loss Equation (RUSLE):** A mathematical model used to describe soil erosion processes.

**RUSLE2:** A computer program and database model scientifically based on mathematical equations, scientific knowledge, and technical judgment that estimates sheet and rill erosion.

**Runoff Control BMPs:** Measures used to slow and convey concentrated flow, dissipate velocity to prevent or minimize erosion and sediment discharges.

**Run-on:** Discharges that originate offsite and flow onto the property of a separate project site.

**Run-on Control BMPs:** Measures used to divert run-on from offsite and runoff within the project site.

**Sampling and Analysis Plan (SAP):** Document that describes how the 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 maintained to ensure the integrity of the sample during collection, storage, shipping and testing (i.e., quality assurance/quality control protocols).

**Sediment:** Solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

**Sediment Control BMPs:** Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. They include those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (e.g., silt fence, sediment basin, fiber rolls, etc.).



**Sheet Flow:** Flow of water that occurs overland in areas where there are no defined channels where the water spreads out over a large area at a uniform depth.

**State Water Resources Control Board (SWRCB):** California agency that implements and enforces Clean Water Act Section 402(p) NPDES permit requirements, is issuer and administrator of these permits as delegated by EPA. Works with the nine Regional Water Quality Control Boards.

**Storm Drain System:** Streets, gutters, inlets, conduits, natural or artificial drains, channels and watercourses, or other facilities that are owned, operated, maintained and used for the purpose of collecting, storing, transporting, or disposing of storm water.

**Storm Water:** Rainwater or snow or ice melt.

**Storm Water Pollution Prevention Plan (SWPPP):** A plan required by the Permit that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the storm water, and a description of measures or practices to control these pollutants. It must be prepared and certified before construction begins in accordance with the contract Special Provisions and the LACDPW SWPPP Preparation Manual.

**SWPPP Preparation Manual:** Los Angeles County Department of Public Works Storm Water Pollution Prevention Plan (SWPPP) Preparation Manual, 2010.

**Turbidity:** The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU).



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