Appendix B
SWPPP Template

CALIFORNIA STORMWATER BMP HANDBOOK

CONSTRUCTION

STORM WATER

POLLUTION

PREVENTION

PLAN

TEMPLATE

The California Stormwater Quality Association (CASQA)
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Revised July 7, 2006

CALIFORNIA STORMWATER BEST MANAGEMENT PRACTICES HANDBOOK CONSTRUCTION

REQUIREMENTS FOR A STORM WATER POLLUTION PREVENTION PLAN

A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for construction projects that disturb one (1) acre or more, in accordance with the following:

(1) *State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit)*;

(2) *State Water Resources Control Board Resolution No. 2001- 046, Modification of Water Quality Order 99-08-DWQ State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit)*; and

(3) *State Water Resources Control Board Resolution No. 2001-155, Modification of Water Quality Order 99-08-DWQ State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) to include Small Construction Activity (One to Five Acres)*

The purpose of the SWPPP is to identify potential pollutant sources that may affect the quality of discharges associated with construction activity, to identify non-storm water discharges, and to design the use and placement of Best Management Practices (BMPs) to effectively prohibit the entry of pollutants from the construction site into the storm drain system during construction. Erosion and sediment source control BMPs must be considered for both active and inactive (previously disturbed) construction areas. BMPs for wind erosion and dust control are also included. The SWPPP will likely require modification as the project progresses and as conditions warrant.

The template herein is provided for information purposes to assist Developers/Contractors in preparing a SWPPP. Other SWPPP templates developed by individual agencies may also be used.

Prior to the issuance of any construction/grading permit for private projects subject to the General Permit, the Owner/Contractor must provide proof of submittal of a Notice of Intent (NOI) to the Regional Water Quality Control Board (RWQCB) to comply with the General Permit.

Prior to the commencement of any clearing, grading or excavation of any public works project subject to the General Permit, a SWPPP will be prepared and implemented. The template herein can be used for preparing the SWPPP.

The Owner, or owner's authorized representative as defined in Section C, Item 9.b. of the General Permit, is responsible for signing or approving NOIs, SWPPP Approval or Certification, Annual Compliance Certifications, and Amendments to the SWPPP, and for ensuring that all project Contractors and subcontractors implement applicable BMPs.

The Storm Water Pollution Prevention Plan and BMPs (EC, SE, WM, etc.) referenced are from the following sources:

> California Stormwater BMP Handbook - Construction, 2003 Edition. The Handbooks may be downloaded from the California Stormwater BMP Handbook web site at www.cabmphandbooks.com.

INSTRUCTIONS

- The title page shall have the following information:
  - ❑ Title: “Storm Water Pollution Prevention Plan”
  - ❑ Project Name
  - ❑ Project Grading Permit Number, Building Permit Number, Tract Number, CUP, SUP, and/or APN
  - ❑ Project Owner - or Lead Agency (City, County, Transportation, Military, or other Agency) - Name, Address, Telephone Number, and Authorized Representative
  - ❑ Construction Contractor company Name, Address, Telephone Number, and Authorized Representative
  - ❑ Job Site Location/Address and Telephone Number, if Any
  - ❑ Name of Contractor’s Storm Water Pollution Prevention Manager (SWPPM). This person shall be responsible for SWPPP implementation, inspection and repairs.
  - ❑ Name of the Consulting Engineering company that prepared the SWPPP (if it was prepared by an outside consultant), including name and title of preparer
  - ❑ SWPPP Preparation Date
  - ❑ Estimated dates for start and end of construction
  - ❑ WDID Number (hand written)

- A template title page is provided below.

REQUIRED TEXT:

Storm Water Pollution Prevention Plan

For:

Start Here...Triple Click here to insert Project Name-then TAB to next field

INSERT GRADING PERMIT NO., BUILDING PERMIT NO., TRACT NUMBER, CUP, SUP AND/OR APN -THEN TAB TO NEXT FIELD.

Prepared for:

Insert Name of Owner or Lead Agency-then TAB.
Insert Address 1 and press ENTER to insert Address 2 or TAB to next field.
Insert City, State, ZIP-then TAB.
Insert Name of Authorized Representative [or Engineer for a Public Agency] -then TAB.
Insert Authorized Representative's Telephone Number-then TAB.

Contractor:

Insert Contractor's Company Name-then TAB.
Insert Address 1 then press ENTER to insert Address 2 or TAB to next field.
Insert City, State, ZIP-then TAB.
Insert Telephone-then TAB.
Insert Contractor's Representative's Name-then TAB.

Project Site Location/Address:

Insert project site address if any. Press the DELETE key if not and TAB to next field.
Insert job site telephone number, if any. Press the DELETE key if not and TAB to next field.

Contractor's Storm Water Pollution Prevention Manager

Insert SWPPM's Name-then TAB.
Insert Telephone Number(s)-then TAB.

SWPPP Prepared by:

Insert Company Name-then TAB.
Insert Address-then TAB.
Insert City, State, ZIP-then TAB.
Insert Telephone-then TAB
Insert Name and Title of Preparer-then TAB.

SWPPP Preparation Date:

Insert Date

Estimated Project Dates:

Start of Construction: Insert Date Completion of Construction: Insert Date

WDID No.:_____

INSTRUCTIONS

- ❑ Include the numbers and names for each section of the SWPPP, from Section 100 to Section 600. List the first page number of each subsection.
- ❑ Include a Tab for each major section of the SWPPP and for each of the attachments.

REQUIRED TEXT:

Contents

SWPPP Attachments

Section 100
SWPPP Certifications and Approval

100.1 SWPPP Certification by Preparer

INSTRUCTIONS:

- ❑ Include a Separator and Tab for Section 100 for ready reference.

- ■ The SWPPP should be signed and certified by the Preparer or authorized qualified designee.

- ❑ Fill in the project name and the grading permit number, building permit number, tract number, CUP, SUP or APN at the top of the form.
- ❑ Certification shall be signed and dated by the person responsible for preparation of the SWPPP.
- ❑ Fill in the name, title and telephone number of the person signing the certification.
- ❑ The SWPPP and Monitoring Program Checklist in Attachment L shall be completed and submitted.
- ❑ The Notice of Intent (NOI) is to be attached in Attachment F. The completed form must be provided by the Owner or Owner's signatory agent.

REQUIRED TEXT: To be completed by SWPPP Preparer

Project Name:	Start Here…Triple Click here to insert Project Name-then TAB to next field
Project Number:	Insert Grading Permit No., Building Permit No., Tract Number, CUP, SUP and/or APN -then TAB to next field.

"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."

Preparer's Signature	Date
Preparer's Name and Title	Telephone Number

100.2 Owner Approval and Certification of SWPPP

INSTRUCTIONS:

- The SWPPP shall be signed and certified by the Owner or Owner's Authorized Representative in conformance with Section C, Item 9 of the General Construction Permit (CAS000002, Order No. 99-08-DWQ).
- This certification shall be signed by a responsible corporate officer, principal executive officer, general partner or proprietor, or by a duly authorized representative. A person is a duly authorized representative only if:
  1. The authorization is made in writing by a person described above and retained as part of the SWPPP.
  2. The authorization specifies either an individual or a position having responsibility for the overall operation of the construction activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters of the company or agency.
  3. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be reported to the Regional Board and attached to the SWPPP prior to submittal of any reports, certifications, or information signed by the authorized representative.
- In the case of Public Works projects, the [City] Engineer is the authorized representative of the agency for approving, signing, and certifying the SWPPP, in conformance with Section C, Item 9 of the General Construction Permit (CAS000002, Order No. 99-09-DWQ).

- ❑ Fill in the project name and the grading permit number, building permit number, tract number, CUP, SUP or APN at the top of the form.
- ❑ Certification shall be signed and dated by the Owner staff; specifically, the person responsible for preparation of the SWPPP and/or person responsible for overall management of the site, such as a corporate officer or person assigned the responsibility by a corporate officer, according to corporate procedures.
- ❑ Fill in the name(s), title(s) and telephone number(s) of the person(s) signing the certification.

REQUIRED TEXT:

Owner's (or Authorized Representative) Approval and Certification of the Storm Water Pollution Prevention Plan

Project Name:	Start Here…Triple Click here to insert Project Name-then TAB to next field
Project Number:	Insert Grading Permit No., Building Permit No., Tract Number, CUP, SUP and/or APN -then TAB to next field.

"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."

Owner (or Authorized Representative) Signature	Date
Name and Title	Telephone Number

100.3 Annual Compliance Certification

INSTRUCTIONS:

- Owner or Owner's Authorized Representative, qualified assigned/authorized personnel, or signatory agent, listed by name and contact telephone number in the SWPPP, shall certify annually that construction activities comply with the requirements of the Permit and the SWPPP. This Certification is based upon the site inspections required in Section 600.
- The Owner or Owner's Authorized Representative is responsible for completing the Annual Certification of Compliance prior to July 1 of each Year.
- A blank copy of the Annual Certification of Compliance shall be included in the SWPPP as Attachment M.
- Completed and signed Annual Compliance Certifications and [City] Engineer Approvals shall be included in this section of the SWPPP following the required text, below.
- Do not complete the Annual Certification during the initial SWPPP approval. Annual certifications are completed by July 1 each year. For those projects that start construction on or after July 1, an Annual Certification will not be required until the following July 1.
- The SWRCB will send the Owner an invoice for the Annual Fee on or around the same date that the original NOI was filed. Payment for the Annual Fee must be sent to the SWRCB immediately after the invoice is received.

REQUIRED TEXT:

By July 1 of each year, the Owner shall complete an Annual Certification of Compliance stating compliance with the terms and conditions of the Permit and the SWPPP. The blank Annual Certification of Compliance Form is included in Attachment M. Completed Annual Certifications of Compliance and Approvals can be found in the following pages.

Section 200
SWPPP Amendments

200.1 SWPPP Amendment Certification and Approval

INSTRUCTIONS:

- ❑ Include a Separator and Tab for Section 200 for ready reference.

- When changes to the approved SWPPP are required, the SWPPP Preparer shall prepare and certify an amendment. The Owner or Owner's Authorized Representative shall review and approve all amendments.
- 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
  - If any condition of the Permit is violated or the general objective of reducing or eliminating pollutants in storm water discharges has not been achieved. If the RWQCB determines that a Permit violation has occurred, the SWPPP shall be amended and implemented within 14-calendar days after notification by the RWQCB;

    And
  - Annually, prior to the defined rainy season.
- All SWPPP amendments shall include revised drawings as appropriate.
- All amendments shall be recorded in the SWPPP Amendment Log that is located in Section 200.2 of the SWPPP.
- Amendments will be inserted into the on-site SWPPP. Owner Certifications for all amendments shall be inserted into this section.
- The following items shall be included in each amendment:
  - Discuss who requested the amendment.
  - Describe the location of proposed change.
  - Describe reason for change.

- Describe the original BMP proposed, if any.
- Describe the new BMP proposed.
- Describe any existing implemented BMP(s)

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

❑ Fill-in the Project name and number.

❑ The Owner or Owner's Authorized Representative shall sign and date the certification form.

❑ For Public Works projects, the [City] Engineer or Agency's authorized representative shall sign and date the certification approval form.

❑ Print the names and telephone numbers.

EXAMPLE:

The Regional Water Quality Board has requested the following Amendment:

The concrete washout is to be relocated away from the drainage inlet at Miller Ave. It is now located on the northeast section of the construction site, see revised map. This change will prevent concrete washout water from entering the drainage inlet.

REQUIRED TEXT:

This 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
- If any condition of the Permits is violated or the general objective of reducing or eliminating pollutants in storm water discharges has not been achieved. If the RWQCB determines that a Permit violation has occurred, the SWPPP shall be amended and implemented within 14-calendar days after notification by the RWQCB;
- Annually, prior to the defined rainy season; and
- When deemed necessary by the Owner.

The following items will be included in each amendment:

- Who requested the amendment.
- The location of proposed change.
- The reason for change.
- The original BMP proposed, if any.
- The new BMP proposed.

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

INSERT ADDITIONAL RESPONSIBILITIES AND/OR NAMES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

SWPPP Amendment No.

Project Name:	Start Here…Triple Click here to insert Project Name-then TAB to next field
Project Number:	Insert Grading Permit No., Building Permit No., Tract Number, CUP, SUP and/or APN -then TAB to next field.

Preparer 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."

Preparer's Signature	Date
Preparer's Name and Title	Telephone Number

Owner (or Owner's Authorized Representative) 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."

Owner (or Authorized Representative) Signature	Date
Name and Title	Telephone Number

200.2 Amendment Log

INSTRUCTIONS:

- SWPPP amendment(s) prepared and approved as discussed in Section 200.1 shall be documented in the Amendment Log, which shall be kept in Section 200 of the SWPPP, immediately following the Certification and Approval forms.
- All amendments shall be dated, directly attached to the SWPPP, and listed in the Amendment Log.
  - ❑ Enter the project name and number(s) at the top of the form.
  - ❑ Enter the Amendment number, Date, Brief Description, and Name of Person Who Prepared the Amendment in the table.

EXAMPLE:

Amendment No.	Date	Brief Description of Amendment	Prepared By
001	Dec 10, 2000	Grading schedule changed to begin on Feb 10, 2001, and will include additional 2 acres. Amended plans attached to SWPPP.	John Doe, Superintendent

REQUIRED TEXT:

Project Name: Start Here…Triple Click here to insert Project Name-then TAB to next field

Project Number: Insert Grading Permit No., Building Permit No., Tract Number, CUP, SUP and/or APN -then TAB to next field.

Amendment No.	Date	Brief Description of Amendment	Prepared By

Amendment No.	Date	Brief Description of Amendment	Prepared By

Section 300
Introduction and Project Description

300.1 Introduction and Project Description

INSTRUCTIONS:

- ❑ Include a Separator and 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.)

EXAMPLE:

The construction project is located in Orange County, in Any city. The project is a land development that will ultimately include 600 single-family homes, a planned senior community and commercial properties. The project will be constructed in four stages. The main project features include mass grading, construction of water, storm drain and sewer lines, underground telephone, electric and cable TV lines, roadways and buildings.

REQUIRED TEXT:

CLICK AND 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, etc.) and significant or high-risk construction activities that may impact storm water quality. Include any unique features or activities within or adjacent to water bodies (such as dredging, dewatering, re-use of aerially deposited lead material, large excavations, or work within a water body).

EXAMPLE:

Conejo Creek traverses the project in a southwesterly direction. Conejo Creek is located east of the project site adjacent to the project limits. Conejo Creek is a dry creek that only flows during storm events.

REQUIRED TEXT:

CLICK AND TYPE PROJECT FEATURES HERE

300.3 Construction Site Estimates

INSTRUCTIONS:

- Provide an estimate of the following site features (Refer also to Attachments D and E):
  - ❑ Construction site area (acres)
  - ❑ Runoff coefficient before and after construction
  - ❑ Percentage impervious area before and after construction
  - ❑ Anticipated storm water run-on to the construction site (Show calculations and include as Attachment E).

EXAMPLE:

The following are estimates of the construction site:

Construction site area:	530 Acres
Percentage impervious area before construction:	0 %
Runoff coefficient before construction (1):	0.43
Percentage impervious area after construction	40%
Runoff coefficient after construction (1)	0.60
Anticipated storm water flow on to the construction site (2)	35.1 cfs

(1) Calculations are shown in Attachment D
(2) Calculations are shown in Attachment E

REQUIRED TEXT:

The following are estimates of the construction site:

Construction site area	_____	acres
Percentage impervious area before construction	_____	%
Runoff coefficient before construction (1)	_____	
Percentage impervious area after construction	_____	%
Runoff coefficient after construction (1)	_____	
Anticipated storm water flow on to the construction site (2)	_____	cfs

(1) Calculations are shown in Attachment D
(2) Calculations are shown in Attachment E

300.4 Project Schedule/Water Pollution Control Schedule

INSTRUCTIONS:

- ❑ Provide a written and graphical project schedule. The schedule shall clearly show how the rainy season relates to soil-disturbing and re-stabilization activities. The schedule shall contain an adequate level of detail to show major activities sequenced with implementation of construction site BMPs, including:
  - ❑ Project start and finish dates
  - ❑ Rainy season dates
  - ❑ Annual certifications
  - ❑ Mobilization dates
  - ❑ Mass clearing and grubbing/roadside clearing dates
  - ❑ Major grading/excavation dates
  - ❑ Special dates named in other permits such as Fish and Game and Army Corps of Engineers Permits
  - ❑ Dates for submittal of SWPPP Amendments required by the contract documents
  - ❑ Annual submittal of rainy season implementation schedule if required by the Owner or Permittee

- ❑ Dates for implementation of pre-rainy season temporary soil stabilization and temporary sediment control BMPs, if required by the contract documents
- ❑ Rainy season implementation schedule
  - ❑ Deployment of temporary soil stabilization BMPs
  - ❑ Deployment of temporary sediment control BMPs
  - ❑ Deployment of wind erosion control BMPs
  - ❑ Deployment of tracking control BMPs
  - ❑ Deployment of non-storm water BMPs
  - ❑ Deployment of waste management and materials pollution control BMPs
- ❑ Non-rainy season implementation schedule
  - ❑ Deployment of temporary soil stabilization BMPs
  - ❑ Deployment of temporary sediment control BMPs
  - ❑ Deployment of wind erosion control BMPs
  - ❑ Deployment of tracking control BMPs
  - ❑ Deployment of non-storm water BMPs
  - ❑ Deployment of waste management and materials pollution control BMPs
- ❑ Paving, saw-cutting, and any other pavement related operations
- ❑ Major planned stockpiling operations
- ❑ Dates for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
- ❑ Final stabilization activities staged over time for each area of the project

- Note: Projects located in the Lake Tahoe, Truckee River, East Fork Carson River, or West Fork Carson River Hydrologic Units, and project above 1,200 meters (5,000 ft) in elevations in the portions of Mono County or Inyo County within the Lahontan RWQCB are not allowed to perform removal of vegetation nor disturbance of existing ground surface conditions between October 15 of each year and May 1 of the following year; except when there is an emergency situation that threatens the public health or welfare, or when the project is granted a variance by the RWQCB Executive Officer.

EXAMPLE: Written Schedule

Estimate Construction Start: 05/01/2000

Estimate Construction Finish: 04/15/2002

Mobilization of equipment and materials to begin on 05/01/2000

Store temporary soil stabilization and temporary sediment control products beginning on 05/01/2000.

Install stabilized construction entrance on 05/01/2000

Site preparation: Clearing and grubbing (Phase I) will occur from 05/25/2000-06/30/2000

Begin construction of residential units 5/30/2000-6/30/2001

Submit annual rainy season implementation schedule 9/25/00

Prepare soil stabilization and sediment control implementation plan prior to the rainy season; submit to the Owner by 09/25/2000

Start implementation of temporary soil stabilization and sediment control BMPs on 09/28/00 (before rainy season starts). Continue to implement and maintain temporary BMPs throughout rainy season.

Complete installation of temporary soil stabilization and sediment control BMPs on 10/05/2000

Rainy season begins 10/15/2000

Excavation to begin on 06/30/2000 and continue through 02/20/2001

Installation of utilities (power lines, phone lines, storm drain and sewer lines) 3/2001-9/2001

Grading work 07/15/2000 – 02/20/2001.

Clearing and grading for commercial property lots 7/30/2000 – 12/31/2000

Schedule soil stabilization subcontractors for application of temporary soil stabilization on disturbed areas and permanent erosion control on areas substantially complete: 09/01/2000

Rainy season ends 04/15/2001

Clearing and grubbing (Phase II) from 05/01/2001 through 07/30/2001

SWPPP Annual Certification due on 07/01/2001

Begin trenching, backfilling and compaction on 07/15/2001

Implement final erosion control of substantially completed areas 8/1/2001

Install temporary concrete washout 09/10/2001

Submit annual rainy season implementation schedule 09/25/2001

Start implementation of temporary soil stabilization and sediment control BMPs on 09/28/2001 (before rainy season starts). Continue to implement and maintain temporary BMPs throughout rainy season.

Complete installation of temporary soil stabilization and sediment control BMPs on 10/05/2001

Rainy season starts 10/15/2001

End construction of residential units on or before 01/25/2002

Begin final paving/construction on 02/01/2002. Continue to apply soil stabilization and sediment controls as needed during construction

Remove concrete washout and restore area to original grade

Schedule subcontractors for application of permanent erosion control 03/01/2002

Start final stabilization, revegetation, and landscape by 03/15/2002

Project complete 04/15/2002

REQUIRED TEXT:

CLICK AND TYPE EITHER NARRATIVE PROJECT SCHEDULE OR STATE THAT THE GRAPHIC SCHEDULE IS ON THE FOLLOWING PAGE. ADD PAGE BREAKS AS NEEDED TO MAKE SURE THAT THE PAGE NUMBERING IS CONSISTENT THROUGHOUT THE DOCUMENT.

300.5 Contact Information/List of Responsible Parties

INSTRUCTIONS:

- Contractor is required to show the Name, Address and Telephone number(s) of the person(s) responsible for SWPPP management/implementation, water pollution control and Permit compliance during construction. This person shall be called the Storm Water Pollution Prevention Manager (SWPPM).
- Duties of the SWPPM include but are not limited to:
  - Ensuring full compliance with the SWPPP and the Permit
  - Implementing all elements of the SWPPP and contract documents, including but not limited to:
    - Implementation of prompt and effective erosion and sediment control measures
    - Implementing all non-storm water management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); general site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than storm water are

discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.

- Pre-storm inspections
- Storm event inspections
- Post-storm inspections
- Routine inspections as specified in the project's specifications or described in the SWPPP
- Updates/Amendments to the SWPPP, as needed
- Preparing annual compliance certification
- Ensuring elimination of all unauthorized discharges
- The SWPPM shall be assigned authority by the Contractor to mobilize crews in order to make immediate repairs to the control measures
- Coordinate with the Contractor to assure all of the necessary corrections/repairs are made immediately, and that the project complies with the SWPPP, the Permit and approved plans at all times.
- Submitting Notices of Discharge and reports of Illicit Connections or Illegal Discharges

■ If anyone else other than the SWPPM is responsible for any of these duties, enter Name, address, telephone number(s) of the person(s) and the duty or duties for which they are responsible and edit the template below as needed.

❑ Name and Telephone Number(s) of the Contractor's SWPPM. The Contractor's SWPPM shall have primary responsibility and significant authority for the implementation, maintenance, inspection and amendments to the approved SWPPP.

REQUIRED TEXT:

The Storm Water Pollution Prevention Manager (SWPPM) assigned to this project is:

Insert SWPPM's Name-then TAB.

Insert Telephone Number(s)-then TAB.

Insert Contractor's Company Name-then TAB.

Insert Address 1 then press ENTER to insert Address 2 or TAB to next field.

Insert City, State, ZIP-then TAB.

The SWPPM shall have primary responsibility and significant authority for the implementation, maintenance, inspection and amendments to the approved SWPPP. The SWPPM will be available at all times throughout the duration of the project. Duties of the SWPPM include but are not limited to:

- Ensuring full compliance with the SWPPP and the Permit
- Implementing all elements of the SWPPP, including but not limited to:
  - Implementation of prompt and effective erosion and sediment control measures
  - Implementing all non-storm water management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); general site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.
- Pre-storm inspections
- Storm event inspections
- Post-storm inspections
- Routine inspections as specified in the project's specifications or described in the SWPPP
- Updates/Amendments to the SWPPP, as needed
- Preparing annual compliance certification for owner's, or owner's authorized representative, signature
- Ensuring elimination of all unauthorized discharges
- The SWPPM shall be assigned authority by the Contractor to mobilize crews in order to make immediate repairs to the control measures
- Coordinate with the Contractor to assure all of the necessary corrections/repairs are made immediately, and that the project complies with the SWPPP, the Permit and approved plans at all times
- Submitting Notices of Discharge and reports of Illicit Connections or Illegal Discharges

INSERT ADDITIONAL RESPONSIBILITIES AND/OR NAMES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

Section 400
References

INSTRUCTIONS:

- ❑ Include a Separator and Tab for Section 400 for ready reference.
- ❑ Identify and prepare a list of the documents referenced in the SWPPP. Project Plans & Specifications, reports, design, and storm water management related documents used to prepare the SWPPP must also be included in the references.

- 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, DTSC Aerially Deposited Lead Reuse Variance, local RWQCB Permits or specific requirements, etc.

- Referenced materials may also include:
  - ❑ On-site project information such as the project plans and specifications, Geotechnical Report, Hydrology/Hydraulic Report, other reports provided by the Owner, regulatory guidance from federal or state 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. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity. August 19, 1999, ("Permit").
- State Water Resources Control Board (SWRCB) Resolution No. 2001- 046, Modification of Water Quality Order 99-08-DWQ State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction Activity (General Permit), adopted by the SWRCB on April 26, 2001.
- Modification of Water Quality Order 99-08-DWQ State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction Activity (General Permit) to Include Small Construction Activity (One to Five Acres), adopted by the SWRCB on December 2, 2002.
- California Regional Water Quality Control Board, Los Angeles Region, Waiver of Clean Water Act Section 401 Water Quality Certification, dated xx/xx/xx.
- US Army Corps of Engineers, Nationwide Permit 26-authorization letter, dated xx/xx/xx.
- California Stormwater BMP Handbook – Construction, January 2003
- Storm Water Management for Construction Activities – Developing Pollution Prevention Plans and Best Management Practices, USEPA 832-R-92-005, October 1992.

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, SPECIFICATIONS AND ESTIMATE.
- State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity.
- California Stormwater BMP Handbook – Construction, January 2003
- CLICK AND TYPE OTHER REFERENCES HERE

■

Section 500
Body of SWPPP

500.1 Objectives

INSTRUCTIONS:

- ❑ Include a Separator and Tab for Section 500 for ready reference.
- ■ The six primary SWPPP objectives are described in the General Permit and 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 six SWPPP objectives.

REQUIRED TEXT:

This Storm Water Pollution Prevention Plan (SWPPP) has six main objectives:

- Identify all pollutant sources, including sources of sediment that may affect the quality of storm water discharges associated with construction activity (storm water discharges) from the construction site, and
- Identify non-storm water discharges, and
- Identify, construct, implement in accordance with a time schedule, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction, and
- Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).
- Identify a sampling and analysis strategy and sampling schedule for discharges from construction activity which discharge directly into water bodies listed on Attachment 3 of the Permit (Clean Water Act Section 303(d) [303(d)] Water Bodies listed for Sedimentation).

- For all construction activity, identify a sampling and analysis strategy and sampling schedule for discharges that have been discovered through visual monitoring to be potentially contaminated by pollutants not visually detectable in the runoff.

This SWPPP conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board (SWRCB). This SWPPP will be modified and amended to reflect any amendments to the Permit or any changes in construction or operations that may affect the discharge of pollutants from the construction site to surface waters, groundwaters, or the municipal separate storm sewer system (MS4). The SWPPP will also be amended if it is in violation of any condition of the Permit or has not achieved the general objective of reducing pollutants in storm water discharges. The SWPPP shall be readily available on-site for the duration of the project.

500.2 Vicinity Map

INSTRUCTIONS:

- The General Permit requires that both a vicinity and site map be included in the SWPPP.
  - ❑ The Vicinity Map shall be a 8-1/2" x 11" color copy of a USGS map or equal and shall extend approximately 400 meters (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. To meet the site map requirement, insert a reduced copy (8-1/2" x 11" or 11" x 17") of the project's Title Sheet in Attachment A and make reference to it in Section 500.2.
  - ❑ 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;
  - ❑ Construction site perimeter;
  - ❑ Known wells;
  - ❑ Outline of the offsite drainage area(s) that discharge into the construction site;

- ❑ Identification of anticipated discharge location(s) where the construction site's storm water discharges to a municipal storm sewer system or other water body;
- ❑ Other geographic features surrounding the site; and
- ❑ General topography.

REQUIRED TEXT

The construction project vicinity map showing the project location, surface water boundaries, geographic features, construction site perimeter, and general topography, is located in Attachment A. The project's Title Sheet provides more detail regarding the project location and is also included in Attachment A.

500.3 Pollutant Source Identification and BMP Selection

500.3.1 Inventory of Materials and Activities that May Pollute Storm Water

INSTRUCTIONS:

- ❑ List all construction materials 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 to storm water discharges.
- ❑ Insert as many bullets as necessary to complete the inventory.

EXAMPLE:

Control practices for each activity are identified in Sections 500.3.4 through 500.3.9

The following is a list of construction materials that will be used and activities that will be performed that will have the potential to contribute pollutants, other than sediment, to storm water runoff. Control practices for each activity are identified in the Sections 500.3.4 through 500.3.9:

- 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, median barriers, and bridge construction
- Base and subbase material
- Joint and curing compounds
- Concrete curing compounds
- Paints
- Solvents, thinners, acids
- Sandblasting materials
- Mortar mix
- Raw landscaping materials and wastes (topsoil, plant materials, herbicides, fertilizers, mulch, pesticides)
- BMP materials (sandbags, liquid copolymer)
- Treated lumber (materials and waste)
- PCC rubble
- Masonry block rubble
- General litter

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

- Clear and grub operations
- Grading operations
- Soil import operations
- Utility excavation operations
- Sandblasting operations
- Landscaping operations

REQUIRED TEXT:

The following is a list of construction materials that will be used and activities that will be performed that will have the potential to contribute pollutants, other than sediment, to storm water runoff (control practices for each activity are identified in the Water Pollution Control Drawings (WPCDs) and/or in Sections 500.3.4 through 500.3.9:

- LIST

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

- LIST
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INSERT ADDITIONAL NARRATIVE TEXT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

Attachment C lists all Best Management Practices (BMPs) that have been selected for implementation in this project. Implementation and location of BMPs are shown on the WPCDs in Attachment B. Narrative descriptions of BMPs to be used during the project are listed by category in each of the following SWPPP sections. Attachment Q includes a list, and/or copies of the fact sheets of all the BMPs selected for this project.

500.3.2 Existing (pre-construction) Control Measures

INSTRUCTIONS:

- ❑ Identify the existing control measures 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 be limited to: Detention basins, infiltration basins, sediment basins, rock slope protection, existing erosion control, existing landscaping, lined ditches, energy dissipaters etc.

EXAMPLE:

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

- Detention basin located at the southeast end of the project. This basin was designed as a combination flood control and permanent treatment control measure. It is anticipated that the basin will be used as a temporary sediment basin during construction, and will be restored to original condition prior to project completion.

REQUIRED TEXT:

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

- LIST
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INSERT ADDITIONAL NARRATIVE TEXT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.3 Nature of Fill Material and Existing Data Describing the Soil

INSTRUCTIONS:

- ❑ Describe the conditions of the fill material and the soils at the construction site (i.e. types of soils, groundwater location and conditions, dewatering operations that may be necessary, etc.) and the source and conditions of the fill material at the construction site. A general description can usually be found in the geotechnical report or other environmental documents.
- ❑ Show and/or describe existing site 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, or leaked onto the construction site). Review the contract documents and associated environmental documents to determine the known site contaminants and list them in this section.

EXAMPLE:

Existing site 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, or leaked onto the construction site) include:

- Several old farms are within the project property. Extensive use of farming related chemicals may have left detectable amounts of toxic materials in the soil.
- This site includes aerially deposited lead located at the northeast corner of the site.

REQUIRED TEXT:

DESCRIBE CONDITIONS OF FILL MATERIALS AND EXISTING SOILS 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:

- LIST
-
-
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INSERT ADDITIONAL NARRATIVE TEXT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

INSTRUCTIONS:

BMP SELECTION PROCESS

BMP selection is an iterative process that first identifies potential pollutant sources and then identifies the BMPs necessary to reduce or eliminate pollutant discharges from the construction site.

- ❑ Identify all BMPs selected for implementation (indicated in Attachment C, and any other BMPs required by the contract documents).
- ❑ Select BMPs to eliminate or reduce the pollutants identified in the inventory list (Section 500.3.1). See Section 3 of the *California Stormwater BMP Handbook – Construction*, for instructions for selecting and implementing construction site BMPs and fact sheets for construction site BMPs. Refer to the BMP Consideration Checklist in Attachment C to select BMPs in each of the following sections:

  500.3.4 Erosion Control (Soil Stabilization)

  500.3.5 Sediment Control

  500.3.6 Tracking Control

  500.3.7 Wind Erosion Control

  500.3.8 Non-Storm Water Control

  500.3.9 Waste Management and Materials Pollution Control

- ❑ Show the selected BMPs on the WPCDs. Use the instructions in Section 500.4 and the SWPPP and Monitoring Program Checklist (Attachment L) to confirm that all WPCD requirements are included. Provide a narrative description of the BMPs selected in the appropriate section.

500.3.4 Erosion Control

INSTRUCTIONS:

- The General Permit requires that projects implement an effective combination of erosion control (soil stabilization) and sediment controls on all disturbed areas during the rainy season.
  - ❑ Select temporary erosion control BMPs to be used and complete the Erosion Control section of the BMP Consideration Checklist in Attachment C. See Section 3 of the *California Stormwater BMP Handbook – Construction*, for instructions for selecting and implementing construction site BMPs and working details for construction site BMPs.
  - ❑ Provide introductory paragraphs that define erosion control and give a general approach on how temporary erosion control BMPs will be implemented on the project.
  - ❑ List all the temporary erosion control BMPs to be used in the project.
  - ❑ Show selected temporary erosion control BMPs on the WPCDs. Provide a narrative description of temporary erosion control BMPs that cannot be adequately identified on the WPCDs.
  - ❑ Discuss the on-site availability of temporary erosion control materials (materials kept for temporary erosion control BMPs) and proposed mobilization and implementation of temporary erosion control BMPs in the event of a predicted storm. (Explain how and when BMPs will be implemented when rain is forecasted). Sufficient material(s) needed to install temporary soil stabilization BMPs necessary to completely protect the exposed portions (disturbed soil area) of the site from erosion and to prevent sediment discharges must be stored on site. Areas that have already been protected from erosion using temporary or permanent physical stabilization or established vegetation stabilization BMPs are not considered to be "exposed disturbed soil areas" for purposes of this requirement.

EXAMPLE:

Erosion Control, also referred to as soil stabilization, is a source control measure that is designed to prevent soil particles from detaching and becoming suspended in the storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding the soil particles. This project will incorporate erosion control measures required by the contract documents, and other measures selected by the Contractor. This construction project will implement the following practices to assure effective temporary and final erosion control during construction:

1) Preserve existing vegetation where required and when feasible.

2) Apply temporary erosion control to remaining active and non-active areas as required by the California Stormwater BMP Handbook – Construction, and the contract documents. Reapply as necessary to maintain effectiveness.
3) Implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain the contract's disturbed soil area requirements. When the project's specifications require it, temporary erosion control BMPs will be implemented 20 days prior to the defined rainy season.
4) Stabilize non-active areas as soon as feasible after the cessation of construction activities.
5) Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding, and lining swales as required in the contract documents.
6) Apply seed to areas deemed substantially complete by the [City] Engineer during the defined rainy season.
7) At completion of construction, apply permanent erosion control to all remaining disturbed soil areas.

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

Implementation and locations of erosion control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B and/or described in this section. The BMP Consideration Checklist in Attachment C indicates the BMPs that will be implemented to control erosion on the construction site; these are:

- EC-2, Preservation of Existing Vegetation
- EC-6, Straw Mulch
- EC-7, Geotextiles and Mats
- EC-9, Earth Dikes and Drainage Swales

Implementation of Erosion Control BMPs

- BMPs will be deployed in a sequence to follow the progress of grading and construction. As the locations of soil disturbance change, erosion and sedimentation controls will be adjusted accordingly to control storm water runoff at the downgrade perimeter and drain inlets. BMPs will be mobilized as follows:

Year-round:

- The Storm Water Pollution Prevention Manager (SWPPM) will monitor weather using National Weather Service reports to track conditions and alert crews to the onset of rainfall events.

- Disturbed soil areas will be stabilized with temporary erosion control or with permanent erosion control as soon as possible after grading or construction is complete.

During the rainy season:

- Disturbed areas will be stabilized with temporary or permanent erosion control before rain events.
- Disturbed areas that are substantially complete will be stabilized with permanent erosion control (soil stabilization) and vegetation (if within seeding window for seed establishment).
- Prior to forecast storm events, temporary erosion control BMPs will be deployed and inspected.

During the non-rainy season:

- The project schedule will sequence construction activities with the installation of both erosion control and sediment control measures. The construction schedule will be arranged as much as practicable to leave existing vegetation undisturbed until immediately prior to grading.

Straw Mulch

- Straw mulch will be primarily used throughout the disturbed areas adjacent to excavations and on shallow slopes surrounding the site. See the WPCDs in Attachment B of this SWPPP for locations where straw mulch will be used.

Geotextiles, Plastic Covers and Erosion Control Blankets/Mats

- Geotextile blankets will be used to provide temporary and long-term stabilization for the flow line of the vegetated swale on the western boundary of the project.
- Polyethylene covers will be used to cover exposed soil and sand stockpiled material areas. Covers will be placed over stockpiles prior to forecast storm events, and anchored to prevent damage by wind.

REQUIRED TEXT:

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. This project will incorporate erosion control measures required by the contract documents, and other measures selected by the Contractor, SWPPP Manager, or Owner. This project will implement the following practices for effective temporary and final erosion control during construction:

1) Preserve existing vegetation where required and when feasible.

2) Apply temporary erosion control to remaining active and non-active areas as required by the California Stormwater BMPs Handbook – Construction, and the contract documents. Reapply as necessary to maintain effectiveness.

3) Implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain the contract's disturbed soil area requirements. Implement erosion control prior to the defined rainy season.

4) Stabilize non-active areas as soon as feasible after the cessation of construction activities.

5) Control erosion in concentrated flow paths by applying erosion control blankets, erosion control seeding, and lining swales as required in the contract documents.

6) Apply seed to areas deemed substantially complete by the Owner during the defined rainy season.

7) At completion of construction, apply permanent erosion control to all remaining disturbed soil areas.

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

Implementation and locations of temporary erosion control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B and/or described in this section. The BMP Consideration Checklist in Attachment C indicates the BMPs that will be implemented to control erosion on the construction site; these are:

- EC-1, Scheduling
- EC-2, Preservation of Existing Vegetation
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INSERT ADDITIONAL NARRATIVE TEXT OF SOIL STABILIZATION HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.5 Sediment Control

INSTRUCTIONS:

- ❑ Select sediment control BMPs to be used and complete the Sediment Control BMPs section of the BMP Consideration Checklist in Attachment C. See Section 3 of the *California Stormwater BMP Handbook – Construction*, for instructions for selecting and implementing construction site BMPs and working details for construction site BMPs.
- ❑ Provide introductory paragraphs that define what are sediment controls and give a general approach on how sediment control BMPs will be implemented at the draining perimeter of disturbed soil areas, at the toe of slopes, at inlets and outfall areas at all times.
- ❑ List all the temporary sediment control BMPs to be used in the project.
- ❑ Show selected temporary sediment control BMPs on the WPCDs. Provide a narrative description of temporary sediment control BMPs that cannot be adequately identified on the WPCDs.
- ❑ Show BMPs used to divert off-site drainage around and/or through the construction project.
- ❑ Discuss the on-site availability of temporary sediment control materials (materials kept for temporary sediment control BMPs) and proposed mobilization and implementation of temporary sediment control BMPs in the event of a predicted storm.

EXAMPLE:

Sediment controls are structural measures that are intended to complement and enhance the erosion control measures and reduce sediment discharges from construction areas. Sediment controls are designed to intercept and filter out soil particles that have been detached and transported by the force of water. This project will incorporate sediment control measures required by the contract documents, and other measures selected by the Owner.

Sufficient quantities of temporary sediment control materials will be maintained on-site throughout the duration of the project, to allow implementation of temporary sediment controls in the event of predicted rain, and for rapid response to failures or emergencies, in conformance with other Permit requirements and as described in this SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

Implementation and locations of temporary sediment control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B. The BMP Consideration Checklist in Attachment C indicates all the BMPs that will be implemented to control sediment on the construction site; these are:

- SE-1, Silt fence
- SE-4, Check dams
- SE-5, Fiber rolls
- SE-7, Street Sweeping and Vacuuming
- SE-8, Sandbag barrier
- SE-10, Storm Drain Inlet Protection

Implementation of Temporary Sediment Controls

- Temporary sediment control BMPs will be deployed according to the schedule shown in SWPPP Section 300.4.
- During the rainy season, temporary sediment controls will be implemented at the draining perimeter of disturbed soil areas, at the toe of slopes, at storm drain inlets and at outfall areas at all times.
- During the non-rainy season, temporary sediment controls will be implemented at the draining perimeter of disturbed soil areas and at storm drain downstream from disturbed areas before rain events.
- As shown on the WPCDs, silt fences will be deployed along the toe of exterior slopes to filter storm water runoff.
- Storm drain inlet protection will be used at all operational internal inlets to the storm drain system during the rainy season as shown on the WPCDs.
- During the non-rainy season, in the event of a predicted storm, the following temporary sediment control materials will be maintained on-site: silt fence materials, sandbags for linear barriers, fiber rolls

REQUIRED TEXT:

Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will

incorporate sediment control measures required by the contract documents, and other measures selected by the Contractor, SWPPP Manager, or Owner.

Sufficient quantities of temporary sediment control materials will be maintained on-site throughout the duration of the project, to allow implementation of temporary sediment controls in the event of predicted rain, and for rapid response to failures or emergencies, in conformance with other Permit requirements and as described in this SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

Implementation and locations of temporary sediment control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B. The BMP Consideration Checklist in Attachment C indicates all the BMPs that will be implemented to control sediment on the construction site; these are:

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INSERT ADDITIONAL NARRATIVE TEXT OF SEDIMENT CONTROLS HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.6 Tracking Control

INSTRUCTIONS:

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

- ❑ Select BMPs and provide a narrative description of tracking control BMPs that will be used to reduce sediment tracking onto public or private roads.
- ❑ Show on the WPCDs the location of all ingress/egress points to the project site where sediment tracking is likely.
- ❑ Describe measures to prevent sediment tracking in this section.
- ❑ Discuss road-cleaning BMPs.

EXAMPLE:

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

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

BMPs to Reduce Sediment Tracking

Stabilized Construction Entrance/Exit

- A stabilized construction entrance/exit will be constructed and maintained at construction site entrances and exits, equipment yard, PCC batch plants and crushing plants, water filling area for water trucks, and project office location, as shown on the site map.

- The site entrance/exit will be stabilized to reduce tracking of sediment as a result of construction traffic. The entrance will be designated and graded to prevent runoff from leaving the site. Stabilization material will be 3 to 6-inch aggregate. The entrance will be flared where it meets the existing road to provide an adequate turning radius. During dirt-hauling activities that extend over a one-week time period, a site entrance/exit will be installed to reduce tracking of sediment.

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 roads. The roadway will be clearly marked for limited speed to control dust. Refer to the WPCDs for entrance/exit and construction roadway locations. Stabilization material will be 3 to 6-inch 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 to ensure that sediment tracking to public streets is minimized.

Road Cleaning BMPs – Street Sweeping and Vacuuming

Road sweeping and vacuuming will occur during soil hauling and as necessary to keep street surfaces clear of soil and debris. 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 onto private or public roads:

- SE-7, Street Sweeping and Vacuuming
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INSERT ADDITIONAL NARRATIVE TEXT OF TRACKING CONTROL PRACTICES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.7 Wind Erosion Control

INSTRUCTIONS:

- Wind erosion control BMPs shall be considered and implemented year-round and throughout the duration of the project on all disturbed soils on the project site that are subject to wind erosion, and when significant wind and dry conditions are anticipated during project construction. The objective of wind controls is to prevent the transport of soil from soil-disturbed areas of the project site, offsite by wind.

  - ❑ Select BMPs and provide a narrative description of BMPs that will be used to control dust during construction operations, including stockpile operations.

EXAMPLE:

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

- WE-1, Wind Erosion Control

Dust Control

- 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 110,000 and 180,000 ft^3.

- 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 and water equipment leaks will be repaired immediately.

- During windy conditions (forecast or actual wind conditions of approximately 25 mph or greater), dust control will be applied to disturbed areas, including haul roads, to adequately control wind erosion.

- 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 dust from the construction site:

- WE-1, Wind Erosion Control
-
-

INSERT ADDITIONAL NARRATIVE TEXT OF WIND EROSION CONTROL PRACTICES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.8 Non-Storm Water Control

INSTRUCTIONS:

- Non-storm water discharges consist of all discharges from a municipal storm water conveyance, which do not originate from precipitation events (i.e., all discharges from a conveyance system other than storm water).
- ***PROHIBITED (ILLICIT) DISCHARGES***. Non-storm water discharges into storm drainage systems or waterways, which are not authorized under the Permit or authorized under a separate NPDES permit, are prohibited. Examples of prohibited discharges common to construction activities include:
  - 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 grinding or AC grinding operations
  - Slurries from concrete or mortar mixing operations
  - Slurries from drilling or boring operations
  - Blast residue from high-pressure washing of structures or surfaces
  - Wash water from cleaning painting equipment
  - Runoff from dust control applications of water or dust palliatives
  - Sanitary and septic wastes
  - Chemical leaks and/or spills of any kind including but not limited to petroleum, paints, cure compounds, etc.
- 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 500.3.9, Waste Management and Materials Pollution Control.
- Some specific non-storm water discharges may be allowed provided they are not relied upon to clean up failed or inadequate construction or post-construction BMPs designed to keep materials onsite. However, they must be identified as not being sources of pollutants to receiving waters and appropriate BMPs may be required to de developed and implemented to minimize adverse impacts from these sources/discharges. The RWQCB may require a separate NPDES permit or specific monitoring and reporting requirements for some non-storm water discharges. All possible non-storm water discharges shall be listed, along with narrative description of BMPs designed to control potential pollutants in such discharges. Examples of non-storm water discharges that may be allowed include:

- Flows from riparian habitats or wetlands
- Diverted stream flows
- Springs, rising groundwater
- Landscape irrigation runoff for purpose of establishing erosion control
- De-chlorinated water line flushing
- Hydrant flushing
- Foundation and footing drains
- Uncontaminated groundwater infiltration

- Other discharges such as pumped groundwater, irrigation water and water line and hydrant flushing are not prohibited if they are identified as not being sources of pollutants to receiving waters or if appropriate control measures (BMPs) to minimize the adverse impacts of such sources are developed and implemented. Some RWQCBs may require a separate NPDES permit or specific monitoring and reporting requirements for the conditionally exempt discharges. Check with the local jurisdiction on what discharges may be conditionally exempt.
- Use the following process to identify, quantify, and select BMPs for 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. Examples of common construction activities that may result in non-storm water discharges on a project are:

  - Vehicle and equipment cleaning, fueling and maintenance
  - Surface water diversions,
  - Dewatering operations
  - Saw-cutting
  - Drilling
  - Boring
  - AC and PCC grinding
  - AC and PCC recycling
  - Concrete mixing
  - Crushing

- Bridge cleaning
- Blasting
- Painting
- Hydro-demolition
- Mortar mixing
- Air-blown mortar, etc.

- ❑ Describe each planned non-storm water discharge from the project into the storm drain system or waterway, including flow/quantity and expected pollutants. If a flow or quantity cannot be determined, then fully describe the nature and extent of the activity such that the quantity can be inferred. One-time discharges shall be monitored by the person responsible for SWPPP implementation during the time that such discharges are occurring.

- ❑ Describe each non-storm water source or activity that may generate a discharge; containment facilities and appurtenances that would be employed; and flow paths of discharge to downstream inlets, drainage facilities, and receiving waters. Where possible, depict BMP locations on the WPCDs.

- ❑ Indicate the time period and frequency of each activity that generates or may generate a discharge.

- ❑ Describe mandatory non-storm water control BMPs and practices required by the local jurisdiction, the RWQCB (such as WDR requirements for projects that reuse Aerially Deposited Lead soils), other permits, or other federal, state, or local agencies. Provide details and schedules as appropriate. Include maintenance, inspection, testing, and reporting requirements. Provide permit information for discharges covered by a separate NPDES permit.

- ❑ Describe the selected non-storm water control BMPs and practices to minimize, contain, and dispose prohibited discharges or to minimize adverse impacts of authorized discharges from the project into the storm drain system or waterway. BMPs within both the Non-Storm Water Management and the Materials Handling and Waste Management categories may be applicable to non-storm water discharges. Include maintenance, inspection, testing, and reporting procedures, if applicable. Also include sediment controls for landscape irrigation prior to establishment of vegetation.

- ❑ Indicate how illicit connections and illegal discharges will be handled.

- When an Owner sells or leases individual lots or properties, there may be instances when the new Owner(s)/occupant(s) get involved in construction activities that may contribute to the discharge of pollutants into storm water. It is suggested that the Owner develops a notification pamphlet or brochure that makes the new Owner(s)/occupant(s) aware of the potential for unauthorized discharges and practices to limit, reduce or eliminate the risks of discharging pollutants into storm water.

EXAMPLE:

An inventory of construction activities and potential non-storm water discharges is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment C and the following list 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 Water Pollution Control Drawings (WPCDs) in Attachment B. 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
- NS-11, Pile Driving Operations
- NS-12, Concrete Curing
- NS-13, Materials and Equipment Use over Water
- NS-14, Concrete Finishing
- NS-15, Structure Demolition/Removal
- WM-08, Concrete Waste Management

Illicit Connection/Illegal Discharge Detection and Reporting

- The Contractor will implement BMP NS-6, Illicit Connection/Illegal Discharge Detection and Reporting throughout the duration of the project.

Paving Operations

- The project will include placement of approximately 20 acres of AC pavement. Paving locations and adjacent storm drain inlets are shown on WPCDs 2, 3, and 5. Paving operations will generally be conducted in August and September 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.

Vehicle and Equipment Operations

- 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, compressors, and traffic control equipment. 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 500.3.8, vehicle cleaning will not be performed on-site.

- A paved temporary fueling area will be constructed in the Contractor's yard as shown on WPCD-4. 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 absorbent pads 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 feet away from operational inlets and drainage facilities and on a level graded area.

Concrete Saw-cutting

- The project will include approximately 600 ft of concrete saw-cutting. Saw-cutting locations and adjacent storm drain inlets are shown on WPCDs 2, 3, and 4. Estimated saw-cutting dates are shown on the schedule in Section 300.4. Saw-cutting operations will not be conducted during or immediately prior to rainfall events. Saw-cutting operations are expected to produce about 1.5 cubic yards of waste slurry consisting of water and fine PCC grit.

- BMP WM-08, Concrete Waste Management, will be implemented to contain and dispose of saw-cutting slurries. The slurry will be vacuumed and discharged to the concrete washout facility described above. Dried and cured concrete wastes will be disposed off-site during concrete washout maintenance activities.

REQUIRED TEXT:

An inventory of construction activities and potential non-storm water discharges is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment C and the following list 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 Water Pollution Control Drawings (WPCDs) in Attachment B. A narrative description of each BMP follows.

- 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
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INSERT ADDITIONAL NARRATIVE TEXT OF NON-STORM WATER CONTROL PRACTICES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.9 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. Wastes are going to be generated during construction; however, the methods in which the wastes are collected, stored, and removed will determine the success of the waste management activities. 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 control (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 and materials pollution control BMPs shall be implemented to minimize storm water contact with construction materials, wastes and service areas, and to prevent materials and wastes 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 asphalt cold mix 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 lead contaminated soils, concrete saw-cutting liquids, waste chemicals and empty chemical containers. (See Section 500.3.1)
  - ❑ Substitute safer, less polluting products where possible.
  - ❑ Use the BMP Consideration Checklist in Attachment C to identify 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). Discuss how each storm water contact mechanism will be addressed. Include schedules, inspection, and maintenance requirements. Show facility locations and details on the WPCDs where possible.
  - ❑ Describe proposed waste collection and removal schedules.

EXAMPLE:

An inventory of construction activities, materials, and wastes is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment C and the following list indicate the BMPs that have been selected to control construction site wastes and materials. Implementation and locations of some materials handling and waste management BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B. A narrative description of each BMP follows.

- 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

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 WPCD-4. A sandbag barrier (BMP SE-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:

  - Two watertight shipping containers will be used to store hand tools, small parts, and most construction materials that can be carried by hand, such as paint cans, solvents and grease.

  - 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 6 inch curbed sides. A wood frame and corrugated tin roof and sides will be constructed to protect the facility from sun and rain. The facility will provide about 530 gal of containment volume. The containment volume is adequate to store 9-55 gallon drums pursuant to BMP WM-1.

- Very large items, such as light standards, 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 southern shipping container.

Stockpile Management

- BMPs WM-3, Stockpile Management, will be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate subbase, pre-mixed aggregate, and asphalt minder (so called "cold mix" asphalt). Stockpiles will be surrounded with sediment controls (SE-5, Fiber Rolls or SE-8, Sandbag Barrier). Plastic covers (EC-7, Geotextiles & Mats), or EC-5, Soil Binders, will be used.

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. Spill prevention is also discussed above in Material Delivery, Storage, and below in the following waste management and equipment maintenance sections.

Waste Management

- BMP WM-5, Solid Waste Management, and BMP WM-6, Hazardous 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 Contractors yard. Dumpster locations are shown on WPCD-4. AC and PCC rubble will be stockpiled in the general storage area and will be surrounded with sediment controls (SE-8, Sandbag Barrier) and covered when necessary. 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. Hazardous wastes will be stored in the shipping containers or covered containment area discussed above for materials storage. Hazardous wastes will be appropriate and clearly marked containers and segregated from other non-waste materials.

Contaminated Soil Management

- When contaminated soils are encountered, the City Engineer will be notified, the contaminated soils will be contained, covered if stockpiled, and disposed of per WM-7, Contaminated Soil Management, and the contract documents. Employees will be instructed to recognize evidence of contaminated soil, such as buried debris, discolored soil, and unusual odors.

Concrete Residuals and Washout Wastes

- This project includes placement of about 130 cubic yards of concrete. The estimated maximum washout volume is 3.5 cubic feet. Discharges will consist of rinse water and residual concrete (Portland cement, aggregates, admixture, and water). Estimated pour dates are shown on the project schedule in Section 300.4. Concrete pours will not be conducted during or immediately prior to rainfall events.

- BMP WM-8, Concrete Waste Management, will be implemented and a below grade concrete washout facility will be constructed and maintained at the Contractor's yard as shown on WPCD-4. All excess concrete and concrete washout slurries will be discharged to 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, discussed below. BMP maintenance, waste disposal, and BMP removal will be conducted as described in WM-8. Dried-off concrete will be used as fill material if permitted by the City Engineer.

- Concrete waste solids/liquids will be removed and disposed of as required by WM-8.

Sanitary and Septic Wastes

- The Contractor will implement BMP WM-9, Sanitary and Septic Waste Management, and portable toilets will be located and maintained at the Contractor's yard for the duration of the project. Specific locations are shown on WPCD-4. Weekly maintenance will be provided each Wednesday by ABC Sanitation (license CA0Q45W) and wastes will be disposed off-site. The toilets will be located away from concentrated flow paths and traffic flow.

REQUIRED TEXT:

An inventory of construction activities, materials, and wastes is provided in Section 5.3.1. 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. A narrative description of each BMP follows.

- 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-9, Sanitary/Septic Waste Management
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INSERT ADDITIONAL NARRATIVE TEXT OF WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL PRACTICES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.3.10 Cost Breakdown for Water Pollution Control

EXAMPLE:

A cost breakdown itemizing the contract lump sum for water pollution control has been developed for this project and included in Attachment O. The cost breakdown reflects the items of work, quantities and costs for BMPs shown in the SWPPP, except for those construction site BMPs and permanent BMPs that are shown on the project plans and for which there is a contract item of work.

REQUIRED TEXT:

A cost breakdown itemizing the contract lump sum for water pollution control has been developed for this project and included in Attachment O. The cost breakdown reflects the items of work, quantities and costs for BMPs shown in the SWPPP, except for those construction site BMPs and permanent BMPs that are shown on the project plans and for which there is a contract item of work.

500.4 Water Pollution Control Drawings (WPCDs)

INSTRUCTIONS:

- Prepare water pollution control drawings (WPCDs) in conformance with these instructions and the requirements of the General Construction Permit requirements for a site map. Include the WPCDs as Attachment B to the SWPPP.
  - ❑ Include a cover sheet(s) listing the BMPs that will be used and any selected options shown on the fact sheets, along with construction notes and a legend.
  - ❑ The WPCDs shall show locations for the BMPs that will be used.
  - ❑ Include detailed sheets showing construction details for the BMPs that will be used. BMP Fact Sheets provided in the *California Stormwater BMP Handbook – Construction* may be used as appropriate and included in Attachment Q.
  - ❑ Additional details may be necessary to describe site-specific BMP applications.
  - ❑ Use grading sheets, drainage sheets or erosion control sheets as base sheets for the WPCDs. Use Section 500.3, "Pollutant Source Identification and BMP Selection" as a guide to pollutant sources and BMPs for construction activities. Select BMPs that are appropriate for the site and show their locations on the site map.

- The base sheets shall show the construction project in detail, including:
  - ❑ The construction site perimeter.

- ❑ Geographic features within or immediately adjacent to the site. Include surface waters such as lakes, streams, springs, wetlands, estuaries, ponds, and the ocean.
- ❑ Site topography before and after construction. Include roads, paved areas, buildings, slopes, drainage facilities, and areas of known or suspected contamination.
- ❑ Permanent (post-construction) BMPs. These are usually shown on the project plans.

■ Also delineate the following site information:

- ❑ Discharge points from the project to off-site storm drain systems or receiving waters.
- ❑ Tributary areas and drainage patterns across the project area (show using flow arrows) into each on-site storm water inlet or receiving water.
- ❑ Tributary areas and drainage patterns to each on-site storm water inlet, receiving water or discharge point.
- ❑ Off-site tributary drainage areas that generate run-on to the project. (Where off-site tributary drainage areas are too large to depict on the drawings, use map notes or inserts illustrating the upstream drainage areas).
- ❑ Temporary on-site drainage(s) to carry concentrated flows.
- ❑ Drainage patterns and slopes anticipated after major grading activities are completed.
- ❑ Outline all areas of existing vegetation, soil cover, or native vegetation that will remain undisturbed during the project
- ❑ Areas of cut and fill.
- ❑ Outline all areas of soil disturbance (disturbed soil areas, DSAs). Indicate which areas will be disturbed during the rainy season and which areas will be left exposed during the rainy season.
- ❑ Identify location(s) or areas where it is known that toxic materials have been stored, disposed, spilled, or leaked onto the construction site.
- ❑ Identify location(s) of contaminated or hazardous soils.
- ❑ Locate potential non-storm water discharges and activities, such as dewatering operations, concrete saw-cutting or coring, pressure washing, waterline flushing, diversions, cofferdams, and vehicle and equipment cleaning. If operations can't be located, provide a narrative description.
- ❑ Identify location(s) or direct discharge from the construction site into a Section 303(d) list water body (discharges that do not flow into an accepted MS4 system).

- ❑ Identify locations designated for sampling the discharge(s) from areas of the construction site.

- Show proposed locations for all construction site BMPs. Include additional detail drawings if necessary to convey site-specific configurations.
  - ❑ Show temporary erosion control and temporary sediment control BMPs that will be used during construction. Including temporary on-site drainage(s) to carry concentrated flows, BMPs implemented to divert off-site drainage around or through the construction site, and BMPs that protect storm water inlets.
  - ❑ Locate site ingress and egress points and any proposed temporary construction roads.
  - ❑ Show BMPs to mitigate or eliminate non-storm water discharges.
  - ❑ Show BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal.
  - ❑ Show location(s) of temporary stockpiles and BMPs to protect those areas.
  - ❑ Show BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning.
  - ❑ Show location of all post-construction BMPs.

- 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 for the project is not within the project site, but is located in the vicinity of the project, the WPCDs shall show all BMPs to be used at Contractor's yard.

- The WPCDs shall reflect the Contractor's phasing and/or construction staging, and shall address the entire scope of the contract work. (The Owner and Contractor may address certain individual operations at a later date per the SWPPP amendment process established in Sections 200.1 and 200.2)

EXAMPLE:

The Water Pollution Control Drawings can be found in Attachment B of the SWPPP.

REQUIRED TEXT:

The Water Pollution Control Drawings can be found in Attachment B of the SWPPP.

500.5 Construction BMP Maintenance, Inspection, and Repair

INSTRUCTIONS:

- The purpose of storm water inspections is to evaluate BMP effectiveness and implement repairs or design changes as soon as feasible.
- Inspections shall be completed by the Contractor's SWPPM.
- Inspections are recommended on a regular basis during dry weather. The purpose of dry-weather inspections is to ensure proper implementation of BMPs that are not necessarily weather-related. Examples include non-storm water, waste management, and sediment tracking control BMPs.
- A sample maintenance, inspection, and repair program is shown in Attachment G.
- A checklist is required during each inspection. A Storm Water Quality Construction Site Inspection Checklist is included as Attachment H. This checklist shall be used for all inspections unless the project's contract documents require the Contractor to use a different checklist.
- Inspections are required:
  - Prior to a forecast storm
  - after a rain event that causes runoff from the construction site
  - at 24-hour intervals during extended rain events
  - at any other time(s) or intervals of time specified in the contract documents.
- Copies of the completed checklists shall be kept with the SWPPP.
- A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in BMPs.

❑ Include a discussion of the program to inspect and maintain all BMPs as identified in the site plan or other narrative documents throughout the duration of the project. Insert the complete program as Attachment G.

EXAMPLE:

Inspections will be conducted as follows:

- Prior to a forecast storm
- after a rain event that causes runoff from the construction site
- at 24-hour intervals during extended rain events
- weekly during the rainy season
- every 2 weeks during the non-rainy season
- at any other time(s) or intervals of time specified in the contract documents

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

REQUIRED TEXT

Inspections will be conducted as follows:

- Prior to a forecast storm
- after a rain event that causes runoff from the construction site
- at 24-hour intervals during extended rain events
- at any other time(s) or intervals of time specified in the contract documents

Completed inspection checklists will be kept with the SWPPP.

A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in BMPs. A program for Maintenance, Inspection and Repair of BMPs is shown in Attachment G.

500.6 Post-Construction Storm Water Management

500.6.1 Post-Construction Control Practices

INSTRUCTIONS:

- Post-Construction BMPs are permanent measures installed during construction, designed to reduce or eliminate pollutant discharges from the site after construction is completed. The Owner, Engineer, or Permittee may provide listings, descriptions, and special operations and maintenance requirements for post-construction BMPs.

- ❑ Provide descriptions of the BMPs employed after all construction phases have been completed at the site (Post-Construction BMPs). Examples of post-construction measures are:
  - Infiltration basins;
  - Detention/retention devices;
  - Vegetated strips and/or swales;
  - Biofilters;
  - Permanent erosion control, seeding and planting;
  - Outlet protection/velocity dissipation devices;
  - Earth dikes, drainage swales, and lined ditches;
  - Rock slope protection;
  - Mulching;
  - Other proprietary permanent structural BMPs; and
  - Verification that interior drains are not connected to a storm sewer system.

- When an Owner sells or leases individual lots or properties, there may be instances when the new Owner(s)/occupant(s) get involved in construction activities that may contribute to the discharge of pollutants into storm water. It is suggested that the Owner develops a notification pamphlet or brochure that makes the new Owner(s)/occupant(s) aware of the potential for unauthorized discharges and practices to limit, reduce or eliminate the risks of discharging pollutants into storm water.

EXAMPLE:

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

- Outlet protection/velocity dissipation devices at all culvert outlets.
- All slopes will be seeded with, planted and protected with wood mulch.
- Numerous drainage strips and swales.
- An infiltration basin.

REQUIRED TEXT:

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

- LIST
-
-
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-
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INSERT ADDITIONAL NARRATIVE TEXT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.6.2 Operation/Maintenance after Project Completion

INSTRUCTIONS:

- Describe the following information regarding post-construction BMPs. In some cases, the Owner or Engineer may provide specific language for any operations and maintenance requirements of post-construction control practices. Any pertinent language provided by the Owner shall be added to this section of the SWPPP.
  - ❑ List the parties responsible for long-term operation and maintenance of permanent BMPs. Examples of responsible parties are: a Home Owners Association (HOA); a local agency or municipality; or the Owner.

EXAMPLE:

The post-construction BMPs that are described above will be funded and maintained by the Rancho del Cielo Home Owners Association (RCHOA).

REQUIRED TEXT:

The post-construction BMPs that are described above will be funded and maintained by ENTER RESPONSIBLE PARTY

INSERT ANY ADDITIONAL LANGUAGE PROVIDED BY OWNER HERE. DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

500.7 Training

INSTRUCTIONS:

- Individuals responsible for SWPPP preparation, implementation, and permit compliance are required to be trained, and the SWPPP shall document all training. This includes those personnel responsible for installation, inspection, maintenance, and repair of BMPs. Describe the types of training that the Contractor's inspection, maintenance, and repair personnel have received or will receive that are directly related to storm water pollution prevention.
- Subcontractors and employees whose activities may generate non-storm water discharges shall be trained to minimize the potential for such discharges.
- Training may be both formal and informal
- Formal storm water pollution prevention or erosion and sediment control training sessions may include certification as a Certified Professional in Erosion Control and Sediment Control (CPESC); workshops offered by the SWRCB, RWQCB, Community College or University of California Extension, or other locally recognized agencies or professional organizations such as the International Erosion Control Association (IECA), California Stormwater Quality Association (CASQA), Association of Bay Area Governments (ABAG), Association of General Contractors (AGC), etc. Owners and Contractors are encouraged to contact the RWQCB or the SWRCB to inquire about availability of training.
- A listing of training organizations, subject matter and classes are located at http://www.dot.ca.gov/hq/construc/stormwater.html
- The Storm Water Pollution Prevention Manager (SWPPM) should have a minimum of 24 hours (3 days) of formal storm water pollution prevention training.
- On-site storm water pollution prevention training shall be conducted on an on-going basis.

- ❑ Document formal and informal storm water training using the sample Trained Contractor Personnel Log sheet provided as Attachment I.
- ❑ Formal storm water training may be documented by providing a list of classes and copies of class completion documents.

EXAMPLE:

Section 300.5 shows the name of the Contractor's Storm Water Pollution Prevention Manager (SWPPM). This person has received the following training:

- Two (2) day construction storm water management course given by the County of Los Angeles Storm Water Program in October of 1999.
- Attended 2001 IECA 3-day Conference.

On-going, formal training sessions will be selected from one of the following organizations:

- City of Los Angeles Storm Water Program
- County of Los Angeles Storm Water Program
- State of California Regional Water Quality Control Board
- IECA, ABAG and/or AGC sponsored training
- USEPA sponsored training
- Recognized municipal stakeholder organizations throughout California
- Professional organizations and societies in the building and construction field

Other Contractor personnel attending tailgate training will document attendance using the form in Attachment I. Informal training will include tailgate site briefings to be conducted bi-weekly and will address the following topics:

- Erosion Control BMPs
- Sediment Control BMPs
- Non-Storm Water BMPs
- Waste Management and Materials Pollution Control BMPs
- Emergency Procedures specific to the construction site storm water management

This SWPPP was prepared by ABC Engineering, under the direction of Mr. John Doe, a registered Professional Engineer in the State of California. Mr. Doe has over 5 years of experience in the preparation of Storm Water Pollution Prevention Plans (SWPPPs), and has the following previous experience:

- Has prepared over 15 project-specific SWPPPs
- Over 15 years of experience in storm drain design, hydrology, and hydraulics
- SWPPP Preparation training sponsored by Orange County Storm Water Program, June 2002
- Attended the 1999, 2000, 2001, and 2002 International Erosion Control Association (IECA) 3-day conferences
- Received certification as a Certified Professional in Erosion Control and Sediment Control (CPSEC) in July 2001
- Attended "NPDES Storm Water Permit Compliance" course in spring 2002, sponsored by the American Society of Civil Engineers (ASCE)

REQUIRED TEXT:

Section 300.5 shows the name of the Contractor's Storm Water Pollution Prevention Manager (SWPPM). This person has received the following training:

- LIST
-
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The training log showing formal and informal training of various Contractor personnel is shown in Attachment I.

INSERT HERE ANY ADDITIONAL TEXT REGARDING TRAINING OF PERSONNEL.

This SWPPP was prepared by INSERT COMPANY, NAME AND PROFESSIONAL REGISTRATION OR OTHER QUALIFICATIONS OF THE PERSON THAT PREPARED THE SWPPP.

500.8 List of Subcontractors

INSTRUCTIONS:

- The SWPPP is required to include a list of names of all Contractors, (or subcontractors) and individuals responsible for implementation of the SWPPP. This list shall include telephone numbers and addresses. Specific areas of responsibility of each subcontractor (type of work to be performed) and emergency contact numbers shall also be included.
- A sample sub-contractor notification letter and log is provided as Attachment J. Discuss pertinent conditions in the contractual agreement and/or letter of approval that address subcontractor responsibility for General Permit compliance.

❑ Include a completed Attachment J in the SWPPP.

EXAMPLE:

All Contractors and subcontractors will be notified of the requirement for storm water management measures 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 sub-contractor notification letter and log is included in the SWPPP as Attachment J.

REQUIRED TEXT:

All contractors and subcontractors will be notified of the requirement for storm water management measures 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 notification letter and log is included in the SWPPP as Attachment J.

500.9 Other Plans/Permits

INSTRUCTIONS:

- ❑ The SWPPP shall incorporate appropriate elements of other plans or permits required by local, State, or Federal agencies.
- ❑ Include a copy of the General Permit CAS000002.
- ❑ Provide a list of all of the other plans and permits in this section, and describe any special requirements for each permit. Insert additional bullets as needed. Delete bullets if not needed.
- ❑ Include a copy of all other plans/permits as Attachment N of the SWPPP.

EXAMPLE:

Following is a list of the plans and permits included in Attachment N of this SWPPP.

- State Water Resources Control Board (SWRCB) Resolution No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity, August 1999, and amendments.
- California Department of Fish and Game Code Section 1601 Streambed Alteration Agreement
- Clean Water Act Section 401 Water Quality Certification issued by the State of California as processed through the RWQCB
- U.S. Army Corps of Engineers Clean Water Act Section 404 Nationwide Permit

REQUIRED TEXT:

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

- State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity.

Section 600
Monitoring Program and Reports

600.1 Site Inspections

INSTRUCTIONS:

- ❑ Include a Separator and Tab for Section 600 for ready reference.

- The site shall be inspected:
  - Prior to a forecast storm
  - after a rain event that causes runoff from the construction site
  - at 24-hour intervals during extended rain events
  - as specified in the contract documents

- BMPs shall be evaluated for adequacy, proper implementation, and whether additional BMPs are required in accordance with the terms of the Permits and the contract documents.
- Implementation of non-storm water discharge BMPs shall be verified and their effectiveness evaluated.
- One-time discharges of non-storm water shall be inspected when such discharges occur.
- The results of the inspections and assessments shall be recorded on the Storm Water Quality Construction Site Inspection Checklist included in Attachment H. This checklist shall be used for all inspections.
- A copy of each completed Storm Water Quality Construction Site Inspection Checklist shall be included in the on-site SWPPP. A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in BMPs.

REQUIRED TEXT:

The SWPPM will inspect the site prior to a forecast storm, after a rain event that causes runoff from the construction site, at 24-hour intervals during extended rain events, and as specified in the contract documents. The results of all inspections and assessments will be documented. Copies of the completed inspection checklists will be maintained with the SWPPP. Site inspections conducted for monitoring purposes will be performed using the inspection checklist shown in Attachment H.

The name(s) and contact number(s) of the assigned inspection personnel are listed below:

Assigned inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER

600.2 Non-Compliance Reporting

INSTRUCTIONS:

- Discharges will be reported to the Owner verbally upon discovery and in writing within 7 days of occurrence, or as specified in the contract documents. A sample Notice of Non-Compliance form is provided in Attachment K and a sample form for logging discharges is shown in Attachment T.
- Note: USEPA has issued regulations that define Reportable Quantity (RQ) levels for oil and hazardous substances. These regulations are found in the Code of Federal Regulations at 40 CFR Part 110, Part 117, or Part 302.
  - For example, an oily sheen in storm water runoff as a result of a spill or release is an exceedance of a RQ level. The RQ level for dieldrin, a pesticide, is 1 kilogram. A spill or release of one or more kg of dieldrin is an exceedance of the RQ threshold.

REQUIRED TEXT:

If a discharge occurs or if the project receives a written notice of non-compliance, the Contractor will immediately notify the Owner and will file a written report to the Owner within 7 days of the discharge or notice. The Owner is responsible for filing a written report to the Regional Water Quality Control Board (RWQCB) within 30 days or identification of non-compliance. Corrective measures will be implemented immediately following the discharge, notice or order. A sample Notice of Non-Compliance (NONC) form is provided in Attachment K. All discharges will be documented on a Discharge Reporting Log using the example form in Attachment T.

The report to the Owner and to the RWQCB will contain the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge, including the cause or nature of the notice or order,
- The control measures (BMPs) deployed before the discharge event, or prior to receiving notice or order,

- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence, and
- An implementation and maintenance schedule for any affected BMPs

600.3 Record Keeping and Reports

REQUIRED TEXT:

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

- Site inspections
- Compliance certifications
- Discharge reports
- Approved SWPPP document and amendments

600.4 Sampling and Analysis Plan for Sediment

INSTRUCTIONS:

- If the project has the potential to discharge directly into a water body listed as impaired due to Sedimentation/Siltation and/or Turbidity pursuant to Section 303(d) of the Clean Water Act, the SWPPP must include a Sampling and Analysis Plan (SAP) for Sediment. The purpose of a SAP for Sediment is to determine if BMPs implemented on the construction site are effective for preventing impacts to levels of sedimentation/siltation and/or turbidity in 303(d) listed water bodies impaired by those pollutants.
  - Refer to the SWRCB web site at http://www.swrcb.ca.gov/tmdl/docs/303d98.pdf for the list of 303(d) water bodies in California. Determine if the project will discharge directly into one of the 303(d) water bodies listed as impaired due to Sedimentation/Siltation and/or Turbidity.
  - ***Direct discharge*** is defined as a point source or conveyance that discharges directly to the 303(d) listed water body that does not first flow through a tributary river or stream (that itself is not listed as impaired) or combine with storm water from off-site in a municipal separate storm sewer system (MS4).
- Include the following required text to identify whether or not the project discharges directly to a 303(d) listed water body.

REQUIRED TEXT:

This project does have the potential to discharge directly to a water body listed as impaired due to Sedimentation/Siltation and/or Turbidity pursuant to Clean Water Act, Section 303(d).

INSTRUCTIONS:

- If the project does not discharge to a 303(d) listed water body, delete Sections 600.4.1 through 600.4.9 from the template and continue with Section 600.5.
- If the project does discharge to a 303(d) listed water body, complete Sections 600.4.1 through 600.4.9 by following the instructions provided at the beginning of each section.

600.4.1 Scope of Monitoring Activities

INSTRUCTIONS:

- ❑ Provide the name(s) of the 303(d) listed water bodies and identify the reason for impairment. (Sedimentation/Siltation and/or Turbidity)
- ❑ Describe the location(s) of direct discharge from the project site to each 303(d) listed water body and show the locations of direct discharge on the WPCDs.
- ❑ Include the appropriate required text to identify whether run-on to the project site may combine with storm water and directly discharge to the 303(d) water body. If the project does receive run-on, describe the locations of run-on and show the locations on the WPCDs.

REQUIRED TEXT:

This project discharges directly into [specify 303(d) water body], a water body listed as impaired due to [specify reason(s) for impairment: Sedimentation/Siltation and/or Turbidity] pursuant to Clean Water Act, Section 303(d). This Sampling and Analysis Plan (SAP) has been prepared pursuant to the requirements of the General Permit (including Resolution 2001-046). The SAP describes the sampling and analysis strategy and schedule for monitoring [specify impairment: Sedimentation/Siltation and/or Turbidity] in the 303(d) listed water body and potential increases in the [specify impairment: Sedimentation/Siltation and/or Turbidity] levels caused by storm water discharges from the project site.

The project has the potential for direct (concentrated) storm water discharges to [specify 303(d) water body] at the following locations, as shown on the WPCDs in Attachment B.

-
-
-

REQUIRED TEXT for PROJECTS that do not RECEIVE RUN-ON:

The project does not receive run-on with the potential to combine with storm water that discharges directly to the 303(d) listed water body.

REQUIRED TEXT for PROJECTS that RECEIVE RUN-ON:

The project receives run-on with the potential to combine with storm water that discharges directly to the 303(d) listed water body at the following locations, as shown on the WPCDs in Attachment B:

-
-
-

600.4.2 Monitoring Strategy

INSTRUCTIONS:

- ❑ Describe the sampling schedule for monitoring the impacts of direct storm water discharges to the 303(d) water body.
- ❑ Describe the sampling locations for monitoring the impacts of direct storm water discharges from the project to the 303(d) water body.
- ❑ Describe the rationale for the selection of sampling locations.
- ❑ Identify a location upstream of all direct discharge from the construction site that appears to represent the flow of the water body, to analyze the prevailing condition of the receiving water without any influence from the construction site. Describe exactly, either using GPS coordinates of post kilometer/post mile, where the sample will be collected. Note: Sampling too far upstream may not show prevailing conditions immediately upstream of the construction site.

- ❑ Identify a location immediately downstream from the last point of direct discharge from the construction site that appears to represent the nature of the flow to analyze potential pollutants to the 303(d) listed water body from the project. Describe exactly where the sample will be collected. Downstream samples should represent the receiving water mixed with flow from the construction site. Note: Sampling too far downstream may detect pollutants from other discharges.
- ❑ For projects that, in Section 600.4.1, identified locations of run-on to the project, include the required text to identify run-on sampling location(s) to determine potential impairments that originate off the project site. Describe exactly where the sample will be collected.
- ❑ Show all sampling locations on the WPCDs.

- Locate sampling locations in areas that are safe, out of the path of heavy traffic, and reasonably accessible.
  - ❑ Describe surrounding areas such as agricultural fields, or other sites that may contribute run-on sediment to the site.
  - ❑ Do not locate sampling points upstream or downstream of point sources or confluences to minimize backwater effects or poorly mixed flows.
  - ❑ Do not locate sampling points directly downstream from a bridge, which may contaminate flows from the bridge structure or from road surface runoff.

REQUIRED TEXT:

Sampling Schedule

Upstream, downstream, discharge, and run-on samples, if applicable, shall be collected for [specify impairment: Sedimentation/Siltation and/or Turbidity] during the first two hours of discharge from rain events that result in a direct discharge from the project site to [enter 303(d) water body]. Samples shall be collected during daylight hours (sunrise to sunset) and shall be collected regardless of the time of the year, status of the construction site, or day of the week.

All storm events that occur during daylight hours will be sampled up to a maximum of four rain events within a 30-day period. In conformance with the U.S. Environmental Protection Agency definition, a minimum of 72 hours of dry weather will be used to distinguish between separate rain events.

Sampling Locations

Sampling locations are based on proximity to identified discharge or run-on location(s), accessibility for sampling, personnel safety, and other factors in accordance with the applicable requirements in the General Permit. Sampling locations are shown on the WPCDs and include:

- A sample location (designated number) is upstream of all direct discharge from the construction site for the collection of a control sample to be analyzed for the prevailing condition of the receiving water without any influence from the construction site. The control sample will be used to determine the background levels of [specify impairment: Sedimentation/Siltation and/or Turbidity] in the 303(d) listed water body upstream of the project, if any.
    - Sample location number is located .
- A sample location (designated number) is immediately downstream from the last point of direct discharge from the construction site for the collection of a sample to be analyzed for potential increases in [specify impairment: Sedimentation/Siltation and/or Turbidity] in the 303(d) listed water body caused by the storm water discharged from the project, if any.
    - Sample location number is located .

REQUIRED TEXT only for PROJECTS that RECEIVE RUN-ON:

- [Enter number of locations] sampling location(s) (designated number(s)) has been identified for the collection of samples of run-on to the project site with the potential to combine with discharges from the construction site in other than MS4 to the 303(d) water body. These samples will identify potential [specify impairment: Sedimentation/Siltation and/or Turbidity] that originates off the project site and contributes to direct storm water discharges from the construction site to the 303(d) listed water body.

If the following is not needed, place cursor in a field and use the "Delete Line" option on the toolbar.

- Sample location number is located .

- If needed Sample location number is located .
- If needed Sample location number is located .

600.4.3 Monitoring Preparation

INSTRUCTIONS:

- Identify whether samples will be collected by the Contractor's personnel, by a commercial laboratory, or by an environmental consultant.
- Identify training and experience of individuals responsible for collecting water samples.
- Identify Contractor's health and safety procedures for sampling personnel.
- Identify alternate sampling personnel in case of emergency, sick leave, and/or vacations during storm water monitoring. Identify training of alternate sampling personnel.
- Identify the state-certified laboratory(ies) that will analyze the samples. For a list of California state-certified laboratories, access the following web site: www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm
- Include the appropriate required text to describe the strategy for ensuring that adequate sample collection supplies are available to the project in preparation for a sampling event.
- Describe the strategy for ensuring that appropriate field-testing equipment is available to the project in preparation for a sampling event. If equipment is to be rented, contact a local environmental rental company, such as www.totalsafetyinc.com.

REQUIRED TEXT IF Contractor personnel will collect samples:

Samples on the project site will Select one of the following Contractor sampling personnel:

Name/Telephone Number:	Name Phone Number
Name/Telephone Number:	Name Phone Number
Alternate(s)/Telephone Number:	Name Phone Number
Alternate(s)/Telephone Number:	Name Phone Number

Prior to the rainy season, all sampling personnel and alternates will review the SAP. Qualifications of designated Contractor personnel describing environmental sampling training and experience are provided in Attachment I.

An adequate stock of supplies and equipment for monitoring [specify impairment: Sedimentation/Siltation and/or Turbidity] will be available on the project site or provided by [specify laboratory] 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. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

Supplies maintained at the project site will include, but will not be limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, Sampling Activity Log forms, and Chain of Custody (COC) forms. The Contractor will obtain and maintain the field-testing instruments, as identified in Section 600.4.5, for analyzing samples in the field by Contractor sampling personnel. Safety practices for sample collection will be in accordance with the [enter title and publication date of contactor health and safety plan for the project].

REQUIRED TEXT only if consultant or laboratory will collect samples:

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:

Address:

Telephone Number:

Point of Contact:

Qualifications of designated Contractor personnel describing environmental sampling training and experience are provided in Attachment I.

SWPPM will contact [specify name of laboratory or environmental consultant] [enter number of hours] hours prior to a predicted rain event to ensure that adequate sample collection personnel, supplies and field test equipment for monitoring [specify impairment: Sedimentation/Siltation and/or Turbidity] are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

[Specify name of laboratory or environmental consultant] will obtain and maintain the field-testing instruments, as identified in Section 600.4.5, for analyzing samples in the field by their sampling personnel.

600.4.4 Sample Collection and Handling

INSTRUCTIONS:

- ❑ Describe sample collection procedures to be used on the project.

- Run-on samples could be collected using the following procedures:
  - Place several rows of sandbags 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 cleaned or decontaminated flexible hose along the top and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Do not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
  - Place a cleaned or decontaminated dustpan with open handle in the path of the run-on so that water will pour through the handle and into sample bottles.
- For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136.
- For a list of California state-certified laboratories, access the following web site: www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm

  ❑ Describe sample-handling procedures.

  ❑ Describe decontamination waste disposal requirements (i.e., TSP soapy water shall not be discharged to the storm drainage system or receiving water).

  ❑ Describe sample collection documentation procedures.

  ❑ Describe procedures for recording and correcting sampling data.
- 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 should be kept 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

Grab samples will be collected and preserved in accordance with the methods identified in Table 600-1, "Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and/or Turbidity" provided in Section 600.4.5. Only personnel trained in proper water quality sampling will collect samples.

Upstream samples will be collected to represent the condition of the water body upgradient of the construction site. Downstream samples will be collected to represent the water body mixed with direct flow from the construction site. Samples will not be collected directly from ponded, sluggish, or stagnant water.

Upstream and downstream samples will be collected using one of the following methods:

- Placing a sample bottle directly into the stream flow in or near the main current upstream of sampling personnel, and allowing the sample bottle to fill completely;

  OR,

- Placing a decontaminated or 'sterile' bailer or other 'sterile' collection device in or near the main current to collect the sample, and then transferring the collected water to appropriate sample bottles, allowing the sample bottles to fill completely.

Run-on samples, if applicable, will be collected to identify potential sedimentation/siltation and/or turbidity that originates off the project site and contributes to direct discharges from the construction site to the 303(d) listed water body. Run-on samples will be collected downgradient and within close proximity of the point of run-on to the project by pooling or ponding water and allowing the ponded water to spill over into sample bottles directly in the stream of water.

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 not 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 touch the exposed end of a sampling tube, if applicable.
- Avoid allowing rainwater 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 to take place.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- Dispose of decontamination water/soaps appropriately; i.e., not discharge to the storm drain system or receiving water.

Sample Handling Procedures

REQUIRED TEXT only IF laboratory will analyze ALL or SOME OF THE samples: Select Yes/No

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain of Custody (COC) form provided by the analytical laboratory, sealed in a re-sealable plastic storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to the following California state-certified laboratory:

Laboratory Name:

Address:

Telephone Number:

Point of Contact:

REQUIRED TEXT only if Contractor will analyze ALL OR SOME OF THE samples:

Immediately following collection, samples for field analysis will be tested in accordance with the field instrument manufacturer's instructions and results recorded on the Sampling Activity Log.

REQUIRED TEXT:

Sample Documentation Procedures

All original data documented on sample bottle identification labels, Chain of Custody forms, Sampling Activity Logs, and Inspection Checklists 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 lining 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 Sampling Activity Log and Chain of Custody form are provided in Attachment R. 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.
    [Project Number]-[Six digit sample collection date]-[Location]
    (*Example:* 0G5304-081801-Upstream).
    Quality assurance/quality control (QA/QC) samples shall be identified similarly using a unique sample number or designation
    (*Example:* 0G5304-081801-DUP1).
  - Collection date/time (No time applied to QA/QC samples)
  - Analysis constituent

- Sampling Activity Logs: A log of sampling events will identify:
  - Sampling date
  - Separate times for sample collection of upstream, downstream, run-on, 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.
- Storm Water Quality Construction Inspection Checklists: When applicable, the Contractor's storm water inspector will document on the checklist that samples for sedimentation/siltation and/or turbidity were taken during a rain event.

600.4.5 Sample Analysis

INSTRUCTIONS:

- ❑ Identify the tests to be used on the project by completing Table 600-1, "Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and/or Turbidity".
- ❑ For 303(d) listed water bodies impaired due to Sedimentation/Siltation, select YES for (b) and (c) OR YES for (b), and (c) and/or (a).
- ❑ For 303(d) listed water bodies impaired due to Turbidity, select YES for (d).
- ❑ For each test selected, fill in the blank fields in the table. Contact the selected laboratory for the specifications to obtain the necessary information.

REQUIRED TEXT:

Samples will be analyzed for the constituents indicated in Table 600-1, "Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and/or Turbidity".

Table 600-1
Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and/or Turbidity

Constituent [1]	Analytical Method	Test to be Used?	Sample Preservation	Minimum Sample Volume	Sample Bottle	Maximum Holding Time	Reporting Limit
(a) Suspended Sediment Concentration (SSC)	ASTM D3977-97	☐ YES ☐ NO	Store at 4˚ C (39.2˚ F)				
(b) Settleable Solids (SS)	EPA 160.5 Std Method 2540(f)	☐ YES ☐ NO	Store at 4˚ C (39.2˚ F)				mL/L/hr
(c) Total Suspended Solids (TSS)	EPA 160.2 Std Method 2540(d)	☐ YES ☐ NO	Store at 4˚ C (39.2˚ F)				mg/L
(d) Turbidity	EPA 180.1 Std Method 2130(b)	☐ YES ☐ NO	Store at 4˚ C (39.2˚ F)				NTU

Notes: [1] Samples shall be analyzed by using methods (b) and (c), or only method (a)

ASTM – American Society for Testing and Materials
°C – Degrees Celsius
°F – Degrees Fahrenheit
EPA – U.S. Environmental Protection Agency
L – Liter
mL/L/hr – Milliliters per liter per hour
mg/L – Milligrams per liter
mL – Milliliters
NTU – Nephelometric Turbidity Unit
Std Method – Per the *Standard Methods for the Examination of Water and Wastewater*, 20th Edition, American Water Works Association

REQUIRED TEXT only IF samples will be analyzed in the field: Select Yes/No

For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with the field instrument manufacturer's specifications.

The following field instrument(s) will be used to analyze the following constituents:

Field Instrument	Constituent

- The instrument(s) will be maintained in accordance with manufacturer's instructions.
- The instrument(s) will be calibrated before each sampling and analysis event.
- Maintenance and calibration records will be maintained with the SWPPP.

600.4.6 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, and will be collected where contaminants are likely, and not on the upstream sample. A duplicate sample will be collected immediately after the primary sample has been collected. Duplicate samples will not influence any evaluations or conclusions; however, they will be used as a check on laboratory quality assurance.

600.4.7 Data Management and Reporting

REQUIRED TEXT:

A copy of all water quality analytical results and QA/QC data will be included in the on-site SWPPP within 5 days of sampling (for field analyses) and within 30 days of sampling (for laboratory analyses). 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.

600.4.8 Data Evaluation

INSTRUCTIONS:

- The General Permit requires that BMPs be implemented on the construction site to prevent a net increase of sediment load in storm water discharges relative to pre-construction levels. The upstream sample, while not representative of pre-construction levels, provides a basis for comparison with the sample collected downstream of the construction site.
- The downstream water quality sample analytical results will be evaluated to determine if the downstream sample(s) show elevated levels of the tested constituent relative to the levels found in the upstream (control) sample. The run-on sample analytical results will be used as an aid in evaluating potential offsite influences on water quality results. If elevated levels of pollutants are identified, additional BMPs must be implemented in an iterative manner to prevent a net increase in pollutants to receiving waters.

REQUIRED TEXT:

An evaluation of the water quality sample analytical results, including figures with sample locations, the water quality analytical results, and the QA/QC data for every event that samples are collected, will be included in the on-site SWPPP. Should the downstream sample concentrations exceed the upstream sample concentrations, the Storm Water Pollution Prevention Manager or other personnel will evaluate the BMPs, site conditions, surrounding influences (including the run-on sample analysis), and other site factors to determine the probable cause for the increase.

As determined by the data and project evaluation, appropriate BMPs will be repaired or modified to mitigate increases in sediment concentrations in the water body. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

600.4.9 Change of Conditions

REQUIRED TEXT:

Whenever SWPPP monitoring, pursuant to Section B of the General Permit, indicates a change in site conditions that might affect the appropriateness of sampling locations, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.

600.5 Sampling and Analysis Plan for Non-Visible Pollutants

INSTRUCTIONS:

- The project SWPPP must include a Sampling and Analysis Plan (SAP) for pollutants not visually detectable in storm water. The purpose of a SAP for Non-Visible Pollutants is to determine if BMPs implemented on the construction site are effective in preventing pollutants not visually detectable in storm water, from leaving the construction site and potentially impacting water quality objectives.

REQUIRED TEXT:

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 off-site activities directly related to the project, in accordance with the requirements of Section B of the General Permit, including SWRCB Resolution 2001-046.

600.5.1 Scope of Monitoring Activities

INSTRUCTIONS:

- ❑ Identify the general sources and locations of potential non-visible pollutants on the project site in the following categories:
  - Materials or wastes as identified in Section 500.3.1, containing potential non-visible pollutants and that are not stored under watertight conditions.
  - Materials or wastes containing potential non-visible pollutants that are stored under watertight conditions, but (1) a breach, leakage, malfunction, or spill is observed; and (2) the leak or spill has not been cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or drainage system.
  - Construction activities such as application of fertilizers, pesticides, herbicides or non-pigmented curing compounds, that have occurred during a rain event or within 24 hours preceding a rain event, and there is the potential for discharge of pollutants to surface waters or drainage system.
  - Existing site features contaminated with non-visible pollutants as identified in Section 500.3.3.
  - Applications of soil amendments, including soil stabilization products, with the potential to alter pH levels or other properties of soil (such as chemical properties, engineering properties, or erosion resistance), or contribute toxic pollutants to storm water runoff, and there is the potential for discharge of pollutants to surface waters or drainage system (unless independent test data are available that demonstrate acceptable concentration levels of non-visible pollutants in the soil amendment).

- Certain soil amendments, when sprayed on straw or mulch, are considered visible pollutants and are not subject to water quality monitoring requirements.

- Storm water runoff from an area contaminated by historical usage of the site is observed to combine with storm water, and there is the potential for discharge of pollutants to surface waters or drainage system.

- Storm water run-on to the project site with the potential to contribute non-visible pollutants to discharges from the project.

- Breaches, malfunctions, leakages, or spills from a BMP

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
- Treated wood
- Soil stabilizers
- Lime treated subgrade
- Fertilizers, herbicides, and pesticides

The following existing site features, as identified in Section 500.3.3, are potential sources of non-visible pollutants to storm water discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the WPCDs in Attachment B.

- Southwest portion of the construction site was previously used as a municipal landfill until 1987 and may have volatile organics in the soil.
- North portion of the construction site was a storage area for a metal plating shop until 1960 and may have metals in the soil.

The following soil amendments have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site. Locations of soil amendment application are shown on the WPCDs in Attachment B.

- None

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 such run-on to the project site are shown on the WPCDs in Attachment B.

- One location downgradient of the Millennium 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.

- LIST
-
-

The following existing site features, as identified in Section 500.3.3, are potential sources of non-visible pollutants to storm water discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the WPCDs in Attachment B.

- (DESCRIBE)
-
-

The following soil amendments have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site. Locations of soil amendment application are shown on the WPCDs in Attachment B.

- (LIST)
-
-

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 such run-on to the project site are shown on the WPCDs in Attachment B.

- (LIST LOCATIONS)
-
-

Sampling for non-visible pollutants will be conducted when (1) a breach, leakage, malfunction, or spill is observed; and (2) the leak or spill has not been cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or drainage system.

600.5.2 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.
- ❑ Describe the rationale for the selection of sampling locations.
- ❑ Identify a location for collecting samples of storm water runoff from each source location of non-visible pollutant identified in Section 600.5.1. Describe exactly where the sample will be collected.
- ❑ Identify a location for collecting an uncontaminated background sample of runoff that has not come into contact with the non-visible pollutants identified in Section 600.5.1 or disturbed soil areas of the project. Describe exactly where the sample will be collected.
- ❑ Identify a location for collecting samples of storm water run-on from each of the locations identified in Section 600.5.1 to identify possible sources of contamination that may originate from off the project site. Describe exactly where the sample will be collected.
- ❑ Identify sampling locations at off-site activities directly related to the project such as storage areas, Contractor's yard, PCC or asphalt batch plants, etc., whether or not it is located within the project site.
- ❑ Show all sampling locations on the WPCDs.
- ❑ Locate sampling locations in areas that are safe, out of the path of heavy traffic, and have attainable access.
- ❑ Describe or list surrounding areas, such as industrial sites, that may contribute run-on or airborne constituents to the site.

- ❑ If no inspections of the site are performed prior to or during a rain event, monitoring and sampling of all non-visible pollutants is required.

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 that result in a sufficient discharge for sample collection. Samples shall be collected during daylight hours (sunrise to sunset) and shall be collected regardless of the time of year, status of the construction site, or day of the week.

In conformance with the U.S. Environmental Protection Agency definition, a minimum of 72 hours of dry weather will be used to distinguish between separate rain events.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during the required inspections conducted before or during rain events:

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents storm water contact and runoff from the storage area.

- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

- An operational activity, including but not limited to those in Section 600.5.1, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

- Storm water runoff from an area contaminated by historical usage of the site has been observed to combine with storm water runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

Sampling Locations

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, personnel safety; and other factors in accordance with the applicable requirements in the Permit. Planned sampling locations are shown on the WPCDs in Attachment B and include the following:

If the following is not "applicable", place cursor in a field and use the "Delete Line" option on the toolbar.

- [Enter number of locations] sampling locations have been identified for the collection of samples of runoff that drain areas where soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil will be applied.
- If applicable Sample location number(s) is located .
- [Enter number of locations] sampling locations have been identified for the collection of samples of runoff that drain areas contaminated by historical usage of the site.
- If applicable Sample location number(s) is located .
- [Enter number of locations] sampling locations have been identified for the collection of samples of run-on to the project site with the potential to combine with discharges being sampled for non-visible pollutants. These samples are intended to identify sources of potential non-visible pollutants that originate off the project site.
- If applicable 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 non-visible 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 non-visible pollutants due to historical use of the site as identified in Section 500.3.3; (3) areas in which soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied; or (4) disturbed soils areas.
- If applicable Sample location number(s) is located .

If an operational activity or storm water inspection conducted 24 hours prior to or during a rain event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a

storm sewer system that was an unplanned location and has not been identified on the WPCDs, sampling locations will be selected using the same rationale as that used to identify planned locations.

600.5.3 Monitoring Preparation

INSTRUCTIONS:

- ❑ Identify whether samples will be collected by the Contractor's personnel, by a commercial laboratory, or by an environmental consultant.
- ❑ Identify training and experience of individuals responsible for collecting water samples.
- ❑ Identify the Contractor's health and safety procedures for sampling personnel.
- ❑ Identify alternate sampling personnel in case of emergency, sick leave, and/or vacations during storm water monitoring. Identify training of alternate sampling personnel.
- ❑ Identify the state-certified laboratory(ies) that will analyze the samples. For a list of California state-certified laboratories, access the following website: http://www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm.
- ❑ Include the appropriate required text to describe the strategy for ensuring that adequate sample collection supplies are available to the project in preparation for a sampling event.
- ❑ Describe the strategy for ensuring that appropriate field-testing equipment is available to the project in preparation for a sampling event. If equipment is to be rented, contact a local environmental equipment rental company, such as www.totalsafetyinc.com.

REQUIRED TEXT if Contractor personnel will collect samples: Select Yes/No

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

Name/Telephone Number:
Name/Telephone Number:
Alternate(s)/Telephone Number:
Alternate(s)/Telephone Number:

Prior to the rainy season, all sampling personnel and alternates will review the SAP. Qualifications of designated Contractor personnel describing environmental sampling training and experience are provided in Attachment I.

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 that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

Supplies maintained at the project site will include, but are not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, Sampling Activity Log forms, and Chain of Custody (COC) forms. The Contractor will obtain and maintain the field-testing instruments, as identified in Section 600.5.6, for analyzing samples in the field by Contractor sampling personnel.

Safety practices for sample collection will be in accordance with the [ENTER TITLE AND PUBLICATION DATE OF CONTRACTOR'S HEALTH AND SAFETY PLAN FOR THE PROJECT OR PROVIDE SPECIFIC REQUIREMENTS HEREIN].

REQUIRED TEXT if consultant or laboratory will collect samples:

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name:

Address:

Telephone Number:

Point of Contact:

Qualifications of designated Contractor personnel describing environmental sampling training and experience are provided in Attachment I.

SWPPM will contact [specify name of laboratory or environmental consultant] [enter number of hours] hours prior to a predicted rain event and if one of the triggering conditions is identified during an inspection before, during, or after a storm event to ensure that adequate sample collection personnel, supplies and field test equipment for

monitoring non-visible pollutants are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

[Specify name of laboratory or environmental consultant] will obtain and maintain the field-testing instruments, as identified in Section 600.5.6, for analyzing samples in the field by their sampling personnel.

600.5.4 Analytical Constituents

INSTRUCTIONS:

- ❑ Identify the specific non-visible pollutants on the project site by completing Table 600-2, "Potential Non-Visible Pollutants and Water Quality Indicator Constituents".
- ❑ List the non-visible pollutant source, non-visible pollutant name, and water quality indicator.
- ❑ Refer to the "Construction Material and Pollutant Testing Guidance Table - Non-Visible Pollutants" in Attachment S for a partial list of some of the common non-visible pollutants.
- ❑ Add lines to the table as needed.

■ Do not include visible pollutants such as:

- Petroleum products: gas, diesel, and lubricants
- Colored paints
- Sand, gravel or topsoil
- Asphalt cold mix

- ❑ Fill in Table 600-3, Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants.

REQUIRED TEXT:

Identification of Non-Visible Pollutants

Table 600-2 lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

Table 600-2

Potential Non-Visible Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent
Example: Vehicle batteries	Lead, Sulfate or pH	Lead, sulfate or pH

600.5.5 Sample Collection and Handling

INSTRUCTIONS:

- For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136.
- For a the list of California state-certified laboratories, access the following web site: www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm
- 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.
- Run-on samples could be collected using the following collection procedures:
  - Place several rows of sandbags 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. Do not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
  - Place a decontaminated or clean dustpan 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 clean equipment, decontaminate by washing equipment in a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

- ❑ Describe sample collection procedures to be used on the project site.
- ❑ Describe sample-handling procedures.
- ❑ Describe decontamination waste disposal requirements (i.e., TSP soapy water shall not be discharged to the storm drainage system or receiving water)
- ❑ Describe sample collection documentation procedures.
- ❑ Describe procedures for recording and correcting sampling data.
- ❑ Fill in Table 600-3, Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants, in Section 600.5.6.

REQUIRED TEXT:

Sample Collection Procedures

Samples of discharge will be collected at the designated sampling locations shown on the WPCDs for observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

Grab samples will be collected and preserved in accordance with the methods identified in the Table 600-3, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants," provided in Section 600.5.6. Only personnel trained in proper water quality sampling will collect samples.

Samples will be collected by placing a separate lab-provided sample container directly into a stream of water downgradient and within close proximity to the potential non-visible pollutant discharge location. This separate lab-provided sample container will be used to collect water, which will be transferred to sample bottles for laboratory 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. Once the separate lab-provided sample container is filled, the water sample will be poured directly into sample bottles provided by the laboratory for the analyte(s) being monitored.

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 not 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.
- Avoid allowing rainwater 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 to take place.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- Dispose of decontamination water/soaps appropriately; i.e., not discharge to the storm drain system or receiving water.

Sample Handling Procedures

REQUIRED TEXT only if a laboratory will analyze ALL OR SOME OF THE samples: Select Yes/No

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, 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 as near to 4 degrees Celsius as practicable, and delivered within 24 hours to the following California state-certified laboratory:

Laboratory Name:

Address:

Telephone Number:

Point of Contact:

REQUIRED TEXT only IF Contractor will analyze ALL OR SOME samples:

Immediately following collection, samples for field analysis will be tested in accordance with the field instrument manufacturer's instructions and results recorded on the Sampling Activity Log.

REQUIRED TEXT:

Sample Documentation Procedures

All original data documented on sample bottle identification labels, Chain of Custody forms, Sampling Activity Logs, and Inspection Checklists 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 lining 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 Sampling Activity Log and Chain of Custody form are provided in Attachment R.

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.
    [Project Number]-[Six digit sample collection date]-[Location]
    (*Example:* 0G5304-081801-Inlet472).
    Quality assurance/quality control (QA/QC) samples shall be identified similarly using a unique sample number or designation
    (*Example:* 0G5304-081801-DUP1).
    - Collection date/time (No time applied to QA/QC samples
    - 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.

- Storm Water Quality Construction Inspection Checklists: When applicable, the Contractor's storm water inspector will document on the checklist that samples for non-visible pollutants were taken during a rain event.

600.5.6 Sample Analysis

INSTRUCTIONS:

- ❑ Identify the test method and specifications to be used to monitor the non-visible pollutants included in Table 600-2, "Potential Non-Visible Pollutants and Water Quality Indicator Constituents" in Section 600.5.4.
- ❑ Fill-in Table 600-3, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants".
- ❑ There should be a test method identified for each Water Quality Indicator Constituent listed in Table 600-2 in Section 600.5.4.
- ❑ Contact the selected laboratory for the appropriate test method(s)/specifications to be used for each constituent.
- ❑ Identify field test instruments to be used for analyzing samples in the field, if any.

REQUIRED TEXT:

Samples will be analyzed for the applicable constituents using the analytical methods identified in Table 600-3, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" in this section.

Example:

Table 600-3 (Sample)
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
VOCs-Solvents	EPA 8260B	3 x 40 mL	VOA-glass	Store at 4˚ C, HCl to pH<2	1 µg/L	14 days
SVOCs	EPA 8270C	1 x 1 L	Glass-Amber	Store at 4˚ C	10 µg/L	7 days
Pesticides/PCBs	EPA 8081A/8082	1 x 1 L	Glass-Amber	Store at 4˚ C	0.1 µg/L	7 days
Herbicides	EPA 8151A	1 x 1 L	Glass-Amber	Store at 4˚ C	Check Lab	7 days
BOD	EPA 405.1	1 x 500 mL	Polypropylene	Store at 4˚ C	1 mg/L	48 hours
COD	EPA 410.4	1 x 250 mL	Glass-Amber	Store at 4˚ C, H_2SO_4 to pH<2	5 mg/L	28 days
DO	SM 4500-O G	1 x 250 mL	Glass-Amber	Store at 4˚ C	Check Lab	8 hours
pH	EPA 150.1	1 x 100 mL	Polypropylene	None	Unitless	Immediate
Alkalinity	SM 2320B	1 x 250 mL	Polypropylene	Store at 4˚ C	1 mg/L	14 days
Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Na, Th, Va, Zn)	EPA 6010B/7470A	1 x 250 mL	Polypropylene	Store at 4˚ C, HNO_3 to pH<2	0.1 mg/L	6 months
Metals (Chromium VI)	EPA 7199	1 x 500 mL	Polypropylene	Store at 4˚ C	1 µg/L	24 hours

Notes:

°C	–	Degrees Celsius	µg/L	–	Micrograms per Liter
BOD	–	Biological Oxygen Demand	mL	–	Milliliter
COD	–	Chemical Oxygen Demand	PCB	–	Polychlorinated Biphenyl
DO	–	Dissolved Oxygen	SVOC	–	Semi-Volatile Organic Compound
EPA	–	Environmental Protection Agency	SM	–	Standard Method
HCl	–	Hydrogen Chloride	TPH	–	Total Petroleum Hydrocarbons
H_2SO_4	–	Hydrogen Sulfide	TRPH	–	Total Recoverable Petroleum Hydrocarbons
HNO_3	–	Nitric Acid	VOA	–	Volatile Organic Analysis
L	–	Liter	VOC	–	Volatile Organic Compound
mg/L	–	Milligrams per Liter			

REQUIRED TEXT:

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
Notes:						

REQUIRED TEXT only IF samples will be analyzed in the field: Select Yes/No

For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with the field instrument manufacturer's specifications.

The following field instrument(s) will be used to analyze the following constituents:

Field Instrument	Constituent

- The instrument(s) will be maintained in accordance with manufacturer's instructions.
- The instrument(s) will be calibrated before each sampling and analysis event.
- Maintenance and calibration records will be maintained with the SWPPP.

600.5. 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 as a check on laboratory quality assurance.

600.5.8 Data Management and Reporting

REQUIRED TEXT:

A copy of all water quality analytical results and QA/QC data will be included in the on-site SWPPP within 5 days of sampling (for field analyses) and within 30 days (for laboratory analyses).

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.

600.5.9 Data Evaluation

INSTRUCTIONS:

- The General Permit requires that BMPs be implemented on the construction site to reduce non-visible pollutants in discharges of storm water from the construction site.
- The runoff/downgradient water quality sample analytical results will be evaluated to determine if the runoff/downgradient sample(s) show significantly elevated concentrations of the tested analyte relative to the concentrations found in the uncontaminated background sample.
- The water quality sample analytical results will be evaluated to determine if the runoff and run-on samples show significantly elevated levels of the tested constituent relative to the levels found in the background sample. The run-on sample analytical results will be used as an aid in evaluating potential offsite influences on water quality results.

REQUIRED TEXT:

An evaluation of the water quality sample analytical results, including figures with sample locations, the water quality analytical results, and the QA/QC data, will be included in the on-site SWPPP.

Should the runoff/downgradient sample show an increased level of the tested analyte relative to the background sample, the BMPs, site conditions, and surrounding influences will be assessed to determine the probable cause for the increase. As determined by the site and data evaluation, appropriate BMPs will be repaired or modified to mitigate discharges of non-visual pollutant concentrations. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

600.5.10 Change of Conditions

REQUIRED TEXT:

Whenever SWPPP monitoring, pursuant to Section B of the 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.