BMP HANDBOOK PORTAL: CONSTRUCTION

STORMWATER POLLUTION PREVENTION PLAN TEMPLATE

(FOR TRADITIONAL SITES)

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GENERAL INSTRUCTIONS AND CAVEATS

This template presents a recommended structure and content for a Stormwater Pollution Prevention Plan (SWPPP) including a Construction Site Monitoring Program (CSMP). The structure and content is based on a combination of specific General Permit requirements and other suggested content to meet the overall General Permit requirements.

- This template should be used in conjunction with the "Stormwater Pollution Prevention Plan Outline" provided on the CASQA *Stormwater BMP Handbook Portal: Construction*. **The "Stormwater Pollution Prevention Plan Outline" differentiates between items required by the California General Permit and items considered to be professional judgment of the outline preparers.**
- This template has been prepared to address traditional Risk Level 1, 2 and 3 projects and does not address the specific requirements of Linear Underground/Overhead Projects.
- Throughout the template project specific text is identified with gray highlighted fields, this text shall be replaced to reflect the project.
- Note that the references within the SWPPP template to other sections of the SWPPP are highlighted to facilitate update by the QSD during the SWPPP development process.

INSTRUCTIONS

The title page shall have the following information:

- Title: "Stormwater Pollution Prevention Plan"
- Project Name
- Risk Level
- Project LRP/Developer/Contractor
- LRP/Developer/Contractor's Name, Address, Telephone Number and Authorized Representative
- Authorized Signatory
- Job Site Location/Address and Telephone Number, if Any
- Name of the QSD and 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

STORMWATER POLLUTION PREVENTION PLAN

for

[Project Name]

RISK LEVEL ____

Legally Responsible Person [LRP):

[Company Name]
[Address]
[LRP's Name or LRP's Authorized Representative]
[Phone Number]

Approved Signatory:

[Approved Signatory if designated by LRP]
[Phone Number]

Prepared for: [if different then LRP]

[Company]
[Address]

Project Address:

[Address]

SWPPP Prepared by:

[Company Name]
[Address]
[QSD's Name]

SWPPP Preparation Date

[Date]

Estimated Project Dates:

Start of Construction	Completion of Construction

Table of Contents

INSTRUCTIONS

Include in the SWPPP a certification statement signed by the QSD that identifies the name and telephone number of the QSD, the QSD's qualifying professional registration, and the date of SWPPP preparation as required by the General Permit (Section VII.B). Note, the Professional Engineers Act (Bus. & Prof. Code Section 6700, et seq.) requires that all engineering work must be performed by a California licensed engineer (Section I.F45).

Include project name and project number or identification, if applicable, otherwise delete line.

Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name: _____

Project Number/ID [if applicable] _____

"This Stormwater Pollution Prevention Plan and Attachments were prepared under my direction to meet the requirements of the California Construction General Permit (SWRCB Orders No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

_____	_____
QSD Signature	*Date*
_____	_____
QSD Name	*QSD Certificate Number*
_____	_____
Title and Affiliation	*Telephone Number*
_____	
Email	

INSTRUCTIONS

Include in the SWPPP a certification statement signed by the LRP that identifies the name and telephone number of the LRP. Include project name and project number or identification, if applicable, otherwise delete line. Note: The LRP certifies all Permit Registration Documents (PRDs) via SMARTS and including an LRP certification in the SWPPP is optional.

Legally Responsible Person

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name: _____

Project Number/ID [if applicable] _____

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

_____

Legally Responsible Person [if organization]

_____ _____

Signature of [Authorized Representative of] Legally Responsible Person or Approved Signatory | Date

_____ _____

Name of [Authorized Representative of] Legally Responsible Person or Approved Signatory | Telephone Number

INSTRUCTIONS

Include the Amendment Log with references to section of SWPPP that has been amended. Add additional lines to the table as needed. Include project name and project number or identification, if applicable; otherwise delete line(s).

Amendment Log

Project Name: _____

Project Number/ID [if applicable] _____

Amendment No.	Date	Brief Description of Amendment, include section and page number	Prepared and Approved By
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#

Section 1 SWPPP Requirements

1.1 INTRODUCTION

INSTRUCTIONS

- Identify the project location, LRP and developer, if applicable.
- Reference site or vicinity maps for location.
- State that the SWPPP has been prepared to comply with the California's General Permit for *Stormwater Discharges Associated with Construction and Land Disturbance Activities* (General Permit).
- State the major objectives of the SWPPP as identified in the General Permit (Section XIV.A).

RECOMMENDED TEXT

The following text should be modified accordingly. The highlighted text must be updated with project specific information throughout template.

The [name] project comprises approximately [acres] and is located [address or description of location] in [city], California. The property is owned by [LRP or if different specify owner] and is being developed by [developer]. The projects location is shown on the Site Map in Appendix B.

This Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order No. 2009-0009-DWQ as amended in 2010 and 2012 (NPDES No. CAS000002) issued by the State Water Resources Control Board (State Water Board). This SWPPP has been prepared following the SWPPP Template provided on the California Stormwater Quality Association Stormwater *Best Management Practice Handbook Portal: Construction* (CASQA, 2012). In accordance with the General Permit, Section XIV, this SWPPP is designed to address the following:

- Pollutants and their sources, including sources of sediment associated with construction, construction site erosion and other activities associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Quality Control Board (Regional Water Board) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Control Technology (BAT/BCT) standard;

Calculations and design details as well as BMP controls for are complete and correct, Appendix A.

Include for Risk Level 2 and 3 Projects only

Identify and provide methods to implement Rain Event Action Plan (REAP).

1.2 PERMIT REGISTRATION DOCUMENTS

INSTRUCTIONS

- State that the Permit Registration Documents (PRDs) were or shall be submitted.
- Project related PRDs must be submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP) (General Permit Sections I.D.36, II.B and Attachment B).
- Include the project Waste Discharge Identification (WDID) confirmation in SWPPP Appendix C.

RECOMMENDED TEXT

The following text should be modified accordingly

Required Permit Registration Documents (PRDs) shall be submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP), or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

1. Notice of Intent (NOI);
2. Risk Assessment (Construction Site Sediment and Receiving Water Risk Determination);
3. Site Map;
4. Annual Fee;
5. Signed Certification Statement (LRP Certification is provided electronically with SMARTS PRD submittal); and
6. SWPPP.

Additional PRDs may be required depending on the construction type and location. Modify as needed and include with the above listing.

- Post-construction water balance calculation;
- Active Treatment System (ATS) plan; and
- Dischargers proposing an alternate soil erodibility factor must submit justification (documentation of methods used [e.g. soil particle size analysis].

Site Maps can be found in Appendix B. A copy of the submitted PRDs shall also be kept in Appendix C along with the Waste Discharge Identification (WDID) confirmation.

1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

INSTRUCTIONS

Include a statement regarding the SWPPP availability and implementation. (General Permit Section XIV.C)

RECOMMENDED TEXT

The following text should be modified accordingly

The discharger shall make the SWPPP available at the construction site during working hours (see Section 7.5 of CSMP for working hours) while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone. (CGP Section XIV.C)

The SWPPP shall be implemented concurrently with the start of ground disturbing activities.

1.4 SWPPP AMENDMENTS

INSTRUCTIONS

The General Permit requires that SWPPP be amended or revised by a QSD (Section XIV.A) and that the SWPPP include a listing of the date of initial preparation and the date of each amendment. Amendments must be signed by a QSD (Section VII.B.6). In addition, the General Permit specifies that the SWPPP shall be amended under the following circumstances:

- "Within two business days (48 hours) after each qualifying rain event, dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly". (General Permit, Attachment C, D, or E part I.3.G).

- "This General Permit requires dischargers with Numeric Action Level (NAL) exceedances to immediately implement additional BMPs and revise their Stormwater Pollution Prevention Plans (SWPPPs) accordingly to either prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs." (General Permit Section I Part H No. 57 and 59)

- "Within 30 days of a reduction or increase in total disturbed acreage, the discharger shall electronically file revisions to the PRDs that include: … SWPPP revisions, as appropriate …" (General Permit Section II Part C)

It is recommended that the QSD provide further direction regarding other times SWPPP amendments are required. Table 1.1 includes typical construction site changes and can be used by the QSD to indicate to the QSP which items are to be field determined.

- Amendments must be logged into the SWPPP amendment log, in the front of the SWPPP.
- The SWPPP field copy shall be updated, applicable sheets replaced and/or include hand annotation of the change made to the text. Retain a copy of SWPPP Amendment certification in Appendix D.

RECOMMENDED TEXT

The following text should be modified accordingly

The SWPPP should be revised when:

- If there is a General Permit violation.
- When there is a reduction or increase in total disturbed acreage (General Permit Section II Part C).

- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges.

Consider including the following text; modified accordingly

Additionally, the SWPPP shall be amended when:

- 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);
- When there is a change in the project duration that changes the project's risk level; or
- When deemed necessary by the QSD. The QSD has determined that the changes listed in Table 1.1 can be field determined by the QSP. All other changes shall be made by the QSD as formal amendments to the SWPPP.

The following text should be modified accordingly

The following items shall be included in each amendment:

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

Amendment shall be logged at the front of the SWPPP and certification kept in Appendix D. The SWPPP text shall be revised replaced, and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be made by a QSD. The following changes have been designated by the QSD as "to be field determined" and constitute minor changes that the QSP may implement based on field conditions.

The QSD shall expand or reduce table as needed for construction site

Table 1.1 List of Changes to be Field Determined

Candidate changes for field location or determination by QSP[(1)]	Check changes that can be field located or field determined by QSP
Increase quantity of an Erosion or Sediment Control Measure	
Relocate/Add stockpiles or stored materials	
Relocate or add toilets	
Relocate vehicle storage and/or fueling locations	
Relocate areas for waste storage	
Relocate water storage and/or water transfer location	

Table 1.1 List of Changes to be Field Determined

Candidate changes for field location or determination by QSP[1]	Check changes that can be field located or field determined by QSP
Changes to access points (entrance/exits)	
Change type of Erosion or Sediment Control Measure	
Changes to location of erosion or sediment control	
Minor changes to schedule or phases	
Changes in construction materials	
(1) Any field changes not identified for field location or field determination by QSP must be approved by QSD	

1.5 RETENTION OF RECORDS

INSTRUCTIONS

- Include a statement regarding the retention and availability of records.
- The General Permit *(Sections I.J.69 and IV.G)* requires that dischargers maintain a paper or electronic copy of required records for 3 years from the date generated or date submitted, whichever is last. These records must be available at the construction site until construction is completed
- State in the SWPPP where documents will be kept and how this requirement will be met. Regional Water Board's may require records to be retained for longer periods

RECOMMENDED TEXT

The following text should be modified accordingly

Paper or electronic records of documents required by this SWPPP shall be retained for a minimum of three years from the date generated or date submitted, whichever is later, for the following items:

- [LIST or State NONE]
- [LIST or State NONE]

These records shall be available at the Site until construction is complete. Records assisting in the determination of compliance with the General Permit shall be made available within a reasonable time, to the Regional Water Board, State Water Board or U.S. Environmental Protection Agency (EPA) upon request. Requests by the Regional Water Board for retention of records for a period longer than three years shall be adhered to.

1.6 REQUIRED NON-COMPLIANCE REPORTING

INSTRUCTIONS

Include a statement or language regarding required non-compliance reporting.

The General Permit identifies non-compliance reporting requirements for NAL exceedances. It is the responsibility of the LRP to properly document these exceedances by using the SMARTS system to submit NAL exceedances and an NAL Exceedances Report upon request of the Regional Water Board)

In the event of the exceedance of a NAL, document the subsequent site evaluation in the SWPPP (Section V.C.4).

It is recommended that documentation of reportable exceedances be included in the SWPPP. Include the results of an NAL exceedance site evaluation along with other non-compliance events in CSMP Attachment 2 "Monitoring Records.

Other than NAL exceedances, the General Permit does not specify the reporting time frame for instances of non-compliance, Regional Boards have indicated this type of information be included with the Annual Report. **However, other permits, laws, and regulations may require notifications sooner depending on the nature of the release from the construction site. If these are relevant, document in the SWPPP to provide clear guidance to the QSP.**

RECOMMENDED TEXT

Select text for project Risk Level and modify accordingly

All projects

If a General Permit discharge violation occurs the QSP shall immediately notify the LRP. The LRP shall include information on the violation with the Annual Report. Corrective measures will be implemented immediately following identification of the discharge or written notice of non-compliance from the Regional Water Board. Discharges and corrective actions must be documented and include the following items:

- The date, time, location, nature of operation and type of unauthorized discharge.
- 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.

[Include any other relevant reporting requirements.]

Risk Level 2 and 3

Reporting requirements for Numeric Action Levels (NALs) exceedances are discussed in Section 7.7.2.7.

1.7 ANNUAL REPORT

INSTRUCTIONS

- Dischargers, who have been covered under the General Permit for three months, shall prepare and electronically submit an Annual Report no later than September 1st of each year.
- Include a statement or language regarding annual report requirements with the goal of making site personnel aware of required data collection and reporting elements.

RECOMMENDED TEXT

The following text should be modified accordingly

The General Permit requires that permittees prepare, certify, and electronically submit an Annual Report no later than September 1st of each year. Reporting requirements are identified in Section XVI of the General Permit. Annual reports will be filed in SMARTS and in accordance with information required by the on-line forms.

1.8 CHANGES TO PERMIT COVERAGE

INSTRUCTIONS

Include a statement acknowledging requirements related to changes in permit coverage. (General Permit Section II.C)

RECOMMENDED TEXT

The following text should be modified accordingly

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when: a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately, shall be logged at the front of the SWPPP and cetrification of SWPPP amendments are to be kept in Appendix D. Updated PRDs submitted electronically via SMARTS can be found in Appendix E.

1.9 NOTICE OF TERMINATION

INSTRUCTIONS

Include language that identifies the requirements to terminate coverage under the General Permit Section II.D. It is recommended that the QSD identify the method for Attaining NOT, particularly for project of shorter duration.

RECOMMENDED TEXT

The following text should be modified accordingly

A Notice of Termination (NOT) must be submitted electronically by the LRP via SMARTS to terminate coverage under the General Permit. The NOT must include a final Site Map and representative photographs of the project site that demonstrate final stabilization has been achieved. The NOT shall be submitted within 90 days of completion of construction. The Regional Water Board will consider a construction site complete when the conditions of the General Permit, Section II.D have been met.

Section 2 Project Information

2.1 PROJECT AND SITE DESCRIPTION

INSTRUCTIONS

Include project and site description information. General guidelines are provided below.

- The SWPPP should include a description of the project site and construction activities, existing site conditions and relevant prior land use. Latitude and longitude are required when submitting to SMARTS.
- The site description should include the project location, total disturbed area and references to applicable SWPPP drawings or construction plans that fulfill the General Permit site map requirements. (General Permit Attachment B.J.2).
- Information regarding existing site conditions and prior land use should include site topography, general drainage patterns, and project elevation.
- Receiving water information (including receiving water quality and applicable designations – Total Maximum Daily Loads (TMDLs), 303(d) listings, or other designations as an environmentally sensitive area [ESA]).
- For multiple watershed projects, receiving water and drainage information should be described separately for each watershed.
- The site description should also include general information on soils and geologic conditions, including the approximate thickness of each material if known and reference applicable soils reports as well as information on the depth to groundwater.
- If groundwater is anticipated to be encountered during construction and dewatering required, describe/list applicable local or Regional Water Board permits for dewatering.
- Describe general rainfall patterns and the anticipated rainy season for the project area.

Note: Dischargers located in a drainage area where a TMDL has been adopted or approved by the Regional Water Board or EPA may be required by a separate Regional Water Board action to implement additional BMPs, conduct additional monitoring activities, and/or comply with an applicable waste load allocation and implementation schedule. Such Dischargers may also be required to obtain an individual Regional Water Board permit specific to the area.

RECOMMENDED TEXT

The following text should be modified accordingly

2.1.1 Site Description

The [name] project site comprises approximately [acres] and is located at [address or description of location], in [City], California. The project site is located approximately [distance and direction] of [describe major roads (e.g., Interstate-5), and/or community areas]. The project site is located approximately [distance and direction] of [describe nearby water bodies (e.g., San Diego Bay)]. The project is located at [Lat/Long] and is identified on the Site Map in Appendix B.

2.1.2 Existing Conditions

As of the initial date of this SWPPP, the project site is [describe if site is undeveloped or describe existing development; include description of vegetated areas; or impervious areas such as parking lots]. The project site was previously developed with [describe previous land use]. Historic sources of contamination include: [describe known or potential contamination sources (e.g., contaminated soil, underground storage tanks) or former industrial operations or state "there are no known historic sources of contamination at the site"].

2.1.3 Existing Drainage

The project site is [describe topography (e.g., relatively level, slopes to the west, etc.)]. The elevation of the project site ranges from [elevation or range of elevations] feet above mean sea level (msl). Surface drainage at the site currently flows to the [direction], towards [describe discharge locations [storm drain inlet, bay, ocean, etc.)]. Stormwater is conveyed through [surface runoff, storm drain systems, etc.]. Stormwater discharges, from the site, [are/are not] considered direct discharges, as defined by the State Water Board [into (list water body)]. Existing site topography, drainage patterns, and stormwater conveyance systems are shown on [names of drawings or plans].

The project discharges to [list name of receiving water body] that [is/is not] listed for water quality impairment on the most recent 303(d)-list [for:

- [LIST]
- [LIST]

2.1.4 Geology and Groundwater

The site is underlain by [describe underlying soil and geologic conditions (e.g., fill material, clay, sandy loam, alluvium, etc.), including approximate thickness of each material if known. Reference soils reports if applicable]. Groundwater occurs beneath the site at approximately [depth] feet below ground surface. The groundwater gradient is toward [direction].

2.1.5 Project Description

Project grading will occur on approximately [acres/square-feet] of the project, which comprises approximately [number] percent of the total area. The limits of grading are shown on [map/drawing name and number] in Appendix B. Grading will include [both cut and fill activities], with the total graded material estimated to be [number] cubic yards. Approximately [number] cubic yards of fill material will be imported during grading activities. Graded materials are expected to be [balanced onsite/hauled away]. Soil will be stockpiled [describe locations] as shown on [map/drawing name and number] in Appendix B. Construction activities will be [phased/not phased include description of each phase if appropriate and reference drawings that show limits of each phase].

2.1.6 Developed Condition

Post construction surface drainage will be directed to the [direction] as surface flow through stormwater conveyance systems [and/or sheet flow] towards and will discharge [describe

discharge points – If project discharges directly to a public storm drain system, state so and state owner of storm drain (e.g., city of county)].

Post construction drainage patterns and conveyance systems are presented on [figure name and/or number] in Appendix B.

INSTRUCTIONS

Optional: Complete Table 2.1 with construction site area, % impervious and curve number, for existing and developed conditions. This information is required to complete site information in the PRDs in SMARTS but is not explicitly required to be in the SWPPP.

Table 2.1 Construction Site Estimates

Construction site area		acres
Percent impervious before construction		%
Runoff coefficient before construction		
Percent impervious after construction		%
Runoff coefficient after construction		

2.2 PERMITS AND GOVERNING DOCUMENTS

INSTRUCTIONS

Include a list of permits and other governing documents relevant to the project and identify key requirements associated with water quality that differ from or exceed the General Permit requirements.

RECOMMENDED TEXT

In addition to the General Permit, the following documents have been taken into account while preparing this SWPPP

- Regional Water Board requirements
- Basin Plan requirements
- Contract Documents
- Air Quality Regulations and Permits
- Federal Endangered Species Act
- National Historic Preservation Act/Requirements of the State Historic Preservation Office
- State of California Endangered Species Act
- Clean Water Act Section 401 Water Quality Certifications and 404 Permits
- CA Department of Fish and Game 1600 Streambed Alteration Agreement

2.3 STORMWATER RUN-ON FROM OFFSITE AREAS

INSTRUCTIONS

- Run-on from offsite shall be directed away from disturbed areas or shall collectively be in compliance with the effluent limitation of the General Permit (Item F of Attachments C, D, and E).
- Identify and provide estimates of anticipated locations of project run-on. BMPs to control run-on should be described in the BMP section and shown on the SWPPP site map.
- Show the run-on area on the vicinity map and/or site map.
- If there is no anticipated stormwater run-on to the site, describe the existing conditions that preclude run-on.

RECOMMENDED TEXT

Select appropriate scenario and modify accordingly

No anticipated offsite run-on

There is no anticipated offsite run-on to this construction site because [Describe reasons for no offsite run-on [e.g., existing BMPs or stormwater conveyance system to prevent on-site flow, no up-gradient drainage area, etc.)].

Anticipated offsite run-on

Run-on to the site is generated by [describe sources of offsite run-on to the project, such sources may include one or more of the following: "point source discharges from upgradient developed land uses, creeks; streams or other water bodies that run through or discharge from the site; and upgradient non-point source discharges (dry weather and stormwater runoff)"].

The stormwater runoff drainage area contributing to offsite run-on is estimated to be approximately [acreage/square-feet]. The anticipated runoff coefficients range from [range of runoff coefficients]. The anticipated off-site run-on to the project site is estimated to be [flow/volume]; calculations are included in Appendix A.

The General Permit requires that temporary BMPs be implemented to direct offsite run-on away from disturbed areas through the use of runoff controls. The following BMPs will be implemented [description of proposed BMPs (e.g., berms or lined channel) including flow capacity if appropriate]. These BMPs will be located [describe location of BMP].The off-site drainage areas and associated stormwater conveyance facilities or BMPs are shown on [figure name and number] in Appendix B.

2.4 FINDINGS OF THE CONSTRUCTION SITE SEDIMENT AND RECEIVING WATER RISK DETERMINATION

INSTRUCTIONS

Dischargers shall use the Risk Assessment procedure as describe in the General Permit Appendix 1.

- Summarize the assumptions and input parameters and findings of the sediment and receiving water risk assessment, including the resulting site risk level from the Site Risk determination
- State the option used to determine the sediment risk, either GIS map or the site specific option

- Include a table of the RUSLE R-, K-, and LS-factors determined, the overall predicted sediment loss from the project and state the sediment risk (i.e., high, medium or low)
- Include key assumptions and methods made in determining the site's RUSLE factors of Rainfall/Runoff (R), Soil Erodibility (K) and Length and Steepness of Slope (LS)
- Indicate the receiving water risk (low or high) for the site. If the project has a high receiving water risk, indicate the reason
- Include the output of the overall calculated site risk level based on the Risk Determination Worksheet (Appendix 1 of the General Permit) in the SWPPP

Once a risk determination has been made:

- Include a summary of permit requirements specific to that risk level
- Indicate NALs (250 NTU for turbidity and 6.5-8.5) for pH for Risk Levels 2 and 3
- Include the Receiving Water Monitoring Triggers (500 NTU for turbidity and 6.0-9.0 for pH) for Risk Level 3 if the site has a direct discharge to the receiving water
- Indicate which Attachment of the General Permit the SWPPP has been prepared to comply with, i.e., Risk Level 1 – Attachment C; Risk Level 2 – Attachment D; and Risk Level 3 – Attachment E

RECOMMENDED TEXT

The following text should be modified accordingly, Part A should be completed for all SWPPPs, and Part B is an optional summary of risk level assessment

Part A

A construction site risk assessment has been performed for the project and the resultant risk level is Risk Level [1, 2, 3].

The risk level was determined though the use of the [describe method (e.g. K, LS provided in SMARTS, a site specific analysis)]. The risk level is based on project duration, location, proximity to impaired receiving waters and soil conditions. A copy of the Risk Level determination submitted on SMARTS with the PRDs is included in Appendix C.

Part B

Table 2.2 and Table 2.3 summarize the sediment and receiving water risk factors and document the sources of information used to derive the factors.

Table 2.2 Summary of Sediment Risk

RUSLE Factor	Value	Method for establishing value
R		
K		
LS		
Total Predicted Sediment Loss (tons/acre)		

Table 2.2 Summary of Sediment Risk

RUSLE Factor	Value	Method for establishing value
Overall Sediment Risk Low Sediment Risk < 15 tons/ acre Medium Sediment Risk >= 15 and < 75 tons/acre High Sediment Risk >= 75 tons/acre		☐ **Low** ☐ **Medium** ☐ **High**

Runoff from the project site discharges into [description (e.g., moderately defined channels that are intercepted by irrigation canals)] that discharge into [water body, and eventually into the water body].

Table 2.3 Summary of Receiving Water Risk

Receiving Water Name	303(d) Listed for Sediment Related Pollutant(1)	TMDL for Sediment Related Pollutant(1)	Beneficial Uses of COLD, SPAWN, and MIGRATORY(1)
[Enter name]	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Overall Receiving Water Risk			☐ **Low** ☐ **High**
(1) If yes is selected for any option the Receiving Water Risk is High			

For all SWPPPs select the appropriate Risk Level and modify accordingly

Risk Level 1

Risk Level 1 sites are subject to the narrative effluent limitations specified in the General Permit. The narrative effluent limitations require stormwater discharges associated with construction activity to minimize or prevent pollutants in stormwater and authorized non-stormwater through the use of controls, structures, and best management practices. This SWPPP has been prepared to address Risk Level 1 requirements (General Permit Attachment C).

Risk Level 2

Risk Level 2 sites are subject to both the narrative effluent limitations and numeric effluent standards. The narrative effluent limitations require stormwater discharges associated with construction activity to minimize or prevent pollutants in stormwater and authorized non-stormwater through the use of controls, structures and best management practices. Discharges from Risk Level 2 site are subject to NALs for pH and turbidity shown in Table 2-4. This SWPPP has been prepared to address Risk Level 2 requirements (General Permit Attachment D).

Table 2.4 Numeric Action Levels		
Parameter	**Unit**	**Numeric Action Level Daily Average**
pH	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	NTU	250 NTU

Risk Level 3

Risk Level 3 sites are subject to both the narrative and numeric effluent standards. The narrative effluent limitations require stormwater discharges associated with construction activity to minimize or prevent pollutants in stormwater and authorized non-stormwater through the use of controls, structures and best management practices. Discharges from Risk Level 3 sites are subject to NALs. Discharges from Risk Level 3 sites that have a direct discharge to the receiving water are subject to Receiving Water Monitoring Triggers for pH and turbidity. NALs [and Receiving Water Monitoring Triggers] are shown in Table 2-4. This SWPPP has been prepared to address Risk Level 3 requirements (General Permit Attachment E). This site [does] [does not] have direct discharges to a receiving water.

Table 2.4 Numeric Action Levels and Receiving Water Monitoring Triggers			
Parameter	**Unit**	**Numeric Action Level Daily Average**	**Receiving Water Monitoring Trigger Daily Average**
pH	pH units	Lower NAL = 6.5 Upper NAL = 8.5	Lower Trigger = 6.0 Upper Trigger = 9.0
Turbidity	NTU	250 NTU	500 NTU

2.5 CONSTRUCTION SCHEDULE

INSTRUCTIONS

- Identify and reference the project construction schedule and include the schedule as Appendix F of the SWPPP
- Include the anticipated start and end dates of construction as well as phases of significant grading activities and work near drainages or receiving waters
- The General Permit recognizes four distinct phases of construction. Each phase has activities that can result in different water quality effects from different water quality pollutants
    - Grading and Land Development Phase
    - Streets and Utilities Phase

- Vertical Construction Phase
- Final Landscaping and Site Stabilization Phase

RECOMMENDED TEXT

The following text should be modified accordingly

The site sediment risk was determined based on construction taking place between [start date] and [end date]. Modification or extension of the schedule (start and end dates) may affect risk determination and permit requirements. The LRP shall contact the QSD if the schedule changes during construction to address potential impact to the SWPPP. The estimated schedule for planned work can be found in Appendix F.

[Include additional descriptions of significant land disturbing activities and work near drainages or receiving water.]

2.6 POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

INSTRUCTIONS

- Complete Construction Activities and Pollutant Table in Appendix G of the SWPPP.

RECOMMENDED TEXT

The following text should be modified accordingly

Appendix G includes a list of construction activities and associated materials that are anticipated to be used onsite. These activities and associated materials will or could potentially contribute pollutants, other than sediment, to stormwater runoff.

The anticipated activities and associated pollutants were used in Section 3 to select the Best Management Practices for the project. Location of anticipated pollutants and associated BMPs are show on the Site Map in Appendix B.

For sampling requirements for non-visible pollutants associated with construction activity please refer to Section 7.7.1. For a full and complete list of onsite pollutants, refer to the Material Safety Data Sheets (MSDS), which are retained onsite at the construction trailer.

2.7 IDENTIFICATION OF NON-STORMWATER DISCHARGES

INSTRUCTIONS

- Identify non-stormwater discharges that will occur at the site.
- Some Regional Water Boards may prohibit, require a separate NPDES permit, or specific monitoring and reporting requirements for the non-stormwater discharges identified in the General Permit as authorized. Additionally, some local jurisdictions may prohibit the non-stormwater discharges identified in the General Permit as authorized. If either of these is true, the General Permit does not authorize the discharge even if it is listed as an authorized discharge. Check with the Regional Water Board and local jurisdiction on what discharges may or may not be regionally or locally authorized.
- Authorized non-stormwater may include de-chlorinated potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing,

water to control dust, uncontaminated groundwater dewatering and other discharges not subject to a separate general NPDES permit adopted by the region.

- Non-stormwater discharges must meet the following conditions to be authorized:
  - Discharge does not cause or contribute to a water quality standard violation;
  - Discharge does not violate other provision of the General Permit;
  - Discharge is not prohibited by the applicable Basin Plan;
  - The SWPPP includes appropriate BMPs are implemented to prevent or reduce contact of the non-stormwater discharge with construction materials or equipment;
  - The discharge does not contain toxic pollutants in toxic amounts or other significant quantities of pollutants;
  - The discharge meets applicable NELs and NALs;
  - The discharger samples and reports the sampling information in the annual report.
- PROHIBITED (ILLICIT) DISCHARGES. Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit or authorized under a separate NPDES permit, are prohibited. Examples of prohibited discharges common to construction activities include but are not limited to:
  - 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.

RECOMMENDED TEXT

The following text should be modified accordingly

Non-stormwater discharges consist of discharges which do not originate from precipitation events. The General Permit provides allowances for specified non-stormwater discharges that do not cause erosion or carry other pollutants.

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit and listed in the SWPPP, or authorized under a separate NPDES permit, are prohibited.

Non-stormwater discharges that are authorized from this project site include the following:

- [LIST or State NONE]
- [LIST or State NONE]

These authorized non-stormwater discharges will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP and will be minimized by the QSP.

Activities at this site that may result in unauthorized non-stormwater discharges include:

- [LIST or State NONE]
- [LIST or State NONE]

Steps will be taken, including the implementation of appropriate BMPs, to ensure that unauthorized discharges are eliminated, controlled, disposed, or treated on-site.

Discharges of construction materials and wastes, such as fuel or paint, resulting from dumping, spills, or direct contact with rainwater or stormwater runoff, are also prohibited.

Consider including the following text, not required by CGP

The following discharge(s) have been authorized by (a) regional NPDES permit(s):

- [LIST Discharge and Governing Permit or State NONE]

2.8 REQUIRED SITE MAP INFORMATION

INSTRUCTIONS

The General Permit has specific requirements for the Site Map(s) submitted with the PRDs and included in the SWPPP. Prepare Site Map(s) in conformance with the requirements of the General Permit, Attachment B. Include the Site Map(s) in Appendix B.

For the Site Map(s), use grading sheets, drainage sheets or erosion control sheets as base sheets for the Site Map. Use Section 2.6, "Potential Construction Site Pollutant Sources" 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(s).

The SWPPP applies to areas that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas, storage areas, and access roads, whether or not they reside within the project site.

The Site Map(s) shall reflect the Contractor's phasing and/or construction staging, and shall address the entire scope of the contract work. (The QSD may address certain individual operations at a later date per the SWPPP amendment process established in Sections 1.4.)

Include with the site map details for the BMPs that require clarification beyond what is provided in the CASQA BMP Factsheet or BMPs that do not have an associated Fact Sheet. BMP Fact Sheets provided in the *Stormwater BMP Handbook Portal: Construction* may be used as appropriate and included in Appendix H.

Additional details may be necessary to describe site-specific BMP applications.

RECOMMENDED TEXT

The following text should be modified accordingly

The construction project's Site Map(s) showing the project location, surface water boundaries, geographic features, construction site perimeter and general topography and other requirements identified in Attachment B of the General Permit is located in Appendix B. Table 2.5 identifies Map or Sheet Nos. where required elements are illustrated.

Table 2.5 Required Map Information

Included on Map/Plan Sheet No. (1)	Required Element
	The project's surrounding area (vicinity)
	Site layout
	Construction site boundaries
	Drainage areas
	Discharge locations
	Sampling locations
	Areas of soil disturbance (temporary or permanent)
	Active areas of soil disturbance (cut or fill)
	Locations of runoff BMPs
	Locations of erosion control BMPs
	Locations of sediment control BMPs
	ATS location (if applicable)
	Locations of sensitive habitats, watercourses, or other features which are not to be disturbed
	Locations of all post construction BMPs
	Waste storage areas
	Vehicle storage areas
	Material storage areas
	Entrance and Exits
	Fueling Locations

Notes: (1) Indicate maps or drawings that information is included on (e.g., Vicinity Map, Site Map, Drainage Plans, Grading Plans, Progress Maps, etc.)

Section 3 Best Management Practices

3.1 SCHEDULE FOR BMP IMPLEMENTATION

INSTRUCTIONS

The BMP schedule is the component of the project SWPPP that shows the timeline for when BMPs will be installed so that the project is in compliance with the General Permit. The schedule provides information necessary to plan for adequate materials and crews to install BMPs at the right time so that they are effective. Use Table 3.1 to identify BMP and their schedule for implementation.

Identify the schedule for deployment of BMPs. BMPs must be implemented, modified, and maintained to reflect the phase of construction and the weather conditions.

In order to be effective, some BMPs must be installed before the site is disturbed (e.g., to provide protection during grading operations or to reduce or minimize pollution from historic areas of contamination during construction).

The BMP schedule shall show implementation by location for:

- 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-stormwater BMPs
- Deployment of waste management and material pollution control BMPs

The BMP schedule shall address applicable phase of development including:

- Grading and Land Development Phase
- Streets and Utilities Phase
- Vertical Construction Phase
- Final Landscaping and Site Stabilization Phase

RECOMMENDED TEXT

The following text should be modified accordingly

[Include additional descriptions of significant land disturbing activities and work near drainages or receiving water.]

Table 3.1 BMP Implementation Schedule

	BMP	Implementation	Duration
Erosion Control	EC-1, Scheduling	Prior to Construction	Entirety of Project
	EC-2, Preservation of Existing Vegetation	Start of Construction	Entirety of Project
Sediment Control			
Tracking Control			
Wind Erosion			

INSTRUCTIONS

BMP SELECTION PROCESS SECTIONS 3.2 TO 3.4

Using the identified potential pollutant sources in Section 2.6 for the BMP selection process identifies the BMPs necessary to reduce or eliminate pollutant discharges from the site.

If a non-standard BMP will be used to identify it in the BMP implementation table and provide a narrative description of its use and implementation.

Complete the BMP consideration checklists in each of the following sections to determine the project selected BMPs:

- 3.2 Erosion Control and Sediment Control
- 3.3 Non-Stormwater and Materials Management
- 3.4 Post Construction Stormwater Management Measures

Provide a narrative description of the how BMPs selected will be used to achieve the goals of this SWPPP.

3.2 EROSION AND SEDIMENT CONTROL

INSTRUCTIONS

- Identify in this section, a system of erosion and sediment control BMPs to meet the General Permit requirement of providing site BMPs that are effective and result in the reduction or elimination of sediment related pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the BAT/BCT standard (Section XIV.A.3).
- The QSD should consider including lanugage to require the stockpiling of BMP materials to allow for rapid response in the event of BMP failures. The following language can be included in Section 3.2.2, "Sufficient quantities of temporary sediment control materials shall be maintained on-site throughout the duration of the project. Allowing for implementation of temporary sediment controls in the event of predicted rain and for rapid response do to failures or emergencies, in conformance with other General Permit requirements and as described in this SWPPP."
- The General Permit requires that SWPPPs be designed to address stabilization BMPs installed to reduce or eliminate pollutants after construction (Section XIV.A.5).
- If the site is planning to use an ATS for enhanced sediment removal, the site must comply with ATS requirements in the General Permit Attachment F and the SWPPP should reference the ATS Plan. This document should be considered a companion document to the SWPPP or included as a SWPPP Appendix.
- Identify BMPs for erosion control, sediment control, tracking control, and drainage control (and related BMPs) that meet the minimum requirements for each site risk level category in the General Permit and otherwise prevent pollution associated with construction activities.
- Identify BMPs in the SWPPP, and reference BMP Fact Sheets included in the CASQA *Stormwater BMP Handbook Portal: Construction* or other sources as applicable. Illustrate on the BMP site map (General Permit Attachment B.J.2) and in BMP detail sheets on the plans. Include copies of Fact Sheets in SWPPP Appendix H.
- See Section 3 of the CASQA *Stormwater BMP Handbook Portal: Construction* for a list of erosion control, sediment control, wind erosion control and tracking control BMPs for consideration in a site-specific suite of BMPs.
- The Worksheet below is provided as a tool for the QSD to use in cross-referencing the General Permit required minimum BMPs to the CASQA BMP Fact Sheets available on the CASQA *Stormwater BMP Handbook Portal: Construction*. This tool can be used for just for planning or can be incorporated into the SWPPP text.

Erosion and Sediment Control Worksheet				
General Permit BMP Requirements	**Applicable to Project?**	**CGP Pg #**	**Associated CASQA BMPs**	**Selected BMPs**
BMP Requirements for Erosion and Sediment Control (Attachment C, D, & E parts D and E)				
Implement effective wind erosion control.		Pg 5 of Att. C, D & E	WE-1	
Provide effective soil cover for inactive areas and finished		Pg 5 of Att.	EC-5	

Erosion and Sediment Control Worksheet				
General Permit BMP Requirements	**Applicable to Project?**	**CGP Pg #**	**Associated CASQA BMPs**	**Selected BMPs**
slopes, open space, utility backfill, and completed lots.		C, D & E	EC-16	
Limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the QSD shall consider the use of plastic materials resistant to solar degradation.		Pg 5 of Att. C, D & E	WM-3	
Establish and maintain effective perimeter controls and stabilize construction entrances and exits to sufficiently control erosion and sediment discharges from the site.		Pg 5 of Att. C, D & E	SE-1 ,SE-5 SE-7, TC-1 TC-2, TC-3 WM-3	
On sites where sediment basins are to be used, at a minimum, design sediment basins according to the method provided in *Stormwater BMP Handbook Portal: Construction*.		Pg 5 of Att. C, D & E	SE-02	
Implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active[4] construction.		Pg 5 of Att. C, D & E	EC-1, EC-2 EC-5, EC-9 EC-10, EC-16 SE-1, SE-4 SE-5,	
Apply linear sediment controls along the toe of the slope; face of the slope; and at the grade breaks of exposed slopes to comply with sheet flow lengths in accordance with General Permit.	RL 2 and 3 only	Pg 5 of Att. D & E	SE-1 ,SE-5 SE-7	
Ensure that construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent offsite tracking of sediment.	RL 2 and 3 only	Pg 6 of Att. D & E	TC-1 TC-2 TC-3 SE-7	
Ensure that storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire wash-off locations) are maintained and protected from activities that reduce their effectiveness.	RL 2 and 3 only	Pg 6 of Att. D & E	All BMPs	
Inspect on a daily basis immediate access roads. At a minimum daily (when necessary) and prior to a rain event. The LRP shall remove sediment or other construction activity-related materials that are deposited on the roads	RL 2 and 3 only	Pg 6 of Att. D & E	TC-1 TC-2 TC-3 SE-7	

Erosion and Sediment Control Worksheet				
General Permit BMP Requirements	**Applicable to Project?**	**CGP Pg #**	**Associated CASQA BMPs**	**Selected BMPs**
(by vacuuming or sweeping).				
The Regional Water Board may require implementation of additional site-specific sediment control requirements if the implementation of the other requirements in this section is not adequately protecting the receiving waters. If there are additional requirements from the Regional Water Board, insert them into a new row(s) in this table].		Pg 5 Att. C Pg 6 Att. D & E	N/A	
BMP Requirements for Run-on and Runoff Controls (Attachment C, D, & E parts F)				
Effectively manage run-on, runoff within the site and runoff that discharge off the site.		Pg 5 Att. C Pg 6 Att. D & E		
Run-on from off-site shall be directed away from disturbed areas or shall collectively be in compliance with the effluent limitation in the CGP.		Pg 5 Att. C Pg 6 Att. D & E		
BMP Requirements for Air Deposition (Attachment C, D, & E parts B.6)				
Control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.		Pg 4 of Att. C, D & E	WE-1	

RECOMMENDED TEXT

The following text should be modified accordingly

Erosion and sediment controls are required by the General Permit to provide effective reduction or elimination of sediment related pollutants in stormwater discharges and authorized non-stormwater discharges from the Site. Applicable BMPs are identified in this section for erosion control, sediment control, tracking control, and wind erosion control.

3.2.1 Erosion Control

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 stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles.

This construction project will implement the following practices to provide effective temporary and final erosion control during construction:

1. Preserve existing vegetation where required and when feasible.
2. The area of soil disturbing operations shall be controlled such that the Contractor is able to implement erosion control BMPs quickly and effectively.

3. Stabilize non-active areas within 14 days of cessation of construction activities or sooner if stipulated by local requirements.
4. Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding or alternate methods.
5. Prior to the completion of construction, apply permanent erosion control to remaining disturbed soil areas.

Sufficient erosion control materials shall be maintained onsite to allow implementation in conformance with this SWPPP.

The following temporary erosion control BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site. Fact Sheets for temporary erosion control BMPs are provided in Appendix H.

Table 3.2 Temporary Erosion Control BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP Used		If not used, state reason
			YES	NO	
EC-1	Scheduling	✓			
EC-2	Preservation of Existing Vegetation	✓			
EC-3	Hydraulic Mulch	✓[2]			
EC-4	Hydroseed	✓[2]			
EC-5	Soil Binders	✓[2]			
EC-6	Straw Mulch	✓[2]			
EC-7	Geotextiles and Mats	✓[2]			
EC-8	Wood Mulching	✓[2]			
EC-9	Earth Dike and Drainage Swales	✓[3]			
EC-10	Velocity Dissipation Devices				
EC-11	Slope Drains				
EC-12	Stream Bank Stabilization				
EC-14	Compost Blankets	✓[2]			
EC-15	Soil Preparation-Roughening				
EC-16	Non-Vegetated Stabilization	✓[2]			
WE-1	Wind Erosion Control	✓			
Alternate BMPs Used:					**If used, state reason:**

[1] Applicability to a specific project shall be determined by the QSD.
[2] The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements.
[3] Run-on from offsite shall be directed away from all disturbed areas, diversion of offsite flows may require design/analysis by a licensed civil engineer and/or additional environmental permitting

These temporary erosion control BMPs shall be implemented in conformance with the following guidelines and as outlined in the BMP Factsheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Scheduling

[Provide description of the site specific implementation or delete if not used]

Preservation of Existing Vegetation

[Provide description of the site specific implementation or delete if not used]

Hydraulic Mulch

[Provide description of the site specific implementation or delete if not used]

Hydroseed

[Provide description of the site specific implementation or delete if not used]

Soil Binders

[Provide description of the site specific implementation or delete if not used]

Straw Mulch

[Provide description of the site specific implementation or delete if not used]

Geotextiles and Mats

[Provide description of the site specific implementation or delete if not used]

Wood Mulching

[Provide description of the site specific implementation or delete if not used]

Earth Dike and Drainage Swales

[Provide description of the site specific implementation or delete if not used]

Velocity Dissipation Devices

[Provide description of the site specific implementation or delete if not used]

Slope Drains

[Provide description of the site specific implementation or delete if not used]

Stream bank Stabilization

[Provide description of the site specific implementation or delete if not used]

Compost Blankets

[Provide description of the site specific implementation or delete if not used]

Soil Preparation-Roughening

[Provide description of the site specific implementation or delete if not used]

Non-Vegetated Stabilization

[Provide description of the site specific implementation or delete if not used]

Wind Erosion Control

[Provide description of the site specific implementation or delete if not used]

3.2.2 Sediment Controls

Sediment controls are temporary or permanent structural measures that are intended to complement 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.

The following sediment control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Fact Sheets for temporary sediment control BMPs are provided in Appendix H.

Table 3.3 Temporary Sediment Control BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP used		If not used, state reason
			YES	NO	
SE-1	Silt Fence	✓[2] [3]			
SE-2	Sediment Basin				
SE-3	Sediment Trap				
SE-4	Check Dams				
SE-5	Fiber Rolls	✓[2][3]			
SE-6	Gravel Bag Berm	✓[3]			
SE-7	Street Sweeping	✓			
SE-8	Sandbag Barrier				
SE-9	Straw Bale Barrier				
SE-10	Storm Drain Inlet Protection	✓ RL2&3			
SE-11	ATS				
SE-12	Manufactured Linear Sediment Controls				
SE-13	Compost Sock and Berm	✓[3]			
SE-14	Biofilter Bags	✓[3]			
TC-1	Stabilized Construction Entrance and Exit	✓			
TC-2	Stabilized Construction Roadway				
TC-3	Entrance Outlet Tire Wash				
Alternate BMPs Used:					**If used, state reason:**

[1] Applicability to a specific project shall be determined by the QSD
[2] The QSD shall ensure implementation of one of the minimum measures listed or a combination thereof to achieve and maintain the Risk Level requirements
[3]Risk Level 2 &3 shall provide linear sediment control along toe of slope, face of slope, and at the grade breaks of exposed slope

These temporary sediment control BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Silt Fence

[Provide description of the site specific implementation or delete if not used]

Sediment Basin

[Provide description of the site specific implementation or delete if not used]

Sediment Trap

[Provide description of the site specific implementation or delete if not used]

Check Dams

[Provide description of the site specific implementation or delete if not used]

Fiber Rolls

[Provide description of the site specific implementation or delete if not used]

Gravel Bag Berm

[Provide description of the site specific implementation or delete if not used]

Street Sweeping

[Provide description of the site specific implementation or delete if not used]

Sandbag Barrier

[Provide description of the site specific implementation or delete if not used]

Straw Bale Barrier

[Provide description of the site specific implementation or delete if not used]

Storm Drain Inlet Protection

[Provide description of the site specific implementation or delete if not used]

ATS

[Provide description of the site specific implementation or delete if not used]

Manufactured Linear Sediment Controls

[Provide description of the site specific implementation or delete if not used]

Compost Sock and Berm

[Provide description of the site specific implementation or delete if not used]

Biofilter Bags

[Provide description of the site specific implementation or delete if not used]

Stabilized Construction Entrance and Exit

[Provide description of the site specific implementation or delete if not used]

Stabilized Construction Roadway

[Provide description of the site specific implementation or delete if not used]

Entrance Outlet Tire Wash

[Provide description of the site specific implementation or delete if not used]

3.3 NON-STORMWATER CONTROLS AND WASTE AND MATERIALS MANAGEMENT

INSTRUCTIONS

- Identify in this section, non-stormwater BMPs to effectively reduce pollutants associated with material storage, material use, waste management, and reduce/properly manage non-stormwater that is used or generated onsite.
- Materials Management BMPs are also known as good housekeeping practices and in the *Stormwater BMP Handbook Portal: Construction* are called out as WM.
- Identify non-stormwater BMPs that meet the minimum requirements for each site risk level and otherwise prevent pollution associated with construction activities.
- Identify BMPs in the SWPPP and reference BMP Fact Sheets included in the *Stormwater BMP Handbook Portal: Construction*, and *illustrate on the BMP site map (General Permit Attachment B.J.2)* and in BMP detail sheets on the plans as needed. Include copies of Fact Sheets in SWPPP Appendix H.
- The Worksheet below is provided as a tool for the QSD to use in cross-referencing the General Permit required minimum BMPs to the CASQA BMP Fact Sheets, available on the CASQA *Stormwater BMP Handbook Portal: Construction*. This tool can be used for just for planning or can be incorporated into the SWPPP text.

Non-Stormwater, Construction Materials & Waste Management Worksheet				
BMP Requirements	**Applicable to Project?**	**CGP Pg#**	**Associated CASQA BMPs**	**BMP selected for SWPPP**
BMP Requirements for Waste Management (Attachment C, D and E part B.2)				
Prevent disposal of rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.		Pg 2, Att. C, D & E	NS-1, NS-3 NS-8, NS-12 NS-13	
Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the stormwater drainage system or receiving water.		Pg 2, Att. C, D & E	WM-9	

Non-Stormwater, Construction Materials & Waste Management Worksheet				
BMP Requirements	**Applicable to Project?**	**CGP Pg#**	**Associated CASQA BMPs**	**BMP selected for SWPPP**
Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.		Pg 2, Att. C, D & E	WM-9	
Cover waste disposal containers at the end of every business day and during a rain event.		Pg 2, Att. C, D & E	WM-1 , M-2 WM-4 , M-5 WM-6, WM-7 WM-10	
Prevent discharges from waste disposal containers to the stormwater drainage system or receiving water.		Pg 2, Att. C, D & E	WM-1, WM-2 WM-4, WM-5 WM-6, WM-7 WM-9, WM-10	
Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.		Pg 2, Att. C, D & E	WM-3	
Implement procedures that effectively address hazardous and non-hazardous spills.		Pg 2, Att. C, D & E	WM-4	
Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require that: Equipment and materials for cleanup of spills shall be available onsite and that spills and leaks shall be cleaned up immediately and disposed of properly; and appropriate spill response personnel are assigned and trained.		Pg 2, Att. C, D & E	WM-4	
Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.		Pg 3, Att. C, D & E	WM-8	
BMP Requirements for Construction Material (Attachment C, D, and E part B.1)				
Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced.		Pg 1, Att. C, D & E		
Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).		Pg 1, Att. C, D & E	WM-3	
Store chemicals in watertight containers (with appropriate secondary containment to prevent spillage or leakage) or in a storage shed (completely enclosed).		Pg 2, Att. C, D & E	WM-1, WM-2 WM-4, WM-6	
Minimize exposure of construction materials to precipitation.		Pg 2, Att. C, D & E	WM-1, WM-2 WM-4, WM-5 WM-6, WM-7 WM-10	

Non-Stormwater, Construction Materials & Waste Management Worksheet				
BMP Requirements	**Applicable to Project?**	**CGP Pg#**	**Associated CASQA BMPs**	**BMP selected for SWPPP**
Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.		Pg 2, Att. C, D & E	TC-1 TC-2 TC-3	
BMP Requirements for Vehicle Storage and Maintenance (Attachment C, D and E, part B.3)				
Prevent oil, grease, or fuel from leaking into the ground, storm drains or surface waters.		Pg 3, Att. C, D & E	NS-9 NS-10	
Place equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.		Pg 2, Att. C, D & E	WM-2, WM-4 NS-9, NS-10	
Clean leaks immediately and disposing of leaked materials properly.		Pg 2, Att. C, D & E	WM-4	
BMP Requirements to Control Non-Stormwater Discharges (Attachment C, D and E part C)				
Implement measures to control non-stormwater discharges during construction.		Pg 4, Att. C, D & E	NS-3, NS-8 NS-9, NS-10 NS-12, NS-13 TC-1, TC-2 TC-3	
Wash vehicles in such a manner as to prevent non-stormwater discharges to surface waters or MS4 drainage systems.		Pg 4, Att. C, D & E	NS-8	
Clean streets in such a manner as to prevent non-stormwater discharges from reaching surface water or MS4 drainage systems.		Pg 4, Att. C, D & E	TC-1, TC-2 TC-3, SE-7	

RECOMMENDED TEXT

The following text should be modified accordingly

3.3.1 Non-Stormwater Controls

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the General Permit, are prohibited. Non-stormwater discharges for which a separate NPDES permit is required by the local Regional Water Board are prohibited unless coverage under the separate NPDES permit has been obtained for the discharge. The selection of non-stormwater BMPs is based on the list of construction activities with a potential for non-stormwater discharges identified in Section 2.7 of this SWPPP.

The following non-stormwater control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Fact Sheets for temporary non-stormwater control BMPs are provided in Appendix H.

Table 3.4 Temporary Non-Stormwater BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[1]	BMP used		If not used, state reason
			YES	NO	
NS-1	Water Conservation Practices	✓			
NS-2	Dewatering Operation				
NS-3	Paving and Grinding Operation				
NS-4	Temporary Stream Crossing				
NS-5	Clear Water Diversion				
NS-6	Illicit Connection/Discharge	✓			
NS-7	Potable Water/Irrigation				
NS-8	Vehicle and Equipment Cleaning	✓			
NS-9	Vehicle and Equipment Fueling	✓			
NS-10	Vehicle and Equipment Maintenance	✓			
NS-11	Pile Driving Operation				
NS-12	Concrete Curing				
NS-13	Concrete Finishing				
NS-14	Material and Equipment Use Over Water				
NS-15	Demolition Removal Adjacent to Water				
NS-16	Temporary Batch Plants				
Alternate BMPs Used:			**If used, state reason:**		

[1] Applicability to a specific project shall be determined by the QSD

Non-stormwater BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Water Conservation Practices

[Provide description of the site specific implementation or delete if not used]

Dewatering Operation

[Provide description of the site specific implementation or delete if not used]

Paving and Grinding Operation

[Provide description of the site specific implementation or delete if not used]

Temporary Stream Crossing

[Provide description of the site specific implementation or delete if not used]

Clear Water Diversion

[Provide description of the site specific implementation or delete if not used]

Illicit Connection/Discharge

[Provide description of the site specific implementation or delete if not used]

Potable Water/Irrigation

[Provide description of the site specific implementation or delete if not used]

Vehicle and Equipment Cleaning

[Provide description of the site specific implementation or delete if not used]

Vehicle and Equipment Fueling

[Provide description of the site specific implementation or delete if not used]

Vehicle and Equipment Maintenance

[Provide description of the site specific implementation or delete if not used]

Pile Driving Operation

[Provide description of the site specific implementation or delete if not used]

Concrete Curing

[Provide description of the site specific implementation or delete if not used]

Concrete Finishing

[Provide description of the site specific implementation or delete if not used]

Material and Equipment Use Over Water

[Provide description of the site specific implementation or delete if not used]

Demolition Removal Adjacent to Water

[Provide description of the site specific implementation or delete if not used]

Temporary Batch Plants

[Provide description of the site specific implementation or delete if not used]

INSTRUCTIONS

Waste and Materials Management

- 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 stormwater 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-stormwater discharges (i.e. paint removal) to general site litter and debris (i.e. empty marker paint cans).
- Waste management and materials pollution control BMPs shall be implemented to minimize stormwater contact with construction materials, wastes and service areas, and to prevent materials and wastes from being discharged off-site. The primary mechanisms for stormwater contact that shall be addressed are:
    - Direct contact with precipitation;
    - Contact with stormwater run-on and runoff;
    - Wind dispersion of loose materials; and
    - Direct discharge to the storm drain system through spills or dumping.

RECOMMENDED TEXT

The following text should be modified accordingly

3.3.2 Materials Management and Waste Management

Materials management control practices consist of implementing procedural and structural BMPs for handling, storing and using construction materials to prevent the release of those materials into stormwater discharges. The amount and type of construction materials to be utilized at the Site will depend 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 soil binders for temporary stabilization.

Waste management consist of implementing procedural and structural BMPs for handling, storing and ensuring proper disposal of wastes to prevent the release of those wastes into stormwater discharges. [If applicable to the project site, waste management should be conducted in accordance with the Project's Construction Waste Management Plan.]

Materials and waste management pollution control BMPs shall be implemented to minimize stormwater contact with construction materials, wastes and service areas; and to prevent materials and wastes from being discharged off-site. The primary mechanisms for stormwater contact that shall be addressed include:

- Direct contact with precipitation
- Contact with stormwater 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, which can leach pollutants into stormwater.

A list of construction activities is provided in Section 2.6. The following Materials and Waste Management BMP selection table indicates the BMPs that shall be implemented to handle materials and control construction site wastes associated with these construction activities. Fact Sheets for Materials and Waste Management BMPs are provided in Appendix H.

Table 3.5 Temporary Materials Management BMPs

CASQA Fact Sheet	BMP Name	Meets a Minimum Requirement[(1)]	BMP used		If not used, state reason
			YES	NO	
WM-01	Material Delivery and Storage	✓			
WM-02	Material Use	✓			
WM-03	Stockpile Management	✓			
WM-04	Spill Prevention and Control	✓			
WM-05	Solid Waste Management	✓			
WM-06	Hazardous Waste Management	✓			
WM-07	Contaminated Soil Management				
WM-08	Concrete Waste Management	✓			
WM-09	Sanitary-Septic Waste Management	✓			
WM-10	Liquid Waste Management				
Alternate BMPs Used:				**If used, state reason:**	

[(1)] Applicability to a specific project shall be determined by the QSD.

Material management BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix H. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Material Delivery and Storage

[Provide description of the site specific implementation or delete if not used]

Material Use

[Provide description of the site specific implementation or delete if not used]

Stockpile Management

[Provide description of the site specific implementation or delete if not used]

Spill Prevention and Control

[Provide description of the site specific implementation or delete if not used]

Solid Waste Management

[Provide description of the site specific implementation or delete if not used]

Hazardous Waste Management

[Provide description of the site specific implementation or delete if not used]

Contaminated Soil Management

[Provide description of the site specific implementation or delete if not used]

Concrete Waste Management

[Provide description of the site specific implementation or delete if not used]

Sanitary-Septic Waste Management

[Provide description of the site specific implementation or delete if not used]

Liquid Waste Management

[Provide description of the site specific implementation or delete if not used]

3.4 POST CONSTRUCTION STORMWATER MANAGEMENT MEASURES

INSTRUCTIONS

- Including written narrative to describe post construction BMPs is optional. However, projects must comply with CGP Section XIII.A and show post construction BMP locations on Site Maps (See SWPPP Template Section 2.8).
- Section XIII.A of the General Permit requires post construction runoff reduction.
- Identify whether or not the project is located in an area subject to a Phase I or Phase II Municipal Separate Storm Sewer System (MS4) permit approved Stormwater Management Plan (SWMP).

- If so, indicate that the project qualifies for a MS4 exemption to the runoff reduction requirements. If not, identify how the project will meet post construction runoff reduction requirements of the General Permit (Section XIII.A). Options include: 1) implementing non-structural measures and runoff reduction credits using the water balance calculator (provided with the General Permit); and 2) Structural controls with Regional Water Board approval.
- For all sites, identify site design, source controls and treatment controls that will be included in the permanent project as well as funding mechanism for long-term BMP maintenance as applicable (Section XIII.B).
- Summarize applicable post construction BMPs that will be included in the project to meet local MS4 permit or General Permit requirements.
- Reference applicable project documents (e.g., water quality related reports or post construction plans) required by the local agencies to obtain building or grading permits, etc.
- If the SWPPP is used as a contracting document/specification for a general contractor or Qualified SWPPP Practitioner (QSP), clearly identify whether or not responsibilities related to post construction BMPs (construction, inspection and long-term maintenance) are part of the scope of work.

SUGGESTED TEXT

The following text should be modified accordingly

Post construction BMPs are permanent measures installed during construction, designed to reduce or eliminate pollutant discharges from the site after construction is completed.

This site is located in an area subject to a Phase I or Phase II Municipal Separate Storm Sewer System (MS4) permit approved Stormwater Management Plan. ☐ Yes ☐ No

If yes, state the following and identify the local stormwater requirements (e.g. SUSUMP requirements:

Post construction runoff reduction requirements have been satisfied through the MS4 program, this project is exempt from provision XIII A of the General Permit.]

If no: Describe results of runoff reduction calculator and the BMPs selected to meet the runoff reduction requirements.

The following source control post construction BMPs to comply with General Permit Section XIII.B and local requirements have been identified for the site:

- [LIST or State NONE]
- [LIST or State NONE]

A plan for the post construction funding and maintenance of these BMPs has been developed to address at minimum five years following construction. The post construction BMPs that are described above shall be funded and maintained by the [LRP or other]. If required, post construction funding and maintenance will be submitted with the NOT.

Section 4 BMP Inspection, [and] Maintenance [, and Rain Event Action Plans]

4.1 BMP INSPECTION AND MAINTENANCE

INSTRUCTIONS

- Include a statement about BMP inspection and maintenance requirements.
- Include the location of blank and completed inspection checklists/forms. Provide a blank inspection form in the SWPPP (in SWPPP Appendix I) that will be used to record results of the inspection and assessment.
- Completed inspection forms should be included in SWPPP Appendix I or in an accompanying file/binder that is referenced in the SWPPP and readily accessible onsite.

RECOMMENDED TEXT

The following text should be modified accordingly

The General Permit requires routine weekly inspections of BMPs, along with inspections before, during, and after qualifying rain events. A BMP inspection checklist must be filled out for inspections and maintained on-site with the SWPPP. The inspection checklist includes the necessary information covered in Section 7.6. A blank inspection checklist can be found in Appendix I. Completed checklists shall be kept in CSMP Attachment 2 "Monitoring Records.

BMPs shall be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions shall be implemented within 72 hours of identified deficiencies and associated amendments to the SWPPP shall be prepared by the QSD.

Specific details for maintenance, inspection, and repair of Construction Site BMPs can be found in the BMP Factsheets in Appendix H.

4.2 RAIN EVENT ACTION PLANS

INSTRUCTIONS

- Include language regarding the requirement and procedure for preparing and implementing REAPs for each qualifying site and storm event.
- Copies of the CASQA REAP template can be found in Appendix J. Site and phase specific REAP template and completed REAPs shall be kept in Appendix J.
- REAPs developed by a QSP are required for Risk Level 2 and 3 dischargers for each construction phase.
- The QSP must develop the REAP 48-hours in advance of a precipitation event forecast to have a 50% or greater chance of producing precipitation in the project area. The REAP must be onsite and be implemented 24 hours in advance of a predicted precipitation event per NOAA's National Weather Service Forecast.

- The REAP is designed to protect exposed portions of project sites and to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment control measures. These are intended to reduce the amount of sediment and other pollutants that could be generated during the rain event.
- At minimum the REAP must include the following site and phase-specific information:
    - Site Address
    - Calculated Risk Level (2 or 3)
    - Site Stormwater Manager Information including the name, company and 24-hour emergency telephone number
    - Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number
    - Stormwater Sampling Agent information including the name, company and 24-hour emergency telephone number
    - Activities associated with each construction phase
    - Trades active on the construction site during each construction phase
    - Trade contractor information
    - Suggested actions for each project phase

RECOMMENDED TEXT

Select text for project Risk Level and modify accordingly

Risk Level 1

Rain Event Action Plans (REAPs) are not required for Risk Level 1 projects.

Risk Level 2 or 3

The Rain Event Action Plans (REAP) is written document designed to be used as a planning tool by the QSP to protect exposed portions of project sites and to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment control measures. These measures are intended to reduce the amount of sediment and other pollutants that could be generated during the rain event. It is the responsibility of the QSP to be aware of precipitation forecast and to obtain and print copies of forecasted precipitation from NOAA's National Weather Service Forecast Office.

The SWPPP includes REAP templates but the QSP will need to customize them for each rain event. Site-specific REAP templates for each applicable project phase can be found in Appendix J. The QSP shall maintain a paper copy of completed REAPs in compliance with the record retention requirements Section 1.5 of this SWPPP. Completed REAPs shall be maintained in Appendix J.

The QSP will develop an event specific REAP 48 hours in advance of a precipitation event forecast to have a 50% or greater chance of producing precipitation in the project area. The REAP will be onsite and be implemented 24 hours in advance of any the predicted precipitation event.

At minimum the REAP will include the following site and phase-specific information:

1. Site Address;
2. Calculated Risk Level (2 or 3);
3. Site Stormwater Manager Information including the name, company and 24-hour emergency telephone number;
4. Erosion and Sediment Control Provider information including the name, company and 24-hour emergency telephone number;
5. Stormwater Sampling Agent information including the name, company, and 24-hour emergency telephone number;
6. Activities associated with each construction phase;
7. Trades active on the construction site during each construction phase;
8. Trade contractor information; and
9. Recommended actions for each project phase.

Section 5 Training

INSTRUCTIONS

- Include a statement about training requirements and documentation.
- The General Permit requires (Section VII) that all elements of the SWPPP be developed by a QSD and implemented by a QSP.
- The QSP may delegate tasks to trained employees provided adequate supervision and oversight is provided.
- Personnel at the site shall receive training appropriate for individual roles and responsibilities on the project. Appropriate personnel shall receive training on SWPPP implementation, BMP inspection and maintenance, and record keeping.
- Document training activities (formal and informal) and retained a record of training activities in SWPPP Appendix K. Training documentation must also be submitted in the Annual Report.

RECOMMENDED TEXT

The following text should be modified accordingly

Appendix L identifies the QSPs for the project. To promote stormwater management awareness specific for this project, periodic training of job-site personnel shall be included as part of routine project meetings (e.g. daily/weekly tailgate safety meetings), or task specific trainings as needed.

The QSP shall be responsible for providing this information at the meetings, and subsequently completing the training logs shown in Appendix K, which identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting. Tasks may be delegated to trained employees by the QSP provided adequate supervision and oversight is provided. Training shall correspond to the specific task delegated including: SWPPP implementation; BMP inspection and maintenance; and record keeping.

Documentation of training activities (formal and informal) is retained in SWPPP Appendix K.

Section 6 Responsible Parties and Operators

6.1 RESPONSIBLE PARTIES

INSTRUCTIONS

- The SWPPP must list the name of any Approved Signatory(ies) and a copy of the written agreement or other mechanism that provides this authority from the LRP must be provided in the SWPPP.
- A list of approved signatories should be provided in this section or in Appendix L, along with project site personnel who will be responsible for SWPPP activities, including the QSD and QSP. This list should include the names of the individuals granted authority to sign permit-related documents.
- Include copies of the written authorizations for authorized representatives in the appendix. The appendix or list should include the name and contact information for the individual, their role on the project, date of training, and date of recorded entry as well as a copy of training certificates or other verification of training.

RECOMMENDED TEXT

The following text should be modified accordingly

Approved Signatory(ies) who are responsible for SWPPP implementation and have authority to sign permit-related documents [is/are] listed below. Written authorizations from the LRP for these individuals are provided in Appendix L. The Approved Signatory(ies) assigned to this project [is/are]:

Name	Title	Phone Number

QSPs identified for the project are identified in Appendix L. The QSP shall have primary responsibility and significant authority for the implementation, maintenance and inspection/monitoring of SWPPP requirements. The QSP will be available at all times throughout the duration of the project. Duties of the QSP include but are not limited to:

- Implementing all elements of the General Permit and SWPPP, including but not limited to:
  - Ensuring all BMPs are implemented, inspected, and properly maintained;
  - Performing non-stormwater and stormwater visual observations and inspections;
  - Performing non-stormwater and storm sampling and analysis, as required;

- Performing routine inspections and observations;
- Implementing non-stormwater management, and materials and waste management activities such as: monitoring discharges; general Site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than stormwater are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.;

- The QSP may delegate these inspections and activities to an appropriately trained employee, but shall ensure adequacy and adequate deployment.
- Ensuring elimination of unauthorized discharges.
- The QSPs shall be assigned authority by the LRP to mobilize crews in order to make immediate repairs to the control measures.
- Coordinate with the Contractor(s) to assure all of the necessary corrections/repairs are made immediately and that the project complies with the SWPPP, the General Permit and approved plans at all times.
- Notifying the LRP or Authorized Signatory immediately of off-site discharges or other non-compliance events.

6.2 CONTRACTOR LIST

INSTRUCTIONS

The General Permit requires (Section VII.B.5) that the SWPPP include a list of names of all contractors, subcontractors and individuals who will be directed by the QSP.

Include this list in this section or in Appendix M.

The following text should be modified accordingly

Contractor

Name:

Title:

Company:

Address:

Phone Number:

Number (24/7):

Section 7 Construction Site Monitoring Program

7.1 Purpose

INSTRUCTIONS

The CSMP should be developed to meet the specific requirements and objectives identified in the General Permit for each risk level.

The CSMP shall include monitoring procedures and instructions, location maps, forms, and checklists, a description of the project site's watershed, including drainage patterns and all site discharge locations.

Additionally, the CSMP should describe the NAL and/or Receiving Water Monitoring Triggers for the site. See Appendix D of the CASQA *Stormwater BMP Handbook Portal: Construction* for additional guidance on developing a CSMP.

In general, the CSMP should not include details of ATS or bioassessment monitoring; however, should provide reference to those monitoring documents.

RECOMMENDED TEXT FOR ALL PROJECTS
RL 1 PROJECTS DELETE TEXT RELATED TO NALS, NELS, AND REAPS. RL 2 PROJECTS SHOULD DELETE TEXT RELATED TO NELS

This Construction Site Monitoring Program was developed to address the following objectives:

1. To demonstrate that the site is in compliance with the Discharge Prohibitions [and Numeric Action Levels (NALs)] of the Construction General Permit;
2. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;
3. To determine whether immediate corrective actions, additional Best Management Practices (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater discharges and authorized non-stormwater discharges;
4. To determine whether BMPs included in the SWPPP [and REAP] are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges.

7.2 Applicability of Permit Requirements

INSTRUCTIONS

General Permit monitoring requirements for stormwater and non-stormwater visual observations; stormwater and non-stormwater sample collection; and receiving water monitoring shall be described in the CSMP. Requirements vary based on the project risk level. The CSMP shall identify the applicable monitoring requirements; and, inspection, observation, and sample collection frequency based on the project's risk level.

Insert the project's risk level, and delete the summaries of risk level monitoring that are not applicable to the project.

RECOMMENDED TEXT FOR ALL PROJECTS

This project has been determined to be a Risk Level [Enter Number] project. The General Permit identifies the following types of monitoring as being applicable for a Risk Level [Enter Number] project.

Risk Level 1

- Visual inspections of Best Management Practices (BMPs);
- Visual monitoring of the site related to qualifying storm events;
- Visual monitoring of the site for non-stormwater discharges;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of construction site runoff as required by the Regional Water Board when applicable.

Risk Level 2

- Visual inspections of Best Management Practices (BMPs);
- Visual monitoring of the site related to qualifying storm events;
- Visual monitoring of the site for non-stormwater discharges;
- Sampling and analysis of construction site runoff for pH and turbidity;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of non-stormwater discharges when applicable.

Risk Level 3

- Visual inspections of Best Management Practices (BMPs);
- Visual monitoring of the site related to qualifying storm events;
- Visual monitoring of the site for non-stormwater discharges;
- Sampling and analysis of construction site runoff for pH and turbidity;
- Sampling and analysis of construction site runoff for other parameters if applicable;
- Sampling and analysis of receiving waters if applicable;
- Sampling and analysis of non-stormwater discharges;
- Sampling and analysis of construction site runoff for non-visible pollutants when applicable;
- Sampling and analysis of non-stormwater discharges when applicable; and
- Bioassessment monitoring if applicable.

7.3. Weather and Rain Event Tracking

INSTRUCTIONS

Tracking the weather and predicted rain events is a critical element of the CSMP.

The QSD should include a requirement for installation of a rain gauge. Several aspects of compliance at all sites are best assessed with an on-site rain gauge. While Risk Level 1 and 2 projects could use nearby governmental gauges, the direct applicability of that information to the site is suspect. Instructions on the installation of a rain gauge should be provided. If rainfall totals are not expected to be consistent throughout the project due to significant changes in elevation, other factors influencing orthographic affects, or because project areas (including off-site borrow or fill areas) are separated spatially, several rain gauges may be needed. The QSD should provide guidance on the selection of rain gauge sites. Consideration should be given to using automated rain gauges (weather stations); this technology may be preferable for sites that where it will be difficult to check gauges daily.

Identify the nearest governmental rain gauge(s) to the project site and describe how to access their data.

RECOMMENDED TEXT FOR RISK LEVEL 1PROJECTS

Visual monitoring and inspections requirements of the General Permit are triggered by a qualifying rain event. The General Permit defines a qualifying rain event as any event that produces ½ inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS

Visual monitoring, inspections, and sampling requirements of the General Permit are triggered by a qualifying rain event. The General Permit defines a qualifying rain event as any event that produces ½ inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

ADDITIONAL RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS

For the purposes of assessing exceptions to the Receiving Water Monitoring Triggers the General Permit establishes the compliance storm event at the 5-year, 24-hour event. Based on the Western Regional Climate Center, the 5-year, 24-hour event for this project is [Enter Rainfall Amount in Inches].

7.3.1 Weather Tracking

RECOMMENDED TEXT FOR ALL PROJECTS

The QSP should daily consult the National Oceanographic and Atmospheric Administration (NOAA) for the weather forecasts. These forecasts can be obtained at http://www.srh.noaa.gov/. Weather reports should be printed and maintained with the SWPPP in CSMP Attachment 1 "Weather Reports".

[Optionally, identify any other tools, in addition to NOAA probability of precipitation that the QSP will use to track weather.]

7.3.2 Rain Gauges

The QSP shall install [Enter Number and General Location for On-site Gauges] rain gauge(s) on the project site. Locate the gauge in an open area away from obstructions such as trees or overhangs. Mount the gauge on a post at a height of 3 to 5 feet with the gauge extending several inches beyond the post. Make sure that the top of the gauge is level. Make sure the post is not in an area where rainwater can indirectly splash from sheds, equipment, trailers, etc.

The rain gauge(s) shall be read daily during normal site scheduled hours. The rain gauge should be read at approximately the same time every day and the date and time of each reading recorded. Log rain gauge readings in CSMP Attachment 1 "Weather Records". Follow the rain gauge instructions to obtain accurate measurements.

Once the rain gauge reading has been recorded, accumulated rain shall be emptied and the gauge reset. [Alternatively, include instructions for an automated recording rain gauge if used.]

For comparison with the site rain gauge, the nearest appropriate governmental rain gauge(s) is located at [Insert location and web site of the applicable governmental rain gauge(s)].

7.4 Monitoring Locations

INSTRUCTIONS

Maps and descriptions must be provided for each of the project's observation and/or sample collection locations; including identification of locations specific to particular project phases or watershed, as applicable. Instructions or criteria for access shall be included.

Risk Level 3 sites must also identify receiving water monitoring locations, should this monitoring be required.

Reference the SWPPP Appendix where maps are provided.

For smaller and less complex sites, all monitoring locations can be identified in this section. As currently structured, this template suggests that the locations be defined in the section where each type of sampling is discussed.

RECOMMENDED TEXT FOR ALL PROJECTS

Monitoring locations are shown on the Site Maps in Appendix B. Monitoring locations are described in the Sections 7.6 and 7.7.

Whenever changes in the construction site might affect the appropriateness of sampling locations, the sampling locations shall be revised accordingly. All such revisions shall be implemented as soon as feasible and the SWPPP amended. Temporary changes that result in a one-time additional sampling location do not require a SWPPP amendment.

7.5 Safety and Monitoring Exemptions

INSTRUCTIONS

Identify governing safety documents, such as a site safety plan or provide specific safety requirements.

A description of site hazards and safety information related to conducting visual observations or sample collection, particularly in inclement weather, shall be included in the CSMP.

Identify the scheduled business hours. Identify any variation (e.g., seasonal variability; day of the week variability).

Identify permit-specified sampling/observation exemptions.

RECOMMENDED TEXT FOR ALL PROJECTS

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 IN THIS SECTION]. A summary of the safety requirements that apply to sampling personnel is provided below.

-
-
-
-

This project is not required to collect samples or conduct visual observations (inspections) under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.
- Outside of scheduled site business hours.

Scheduled site business hours are: [SPECIFY SITE BUSINESS DAYS AND HOURS].

If monitoring (visual monitoring or sample collection) of the site is unsafe because of the dangerous conditions noted above then the QSP shall document the conditions for why an exception to performing the monitoring was necessary. The exemption documentation shall be filed in CSMP Attachment 2 "Monitoring Records".

7.6 Visual Monitoring

INSTRUCTIONS

All sites (Risk Levels 1, 2, and 3) are required to conduct visual monitoring (inspections and observations). Visual monitoring includes routine observations and inspections of BMPs and non-stormwater discharges; and rain event trigger observations and inspections of the site and BMPs.

Visual inspections are required for the duration of the project with the goal of confirming that appropriately selected BMPs have been implemented, are being maintained, and are effective in preventing potential pollutants from coming in contact with stormwater.

Some BMPs must be inspected more frequently than weekly. The General Permit requires daily inspection of tracking controls, and manufacturers may specify more frequent inspection of their products.

Inspections and observations must be conducted by the QSP or staff trained by and under the supervision of the QSP.

Identify whether records are to be provided to the LRP or Approved Signatory and the timeframe to provide these records.

Identify visual monitoring requirements and frequencies; provide forms for non-stormwater and stormwater observations; and BMP inspection checklists.

This section of the CSMP should identify the qualifying storm event for stormwater related observations.

It is especially important to define how the site will interpret the qualifying rain event trigger for inspections required prior to a qualifying event since a qualifying event is only known once it has been completed. The most conservative interpretation is to inspect the site every time rain is predicted regardless of the probability of precipitation or predicted rain fall amount (if available).

Text is suggested to define a qualifying event for the purposes of the required pre-storm and during storm inspections given that the total storm precipitation will be unknown at the outset. This interpretation is based on the SWRCB's FAQ # 50. Other interpretations may be made by the QSD based on the availability of site specific information, including weather patterns, the availability of meteorological tools such as the quantitative precipitation forecast, etc.

RECOMMENDED TEXT FOR ALL PROJECTS

Visual monitoring includes observations and inspections. Inspections of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Visual observations of the site are required to observe storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources.

Table 7.1 identifies the required frequency of visual observations and inspections. Inspections and observations will be conducted at the locations identified in Section 7.6.3.

Table 7.1 Summary of Visual Monitoring and Inspections

Type of Inspection	Frequency
Routine Inspections	
BMP Inspections	Weekly[1]
BMP Inspections – Tracking Control	Daily
[add rows for other BMPs as needed]	[Enter Frequency]
Non-Stormwater Discharge Observations	Quarterly during daylight hours
Rain Event Triggered Inspections	
Site Inspections Prior to a Qualifying Event	Within 48 hours of a qualifying event [2]
BMP Inspections During an Extended Storm Event	Every 24-hour period of a rain event[3]
Site Inspections Following a Qualifying Event	Within 48 hours of a qualifying event[2]

[1] Most BMPs must be inspected weekly; those identified below must be inspected more frequently.

[2] Inspections are required during scheduled site operating hours.

[3] Inspections are required during scheduled site operating hours regardless of the amount of precipitation on any given day.

7.6.1 Routine Observations and Inspections

RECOMMENDED TEXT FOR ALL PROJECTS

Routine site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the Construction General Permit.

7.6.1.1 Routine BMP Inspections

Inspections of BMPs are conducted to identify and record:

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

7.6.1.2 Non-Stormwater Discharge Observations

Each drainage area will be inspected for the presence of or indications of prior unauthorized and authorized non-stormwater discharges. Inspections will record:

- Presence or evidence of any non-stormwater discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.); and
- Source of discharge.

7.6.2 Rain-Event Triggered Observations and Inspections

RECOMMENDED TEXT FOR ALL PROJECTS

Visual observations of the site and inspections of BMPs are required prior to a qualifying rain event; following a qualifying rain event, and every 24-hour period during a qualifying rain event. Pre-rain inspections will be conducted after consulting NOAA and determining that a precipitation event with a 50% or greater probability of precipitation has been predicted.

7.6.2.1 Visual Observations Prior to a Forecasted Qualifying Rain Event

Within 48-hours prior to a qualifying event a stormwater visual monitoring site inspection will include observations of the following locations:

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

[BMP inspections and visual monitoring will be triggered by a NOAA prediction of rain in the project area.]

or

Consistent with guidance from the State Water Resources Control Board, pre-rain BMP inspections and visual monitoring will be triggered by a NOAA forecast that indicates a probability of precipitation of 50% or more in the project area.

or

BMP inspections and visual monitoring will be triggered by a NOAA quantitative predicted forecast (QPF) that indicates ½-inch or more of rain will occur in the project area.]

7.6.2.2 BMP Inspections During an Extended Storm Event

During an extended rain event BMP inspections will be conducted to identify and record:

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

If the construction site is not accessible during the rain event, the visual inspections shall be performed at all relevant outfalls, discharge points, downstream locations. The inspections should record any projected maintenance activities.

7.6.2.3 Visual Observations Following a Qualifying Rain Event

Within 48 hours following a qualifying rain event (0.5 inches of rain) a stormwater visual monitoring site inspection is required to observe:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly designed, implemented, and effective;
- Need for additional BMPs;
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard; and
- Discharge of stored or contained rain water.

7.6.3 Visual Monitoring Procedures

RECOMMENDED TEXT FOR ALL PROJECTS

Visual monitoring shall be conducted by the QSP or staff trained by and under the supervision of the QSP.

The name(s) and contact number(s) of the site visual monitoring personnel are listed below and their training qualifications are provided in Appendix K.

Assigned inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER

Alternate inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER

Stormwater observations shall be documented on the *Visual Inspection Field Log Sheet* (see CSMP Attachment 3 "Example Forms"). BMP inspections shall be documented on the site specific BMP inspection checklist. Any photographs used to document observations will be referenced on stormwater site inspection report and maintained with the Monitoring Records in Attachment 2.

The QSP shall within [Enter Number] days of the inspection submit copies of the completed inspection report to [Name].

The completed reports will be kept in CSMP Attachment 2 "Monitoring Records".

7.6.4 Visual Monitoring Follow-Up and Reporting

RECOMMENDED TEXT FOR ALL PROJECTS

Correction of deficiencies identified by the observations or inspections, including required repairs or maintenance of BMPs, shall be initiated and completed as soon as possible.

If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be initiated within 72 hours of identification and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended to reflect the changes.

Deficiencies identified in site inspection reports and correction of deficiencies will be tracked on the *Inspection Field Log Sheet* or *BMP Inspection Report* and shall be submitted to the QSP and shall be kept in CSMP Attachment 2 "Monitoring Records".

The QSP shall within [Enter Number] days of the inspection submit copies of the completed *Inspection Field Log Sheet* or *BMP Inspection Report* with the corrective actions to [Name].

Results of visual monitoring must be summarized and reported in the Annual Report.

7.6.5 Visual Monitoring Locations

INSTRUCTIONS

For smaller or less complex sites, the tables for identifying the site locations can be simplified and combined.

RECOMMENDED TEXT FOR ALL PROJECTS

The inspections and observations identified in Sections 7.6.1 and 7.6.2 will be conducted at the locations identified in this section.

BMP locations are shown on the Site Maps in SWPPP Appendix A.

There are [Enter Number] drainage area(s) on the project site and the contractor's yard, staging areas, and storage areas. Drainage area(s) are shown on the Site Maps in Appendix B and Table 7.2 identifies each drainage area by location.

Table 7.2 Site Drainage Areas

Location No.	Location

There are [Enter Number] stormwater storage or containment area(s) are on the project site. Stormwater storage or containment area(s) are shown on the Site Maps in Appendix B and Table 7.3 identifies each stormwater storage or containment area by location.

Table 7.3 Stormwater Storage and Containment Areas

Location No.	Location

There are [Enter Number] discharge location(s) on the project site. Site stormwater discharge location(s) are shown on the Site Maps in Appendix B and Table 7.4 identifies each stormwater discharge location.

Table 7.4 Site Stormwater Discharge Locations

Location No.	Location

7.7 Water Quality Sampling and Analysis

INSTRUCTIONS

The level of detail and the amount of information provided in this section will depend upon the risk level determined for the site.

Describe specific details about sample collection frequency; sample constituents; sample collection methodologies (including clean sample collection techniques); use of pH and turbidity field meters; and field quality assurance/quality control.

Describe sample procedures for laboratory analysis. Identify which laboratory will perform the sample analysis; how samples will be delivered to the laboratory; laboratory analytical methods and reporting limits; sample container requirements and required sample volume; field and laboratory quality assurance/quality control; and chain of custody procedures.

Describe the sample locations. SMARTS requires entry of the sample location latitude and longitude in decimal degrees with a minimum of 5 significant digits.

7.7.1 Sampling and Analysis Plan for Non-Visible Pollutants in Stormwater Runoff Discharges

INSTRUCTIONS

Identify the general sources and locations of potential non-visible pollutants on the project site.

RECOMMENDED TEXT FOR ALL PROJECTS

This Sampling and Analysis Plan for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in stormwater runoff discharges from the project site.

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.

The following construction materials, wastes, or activities, as identified in Section 2.6, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the Site Maps in Appendix B.

- [LIST or State NONE]
- [LIST or State NONE]

The following existing site features, as identified in Section 2.6, are potential sources of non-visible pollutants to stormwater discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the Site Maps in Appendix B.

- [DESCRIBE or State NONE]
- [DESCRIBE or State NONE]

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 Site Maps in Appendix B.

- [LIST or State NONE]
- [LIST or State NONE]

INSTRUCTIONS

Risk Level 1 sites are not required to collect run-on samples, however, the QSD/QSP should carefully consider if non-visible pollutants that will be sampled in site runoff have the potential to run-on to the project site. In such cases it may be advisable to sample and analyze run-on samples.

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS

The project has the potential to receive stormwater run-on from the following locations with the potential to contribute non-visible pollutants to stormwater discharges from the project. Locations of such run-on to the project site are shown on the Site Maps in Appendix B.

- [LIST or State NONE]
- [LIST or State NONE]

7.7.1.1 Sampling Schedule

RECOMMENDED TEXT FOR ALL PROJECTS

Samples for the potential non-visible pollutant(s) and a sufficiently large unaffected 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 the site's scheduled hours and shall be collected regardless of the time of year and phase of the construction.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during site inspections conducted prior to or during a rain event.

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.
- 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 drain system.
- A construction activity, including but not limited to those in Section 2.6, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) 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 drain 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 drain system.
- Stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

7.7.1.2 Sampling Locations

RECOMMENDED TEXT FOR ALL PROJECTS

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, and personnel safety. Planned non-visible pollutant sampling locations are shown on the Site Maps in Appendix B and include the locations identified in Tables 7.5 through 7.9.

[Enter Number] sampling location(s) on the project site and the contractor's yard have been identified for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned.

[If applicable]

Table 7.5 Non-Visible Pollutant Sample Locations – Contractors' Yard

Sample Location Number	Sample Location Description	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of samples of runoff from drainage areas where soil amendments will be applied that have the potential to affect water quality.

[If applicable]

Table 7.6 Non-Visible Pollutant Sample Locations – Soil Amendment Areas

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of samples of runoff from drainage areas contaminated by historical usage of the site.

[If applicable]

Table 7.7 Non-Visible Pollutant Sample Locations – Areas of Historical Contamination

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude]

Table 7.7 Non-Visible Pollutant Sample Locations – Areas of Historical Contamination

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
		[Enter Longitude]

[Enter Number] sampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location(s) was selected such that the sample will not have come in contact with the operations, activities, or areas identified in Section 7.7.1 or with disturbed soils areas.

[If applicable]

Table 7.8 Non-Visible Pollutant Sample Locations – Background (Unaffected Sample)

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS

[Enter number of locations] sampling locations have been identified for the collection of samples of run-on to the project site. Run-on from these locations has the potential to combine with discharges from the site being sampled for non-visible pollutants. These samples are intended to identify potential sources of non-visible pollutants that originate off the project site.

[If applicable]

Table 7.9 Non-Visible Pollutant Sample Locations – Site Run-On

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

If a stormwater visual monitoring site inspection conducted prior to or during a storm 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 drain system that is at a location not listed above and has not been identified on the Site Maps, sampling locations will be selected by the QSP using the same rationale as that used to identify planned locations. Non-visible pollutant sampling locations shall be identified by the QSP on the pre-rain event inspection form [and/or Rain Event Action Plan] prior to a forecasted qualifying rain event.

7.7.1.3 Monitoring Preparation

RECOMMENDED TEXT FOR ALL PROJECTS

Non-visible pollutant samples will be collected by:

Contractor	☐ Yes	☐ No
Consultant	☐ Yes	☐ No
Laboratory	☐ Yes	☐ No

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES

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

Name/Telephone Number:

Alternate(s)/Telephone Number:

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, clean powder-free nitrile gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and *Effluent Sampling Field Log Sheets* and Chain of Custody (CoC) forms, which are provided in CSMP Attachment 3 "Example Forms".

RECOMMENDED 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:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins if one of the triggering conditions is identified during an inspection to ensure that adequate sample collection personnel and supplies for monitoring non-visible pollutants are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.1.4 Analytical Constituents

RECOMMENDED TEXT FOR ALL PROJECTS

Table 7.10 lists the specific sources and types of potential non-visible pollutants on the project site and the water quality indicator constituent(s) for that pollutant.

Table 7.10 Potential Non-Visible Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent

INSTRUCTIONS: RESOURCE – USE TO CREATE PROJECT SPECIFIC TABLE

Common Non-Visible Pollutants and Water Quality Indicator Constituents Worksheet	
General Work Activity/Potential Pollutants	**Water Quality Indicators of Potential Constituents** (Review product literature and Material Safety Data Sheets to confirm potential constituents)
Adhesives	COD, Phenols, SVOCs
Asphalt Work	VOCs
Cleaning	
Acids	pH
Bleaches	Residual chlorine

Common Non-Visible Pollutants and Water Quality Indicator Constituents Worksheet	
General Work Activity/Potential Pollutants	**Water Quality Indicators of Potential Constituents** (Review product literature and Material Safety Data Sheets to confirm potential constituents)
TSP	Phosphate
Solvents	VOCs, SVOCs
Detergents	MBAS
Concrete / Masonry Work	
Sealant (Methyl methacrylate)	SVOC
Curing compounds	VOCs, SVOCs, pH
Ash, slag, sand	pH, Al, Ca, Va, Zn
Drywall	Cu, Al, General Minerals
Framing / Carpentry	
Treated Wood	Cu, Cr, As, Zn
Particle board	Formaldehyde
Untreated wood	BOD
Grading / Earthworks	
Gypsum / Lime amendments	pH
Contaminated Soil	Constituents specific to known contaminants, check with Laboratory
Heating, Ventilation, Air Conditioning	Freon
Insulation	Al, Zn
Landscaping	
Pesticides/Herbicides	Product dependent, see label and check with Laboratory
Fertilizers	TKN, NO_3, BOD, COD, DOC, Sulfate, NH_3, Phosphate, Potassium
Aluminum sulfate	Al, TDS, Sulfate
Liquid Waste	Constituents specific to materials, check with Laboratory
Painting	
Resins	COD, SVOCs
Thinners	COD, VOCs
Paint strippers	VOCs, SVOCs, metals
Lacquers, varnishes, enamels	COD, VOCs, SVOCs

Common Non-Visible Pollutants and Water Quality Indicator Constituents Worksheet	
General Work Activity/Potential Pollutants	**Water Quality Indicators of Potential Constituents** (Review product literature and Material Safety Data Sheets to confirm potential constituents)
Sealants	COD
Adhesives	Phenols, SVOCs
Planting / Vegetation Management	
Vegetation stockpiles	BOD
Fertilizers	TKN, NO_3, BOD, COD, DOC, sulfate, NH_3, Phosphate, Potassium
Pesticides/Herbicides	Product dependent, see label and check with Laboratory
Plumbing	
Solder, flux, pipe fitting	Cu, Pb, Sn, Zn
Pools and Fountains	Residual chlorine, Cu, chloramines
Removal of existing structures	Zn, VOCs, PCBs (see also other applicable activity categories, e.g., grading, painting)
Roofing	Cu, Pb, VOCs
Sanitary Waste Sewer line breaks and Portable Toilets (using clear fluid – blue fluid is visible if discharged)	BOD, Total/Fecal coliform
Soil Preparation / Amendments/Dust Control	
Polymer/Co-polymers	TKN, NO_3, BOD, COD, DOC, Sulfate, Ni
Lignin sulfate	TDS, alkalinity
Psyllium	COD, TOC
Guar/Plant Gums	COD, TOC, Ni
Solid Waste (leakage)	BOD
Utility Line Testing and Flushing	Residual chlorine, chloramines
Vehicle and Equipment Use	
Batteries	Sulfuric acid; Pb, pH

Adapted from *Attachment S, Caltrans SWPPP/WPCP Preparation Manual, February 2003*, and *CASQA Construction BMP Handbook*, 2003

7.7.1.5 Sample Collection

RECOMMENDED TEXT FOR ALL PROJECTS

Samples of discharge shall be collected at the designated non-visible pollutant sampling locations shown on the Site Maps in Appendix B or in the locations determined by observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the methods identified in the Table, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" provided in Section 7.7.1.6. Only the QSP, or personnel trained in water quality sampling under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.1.6 Sample Analysis

RECOMMENDED TEXT FOR ALL PROJECTS

Samples shall be analyzed using the analytical methods identified in the Table 7.11.

Samples will be analyzed by:

Laboratory Name:	
Street Address:	
City, State Zip:	
Telephone Number:	
Point of Contact:	
ELAP Certification Number:	

Samples will be delivered to the laboratory by:

Driven by Contractor	☐ Yes	☐ No
Picked up by Laboratory Courier	☐ Yes	☐ No
Shipped	☐ Yes	☐ No

INSTRUCTIONS

Provide instructions for specific arrangements of delivering samples to the laboratory. If delivered by contractor – identify who will deliver them. If picked up by courier, provide courier contact information and when contact needs to be made. If shipped, provide shipping instructions (e.g. location of shipping materials) and shipper contact information.

RECOMMENDED TEXT FOR ALL PROJECTS

Table 7.11 Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Containers	Sample Preservation	Reporting Limit	Maximum Holding Time
Notes:						

7.7.1.7 Data Evaluation and Reporting

RECOMMENDED TEXT FOR ALL PROJECTS

The QSP shall complete an evaluation of the water quality sample analytical results.

Runoff/downgradient results shall be compared with the associated upgradient/unaffected results and any associated run-on results. Should the runoff/downgradient sample show an increased level of the tested analyte relative to the unaffected background sample, which cannot be explained by run-on results, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

The General Permit prohibits the storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the Regional Water Board and other agencies as required by 40 C.F.R. §§ 117.3 and 302.4.

Results of non-visible pollutant monitoring shall be reported in the Annual Report.

7.7.2 Sampling and Analysis Plan for pH and Turbidity in Stormwater Runoff Discharges

INSTRUCTIONS

Risk Level 1 project should include the first statement below and delete the rest of Section 7.7.2. Risk Level 2 and 3 projects should delete the first statement below and include all of Section 7.7.2.

RECOMMENDED TEXT FOR RISK LEVEL 1 PROJECTS

Sampling and analysis of runoff for pH and turbidity is not required for Risk Level 1 projects.

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS

Sampling and analysis of runoff for pH and turbidity is required for this project. This Sampling and Analysis Plan describes the strategy for monitoring turbidity and pH levels of stormwater runoff discharges from the project site and run-on that may contribute to an exceedance of a Numeric Action Level (NAL) [or the exceedance of a Receiving Water Monitoring Trigger].

Samples for turbidity will be collected from all drainage areas with disturbed soil areas and samples for pH will be collected from all drainage areas with a high risk of pH altering discharge.

7.7.2.1 Sampling Schedule

Stormwater runoff samples shall be collected for turbidity from each day of a qualifying rain event that results in a discharge from the project site. At minimum, turbidity samples will be collected from each site discharge location draining a disturbed area. A minimum of three samples will be collected per day of discharge during a qualifying event. Samples should be representative of the total discharge from the project each day of discharge during the qualifying

event. Typically representative samples will be spaced in time throughout the daily discharge event.

Stormwater runoff samples shall be collected for pH from each day of qualifying rain events that result in a discharge from the project site. Note that pH samples are only required to be collected during project phases and from drainage areas with a high risk of pH altering discharge. A minimum of three samples will be collected per day of discharge during a qualifying event. Samples should be representative of the total discharge from the location each day of discharge during the qualifying event. Typically representative samples will be spaced in time throughout the daily discharge event.

Stored or collected water from a qualifying storm event when discharged shall be tested for turbidity and pH (when applicable). Stored or collected water from a qualifying event may be sampled at the point it is released from the storage or containment area or at the site discharge location.

Run-on samples shall be collected whenever the QSP identifies that run-on has the potential to contribute to an exceedance of a NAL [or the exceedance of a Receiving Water Monitoring Trigger].

7.7.2.2 Sampling Locations

Sampling locations are based on the site runoff discharge locations and locations where run-on enters the site; accessibility for sampling; and personnel safety. Planned pH and turbidity sampling locations are shown on the Site Maps in Appendix B and include the locations identified in Table 7.13 and Table 7-14.

INSTRUCTIONS

The SMARTS database asks projects to estimate the percentage of the project runoff that discharges to each discharge location. The SMARTS database does not provide guidance on how to make this assessment. Some suggested approaches include:

(1) Estimate the **area** draining to each location

(2) Estimate or measure **flow** at each location

(3) Estimate **volume** discharged at each location using runoff curve numbers

In the text and table below identity the approach used, e.g., drainage, flow.

[Enter Number] sampling location(s) on the project site and the contractor's yard have been identified for the collection of runoff samples. Table 7.12 also provides an estimate of the site's area that drains to each location.

Table 7.12 Turbidity and pH Runoff Sample Locations

Sample Location Number	Sample Location	Estimate of Site [Factor] (%)
[Enter Number]	[Enter Location]	[Enter Percent]
[Enter Number]	[Enter Location]	[Enter Percent]

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS THAT RECEIVE RUN-ON

[Enter number of locations] sampling locations have been identified for the collection of run-on samples where the run-on has the potential to contribute to an exceedance of an NAL or a Receiving Water Monitoring Trigger. Table 7.13 identifies the run-on sample locations.

[If applicable]

Table 7.13 Turbidity and pH Run-On Sample Locations

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS THAT DO NOT RECEIVE RUN-ON

The project does not receive run-on with the potential to exceed NALs or Receiving Water Monitoring Triggers.

7.7.2.3 Monitoring Preparation

Turbidity and pH samples will be collected and analyzed by:

Contractor ☐ Yes ☐ No

Consultant ☐ Yes ☐ No

Laboratory ☐ Yes ☐ No

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES

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

Name/Telephone Number:

Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring turbidity and 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,

field meters, extra batteries; clean powder-free nitrile gloves, sample collection equipment, appropriate sample containers, paper towels, personal rain gear, and *Effluent Sampling Field Log Sheets* and CoC forms provided in CSMP Attachment 3 "Example Forms".

The contractor will obtain and maintain the field testing instruments, as identified in Section 7.7.2.6, for analyzing samples in the field by contractor sampling personnel.

RECOMMENDED 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:	
Street Address:	
City, State, Zip:	
Telephone Number:	
Point of Contact:	
Name of Sampler(s):	
Name of Alternate(s):	

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins to ensure that adequate sample collection personnel, supplies for monitoring pH and turbidity are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.2.4 Field Parameters

Samples shall be analyzed for the constituents indicated in the Table 7.14.

Table 7.14 Sample Collection and Analysis for Monitoring Turbidity and pH

Parameter	Test Method	Minimum Sample Volume[(1)]	Sample Collection Container Type	Detection Limit (minimum)
Turbidity	Field meter/probe with calibrated portable instrument	500 mL	Polypropylene or Glass (Do not collect in meter sample cells)	1 NTU
pH	Field meter/probe with calibrated portable instrument or calibrated pH test kit	100 mL	Polypropylene	0.2 pH units

Table 7.14 Sample Collection and Analysis for Monitoring Turbidity and pH

Parameter	Test Method	Minimum Sample Volume[(1)]	Sample Collection Container Type	Detection Limit (minimum)
Notes: [1] Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions. L – Liter mL – Milliliter NTU – Nephelometric Turbidity Unit				

7.7.2.5 Sample Collection

Samples of discharge shall be collected at the designated runoff and run-on sampling locations shown on the Site Maps in Appendix B. Run-on samples shall be collected within close proximity of the point of run-on to the project.

Only personnel trained in water quality sampling and field measurements working under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.2.6 Field Measurements

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

Immediately following collection, samples for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the *Effluent Sampling Field Log Sheet*.

The field instrument(s) listed in Table 7.15 will be used to analyze the following constituents:

Table 7.15 Field Instruments

Field Instrument (Manufacturer and Model)	Constituent
	pH
	Turbidity

The manufacturers' instructions are included in CSMP Attachment 4 "Field Meter Instructions". Field sampling staff shall review the instructions prior to each sampling event and follow the instructions in completing measurement of the samples.

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

The QSP may authorize alternate equipment provided that the equipment meets the Construction General Permit's requirements and the manufacturers' instructions for calibration and use are added to CSMP Attachment 4 "Field Meter Instructions".

7.7.2.7 Data Evaluation and Reporting

INSTRUCTIONS

The SMARTS database requires projects to estimate the percentage of the project runoff that discharges to each discharge location. (See Section 7.7.2.2.) For sites with multiple discharge locations, the calculated daily average can be weighted based on the percent of drainage that each location receives.

Provide a description of the method for calculation of the daily average if a straight arithmetic average of all samples is not to be used.

Risk Level 2 projects should include the NAL subsection and delete the Receiving Water Monitoring Trigger subsection.

Risk Level 3 projects should include both the NAL and Receiving Water Monitoring Trigger subsections.

The General Permit does not specify reporting requirements for Receiving Water Monitoring Trigger exceedances, beyond the requirement to upload all data into SMARTS with 10 days of the conclusion of the storm event. It is recommended that documentation for exceptions to the Receiving Water Monitoring Trigger be documented by the QSP and uploaded into SMARTS with the data.

Immediately upon completing the measurements for the sampling event, provide the *Effluent Sampling Field Log Sheets* to the QSP for evaluation.

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS

Numeric Action Levels

This project is subject to NALs for pH and turbidity (Table 7.16). Compliance with the NAL for pH and turbidity is based on a [weighted] daily average. Upon receiving the field log sheets, the QSP shall immediately calculate the [weighted] arithmetic average of the turbidity samples, and the [weighted] logarithmic average of the pH samples[1] to determine if the NALs, shown in the table below, have been exceeded.

Table 7.16 Numeric Action Levels

Parameter	Unit	Daily Average
pH	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	NTU	250 NTU

The QSP shall within [Enter Number] days of the sample collection submit copies of the completed *Effluent Sampling Field Log Sheets* to [Name of Owners Representative].

[1] Daily average pH values must be calculated through the logarithmic method. In order to calculate an average, you must: (1) Convert the pH measurements from logarithms to real numbers; (2) Take the average of the real numbers; and (3) Convert the average of the real numbers back to a logarithm.

In the event that the pH or turbidity NAL is exceeded, the QSP shall immediately notify [Name of Owners Representative] and investigate the cause of the exceedance and identify corrective actions.

Exceedances of NALs shall be electronically reported to the State Water Board by [Name of Owners Representative] through the SMARTs system within 10 days of the conclusion of the storm event. If requested by the Regional Board, a NAL Exceedance report will be submitted. The NAL Exceedance Report must contain the following information:

- Analytical method(s), method reporting unit(s), and MDL(s) of each parameter;
- Date, place, time of sampling, visual observation, and/or measurements, including precipitation; and
- Description of the current BMPs associated with the sample that exceeded the NAL and the proposed corrective actions taken.

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS

Include the first statement is the site does not have a direct discharge to the receiving water and delete the remainder of the subsection. If the project has a direct discharge to the receiving water, delete the first statement and include the remainder of the subsection.

Receiving Water Monitoring Triggers

This project is not subject to Receiving Water Monitoring Triggers because it does not have a direct discharge to the receiving water.

This project is subject to Receiving Water Monitoring Triggers for pH and turbidity (Table 7.17). Compliance with the Receiving Water Monitoring Triggers for pH and turbidity is based on a [weighted] daily average. Upon receiving the field log sheets, the QSP shall immediately calculate the [weighted] average of the turbidity samples, and the [weighted] logarithmic average of the pH samples to determine if the Receiving Water Monitoring Triggers, shown in the table below, have been exceeded.

Table 7.17 Receiving Water Monitoring Triggers

Parameter	Unit	Daily Average
pH	pH units	Lower Trigger = 6.0 Upper Trigger = 9.0
Turbidity	NTU	500 NTU

All pH and turbidity data shall be electronically reported to the State Water Board by [Name of Owners Representative] through SMARTS within 10 days of the conclusion of each storm event.

In the event that the pH or turbidity Receiving Water Monitoring Trigger is exceeded, the QSP shall immediately notify [Name of Owners Representative].

Exceeding a Receiving Water Monitoring Trigger requires the implementation of receiving water monitoring described in Section 7.7.3 unless one of the follow two conditions existed:

- The exceedance occurred during a storm event equal to or larger than the compliance storm event ([Enter Number from Section 7.3] inches of rain in a 24 hour period) as

demonstrated by the on-site rain gauge and confirmed with data from a nearby governmental rain gauge; or

- The exceedance was caused by run-on from a natural disaster (such as a forest fire).

Exceptions to the Receiving Water Monitoring Triggers will be documented in the SWPPP by the QSP and submitted to SMARTS when the data for the storm event is uploaded.

7.7.3 Sampling and Analysis Plan for pH, Turbidity, and SSC in Receiving Water

INSTRUCTIONS

Following the exceedance of a Receiving Water Monitoring Trigger at a Risk Level 3 project that has a direct discharge to the receiving water, the project is required to collect receiving water samples for the duration of the construction project.

When the pH Receiving Water Monitoring Trigger is exceeded, projects must sample the receiving water for pH. When the turbidity Receiving Water Monitoring Trigger is exceeded, projects must sample the receiving water for turbidity and SSC.

Samples must be taken at representative upstream/upgradient and downstream/downgradient locations as close as possible to the point where the site's runoff enters the receiving water. If there are two or more discharge locations discharging to the same receiving water, only one upstream and one downstream sampling locations is required. Samples should only be collected from safe accessible locations.

Risk Level 1 and 2 projects are not subject to Receiving Water Monitoring Triggers – include the Recommended text for Risk Level 1 and 2 Projects and delete the rest of the Section 7.7.3 subsections.

Risk level 3 projects that do not have a direct discharge to the receiving water should include the Recommended text for Risk Level 3 Projects and delete the rest of Section 7.7.3.

Risk level 3 projects that have a direct discharge to the receiving water should delete the first two statements and include the rest of Section 7.7.3.

RECOMMENDED TEXT FOR RISK LEVEL 1 AND 2 PROJECTS

This project is not subject to Receiving Water Monitoring.

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS THAT DO NOT HAVE A DIRECT DISCHARGE TO A RECEIVING WATER

The project has does not have a direct discharge to any receiving waters, therefore receiving water monitoring is not required.

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS THAT HAVE A DIRECT DISCHARGE TO A RECEIVING WATER

The project has a direct discharge to the following receiving water(s):

- [Enter name of receiving water]
- [Enter name of receiving water]

Following the exceedance of a Receiving Water Monitoring Trigger receiving water monitoring is required.

7.7.3.1 Sampling Schedule and Locations

INSTRUCTIONS

The General Permit does not identify a frequency for receiving water monitoring. The General Permit Fact Sheet states the intent of the receiving water monitoring as follows:

> "In order to ensure that receiving water limitations are met, discharges subject to Receiving Water Monitoring Triggers … must also monitor the downstream receiving water(s) for turbidity, SSC, and pH (if applicable) when a Receiving Water Monitoring Trigger is exceeded." (Fact Sheet, Section II.I.3.)

Based on the site specific circumstances, the QSD should design and specify receiving water monitoring frequency to assess the effect of the construction site's discharges on the receiving water.

Following the exceedance of the pH receiving water monitoring trigger, receiving water samples shall be collected for pH and any parameters required by the Regional Water Board.

Following the exceedance of the turbidity Receiving Water Monitoring Trigger, receiving water samples shall be collected for turbidity, SSC, and any parameters required by the Regional Water Board.

Receiving water samples will be collected [Enter Sampling Frequency].

Sampling locations are based on the site discharge locations into the receiving water, location accessibility for sampling, and personnel safety. Planned sampling locations Site Maps in Appendix B and include the locations identified in Table 7.18.

[Enter Number] sampling location(s) have been identified for the collection of receiving water samples.

Table 7.18 Receiving Water Sample Locations

Upstream/Upgradient/Background *(This location(s) is a representative and accessible location located as close as possible and upstream from the runoff discharge point)*		
Sample location number(s)	Sample Location Description	Sample Location Latitude and Longitude
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
Downstream/downgradient *(This location(s) is a representative and accessible location located as close as possible and downstream from the runoff discharge point)*		
Sample location number(s)	Sample Location	Sample Location Latitude and Longitude
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude]

Table 7.18 Receiving Water Sample Locations		
		[Enter Longitude]

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS IF THE RECEIVING WATER IS LOCATED ON THE PROJECT SITE

The receiving water locations are located on the project site. No special permissions are needed to access the site.

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS IF THE RECEIVING WATER IS NOT LOCATED ON THE PROJECT SITE

INSTRUCTIONS

Identify whether and how access to the property where the samples has been obtained.

Identify any special access conditions, e.g., contact owner, keys for gates, letters of permission/easement that must be shown to gain access.

7.7.3.2 Monitoring Preparation

Receiving water samples will be collected by:

Contractor	☐ Yes	☐ No
Consultant	☐ Yes	☐ No
Laboratory	☐ Yes	☐ No

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES

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

Name/Telephone Number:

Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring the receiving 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, clean powder-free nitrile gloves, sample collection equipment, field meters, appropriate sample containers, paper towels, personal rain gear, and *Receiving Water Sampling Field Log Sheets* and CoC forms provided in CSMP Attachment 3 "Example Forms".

RECOMMENDED 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:

Street Address:

City, State, Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a planned receiving water sampling event to ensure that adequate sample collection personnel, supplies for monitoring are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.3.3 Sample Collection and Analysis

Receiving water samples shall be collected at the designated sampling locations shown on the Site Maps in Appendix B and as identified in Section 7.7.3.2.1.

Only personnel trained in water quality sampling under the direction of the QSP shall collect samples.

SSC grab samples for laboratory analysis shall be collected and preserved in accordance with the methods identified in the Table 7.19. Samples will be shipped to the laboratory identified below.

Table 7.19 Sample Collection, Preservation and Analysis for Monitoring Suspended Sediment Concentration (SSC)

Parameter	Test Method	Sample Preservation	Minimum Sample Volume[(1)]	Sample Bottle	Maximum Holding Time	Detection Limit (minimum)
Suspended Sediment Concentration (SSC)	ASTM D3977-97	Store at 4˚ C (39.2˚ F)	200 mL	Contact Laboratory	7 days	5 mg/L

Samples will be analyzed by:

Laboratory Name:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

INSTRUCTIONS

Provide instructions for specific arrangements of delivering samples to the laboratory. If delivered by contractor – identify who will deliver them. If picked up by courier, provide courier contact information and when contact needs to be made. If shipped, provide shipping instructions (e.g. location of shipping materials) and shipper contact information.

Samples will be delivered to the laboratory by:

Driven by Contractor	☐ Yes	☐ No
Picked up by Laboratory Courier	☐ Yes	☐ No
Shipped	☐ Yes	☐ No

Samples for field parameters shall be analyzed for the constituents indicated in Section 7.7.2.4, "Sample Collection, and Analysis for Monitoring Turbidity and pH." Turbidity and pH samples shall be analyzed immediately.

Grab samples for parameters required by the Regional Water Board shall be collected and preserved in accordance with the methods identified Section 7.7.5.5. Samples will be shipped to the laboratory identified in Section 7.7.1.6.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.3.4 Data Evaluation and Reporting

INSTRUCTIONS

The General Permit does not identify any specific procedures to be used to evaluate receiving water data. One approach that could be used is to calculate the relative percent difference (RPD) between the upstream and downstream locations and establishing a threshold for follow-up evaluation, such as ±25% RPD. Other more sophisticated statistical evaluations may be used. Note that some Regional Boards may require evaluation and comparison to Water Quality Objectives identified in the Basin Plan.

The QSP shall complete an evaluation of the receiving water quality sample analytical results.

Downgradient results shall be compared with the associated upgradient/background results and any associated construction runoff results. Should the downgradient sample show an increased level of the tested analyte relative to the upgradient/background sample, the QSP shall initiate an evaluation of the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase in the receiving water.

As determined by the evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

Receiving water data shall be reported in the Annual Report.

7.7.4 Sampling and Analysis Plan for Non-Stormwater Discharges

INSTRUCTIONS

The General Permit requires sampling and analysis of authorized and unauthorized non-stormwater runoff from the project site at Risk Level 2 and 3 projects.

Even if no non-stormwater discharges are planned, the CSMP should include provisions to address such discharges should any occur.

The scope of the monitoring requirements will be similar non-visible pollutant monitoring.

Risk Level 1 projects should include the first statement and delete the rest of Section 7.7.4.

Risk Level 2 and 3 projects should delete the first statement and include the rest of Section 7.7.4.

RECOMMENDED TEXT FOR RISK LEVEL 1 PROJECTS

This project is not subject to the non-stormwater sampling and analysis requirements of the General Permit because it is a Risk Level 1 project.

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS

This Sampling and Analysis Plan for non-stormwater discharges describes the sampling and analysis strategy and schedule for monitoring pollutants in authorized and unauthorized non-stormwater discharges from the project site in accordance with the requirements of the Construction General Permit.

Sampling of non-stormwater discharges will be conducted when an authorized or unauthorized non-stormwater discharge is observed discharging from the project site. In the event that non-stormwater discharges run-on to the project site from offsite locations, and this run-on has the potential to contribute to a violation of a NAL, the run-on will also be sampled.

The following authorized non-stormwater discharges identified in Section 2.7, have the potential to be discharged from the project site.

- [LIST or State NONE]
- [LIST or State NONE]

In addition to the above authorized stormwater discharges, some construction activities have the potential to result in an unplanned (unauthorized) non-stormwater discharge if BMPs fail. These activities include:

INSTRUCTIONS

Activities that employ water, such as concrete curing, dust control, rinsing or washing tools or equipment are possible sources of unauthorized non-stormwater discharges. Other sources include water line or sewer line breaks.

- [LIST or State NONE]
- [LIST or State NONE]

7.7.4.1 Sampling Schedule

Samples of authorized or unauthorized non-stormwater discharges shall be collected when they are observed.

7.7.4.2 Sampling Locations

Samples shall be collected from the discharge point of the construction site where the non-stormwater discharge is running off the project site. Site discharge locations are shown on the Site Maps in SWPPP Appendix A and include the locations identified below.

[Enter Number] sampling location(s) on the project site and the contractor's yard have been identified where non-stormwater discharges may runoff from the project site. (Table 7.20)

[If applicable]

Table 7.20 Non-stormwater Discharge Sample Locations

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

[Enter number of locations] sampling locations have been identified for the collection of non-stormwater discharges that run-on to the project site (Table 7.21).

Table 7.21 Non-stormwater Run-on Sample Locations

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

7.7.4.3 Monitoring Preparation

INSTRUCTIONS

Although an option is provided of a consultant or laboratory to collect non-stormwater discharge samples, it is more likely that the contractor will need to collect samples of unauthorized non-stormwater discharges because they will be unplanned and should be short duration events.

Non-stormwater discharge samples will be collected by:

Contractor ☐ Yes ☐ No

Consultant ☐ Yes ☐ No

Laboratory ☐ Yes ☐ No

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES

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

Name/Telephone Number:

Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring non-stormwater discharges will be available on the project site. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Personnel trained in sampling 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, clean powder-free nitrile gloves, sample collection equipment, field meters, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and *Effluent Sampling Field Log Sheets* and CoC forms provided in CSMP Attachment 3 "Example Forms".

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT FIELD MEASUREMENTS

The contractor will obtain and maintain the field testing instruments, as identified in Section 7.7.2, for analyzing samples in the field by contractor sampling personnel.

RECOMMENDED 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:

Street Address:

City, State Zip:

Telephone Number:

Point of Contact:

Name of Sampler(s):

Name of Alternate(s):

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant], 24 hours prior to a planned non-stormwater discharge or as soon as an unplanned non-stormwater discharge is observed to ensure that adequate sample collection personnel, supplies for non-stormwater discharge monitoring are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.4.4 Analytical Constituents

All non-stormwater discharges that flow through a disturbed area shall, at minimum, be monitored for turbidity.

All non-stormwater discharges that flow through an area where they are exposed to pH altering materials shall be monitored for pH.

The QSP shall identify additional pollutants to be monitored for each non-stormwater discharge incident based on the source of the non-stormwater discharge. If the source of an unauthorized non-stormwater discharge is not known, monitoring for pH, turbidity, MBAS, TOC, and residual chlorine or chloramines is recommended to help identify the source of the discharge.

Non-stormwater discharge run-on shall be monitored, at minimum, for pH and turbidity. The QSP shall identify additional pollutants to be monitored for each non-stormwater discharge incident based on the source of the non-stormwater discharge. If the source of an unauthorized non-stormwater discharge is not known, monitoring for pH, turbidity, MBAS, TOC, and residual chlorine or chloramines is recommended to help identify the source of the discharge.

Table 7.22 lists the specific sources and types of potential non-visible pollutants on the project site and the water quality indicator constituent(s) for that pollutant.

Table 7.22 Potential Non-Stormwater Discharge Pollutants and Water Quality Indicator Constituents

Pollutant Source	Pollutant	Water Quality Indicator Constituent
Disturbed Areas	Sediment	Turbidity
Concrete Work	pH	pH

INSTRUCTIONS: RESOURCE – USE TABLE IN SECTION 7.7.1.4 TO CREATE PROJECT SPECIFIC TABLE

7.7.4.5 Sample Collection

Samples shall be collected at the discharge locations where the non-stormwater discharge is leaving the project site. Potential discharge locations are shown on the Site Maps in Appendix B and identified in Section 7.7.4.2.

Grab samples shall be collected and preserved in accordance with the methods identified in Table 7.23. Only personnel trained in water quality sampling under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.4.6 Sample Analysis

Samples shall be analyzed using the analytical methods identified in Table 7.23.

7.7.4.7 Data Evaluation and Reporting

The QSP shall complete an evaluation of the water quality sample analytical results.

Turbidity and pH results shall be evaluated for compliance with NALs [and NELs] as identified in Section 7.7.2.7.

Runoff results shall also be evaluated for the constituents suspected in the non-stormwater discharge. Should the runoff sample indicate the discharge of a pollutant which cannot be explained by run-on results, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

Non-storm water discharge results shall be submitted with the Annual Report.

The General Permit prohibits the non-storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the Regional Water Board.

Table 7.23 Sample Collection, Preservation and Analysis for Monitoring Pollutants in Non-Stormwater Discharges

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Notes:						

7.7.5 Sampling and Analysis Plan for Other Pollutants Required by the Regional Water Board

INSTRUCTIONS

The General Permit requires stormwater runoff monitoring for any additional parameters required by a Regional Water Board. Typically this requirement will be provided in writing to the project. The QSD should check with the LRP or Approved Signatory or as appropriate, with the Regional Water Board.

The specifics of monitoring required by the Regional Board should be specified in the communication requiring the monitoring. The Regional Board may require sampling at a different frequency than the Construction General Permit. The QSD shall design and specify the sampling to meet the Regional Board's stated requirements and objectives.

If monitoring for additional pollutants has not been required, delete the subsections of 7.7.5.

RECOMMENDED TEXT FOR RISK LEVEL 1 PROJECTS AND RISK LEVEL 2 AND 3 PROJECTS FOR WHICH THE REGIONAL WATER BOARD IS NOT REQUIRING ADDITIONAL MONITORING

The Regional Water Board has not specified monitoring for additional pollutants.

RECOMMENDED TEXT FOR RISK LEVEL 2 AND 3 PROJECTS FOR WHICH THE REGIONAL WATER BOARD IS REQUIRING ADDITIONAL MONITORING

The Regional Water Board has specified monitoring for the following additional pollutants:

-
-

This Sampling and Analysis Plan describes the sampling and analysis strategy and schedule for monitoring additional pollutants as specified in the communication from the Regional Water Board dated [Enter Date]. This communication is included in CSMP Attachment 5 "Supplemental Information".

7.7.5.1 Sampling Schedule

INSTRUCTIONS

Identify when samples of runoff will be collected. The example text below assumes grab samples will be collected for discharges from each qualifying event. Run-on samples should be considered as part of the sampling if they have the potential to contribute to the concentration of the pollutants of interest.

Runoff samples shall be collected for [Enter Pollutants] from all qualifying rain events that result in a discharge from the project site. At minimum, samples will be collected from each site discharge location. A minimum of [Enter Number of Samples]samples will be collected per day of discharge from a qualifying event. Samples should be representative of the total discharge from the location each day of discharge during the qualifying event. Typically representative samples will be spaced in time throughout the daily discharge event.

Stored or collected water from a qualifying storm event will be sampled when discharged. Stored or collected water from a qualifying event may be sampled at the point it is release from the storage or containment area or at the site discharge location.

7.7.5.2 Sampling Locations

Sampling locations are based on the site discharge locations; accessibility for sampling; and personnel safety. Planned sample locations are shown on the Site Maps in Appendix B and include the locations identified below.

[Enter Number] sampling location(s) on the project site and the contractor's yard have been identified for the collection of runoff samples (Table 7.24).

Table 7.24 Runoff Sample Locations for Other Pollutants Required by the Regional Water Board

Sample Location Number	Sample Location	Sample Location Latitude and Longitude (Decimal Degrees)
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]
[Enter Number]	[Enter Location]	[Enter Latitude] [Enter Longitude]

7.7.5.3 Monitoring Preparation

Samples will be collected by:

Contractor ☐ Yes ☐ No

Consultant ☐ Yes ☐ No

Laboratory ☐ Yes ☐ No

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES

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

Name/Telephone Number:

Alternate(s)/Telephone Number:

An adequate stock of monitoring supplies and equipment for monitoring [Enter 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, field meters, and backup; extra batteries; clean powder-free nitrile gloves, sample collection equipment, appropriate sample containers, paper towels, personal rain gear, and *Effluent Sampling Field Log Sheets* and CoC forms provided in CSMP Attachment 3 "Example Forms".

RECOMMENDED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT FIELD MEASUREMENTS

The contractor will obtain and maintain the field testing instruments, as identified in Section 7.7.2, for analyzing samples in the field by contractor sampling personnel.

RECOMMENDED 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:	
Street Address:	
City, State, Zip:	
Telephone Number:	
Point of Contact:	
Name of Sampler(s):	
Name of Alternate(s):	

The QSP or his/her designee will contact [specify name of laboratory or environmental consultant] 24 hours prior to a predicted rain event or for an unpredicted event, as soon as a rain event begins to ensure that adequate sample collection personnel, supplies for monitoring [Enter Pollutants] are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

7.7.5.4 Sample Collection

Runoff samples of discharge shall be collected at the designated sampling locations as identified above and shown on the Site Maps in Appendix B and as identified in Section 7.7.5.2.

Grab samples shall be collected and preserved in accordance with the methods identified in Table 7.25. Only personnel trained in water quality sampling under the direction of the QSP shall collect samples.

Sample collection and handling requirements are described in Section 7.7.7.

7.7.5.5 Sample Analysis

Samples shall be analyzed using the analytical methods identified in Table 7.25.

Table 7.25 Sample Collection, Preservation and Analysis for Monitoring Regional Board Required Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Notes:						

7.7.5.6 Data Evaluation and Reporting

INSTRUCTIONS

Discuss the data evaluation (e.g., effluent limits, numeric or narrative objectives, basin plan limitations, waste load allocations) established by the Regional Board.

Identify the Regional Water Board specified reporting, and at minimum identify that the data will be reported in the Annual Report.

7.7.6 Training of Sampling Personnel

INSTRUCTIONS

List names of samplers, whether contractor, consultant, or laboratory, who will conduct Non-visible Pollutant Sampling, (Section 7.7.1), Runoff Sampling and Analysis for pH and Turbidity (Section 7.7.2, Receiving Water Sampling and Analysis (Section 7.7.3.2), Non-Stormwater Discharge Sampling and Analysis (Section 7.7.4), and Runoff Sampling for Other Pollutants Required by the Regional Water Board (Section 7.7.5).

Field crews should be trained in the appropriate site specific methods specified in the sampling plan.

Provide training records in Appendix K.

RECOMMENDED TEXT FOR ALL PROJECTS

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring program (SWAMP) 2008 Quality Assurance Program Plan (QAPrP). Training records of designated contractor sampling personnel are provided in Appendix K.

The stormwater sampler(s) and alternate(s) have received the following stormwater sampling training:

Name	Training
	INSERT LIST OF TRAINING COURSES
	INSERT LIST OF TRAINING COURSES

The stormwater sampler(s) and alternates have the following stormwater sampling experience:

Name	Experience
	INSERT LIST OF STORMWATER SAMPLING EXPERIENCE
	INSERT LIST OF STORMWATER SAMPLING EXPERIENCE

7.7.7 Sample Collection and Handling

INSTRUCTIONS

Use of correct methods to collect and handle samples help to ensure the samples are valid. While the handling requirements apply primarily to grab samples collected for laboratory analysis, field measurements can be affected by sample collection procedures.

- Describe sample collection procedures to be used for sampling.

- Describe sample handling procedures.
- Describe container decontamination waste disposal requirements.
- Describe sample collection documentation procedures.

The following provides general direction on sample collection and handling that the QSD should make project specific.

Sample collection and handling described in this document are consistent with the QAPrP, but have been simplified for construction monitoring and may not address every aspect of the QAPrP or anticipate every sampling scenario.

RECOMMENDED TEXT FOR ALL PROJECTS

7.7.7.1 Sample Collection

Samples shall be collected at the designated sampling locations shown on the Site Maps and listed in the preceding sections. Samples shall be collected, maintained and shipped in accordance with the SWAMP 2008 Quality Assurance Program Plan (QAPrP).

Grab samples shall be collected and preserved in accordance with the methods identified in preceding sections.

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

- Collect samples (for laboratory analysis) only in analytical laboratory-provided sample containers;
- Wear clean, powder-free nitrile gloves when collecting samples;
- Change gloves whenever something not known to be clean has been touched;
- Change gloves between sites;
- Decontaminate all equipment (e.g. bucket, tubing) prior to sample collection using a trisodium phosphate water wash, distilled water rinse, and final rinse with distilled water. (Dispose of wash and rinse water appropriately, i.e., do not discharge to storm drain or receiving water). Do not decontaminate laboratory provided sample containers;
- Do not smoke during sampling events;
- Never sample near a running vehicle;
- Do not park vehicles in the immediate sample collection area (even non-running vehicles);
- Do not eat or drink during sample collection; and
- Do not breathe, sneeze, or cough in the direction of an open sample container.

The most important aspect of grab sampling is to collect a sample that represents the entire runoff stream. Typically, samples are collected by dipping the collection container in the runoff flow paths and streams as noted below.

i. For small streams and flow paths, simply dip the bottle facing upstream until full.
ii. For larger stream that can be safely accessed, collect a sample in the middle of the flow stream by directly dipping the mouth of the bottle. Once again making sure that the opening of the bottle is facing upstream as to avoid any contamination by the sampler.

iii. For larger streams that cannot be safely waded, pole-samplers may be needed to safely access the representative flow.
iv. Avoid collecting samples from ponded, sluggish or stagnant water.
v. Avoid collecting samples directly downstream from a bridge as the samples can be affected by the bridge structure or runoff from the road surface.

Note, that depending upon the specific analytical test, some containers may contain preservatives. These containers should **never** be dipped into the stream, but filled indirectly from the collection container.

INSTRUCTIONS

Risk Level 3 projects should include the next paragraph.

Risk Level 1 and 2 projects should delete this paragraph.

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS

SSC samples should be taken as a normal grab sample, where the bottle is submerged facing upstream and filled. SSC samples need to be collected in a separate bottle because the analysis requires the entire volume of the bottle. Do not collect in a larger container and partition into the laboratory sample container.

7.7.7.2 Sample Handling

RECOMMENDED TEXT FOR ALL PROJECTS

Turbidity and pH measurements must be conducted immediately. Do not store turbidity or pH samples for later measurement.

Samples for laboratory analysis must be handled as follows. Immediately following sample collection:

- Cap sample containers;
- Complete sample container labels;
- Sealed containers in a re-sealable storage bag;
- Place sample containers into an ice-chilled cooler;
- Document sample information on the *Effluent Sampling Field Log Sheet*; and
- Complete the CoC.

All samples for laboratory analysis must be maintained between 0-6 degrees Celsius during delivery to the laboratory. Samples must be kept on ice, or refrigerated, from sample collection through delivery to the laboratory. Place samples to be shipped inside coolers with ice. Make sure the sample bottles are well packaged to prevent breakage and secure cooler lids with packaging tape.

Ship samples that will be laboratory analyzed to the analytical laboratory right away. Hold times are measured from the time the sample is collected to the time the sample is analyzed. The General Permit requires that samples be received by the analytical laboratory within 48 hours of the physical sampling (unless required sooner by the analytical laboratory).

Laboratory Name:

Address:	
City, State Zip:	
Telephone Number:	
Point of Contact:	

7.7.7.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, *Effluent Sampling Field Log Sheet*, and CoCs shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

Duplicate samples shall be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples shall be identified in the Effluent Sampling Field Log Sheet.

Sample documentation procedures include the following:

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle. Sample identification shall uniquely identify each sample location.

Field Log Sheets: Sampling personnel shall complete the *Effluent Sampling Field Log Sheet* and *Receiving Water Sampling Field Log Sheet* for each sampling event, as appropriate.

Chain of Custody: Sampling personnel shall complete the CoC for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the CoC when the sample(s) is turned over to the testing laboratory or courier.

7.8 Active Treatment System Monitoring

INSTRUCTIONS

Identify whether the site will use an ATS. For sites that will deploy an ATS, the specific monitoring requirements associated with the operation of the ATS are not included in the CSMP, but should be referenced here.

RECOMMENDED TEXT FOR ALL PROJECTS

An Active Treatment System (ATS) will be deployed on the site?

☐ Yes ☐ No

RECOMMENDED TEXT FOR ALL PROJECTS WHERE AN ATS WILL NOT BE DEPLOYED

This project does not require a project specific Sampling and Analysis Plan for an ATS because deployment of an ATS is not planned.

RECOMMENDED TEXT FOR ALL PROJECTS WHERE AN ATS WILL BE DEPLOYED

The project specific Sampling and Analysis Plan for the ATS is provided in the ATS Monitoring and Sampling Plan (MSRP). The ATS MSRP is located [Insert location where MSRP can be viewed]

7.9 Bioassessment Monitoring

INSTRUCTIONS

Identify whether the site is subject to Bioassessment Monitoring.

For sites that are subject to bioassessment monitoring, specific monitoring requirements are not included in the CSMP, but should be referenced here. However, if the project has an approved bioassessment sampling exception, that exception should be documented in the CSMP.

RECOMMENDED TEXT FOR RISK LEVEL 1 AND 2 PROJECTS

This project is not subject to bioassessment monitoring because it is not a Risk Level 3 project.

RECOMMENDED TEXT FOR RISK LEVEL 3 PROJECTS

This project is Risk Level 3	☐ Yes	☐ No
This project will disturb more than30 acres	☐ Yes	☐ No
This project directly discharges runoff to a freshwater wadeable stream (or streams) that is either:	☐ Yes	☐ No
a) Listed by the State Water Board or EPA as impaired due to sediment or is tributary to any downstream waterbody that is listed for sediment impairments		☐
or		
b) Has the beneficial uses of SPAWN and COLD and MIGRATORY		☐

RECOMMENDED TEXT IF EITHER RESPONSE IS NO

This project is not subject to bioassessment monitoring because it does not meet both of the permit specified trigger requirements.

RECOMMENDED TEXT IF BOTH RESOPONSES ARE YES AND THE PROJECT DOES NOT HAVE AN APPROVED SAMPLING EXCEPTION

This project is subject to bioassessment monitoring requirements. The bioassessment monitoring program is specified in [Insert the name of plan where the bioassessment monitoring plan is documented].

RECOMMENDED TEXT IF BOTH RESOPONSES ARE YES AND THE PROJECT HAS AN APPROVED SAMPLING EXCEPTION

This project is subject to bioassessment monitoring requirements. The Regional Water Board has approved a bioassessment sampling exception for the project. Documentation of the

sampling exception approval and payment to the SWAMP fund is included in CSMP Attachment 5 "Supplemental Information".

7.10 Watershed Monitoring Option

INSTRUCTIONS

For sites that participate in a qualified regional watershed-based monitoring program the QSD shall describe their participation and the elements of the General Permit monitoring requirements that have been suspended by the Regional Water Board in lieu of the watershed monitoring. Include a copy of the Regional Water Board approval of the watershed monitoring program.

The QSD shall adjust the preceding sampling and analysis plans as needed to reference the requirements covered by the watershed monitoring.

RECOMMENDED TEXT IF PROJECT IS NOT PARTICIPATING IN A WATERSHED MONITORING OPTION

This project is not participating in a watershed monitoring option.

RECOMMENDED TEXT IF PROJECT IS PARTICIPATING IN A WATERSHED MONITORING OPTION

This project is participating in a watershed monitoring option.

[Insert summary of the watershed monitoring and Regional Board approval of the program]

7.11 Quality Assurance and Quality Control

INSTRUCTIONS

Basic quality assurance and quality control (QA/QC) requirements are identified in this section.

Additional QA/QC may be required based upon site specific conditions, owner/LRP requirements, or the planned monitoring. The QSD should consider this the basic information and augment as needed.

RECOMMENDED TEXT FOR ALL PROJECTS

An effective Quality Assurance and Quality Control (QA/QC) plan shall be implemented as part of the CSMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;
- Clean sampling techniques;
- CoCs;
- QA/QC Samples; and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

7.11.1 Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling

personnel, sample container identification numbers, and types of samples that were collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. A Visual Inspection Field Log, an Effluent Sampling Field Log Sheet, [and a Receiving Water Sampling Field Log Sheet] are included in CSMP Attachment 3 "Example Forms".

7.11.2 Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. As discussed in Section 7.7.7, adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

7.11.3 Chain of Custody

The sample CoC is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Proper labeling of samples;
- Use of CoC forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide CoC forms to be filled out for sample containers. An example CoC is included in CSMP Attachment 3 "Example Forms".

7.11.4 QA/QC Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

☐ Field Duplicates at a frequency of [5 percent or 1 duplicate minimum per sampling event] (Required for all sampling plans with field measurements or laboratory analysis)

☐ Equipment Blanks at a frequency of [Insert frequency required by method] (Only needed if equipment used to collect samples could add the pollutants to sample)

☐ Field Blanks at a frequency of [Insert frequency required by method] (Only required if sampling method calls for field blanks)

☐ Travel Blanks at a frequency of [Insert frequency required by method] (Required for sampling plans that include VOC laboratory analysis)

7.11.4.1 Field Duplicates

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples shall be collected, handled, and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected shall be randomly selected from the discharge locations. Duplicate samples shall be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples shall not influence any evaluations or conclusion.

7.11.4.2 Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used;
- Equipment that has been cleaned after use at a contaminated site;
- Equipment that is not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

7.11.4.3 Field Blanks

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ioninzed water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during the course of a sampling event.

7.11.4.4 Travel Blanks

Travel blanks assess the potential for cross-contamination of volatile constituents between sample containers during shipment from the field to the laboratory. De-ioninzed water blanks are taken along for the trip and held unopened in the same cooler with the VOC samples.

7.11.5 Data Verification

After results are received from the analytical laboratory, the QSP shall verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification shall include:

- Check the CoC and laboratory reports.
  Make sure all requested analyses were performed and all samples are accounted for in the reports.
- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.
  Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. The QSP should especially note data that is an order of magnitude or more different than similar locations, or is inconsistent with previous data from the same location.
- Check laboratory QA/QC results.
  EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. The QSP shall evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.
- Check the data set for outlier values and, accordingly, confirm results and re-analyze samples where appropriate.

Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including inspections and observations must be verified as soon as the field logs are received, typically at the end of the sampling event. Field data verification shall include:

- Check field logs to make sure all required measurements were completed and appropriately documented;
- Check reported values that appear out of the typical range or inconsistent; Follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling;
- Verify equipment calibrations;
- Review observations noted on the field logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

7.12 Records Retention

RECOMMENDED TEXT FOR ALL PROJECTS

All records of stormwater monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least three years from date of submittal or longer if required by the Regional Water Board.

Results of visual monitoring, field measurements, and laboratory analyses must be kept in the SWPPP along with CoCs, and other documentation related to the monitoring.

Records are to be kept onsite while construction is ongoing. Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation;
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements;
- The date and approximate time of field measurements and laboratory analyses;
- The individual(s) who performed the laboratory analyses;
- A summary of all analytical results, the method detection limits and reporting limits, and the analytical techniques or methods used;
- Rain gauge readings from site inspections;
- QA/QC records and results;
- Calibration records;
- Visual observation and sample collection exemption records;
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections; [and]
    - [NAL Exceedance Reports].

CSMP Attachment 1: Weather Reports

INSTRUCTIONS

Place printed NOAA weather forecasts in this Attachment.

CSMP Attachment 2: Monitoring Records

INSTRUCTIONS

Place completed BMP Inspection Forms, Visual Monitoring, Effluent Sampling and Receiving Water Field Logs, Monitoring Exceptions, NAL Exceedance Reports, and Receiving Water Monitoring Trigger Exceptions in this Attachment.

CSMP Attachment 3: Example Forms

INSTRUCTIONS

Place example forms and check lists, e.g., Rain Gauge Logs, Field Logs, NAL Exceedance Reports, CoCs, in this Attachment.

Rain Gauge Log Sheet				
Construction Site Name:				
WDID #:				
Date (mm/dd/yy)	Time (24-hr)	Initials	Rainfall Depth (Inches)	Notes:

Risk Level 1, 2, 3 ***Visual Inspection Field Log Sheet***						
Date and Time of Inspection:				Report Date:		
Inspection Type:	☐ Weekly	☐ Before predicted rain	☐ During rain event	☐ Following qualifying rain event	☐ Contained stormwater release	☐ Quarterly non-stormwater
Site Information						
Construction Site Name:						
Construction stage and completed activities:				Approximate area of exposed site:		
Weather and Observations						
Date Rain Predicted to Occur:				Predicted % chance of rain:		
Estimate storm beginning: _____ (date and time)		Estimate storm duration:_____ (hours)		Estimate time since last storm: _____ (days or hours)	Rain gauge reading:_____ (inches)	
Observations: If yes identify location						
Odors	Yes ☐	No ☐				
Floating material	Yes ☐	No ☐				
Suspended Material	Yes ☐	No ☐				
Sheen	Yes ☐	No ☐				
Discolorations	Yes ☐	No ☐				
Turbidity	Yes ☐	No ☐				
Site Inspections						
Outfalls or BMPs Evaluated			**Deficiencies Noted**			
(add additional sheets or attached detailed BMP Inspection Checklists)						
Photos Taken:	Yes ☐	No ☐	Photo Reference IDs:			
Corrective Actions Identified (note if SWPPP/REAP change is needed)						
Inspector Information						
Inspector Name:				Inspector Title:		
Signature:				Date:		

Risk Level 2 ***Effluent Sampling Field Log Sheets***			
Construction Site Name:		Date:	Time Start:
Sampler:			
Sampling Event Type:	☐ Stormwater	☐ Non-stormwater	☐ Non-visible pollutant
Field Meter Calibration			
pH Meter ID No./Desc.: Calibration Date/Time:		Turbidity Meter ID No./Desc.: Calibration Date/Time:	

Field pH and Turbidity Measurements			
Discharge Location Description	pH	Turbidity	Time

Grab Samples Collected		
Discharge Location Description	Sample Type	Time

Additional Sampling Notes:
Time End:

Risk Level 3 ***Effluent Sampling Field Log Sheets***			
Construction Site Name:		Date:	Time Start:
Sampler:			
Sampling Event Type:	☐ Stormwater	☐ Non-stormwater	☐ Non-visible pollutant
Field Meter Calibration			
pH Meter ID No./Desc.: Calibration Date/Time:		Turbidity Meter ID No./Desc.: Calibration Date/Time:	
Field pH and Turbidity Measurements			
Discharge Location Description	pH	Turbidity	Time
Grab Samples Collected			
Discharge Location Description	Other (specify)		Time
Additional Sampling Notes:			
Time End:			

Risk Level 3 ***Receiving Water Sampling Field Log Sheets***		
Construction Site Name:	Date:	Time Start:
Sampler:		
Receiving Water Description and Observations		
Receiving Water Name/ID:		
Observations:		
Odors	Yes ☐ No ☐	
Floating material	Yes ☐ No ☐	
Suspended Material	Yes ☐ No ☐	
Sheen	Yes ☐ No ☐	
Discolorations	Yes ☐ No ☐	
Turbidity	Yes ☐ No ☐	
Field Meter Calibration		
pH Meter ID No./Desc.: Calibration Date/Time:	Turbidity Meter ID No./Desc.: Calibration Date/Time:	

Field pH and Turbidity Measurements and SSC Grab Sample			
Upstream Location			
Type	Result	Time	Notes
pH			
Turbidity			
SSC	Collected Yes ☐ No ☐		
Downstream Location			
Type	Result	Time	Notes
pH			
Turbidity			
SSC	Collected Yes ☐ No ☐		

Additional Sampling Notes:
Time End:

NAL Exceedance Evaluation Summary Report	Page __ of __
Project Name	
Project WDID	
Project Location	
Date of Exceedance	
Type of Exceedance	**NAL Daily Average** ☐ **pH** ☐ **Turbidity** ☐ **Other (specify) _____**
Measurement or Analytical Method	☐ **Field meter** **(Sensitivity: _____)** ☐ **Lab method (specify) _____** **(Reporting Limit: _____)** **(MDL: _____)**
Calculated Daily Average	☐ **pH _____ pH units** ☐ **Turbidity _____ NTU**
Rain Gauge Measurement	**_____ inches**
Compliance Storm Event	**_____ inches (5-year, 24-hour event)**
Visual Observations on Day of Exceedance	

NAL Exceedance Evaluation Summary Report	Page __ of __
Description of BMPs in Place at Time of Event	
Initial Assessment of Cause	
Corrective Actions Taken (deployed after exceedance)	
Additional Corrective Actions Proposed	
Report Completed By	_____ **(Print Name, Title)**
Signature	_____

CHAIN-OF-CUSTODY **DATE:** **Lab ID:**

DESTINATION LAB: ATTN: **ADDRESS:** **Office Phone:** **Cell Phone:**							REQUESTED ANALYSIS				Notes:
SAMPLED BY:											
Contact:											
Project Name											
Client Sample ID	**Sample Date**	**Sample Time**	**Sample Matrix**	**Container #**	**Container Type**	**Container Pres.**					

SENDER COMMENTS:	**RELINQUISHED BY**	
	Signature:	
	Print:	
	Company:	
	Date:	TIME:
LABORATORY COMMENTS:	**RECEIVED BY**	
	Signature:	
	Print:	
	Company:	
	Date:	TIME:

CSMP Attachment 4: Field Meter Instructions

INSTRUCTIONS

Place instructions for field meters that will be used by contractor personnel in this Attachment.

CSMP Attachment 5: Supplemental Information

INSTRUCTIONS

Place documents related to Regional Board required monitoring, watershed monitoring option approval, and bioassessment exception approval in this Attachment.

Section 8 References

Project Plans and Specifications No. [Insert Number] dated [insert date], prepared by [entity preparing plans and specifications]

State Water Resources Control Board (2009). Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

State Water Resources Control Board (2010). Order 2010-0014-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

State Water Resources Control Board (2012). Order 2012-0006-DWQ, NPDES General Permit No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

[Include additional references as needed]

Example

CASQA 2009, *Stormwater BMP Handbook Portal: Construction*, November 2009, www.casqa.org

Appendix A: Calculations

INSTRUCTIONS

- *Include calculations here*

Appendix B: Site Maps

INSTRUCTIONS

- *Include maps here*

Appendix C: Permit Registration Documents

INSTRUCTIONS

- *Include Copies of Permit Registration Documents submitted to SMARTS, other than the SWPPP itself*
  - Notice Of Intent (NOI)
  - Risk Assessment
  - Signed Certification Statement
  - Post Construction Water Balance
  - Copy of Annual Fee Receipt
  - ATS Design Documents
  - Site Map, see Appendix B
- Include the project Waste Discharge Identification (WDID) confirmation

RECOMMENDED TEXT

Permit Registration Documents included in this Appendix

Y/N	Permit Registration Document
	Notice of Intent
	Risk Assessment
	Certification
	Post Construction Water Balance
	Copy of Annual Fee Receipt
	ATS Design Documents
	Site Map, see Appendix B

Appendix D: SWPPP Amendment Certifications

INSTRUCTIONS

- *Include certification statements for each SWPPP amendment.*

SWPPP Amendment No. _____

Project Name: _____

Project Number: _____

Qualified SWPPP Developer's Certification of the Stormwater Pollution Prevention Plan Amendment

"This Stormwater Pollution Prevention Plan and attachments were prepared under my direction to meet the requirements of the California Construction General Permit (SWRCB Order No. 2009-009-DWQ as amended by 2010-0014-DWQ and 2012-00xx-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

QSD's Signature	Date
QSD Name	QSD Certificate Number
Title and Affiliation	Telephone
Address	Email

Appendix E: Submitted Changes to PRDs

Log of Updated PRDs

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs shall be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP shall be modified appropriately, with revisions and amendments recorded in Appendix C. Updated PRDs submitted electronically via SMARTS can be found in this Appendix.

This appendix includes all of the following updated PRDs (check all that apply):

☐ Revised Notice of Intent (NOI);

☐ Revised Site Map;

☐ Revised Risk Assessment;

☐ New landowner's information (name, address, phone number, email address); and

☐ New signed certification statement.

Legally Responsible Person [if organization]

Signature of [Authorized Representative of] Legally Responsible Person or Approved Signatory

Date

Name of [Authorized Representative of] Legally Responsible Person or Approved Signatory

Telephone Number

Appendix F: Construction Schedule

INSTRUCTIONS

- *Include a copy of construction schedule*

Appendix G:Construction Activities, Materials Used, and Associated Pollutants

INSTRUCTIONS

- List construction materials that will be used and construction activities that will have the potential to contribute to the discharge of pollutants to stormwater.
- List construction activities (i.e., construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation) that have the potential to contribute sediment or other pollutants to stormwater discharges.
- Delete phases that are not applicable to Project
- Insert as many lines to Table G.1 as necessary to complete the list, use Table G.a below to assist in the completion of Table G.1
- Pollutant Categories identified are consistent with the *CASQA BMP Handbook Portal*: *Construction*: Sediment, Nutrients, Bacteria and Viruses, Oil and Grease, Metals, Synthetic Organics, Pesticides, Gross Pollutants, and Vector Production
- For sampling requirements for non-visible pollutants associated with construction site activity please refer to Section 7.7.1.

Table G.a POLLUTANTS ASSOCIATED WITH CONSTRUCTION ACTIVITIES

General Work Activity/ Products With Potential Stormwater Pollutants	Specific Work Activity/Products With Potential Stormwater Pollutants	Pollutant Categories
Adhesives	• Adhesives, glues, resins, epoxy synthetics, PVC cement • Caulks, sealers, putty, sealing agents and • Coal tars (naphtha, pitch)	Oil and Grease, Synthetic Organics[1]
Asphalt paving/curbs	• Hot and cold mix asphalt	Oil and Grease
Cleaners	• Polishes (metal, ceramic, tile) • Etching agents • Cleaners, ammonia, lye, caustic sodas, bleaching agents and chromate salts	Metals, Synthetic Organics
Concrete / Masonry	• Cement and brick dust • Colored chalks • Concrete curing compounds • Glazing compounds • Surfaces cleaners • Saw cut slurries • Tile cutting	Metals, Synthetic Organics
Drywall	• Saw-cutting drywall	Metals
Framing/Carpentry	• Sawdust, particle board dust, and treated woods • Saw cut slurries	Metals, Synthetic Organics
Heating, Ventilation, Air Conditioning	• Demolition or construction of air condition and heating systems	Metals, Synthetic Organics
Insulation	• Demolition or construction involving insulation, venting systems	Metals, Synthetic Organics

Table G.a POLLUTANTS ASSOCIATED WITH CONSTRUCTION ACTIVITIES

General Work Activity/ Products With Potential Stormwater Pollutants	Specific Work Activity/Products With Potential Stormwater Pollutants	Pollutant Categories
Liquid waste	• Wash waters • Irrigation line testing/flushing	Metals, Synthetic Organics
Painting	• Paint thinners, acetone, methyl ethyl ketone, stripper paints, lacquers, varnish, enamels, turpentine, gum spirit, solvents, dyes, stripping pigments and sanding	Metals, Synthetic Organics
Planting / Vegetation Management	• Vegetation control (pesticides/herbicides) • Planting • Plant maintenance • Vegetation removal	Nutrients, Metals, Synthetic Organics
Plumbing	• Solder (lead, tin), flux (zinc chloride), pipe fitting • Galvanized metal in nails, fences, and electric wiring	Metals, Synthetic Organics
Pools/fountains	• Chlorinated water	Synthetic Organics
Removal of existing structures	• Demolition of asphalt, concrete, masonry, framing, roofing, metal structures.	Metals, Oil and Grease, Synthetic Organics
Roofing	• Flashing • Saw cut slurries (tile cutting) • Shingle scrap and debris	Metals, Oil and Grease, Synthetic Organics
Sanitary waste	• Portable toilets • Disturbance of existing sewer lines.	Nutrients
Soil preparation/amendments	• Use of soil additives/amendments	Nutrients
Solid waste	• Litter, trash and debris • Vegetation	Gross Pollutants
Utility line testing and flushing	• Hydrostatic test water • Pipe flushing	Synthetic Organics
Vehicle and equipment use	• Equipment operation • Equipment maintenance • Equipment washing • Equipment fueling	Oil and Grease

[1] Synthetic Organics are defined in Table 1.2 of the CASQA *Stormwater BMP Handbook Portal: Construction* as adhesives, cleaners, sealants, solvents, etc. These are generally categorized as VOCs or SVOCs.

Table G.1 Construction Activities and Associated Pollutants

Phase	Activity	Associated Materials or Pollutants	Pollutant Category[(1)]
Grading and Land Development			
Streets and Utilities Phase			
Vertical Construction Phase			
Landscaping and Site Stabilization Phase			

(1) Categories per CASQA BMP Handbook (i.e., Sediment, Nutrients, Bacteria and Viruses, Oil and Grease, Metals, Synthetic Organics, Pesticides, Gross Pollutants, and Vector Production)

Appendix H: CASQA Stormwater BMP Handbook Portal: Construction Fact Sheets

INSTRUCTIONS

- *Include Fact Sheets for BMPs identified in Section 3 of this SWPPP*
- *Note that it is not necessary to upload the Fact Sheets into SMARTS, but the Fact Sheets must be in the SWPPP on the construction site.*

Appendix I: BMP Inspection Form

INSTRUCTIONS

- *Identify Risk Level, for Risk Level 2 or 3 include highlighted text*

BMP INSPECTION REPORT

Date and Time of Inspection:	Date Report Written:

Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name:	
Construction stage and completed activities:	Approximate area of site that is exposed:

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time)	Estimate storm duration: (hours)
Estimate time since last storm: (days or hours)	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name:	Inspector Title:
Signature:	Date:

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level _____ Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)			
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level _____ Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations			
Non-Stormwater Management			
Non-Stormwater discharges are properly controlled			
Vehicles are washed in a manner to prevent non-stormwater discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-stormwater discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Linear sediment control along toe of slope, face of slope an at grade breaks (Risk Level 2 & 3 Only)			
Limit construction activity to and from site to entrances and exits that employ effective controls to prevent offsite tracking (Risk Level 2 & 3 Only)			

Ensure all storm, drain inlets and perimeter controls, runoff control BMPs and pollutants controls at entrances and exits are maintained and protected from activities the reduce their effectiveness (Risk Level 2 & 3 Only)			
Inspect all immediate access roads daily (Risk Level 2 & 3 Only)			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.			
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?			

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do stormwater storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are stormwater storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	

Notes:	

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

Part VI. Additional Post-Storm Observations. **Visually observe (inspect) stormwater discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained stormwater that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.**	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. **Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.**	
Required Actions	**Implementation Date**

Appendix J: Project Specific Rain Event Action Plan Template

INSTRUCTIONS

- *QSD should modify the CASQA REAP template for use by the QSP*
- *The QSP will modify the project specific template for each phase/rain event*
- *File REAPs completed by the QSP in this Appendix*

Rain Event Action Plan (REAP)

Date of REAP		**WDID Number:**	
Date Rain Predicted to Occur:		**Predicted % chance of rain:**	

Predicted Rain Event Triggered Actions

Below is a list of suggested actions and items to review for this project. Each active Trade should check all material storage areas, stockpiles, waste management areas, vehicle and equipment storage and maintenance, areas of active soil disturbance, and areas of active work to ensure the proper implementation of BMPs. Project-wide BMPs should be checked and cross-referenced to the BMP progress map.

Trade or Activity	Suggested action(s) to perform / item(s) to review prior to rain event
❑ Information & Scheduling	❑ Inform trade supervisors of predicted rain ❑ Check scheduled activities and reschedule as needed ❑ Alert erosion/sediment control provider ❑ Alert sample collection contractor (if applicable) ❑ Schedule staff for extended rain inspections ❑ Check Erosion and Sediment Control (ESC) material stock ❑ Review BMP progress map ❑ Other:_____ ❑ _____ ❑ _____
❑ Material storage areas	❑ Material under cover or in sheds (ex: treated woods and metals) ❑ Perimeter control around stockpiles ❑ Other:_____ ❑ _____ ❑ _____
❑ Waste management areas	❑ Dumpsters closed ❑ Drain holes plugged ❑ Recycling bins covered ❑ Sanitary stations bermed and protected from tipping ❑ Other:_____ ❑ _____ ❑ _____
❑ Trade operations	❑ Exterior operations shut down for event (e.g., no concrete pours or paving) ❑ Soil treatments (e.g., fertilizer) ceased within 24 hours of event ❑ Materials and equipment (e.g., tools) properly stored and covered ❑ Waste and debris disposed in covered dumpsters or removed from site ❑ Trenches and excavations protected ❑ Perimeter controls around disturbed areas ❑ Fueling and repair areas covered and bermed ❑ Other:_____ ❑ _____ ❑ _____
❑ Site ESC BMPs	❑ Adequate capacity in sediment basins and traps ❑ Site perimeter controls in place ❑ Catch basin and drop inlet protection in place and cleaned ❑ Temporary erosion controls deployed ❑ Temporary perimeter controls deployed around disturbed areas and stockpiles ❑ Roads swept; site ingress and egress points stabilized ❑ Other:_____ ❑ _____ ❑ _____
❑ Concrete rinse out area	❑ Adequate capacity for rain ❑ Wash-out bins covered ❑ Other:_____ ❑ _____ ❑ _____
❑ Spill and drips	❑ All incident spills and drips, including paint, stucco, fuel, and oil cleaned ❑ Drip pans emptied ❑ Other:_____ ❑ _____ ❑ _____

Continued on next page.

❑ Other / Discussion / Diagrams	❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____ ❑ _____

Attach a printout of the weather forecast from the NOAA website to the REAP.

I certify under penalty of law that this Rain Event Action Plan (REAP) will be performed in accordance with the General Permit by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____Date: _____
Qualified SWPPP Practitioner (Use ink please)

Appendix K: Training Reporting Form

Trained Contractor Personnel Log

Stormwater Management Training Log and Documentation

Project Name: _____
WDID #: _____

Stormwater Management Topic: (check as appropriate)

☐ Erosion Control ☐ Sediment Control
☐ Wind Erosion Control ☐ Tracking Control
☐ Non-Stormwater Management ☐ Waste Management and Materials Pollution Control
☐ Stormwater Sampling

Specific Training Objective: _____

Location: _____ Date: _____

Instructor: _____ Telephone: _____

Course Length (hours): _____

Attendee Roster (Attach additional forms if necessary)

Name	Company	Phone

As needed, add proof of external training (e.g., course completion certificates, credentials for QSP, QSD).

Appendix L: Responsible Parties

OPTIONAL

Authorization of Approved Signatories

Project Name: _____

WDID #: _____

Name of Personnel	Project Role	Company	Signature	Date

_____ _____

LRP's Signature Date

_____ _____

LRP Name and Title Telephone Number

Identification of QSP

Project Name: _____

WDID #: _____

The following are QSPs associated with this project

Name of Personnel(1)	Company	Date

(1) If additional QSPs are required on the job site add additional lines and include information here

OPTIONAL

Authorization of Data Submitters

Project Name: _____

WDID #: _____

Name of Personnel	Project Role	Company	Signature	Date

_____ _____

Approved Signatory's Signature Date

_____ _____

Approved Signatory Telephone Number

Name and Title

Appendix M:Contractors and Subcontractors

Appendix N:Construction General Permit

INSTRUCTIONS

- *Include a copy of the General Permit, or reference permanent location of General Permit that is kept on the construction site.*