

SECTION 01 57 23 - TEMPORARY STORM WATER POLLUTION CONTROL**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. CASQA Construction Handbook / Website Portal – Available as a subscription service at: <https://www.casqa.org/resources>.

1.2 SUMMARY

- A. This Section includes all methods and materials to comply with temporary storm water pollution control requirements. The DBE is responsible for determining the requirements at each site, and whether a SWPPP or a WPCP is required.
- B. SWPPP. Storm Water Pollution Prevention Plan (SWPPP), is required for construction sites with a disturbed area of one or more acres, including construction sites of less than one acre when they are part of a larger common development plan that is equal to or greater than one acre:
 - 1. The DBE is responsible for obtaining coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ and associated amendments, NPDES No. CAS000002 (Construction General Permit). The DBE will submit the following Project Registration Documents (PRDs) to the State Water Board electronically, using the State Water Board Storm Water Multiple Application and Report Tracking System (SMARTS) as described in Attachment B of the Construction General Permit, hereafter regarded as the CGP. This includes payment of the fee statement generated by SMARTS after PRD submittal.
 - 2. The DBE will supply the following documents:
 - a. Conceptual SWPPP, prepared by a Qualified SWPPP Developer (QSD) to minimize the discharge of pollutants in stormwater due to construction activities.
 - b. Notice of Intent (NOI).
 - c. Risk Assessment.
 - d. Conceptual Site Map.
 - e. WDID.
- C. WPCP. Water Pollution Control Program (WPCP), is required for construction sites with a disturbed area of less than one acre or for projects with an Environmental Protection Agency Small Construction Project Erosivity Waiver (Erosivity Waiver):
 - 1. The DBE will determine if the Project is eligible for an Erosivity Waiver.
 - 2. The DBE will supply the WPCP, to minimize the discharge of pollutants in stormwater due to construction activities.
- D. Related Requirements:

1.3 ABBREVIATIONS

- A. ATS: Advanced Treatment System.
- B. BMP: Best Management Practice.
- C. CASQA: California Storm water Quality Association.
- D. CCR: California Code of Regulations.
- E. CGP: Construction General Permit.
- F. CSMP: Construction Site Monitoring Program.
- G. DTSC: Department of Toxic Substance Control.
- H. EPA: Environmental Protection Agency.
- I. ESA: Environmentally Sensitive Area.
- J. LRP: Legally Responsible Person.
- K. NAL: Numeric Action Level.
- L. NEL: Numeric Effluent Limitation.
- M. NOI: Notice of Intent.
- N. NOT: Notice of Termination.
- O. NPDES: National Pollutant Discharge Elimination System.
- P. PRD: Project Registration Document.
- Q. QSD: Qualified SWPPP Developer.
- R. QSP: Qualified SWPPP Practitioner.
- S. REAP: Rain Event Action Plan.
- T. RWQCB: Regional Water Quality Control Board.
- U. SAP: Sampling and Analysis Plan.
- V. SMARTS: Storm water Multiple Application and Report Tracking System.
- W. SWPPP: Storm Water Pollution Prevention Plan.
- X. SWRCB: State Water Resources Control Board.
- Y. WDID: Waste Discharge Identification Number.
- Z. WPCD: Water Pollution Control Drawing.
- AA. WPCP: Water Pollution Control Program

1.4 ACTION SUBMITTALS

- A. Refer to entire section for all the submittal requirements.
- B. SWPPP or WPCP:
 - 1. Preliminary.
 - 2. Final.
 - 3. Amendments.
- C. Construction Site Monitoring Program (CSMP).
- D. ATS:
 - 1. ATS Plan.
 - 2. Notice of Discharge Report

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Design-Build Entity's QSD and QSP Qualified Person.
- B. Hazardous waste documentation.
- C. Rain Event Action Plan(s) (REAP).
- D. Storm Water Annual Report.

1.6 QUALITY ASSURANCE

- A. QSD Qualifications: Throughout the duration of construction, assign to the Project a QSD with the following training qualifications in accordance with Section VII of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity, State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ and associated amendments, NPDES No. CAS000002 (Construction General Permit):
 - 1. A person who has attended and passed a State Water Board-sponsored or approved QSD training course.
 - 2. Registered or certified as at least one of the following:
 - a. California Registered Civil Engineer.
 - b. California Registered Professional or Engineering Geologist.
 - c. California Licensed Landscape Architect.
 - d. Professional American Institute of Hydrology Hydrologist.
 - e. Certified Professional in Storm Water Quality (CPSWQ)TM registered through Enviro Cert International, Inc.
 - f. Certified Professional in Erosion and Sediment Control (CPESC)TM registered through Enviro Cert International, Inc.
 - g. Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).
- B. QSP Qualifications: Throughout the duration of construction, assign to the Project a QSP with the following training qualifications in accordance with Section VII of the CGP:

1. A person who has attended and passed a State Water Board-sponsored or approved QSP training course.
 2. Certified as at least one of the following:
 - a. Certified Erosion, Sediment and Storm Water Inspector (CESSWI)TM registered through Enviro Cert International, Inc.
 - b. Certified Inspector of Sediment and Erosion Control (CISEC)TM registered through CISEC, Inc.
 - c. QSD.
- C. Qualified Person Qualifications: Throughout the duration of construction, assign to the Project an appropriately trained individual with at least one of the following training qualifications:
1. Attended and passed a State Water Board-sponsored or approved QSD or QSP training course, or
 2. Registered or certified as a:
 - a. California Registered Civil Engineer.
 - b. California Registered Professional or Engineering Geologist.
 - c. California Licensed Landscape Architect.
 - d. Professional American Institute of Hydrology Hydrologist.
 - e. Certified Professional in Storm Water Quality (CPSWQ)TM registered through Enviro Cert International, Inc.
 - f. Certified Professional in Erosion and Sediment Control (CPESC)TM registered through Enviro Cert International, Inc.
 - g. Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).
 - h. Certified Erosion, Sediment and Storm Water Inspector (CESSWI)TM registered through Enviro Cert International, Inc.
 - i. Certified Inspector of Sediment and Erosion Control (CISEC)TM registered through CISEC, Inc.

1.7 LAWS, REGULATIONS, AND POLICIES

- A. A. The following laws, permits, regulations and Board policies apply to the erosion and sediment transport control requirements described in this Section.
1. Construction General Permit (CGP): National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity. State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, NPDES No. CAS000002, adopted September 2, 2009 and associated amendments.
 2. California Code of Regulations (CCR), Title 23 (Divisions 2 and 4) and Title 24 (Parts 5 and 11).
 3. California Regional Water Quality Control Board (RWQCB) Water Quality Control Plan for the San Diego Basin (9).
 4. California Statewide General Permit for Waste Discharge Requirements for Discharges from Utility Vaults and Underground Structures to Surface Waters, Order No. 2006-008-DWQ, NPDES No. CAG990002.
 5. California RWQCB San Diego Region, General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems, Order No. R9-2002-0020, NPDES No. CAG679001.
 6. California RWQCB San Diego Region, General Waste Discharge Requirements for

Discharges from Groundwater Extraction Waste to Surface Waters within the San Diego Region except for San Diego Bay, Order No. R9-2008-0002, NPDES No. CAG919002 (Waste Discharge Application/NPDES Permit, Form 200, replacing Order No. R9-2001-96).

7. California RWQCB San Diego Region, General Waste Discharge Requirements for Discharges from Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay, Tributaries Thereto under Tidal Influence, and Storm Drains or Other Conveyance Systems Tributary Thereto, Order No. R9-2007-0034, NPDES No. CAG919001.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Best Management Practices (BMP's) shall be installed and maintained for water pollution control following the guidance of the appropriate BMP Fact Sheet from the CASQA Construction Handbook / Website Portal.
- B. BMP's shall be installed and maintained for water pollution control following the guidance of the appropriate BMP Fact Sheet from the CASQA Construction Handbook / Website Portal.
- C. Materials needed for the proper installation and operation of BMP's shall comply with the requirements identified on the appropriate CASQA BMP Fact Sheets.
- D. Materials used in the installation and operation of an ATS shall be in compliance with Attachment F of the CGP.

2.2 RAIN GAUGES

- A. Provide a non-recording rain gauge on the project site and ensure proper positioning to avoid shielding from neighboring buildings, vegetation, etc.
- B. Manufacturers: Subject to compliance with requirements, provide one of the following:
 1. High Sierra Electronics, Model 2501-00.
 2. Belfort Instruments, Model 5-400.
 3. Hydrologic Services Pty., Ltd., Standard Model SRG.
 4. Or equal.

PART 3 - EXECUTION

3.1 CONSTRUCTION POLLUTION PREVENTION DOCUMENT

- A. Provide a designated individual, meeting the specified qualifications, to amend the D-SWPPP with phase-specific details. A copy of the D-SWPPP will be provided by the District:
 1. Provide a designated individual, meeting the specified qualifications, to implement the SWPPP with regards to contract work items and all elements required by the CGP. The CGP is available online at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

- 2. In addition to compliance with the CGP, comply with all other applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of storm water, including applicable municipal storm water management programs.

B. Provide a designated individual with evidence of adequate training to prepare the WPCP with phase specific details. Comply with the same without adjustment of the Contract Price or the Contract Time:

- 1. Implement the WPCP with regards to contract work items and all elements required to protect water quality in compliance with the California RWQCB Water Quality Control Plan for the San Diego Basin, available at:
http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/basin_plan/index.shtml.
- 2. In addition to compliance with the Water Quality Control Plan, Comply with all other applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of storm water, including applicable municipal storm water management programs.

3.2 STORM WATER POLLUTION CONTROL

A. Assign a QSD for the project to be in charge of creating and certifying the SWPPP. In particular, the QSD shall perform the responsibilities indicated in Section XIV of the CGP and shall meet the training requirements specified in Section VII.B.1 of the CGP.

B. Prepare a SWPPP providing effective soil erosion protection and sediment transport controls for all disturbed areas that are not to be paved or otherwise treated and areas as indicated, inactive areas, finished slopes, open space, and completed lots in accordance with the Contract Documents and the CGP

C. Assign a Qualified SWPPP Practitioner (QSP) for the project, to be in charge of implementation of all provisions of the SWPPP, including non-stormwater and stormwater visual observations, sampling and analysis, and erosion and sediment control best management practice (BMP) implementation. In particular, the QSP shall perform the responsibilities indicated in Section G of Attachments C, D, and E of the CGP and shall meet the training requirements specified in Section VII.B.3 of the CGP.

D. Designate at least two Data Submitters for the Project, in case one becomes unavailable (one should be the QSP). They shall each:

- 1. Complete a User Account Registration through SMARTS.
- 2. Provide their User IDs to the LRP or approved signatory (AS), so as to be linked to the account.

E. Upload the following documentation during the course of the Project as required by the CGP and the SWPPP until the approval of the Project's Notice of Termination (not meant to be an all-inclusive list):

- 1. Sampling and analysis data.
- 2. Storm water annual reports.
- 3. NOT

F. The final SWPPP with all of its attachments and appendices, including anything uploaded onto SMARTS during the course of construction shall be included in the record documents.]

G. Assign a designated individual with evidence of adequate training who shall create the WPCP,

with regards to phase-specific details and contract work items.

- H. Comply with all applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of stormwater, including applicable municipal stormwater management programs.
- I. Prepare a WPCP providing effective soil erosion protection and sediment transport controls for all disturbed areas that are not to be paved or otherwise treated and areas as indicated, inactive areas, finished slopes, open space, and completed lots in accordance with the Contract Documents.
- J. Include the final WPCP with all of its attachments and appendices the Record Documents.
- K. Construction activities shall not cause a discharge that alters the physical, thermal, chemical, biological or radioactive properties of any waters of the State; or discharge a contaminant that is likely to cause a nuisance or be harmful to public health, wildlife, or other legitimate uses.
- L. To the extent practicable, all construction sites shall provide onsite methods to prevent sediment from entering the existing stormwater systems. Discharge of cloudy or sediment-laden water from any construction site to surface waters or any part of the sewer system is prohibited.
- M. All construction sites shall have stabilized construction site ingress and egress to limit tracking of sediment offsite.
- N. When sediment escapes the construction site, offsite accumulations of sediment shall be removed by the end of the day. Precautions shall be taken to ensure that sediment does not enter receiving waters.
- O. Existing vegetation shall be preserved where possible to minimize erosion.
- P. Follow instructions in Part 3 Articles “Temporary BMP Installation, Operation and Maintenance,” “Post-Construction BMP’s,” and “Maintenance Prior to Final Acceptance.”

3.3 WATER POLLUTION CONTROL PROGRAM (WPCP)

- A. Do not start work until:
 - 1. An approved copy of the WPCP is onsite.
 - 2. A copy of the Erosivity Waiver is onsite, if applicable.
- B. Appoint an appropriately trained individual, such as a QSP, to prepare and implement the WPCP. The appropriately trained individual will hereafter be referred to as the QSP.
- C. Design-Build Entity is responsible for protecting stormwater systems and receiving waters from the discharge of potential pollutants from the project site due to construction activities by using stormwater pollution control practices, including but not limited to the following construction support facilities:
 - 1. Staging areas.
 - 2. Storage yards for equipment and materials.
 - 3. Mobile operations.
 - 4. Batch plants for Portland cement concrete and hot mix asphalt.
 - 5. Crushing plants for rock and aggregate.
 - 6. Other facilities installed for construction-related reasons such as haul roads

7. Borrow and disposal sites:
 - a. Stormwater pollution due to erosion shall be prevented at an operated borrow or disposal site, during and after completion of construction activities.
 - b. Upon completion of work, the site shall be left in a condition where stormwater will not collect or stand therein.

- D. At least five days before operating any construction support facility that is not covered in the WPCP, the QSP shall prepare an amendment to the WPCP, showing the location and quantity of water pollution control practices associated with the construction support facility.

- E. The QSP shall ensure the documentation of the following:
 1. Within 24 hours of completing the weekly inspection – a copy of completed site inspection report.
 2. No later than 48 hours after the conclusion of a storm event resulting in a discharge, after a non–stormwater discharge, or after receiving a written notice or an order from the RWCQB or another regulatory agency:
 - a. Date, time, location, and nature of the operation, type of discharge and quantity, and the cause of the notice or order.
 - b. Water pollution control practices in use before the discharge, or before receiving the notice or order.
 - c. Description of water pollution control practices and corrective actions taken to manage the discharge or cause of the notice.

- F. The QSP is responsible for the following:
 1. Retaining a printed copy of the WPCP at the job site.
 2. Implementing all aspects of the WPCP.
 3. Managing work activities in a way that reduces the discharge of pollutants to surface waters, groundwater, and municipal separate storm sewer systems (MS4s).
 4. Monitoring and inspecting stormwater pollution control practices at the job site.
 5. Notifying the Construction Manager within six hours when any of the following occur:
 - a. Discharges into receiving waters or drainage systems that are causing or could cause water pollution.
 - b. Receiving a written notice or order from the RWCQB or any other regulatory agency.

- G. Design-Build Entity is responsible for implementing appropriate construction site management and erosion and sediment control best management practices as required to protect water quality. Discharges from the site shall not lead to water quality objective exceedances.

- H. Design-Build Entity is responsible for all delays and all costs associated with preparing, submitting and implementing a SWPPP when the Design-Build Entity's actions result in one of the following:
 1. One or more acres of soil is disturbed on the project without an Erosivity Waiver.
 2. More than five acres of soil is disturbed on the project with an Erosivity Waiver.
 3. Failure to complete the project within the Erosivity Waiver's construction window resulting in a rainfall erosivity value (R value) that no longer qualifies the project for an Erosivity Waiver.

3.4 WPCP PREPARATION

- A. Prepare and implement a WPCP including the following:
1. Show the location of disturbed soil areas, water bodies, and water conveyances.
 2. Describe the work involved in the installation, maintenance, repair, and removal of temporary and permanent water pollution control practices.
 3. Show the locations and types of water pollution control practices that will be used for:
 - a. Stormwater and non-stormwater in areas outside the job site, but related to project work activities such as:
 - 1) Staging areas.
 - 2) Storage yards.
 - 3) Access roads.
 - b. Activities or mobile operations related to all NPDES permits.
 - c. Construction support facilities.
- B. Show the locations and types of temporary water pollution control practices that will be used in the work for each construction phase.
- C. Show the locations and types of water pollution control practices that will be installed permanently under the Contract.
- D. Include a schedule. The schedule shall show when:
1. Work activities will be performed that could cause the discharge of pollutants into storm water.
 2. Water pollution control practices associated with each construction phase will be implemented.
 3. Soil stabilization and sediment control practices for disturbed soil areas will be implemented.
- E. Include a copy of permits obtained through the Department such as Fish & Game permits, US Army Corps of Engineers permits, RWCQB 401 certifications, aerially deposited lead variance from the Department of Toxic Substance Control, aerially deposited lead variance notification, and RWCQB waste discharge requirements for aerially deposited lead reuse.
- F. Amend the WPCP whenever:
1. Changes in work activities could affect the discharge of pollutants.
 2. Water pollution control practices are added by change order.
 3. Water pollution control practices are added at your discretion.
 4. Changes in the amount of disturbed soil are substantial.
 5. Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved.
 6. The project receives a written notice or order from the RWCQB or another regulatory agency.
- G. Start the following process for WPCP acceptance within 15 days before site mobilization:
1. Submit a copy of the WPCP. The District will provide comments and specify the date when the review stopped when revisions are required.
 2. Resubmit a revised WPCP within seven days of receiving the District's comments. The

3. District's review will resume when the complete revised WPCP has been resubmitted.
 3. When the District accepts the revised WPCP, submit an electronic copy and a printed copy of the accepted revised WPCP.
 4. When the RWCQB is required to review the accepted C-WPCP, submit one copy of the accepted document to the RWCQB for its review and comment.
 5. When the RWCQB orders changes to the C-WPCP, amend the document within three days.
- H. The WPCP shall include procedures regarding the following:
1. Monitoring of the National Weather Service forecast on a daily basis. For the National Weather Service forecast, go to: <http://www.srh.noaa.gov/> forecast.
 2. Installation of applicable construction BMPs and practices as required to avoid exceedances of the water quality objectives defined in the San Diego Basin Plan. Refer to the CASQA Construction Handbook for guidance in the installation, maintenance, or selection of additional BMPs (when necessary).
 3. Stormwater pollution control practices shall be installed within 15 days of work activities that disturb soil or before predicted precipitation, as determined necessary for the protection of water quality.
- I. The QSP shall oversee inspections of the stormwater pollution control practices identified in the WPCP:
1. Before a forecasted storm.
 2. After precipitation that causes site runoff.
 3. At 24-hour intervals during extended precipitation.
 4. On a predetermined schedule of at least once a week.
- J. The QSP shall oversee daily inspections for:
1. Storage areas for hazardous materials and wastes.
 2. Hazardous waste disposal and transporting activities.
 3. Hazardous material delivery and storage activities.
- K. Whenever a deficiency is identified in the implementation of the accepted WPCP:
1. Correct the deficiency immediately, unless the District agrees to a later date for making the correction.
 2. Correct the deficiency before precipitation occurs.
 3. The District may correct the deficiency and deduct the cost of correcting the deficiency from payment when the Design-Build Entity fails to correct the deficiency by the agreed date or before the onset of precipitation.
 4. Continue C-WPCP implementation during any suspension of work activities.
- L. Whenever there is the concern that the WPCP may be inadequate to comply with applicable water quality objectives or water quality standards as contained in the California Toxics Rule, Municipal Permit or San Diego Basin Plan, the QSP may request changes to the stormwater pollution control practices or the District may require changes to stormwater pollution control practices. Changes may include additional or new stormwater pollution control practices. Additional stormwater pollution control work will be paid at unit prices in accordance with Section 01 22 00 "Unit Prices."
- 3.5 DESIGN-BUILD ENTITY'S STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

- A. Do not start work until:
 - 1. An approved copy of the SWPPP is onsite.
 - 2. A Waste Discharge Identification (WDID) number is issued.

- B. Discharges of runoff from a project shall comply with the CGP.
 - 1. Construction site management activities include:
 - a. Preparation of the SWPPP.
 - b. Preparation of REAP's.
 - c. Implementation and maintenance of construction best management practices (BMP's).
 - d. Construction site monitoring, sampling and analysis.
 - e. Preparation of storm water annual report.
 - 2. Stormwater pollution control work shall comply with the SWPPP.

- C. Design-Build Entity's QSD shall prepare a SWPPP using the District's SWPPP template in accordance with all CGP requirements.
 - 1. The District will review and approve of the SWPPP prior to the Design-Build Entity uploading the amended document onto SMARTS.
 - 2. The SWPPP shall be signed by the Design-Build Entity's QSD.

- D. Design-Build Entity is responsible for protecting stormwater systems and receiving waters from the discharge of potential pollutants from the project site due to construction activities by using stormwater pollution control practices, including but not limited to the following construction support facilities:
 - 1. Staging areas.
 - 2. Storage yards for equipment and materials.
 - 3. Mobile operations.
 - 4. Batch plants for Portland cement concrete and hot mix asphalt.
 - 5. Crushing plants for rock and aggregate.
 - 6. Other facilities installed for construction-related reasons such as haul roads.
 - 7. Borrow and disposal sites:
 - a. Stormwater pollution due to erosion shall be prevented at an operated borrow or disposal site, during and after completion of construction activities.
 - b. Upon completion of work, the site shall be left in a condition where stormwater will not collect or stand therein.

- E. At least 5 days before operating any construction support facility that is not covered in the SWPPP, submit an amendment to the SWPPP, signed by the Design-Build Entity's QSD, showing the location and quantity of water pollution control practices associated with the construction support facility.

- F. Design-Build Entity is responsible for designating one or more QSP's to be responsible for the following duties:
 - 1. Maintaining an up-to-date copy of the SWPPP onsite at all times, from commencement of construction to final site stabilization and approval of the Notice of Termination (NOT).
 - 2. Making a copy of the up-to-date SWPPP available for inspection by outside authorized regulatory authorities upon request.

3. Maintaining records detailing the dates on which major construction activities began and were completed.
4. Keeping track of any data or attachments uploaded onto SMARTS.
5. Keeping track of any Data Submitters who are linked to or removed from this Project through SMARTS.
6. Documenting any new Design-Build Entity/subDesign-Build Entity who will implement a measure of the SWPPP.
7. Ensuring that new Design-Build Entitys and subDesign-Build Entitys are made aware of their responsibilities in the SWPPP.
8. Keeping track of required training/certifications for key personnel.
9. Ensuring training is conducted for site personnel such as:
 - a. Project managers.
 - b. Supervisory personnel.
 - c. Employees involved in stormwater pollution control work, including subDesign-Build Entity personnel.
10. Ensuring that employees receive their initial stormwater pollution control training before working at the job site.
11. Ensuring that employees involved in stormwater pollution control work, including subDesign-Build Entity personnel, are trained in the following subjects:
 - a. Stormwater pollution control rules and regulations
 - b. Implementation and maintenance for:
 - 1) Temporary Soil Stabilization.
 - 2) Temporary Sediment Control.
 - 3) Tracking Control.
 - 4) Wind Erosion Control.
 - 5) Material pollution prevention and control.
 - 6) Waste management.
 - 7) Non-storm water management.
12. Ensuring that weekly training meetings covering:
 - a. Deficiencies and corrective actions for stormwater pollution control practices.
 - b. Stormwater pollution control practices required for work activities during the week.
 - c. Spill prevention and control.
 - d. Material delivery, storage, usage, and disposal.
 - e. Waste management.
 - f. Non-storm water management procedures.
13. Ensuring that personnel who collect water quality samples are trained in the following subjects:
 - a. Sampling and analysis plan (SAP) review.
 - b. Health and safety review.
 - c. Sampling simulations.
14. Documenting all training sessions conducted. This involves increasing awareness of the need to comply with the SWPPP, which includes, but is not limited to: minimizing sediment in stormwater discharges offsite; keeping a clean site; and minimizing the potential for construction materials and wastes from entering stormwater discharges.
15. Conducting an assessment of materials and equipment onsite with the potential to contaminate stormwater runoff.

16. Updating the inventory of potential pollutants as new potential contaminants arrive onsite.
17. Documenting all monitoring/sampling and analysis.
18. Acting as the site spill coordinator to document spills, direct clean-up activities, minimize impact to stormwater, and ensure that the proper reporting, if necessary, is completed.
19. Documenting all incidences of non-compliance with the CGP. Incidences of non-compliance shall trigger a review of the SWPPP to determine when another amendment is necessary.
20. Overseeing and enforcing hazardous waste management practices as directed in the SWPPP, including spill prevention and control measures, and in accordance with applicable local, state, and federal regulations such as proper hazardous waste handling and emergency procedures under 40 CFR § 262.34(d)(5)(iii) and under 22 CA Code of Regulations Division 4.5:
 - a. Preparation and submittal of appropriate documentation for transportation and disposal.
 - b. Following appropriate procedures when unanticipated hazardous substances as defined in Health & Safety Code § 25316 and § 25317 are discovered onsite.
 - c. Marking labels when needed with the following information in compliance with 22 CCR § 66262.31 and § 66262.32:
 - 1) Date the hazardous waste is generated.
 - 2) The words "Hazardous Waste."
 - 3) Composition and physical state of the hazardous waste (for example, asphalt grindings with thermoplastic or paint).
 - 4) The word "Toxic."
 - 5) Name, address, and telephone number of the District Representative.
 - 6) Contract number.
 - 7) Design-Build Entity or subDesign-Build Entity name.
 - 8) Disposal of hazardous waste within California at a disposal site operating under a permit issued by Department of Toxic Substance Control (DTSC).
21. Ensuring that field engineering activities are planned and conducted in accordance with the SWPPP.
22. Preparation and implementation of REAP's.
23. Ensuring that inspection requirements identified in the SWPPP are performed:
 - a. Inspections and reports for visual monitoring:
 - 1) before a likely precipitation event;
 - 2) after precipitation that produces site runoff;
 - 3) at 24-hour intervals during extended precipitation; and
 - 4) on a pre-determined schedule of at least once a week.
 - b. Daily inspections and oversight of:
 - 1) Storage areas for hazardous materials and waste, including all temporary containment facilities and satellite collection locations;
 - 2) Hazardous waste disposal and transporting activities; and
 - 3) Hazardous material delivery and storage activities.
 - c. Overseeing inspections with regard to the following specific construction activities:
 - 1) Vehicle and equipment cleaning facilities:
 - a) Daily when vehicle and equipment cleaning occurs daily

- b) Weekly when vehicle and equipment cleaning does not occur daily
 - 2) Vehicle and equipment maintenance and fueling areas:
 - a) Daily when vehicle and equipment maintenance and fueling occurs daily.
 - b) Weekly when vehicle and equipment maintenance and fueling does not occur daily
 - 3) Vehicles and equipment storage areas:
 - a) At the job site, check for leaks on a daily basis.
 - b) Operators shall inspect vehicles and equipment each day of use.
 - 4) Demolition sites within 50 feet of storm drain systems and receiving waters daily.
 - 5) Pile driving areas for leaks and spills:
 - a) Daily when pile driving occurs daily.
 - b) Weekly when pile driving does not occur daily.
 - 6) Temporary concrete washouts:
 - a) Daily when concrete work occurs daily.
 - b) Weekly when concrete work does not occur daily.
 - 7) Paved roads at construction access points for street sweeping:
 - a) Daily when earthwork and other sediment or debris generating activities occur daily.
 - b) Weekly when earthwork and other sediment or debris generating activities do not occur daily.
 - c) Whenever the National Weather Service is predicting precipitation.
 - 8) Temporary active treatment system:
 - a) Daily when dewatering work occurs daily.
 - b) Weekly when dewatering work does not occur daily.
 - d. Quarterly non-stormwater inspections: noting the conditions of those areas onsite that have the potential to result in pollution of stormwater.
- 24. Consulting with the District and/or QSD regarding inspection results (BMP deficiencies or potential failures) to determine when corrective action (an amendment to the SWPPP) is necessary.
 - 25. Implementing and overseeing necessary corrective actions to the erosion/sediment control devices and other BMP's under the oversight of the District and/or QSD.
 - 26. Documenting all inspections and any corrective actions.
 - 27. Directing ongoing regular BMP maintenance activities (e.g. silt fence repair, hay bale replacement, sediment removal in retention basin, timely waste disposal, etc). Routine maintenance or the implementation of additional BMP's as recommended in the SWPPP does not constitute a corrective action.
 - 28. Ensuring that materials and manpower are made available for the successful maintenance of all erosion and sediment control and other BMP's specified in the SWPPP.

29. Mobilizing crews to:
 - a. Repair, replace, and/or implement additional BMP's due to deficiencies, failures or other shortcomings identified during inspections, to be completed within 72 hours of identification
 - b. Repair existing BMP's and/or implement additional BMP's immediately in the event of an NAL exceedance.
 - c. Repair or replace stormwater pollution control practices at Design-Build Entity's expense when they are disturbed or displaced by Design-Build Entity or SubDesign-Build Entity vehicles, equipment, or activities.
 - d. Remove and dispose of stormwater pollution control practices when the District determines they are no longer required.
 - e. Restore areas disturbed by the installation and removal of stormwater pollution control practices. Backfill holes and depressions when removing stormwater pollution control practices.
 30. Documenting all maintenance.
 31. Marking up the Water Pollution Control Drawings (WPCD's) with actual site conditions, including any sampling locations, and posting them in the construction trailer. (The SWPPP should contain specific WPCD's for each phase of construction of an appropriate size for use in the construction trailer.):
 - a. When a marked up WPCD is too full to be easily read, the QSP shall date and fold it, put it in the SWPPP for documentation, and start a new one.
 - b. Another way of documenting the changing site conditions is to laminate the map, take a picture of it after any changes are made, then date the photo and put it in the SWPPP for documentation.
 32. Maintaining records detailing the dates on which post-construction BMPs were completed.
 33. Preparing an NOT submittal upon final stabilization of the site. A copy of the NOT shall be printed and included in Appendix A upon submission through SMARTS.
- G. Whenever there is the potential of a pollutant discharge, the QSP may order laboratory analysis of stormwater or non-stormwater samples. Laboratory analysis of the samples shall be paid at a unit price per Section 01 22 00 "Unit Prices."
- H. The District will not pay for the preparation, collection, laboratory analysis, and reporting of stormwater samples for non-visible pollutants when: water pollution control practices are not implemented before precipitation, or a failure of a water pollution control practice is not corrected before precipitation.
- I. Design-Build Entity is responsible for implementing appropriate construction site management and erosion and sediment control BMP's as described in this section. The "Construction Site Management" portion of this section describes the minimum BMP requirements from the CGP.
- J. The District will not pay for implementation of stormwater pollution control practices in areas outside the project limits such as borrow sites and construction support facilities.
- K. Design-Build Entity is responsible for implementation of appropriate post-construction BMP's as required to minimize and/or mitigate for post-construction stormwater runoff impacts in accordance with approved civil design plans.
- L. Each failure to comply with the project SWPPP and each failure to implement stormwater pollution control practices are considered separate performance failures.

3.6 SWPPP PREPARATION

- A. Start the following process for amending the D-SWPPP within 60 days of receiving the Notice to Proceed:
1. Submit a copy of the SWPPP. Allow 30 days for the District to review. The District will provide comments and specify the date when the review stopped if revisions are required.
 2. Submit a revised SWPPP within 15 days of receiving the District's comments. The District's review will resume when a complete revised SWPPP has been resubmitted.
 3. When the District accepts the revised SWPPP, submit an electronic copy and a printed copy of the accepted document.
 4. When the RWCQB is required to review the accepted document, submit one copy of the accepted SWPPP to the RWCQB for its review and comment.
 5. When the RWCQB requests changes to the document, amend the revised SWPPP within 10 days.
- B. Preparation and implementation of a SWPPP as described in the District's SWPPP template document, including the following items:
1. Amend the D-SWPPP with phase specific BMP's.
 2. Prepare, install and maintain the stormwater pollution control practices as defined by an erosion and sediment control plan.
 3. Amend the SWPPP as necessary if deficiencies or discrepancies are identified during construction.
 4. Amend and implement a construction site monitoring program (CSMP).
 5. Monitor, inspect and report on water pollution control practices at the job site.
 6. Amend and implement the SAP.
 7. Sample, test and report on water quality if necessary.
 8. Prepare and implement REAP's (not required for Risk Level 1 projects).
- C. Whenever there is the concern that the SWPPP may be inadequate to comply with applicable water quality objectives or water quality standards as contained in the CGP, the California Toxics Rule, the National Toxics Rule, or the Regional Water Quality Control Plan (Basin Plan), the QSP may request changes to the stormwater pollution control practices or the District may require changes to stormwater pollution control practices. Changes may include additional or new stormwater pollution control practices. Additional stormwater pollution control work shall be paid at a unit price per Section 01 22 00 "Unit Prices."
- D. Design-Build Entity shall have a QSD amend the SWPPP whenever:
1. Changes in work activities might affect the discharge of pollutants.
 2. Stormwater pollution control practices are added by change order.
 3. Stormwater pollution control practices are added at Design-Build Entity's discretion.
 4. Changes in the amount of disturbed soil are substantial.
 5. Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved.
 6. The project receives a written notice of a Permit violation from the RWCQB or any other regulatory agency.
- E. The SWPPP shall:
1. Describe the work involved in the installation, maintenance, repair, and removal of temporary and permanent water pollution control practices.
 2. Show:

- a. Locations of disturbed soil areas.
 - b. Water bodies and conveyances.
 - c. Locations and types of water pollution control practices that will be used for:
 - d. Stormwater and non-stormwater in areas outside the job site, but related to project work activities such as (1) staging areas, (2) storage yards, and (3) access roads.
 - e. Activities or mobile operations related to all NPDES permits.
 - f. Construction support facilities.
 - g. Locations and types of temporary water pollution control practices that will be used in the work for each construction phase.
 - h. Locations and types of water pollution control practices that will be installed permanently under the Contract.
 - i. Pollutant sampling locations.
 - j. Locations planned for storage and use of potential non-visible pollutants.
 - k. Receiving water sampling locations.
3. Include a copy of all required permits such as dewatering permits, Fish & Game permits, US Army Corps of Engineers permits or RWCQB 401 certifications.
 4. Include the project's risk level based on the site's sediment and receiving water risk during periods of soil exposure as determined by the QSD.
 5. Include the following items as follows:
 - a. Schedule.
 - b. Construction Site Monitoring Program (CSMP).
 - c. Schedule.
 - d. CSMP.
 - e. Adherence to Effluent Standards for NAL's.
 - f. Rain Event Action Plans (REAP's).
 - g. Schedule.
 - h. CSMP.
 - i. Adherence to Effluent Standards for NAL's and NEL's.
 - j. REAP's.
 6. Include a Construction Schedule containing at a minimum:
 - a. Work activities to be performed that could cause the discharge of pollutants into storm water.
 - b. Implementation of stormwater pollution control practices associated with each construction phase.
 - c. Implementation of soil stabilization and sediment control practices for disturbed soil areas.
 7. Include a Spill Response and Implementation Plan containing at a minimum:
 - a. If the Design-Build Entity spills or leaks chemicals or hazardous substances at the job site, the Design-Build Entity is responsible for all associated cleanup costs and related liability.
 - b. Procedural requirements for clean-up of spills and leaks with regard to the potential pollutants, chemicals, and hazardous substances expected to be onsite.
 - 1) For Minor Spills - Clean up a minor spill using the following procedures:
 - a) Contain the spread of the spill.
 - b) Recover the spilled material using absorption.
 - c) Clean the contaminated area.
 - d) Dispose of the contaminated material and absorbents promptly and

properly.

- 2) For Semi-significant Spills - Clean up a semi-significant spill immediately using the following procedures:
 - a) Contain the spread of the spill.
 - b) On paved or impervious surfaces, encircle and recover the spilled material with absorbent materials. Do not allow the spill to spread widely.
 - c) When the spill occurs on soil, contain the spill by constructing an earthen dike and dig up the contaminated soil for disposal.
 - d) When the spill occurs during precipitation, cover the spill with 10 mil plastic sheeting or other material to prevent contamination of runoff.
 - e) Dispose of the contaminated material promptly and properly.

- 3) For Significant or Hazardous Spills - Immediately notify qualified personnel of a significant or hazardous spill. Take the following steps:
 - a) Do not attempt to clean up the spill until qualified personnel have arrived.
 - b) Notify the Construction Manager and follow up with a report.
 - c) Obtain the services of a spill Design-Build Entity or hazardous material team immediately.
 - d) Notify local emergency response teams by dialing 911 and county officials using the emergency phone numbers kept at the job site.
 - e) Notify the Governor's Office of Emergency Services Warning Center at (805) 852-7550.
 - f) Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under 40 CFR 110, 119, and 302.
 - g) Notify other agencies as appropriate, including: Fire Department; Public Works Department; Coast Guard; Highway Patrol; City Police or County Sheriff's Department; DTSC; California Division of Oil and Gas; Cal/OSHA; and/or the RWQCB.

- c. Reporting requirements – Report all spills to the QSP. The QSP will notify the District and the appropriate agencies when necessary.
- d. Prevention requirements - Prevent a spill from entering stormwater runoff before and during cleanup.
- e. Inventory requirements - Keep the correct supplies (equipment and materials) for cleanup of spills available onsite
- f. Disposal requirements – Contaminated materials shall be disposed of properly according to applicable local, state, and federal regulations.
- g. Training requirements - Spill response personnel shall be assigned and appropriately trained.
- h. Timetable - Spills and leaks shall be cleaned up immediately.

- 8. Include a CSMP discussed in the following section.
- 9. Include REAP's for Risk Level 2 and Risk Level 3 Projects.

3.7 SWPPP CONSTRUCTION SITE MONITORING PROGRAM (CSMP)

- A. The Project shall revise the CSMP from the D-SWPPP to reflect current construction activities as needed.

- B. The following steps shall occur in order for the CSMP to be properly implemented.
1. Obtain, install, and maintain a rain gauge at the job site. Observe and record daily precipitation.
 2. Install facilities and devices used for stormwater pollution control within 15 days or before predicted precipitation, as detailed in the SWPPP.
 3. Complete REAP activities including crew mobilization no later than 24 hours before precipitation occurs.
 4. Monitor the National Weather Service forecast on a daily basis. For the National Weather Service forecast, go to: <http://www.srh.noaa.gov/> forecast.
- C. The CSMP shall include the following items for each risk level as follows:
1. Visual monitoring procedures.
 2. Sampling and analysis for non-visible pollutants.
 3. Visual monitoring procedures.
 4. Sampling and analysis for non-visible pollutants.
 5. Sampling and analysis for sediment and turbidity.
 6. Sampling and analysis for pH.
 7. Visual monitoring procedures.
 8. Sampling and analysis for non-visible pollutants.
 9. Sampling and analysis for sediment and turbidity.
 10. Sampling and analysis for pH.
 11. Sampling and analysis for receiving water sampling.
 12. Sampling and analysis for temporary active treatment systems.
- D. The CSMP shall include all visual monitoring (inspection) requirements:
1. The QSP shall oversee inspections for stormwater pollution control practices identified in the SWPPP:
 - a. Before a forecasted storm.
 - b. After precipitation that causes site runoff.
 - c. At 24-hour intervals during extended precipitation.
 - d. On a predetermined schedule of at least of once a week.
 2. The QSP shall ensure that a site inspection report is completed within 24 hours of completing a site inspection. The report shall include:
 - a. Inspection date and date the inspection report was written.
 - b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.
 - c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.
 - d. A description of any BMP's evaluated and any deficiencies noted.
 - e. If the construction site is safely accessible during inclement weather, list the observations of all BMP's: erosion controls, sediment controls, chemical and waste controls, and non-stormwater controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.
 - f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.
 - g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

- h. Photographs taken during the inspection, if any.
 - i. Inspector's name, title, and signature.
3. The QSP shall ensure that documentation is completed for:
- a. Qualified rain events. The QSP shall oversee the performance of visual monitoring for qualified rain events. Visual inspections shall be performed during normal working hours. For each qualified rain event:
 - 1) Record the date, time, and rain gauge reading
 - 2) Report on observations:
 - a) Within 2 days before the storm for: spills, leaks, or uncontrolled pollutants in drainage areas; proper implementation of water pollution control practices; and leaks and adequate freeboard in storage areas.
 - b) Every 24 hours during the storm for: effective operation of water pollution control practices; and water pollution control practices needing maintenance and repair.
 - c) Within 2 days after the storm event for: stormwater discharge locations; and evaluation of design, implementation, effectiveness, and locations of water pollution control practices including locations where additional water pollution control practices may be needed.
 - b. Non-stormwater discharges. Perform visual monitoring of non-stormwater discharges at least once during each of the following periods:
 - 1) January through March.
 - 2) April through June.
 - 3) July through September.
 - 4) October through December.
 - c. Documentation for non-stormwater discharge monitoring shall include:
 - 1) Name of personnel performing the inspection, inspection date, and date the inspection report is completed.
 - 2) Storm and weather conditions.
 - 3) Location of any:
 - a) Floating and suspended material, oil sheen on the surface of stormwater, discoloration, turbidity, odor, and source of observed pollutants for flowing and contained storm water systems.
 - b) Non-stormwater discharges and their sources.
 - d. Corrective actions taken.
 - e. Maintain monitoring (inspection) reports at the job site as part of the SWPPP.
- E. Whenever a deficiency is identified during a visual inspection:
- 1. Correct the deficiency immediately, unless the District or QSD agrees to a later date for making the correction
 - 2. Correct the deficiency before precipitation occurs.
 - 3. The District may correct the deficiency and deduct the cost of correcting the deficiency from payment when the Design-Build Entity fails to correct the deficiency by the agreed date or before the onset of precipitation.
 - 4. Continue SWPPP implementation during any suspension of work activities.

- F. The CSMP shall include an SAP.
1. The SAP shall include specifications for:
 - a. Collecting samples.
 - b. preparing, testing and analyzing samples,
 - c. Reporting on test results.
 2. For a qualified rain event that produces runoff, sampling and analysis work shall comply with the project's SAP.
 3. Submit a copy of water quality analytical results within 60 days of laboratory analysis to the District. Electronic copies shall be in one of the following formats: xls, .txt, or .cvs, for uploading onto SMARTS. Also submit an evaluation of whether the downstream samples show levels of the tested parameter that are higher than the control sample. Include the following information:
 - a. Sample identification number.
 - b. Contract number.
 - c. Constituent.
 - d. Reported value.
 - e. Analytical method.
 - f. Method detection limit.
 - g. Reported limit.
 - h. When an effluent sample exceeds a numeric action level (NAL), notify the District and submit an NAL exceedance report no later than five (5) days after the conclusion of the storm event through SMARTS. The report shall include the following field sampling results and inspections:
 - i. Analytical methods, reporting units, and detection limits.
 - j. Date, location, time of sampling, visual observations, and measurements
 - k. Quantity of precipitation of the storm event.
 - l. Description of BMP's and corrective actions taken to manage NAL exceedance.
 4. When a numeric effluent limit (NEL) is exceeded, notify the District and submit an NEL violation report no later than five (5) days after the conclusion of the storm event through SMARTS. The report shall include the following field sampling results and inspections:
 - a. Analytical methods, reporting units, and detection limits.
 - b. Date, location, time of sampling, visual observation and measurements
 - c. Quantity of precipitation of the storm event.
 - d. Description of BMP's and corrective actions taken to manage NEL exceedance.
- G. The sampling and analysis portion of the CSMP shall be prepared as described below:
1. Assign trained personnel to collect water quality samples. Document the personnel and training in the SAP.
 2. Describe the following water quality sampling procedures in the SAP:
 - a. Sampling equipment - Samples taken by assigned field personnel shall comply with the equipment manufacturer's recommendation for collection, analytical methods, and equipment calibration.
 - b. Sample preparation - Samples taken for laboratory analysis shall follow water quality sampling procedures and be analyzed by a State-certified laboratory under 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants."
 - c. Collection.
 - d. Field measurement methods.

- e. Analytical methods.
 - f. Quality assurance and quality control.
 - g. Sample preservation and labeling.
 - h. Collection documentation - Document all sample collections.
 - i. Sample shipping.
 - j. Chain of custody.
 - k. Data management and reporting - Retain water quality sampling documentation and analytical results with the SWPPP at the job site.
 - l. Precautions from the construction site health and safety plan.
 - m. Laboratory selection and certifications - The SAP shall identify the State-certified laboratory, sample containers, preservation requirements, holding times, and analytical method. For a list of State certified laboratories, go to:
<http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx>.
3. Amend the SAP when discharges or sampling locations change because of changed work activities or knowledge of site conditions.
 4. The SAP shall describe the sampling and analysis strategy for monitoring non-visible pollutants.
 5. The SAP shall identify potential non-visible pollutants present at the job site associated with any of the following:
 - a. Construction materials and wastes.
 - b. Existing contamination due to historical site usage.
 - c. Application of soil amendments, including soil stabilization materials, with the potential to change pH or contribute toxic pollutants to storm water.
 6. The SAP shall include sample collection procedures for the conditions described below, if applicable:
 - a. For collecting samples from non-visible pollutant sources.
 - b. For collecting uncontaminated control samples.
 - c. For collecting samples during precipitation:
 - 1) For turbidity, pH, and other constituents as required.
 - 2) For all locations where stormwater is discharged offsite. Describe the collection of effluent samples at all locations where the stormwater is discharged offsite.
 - 3) At least three samples for each day of each qualifying rain event.
 - 4) Obtain run-on samples and receiving water samples downstream from the project site.
 7. The SAP shall include a schedule for sample collection:
 - a. During the first two hours of each qualified rain event that produces runoff.
 - b. During normal working hours.
 - c. Not during dangerous weather conditions such as flooding or electrical storms.
 8. The SAP shall include sampling procedures for collecting at least one sample for each qualified storm event when the following conditions are observed during a stormwater visual inspection:
 - a. Materials or wastes containing potential non-visible pollutants not stored under watertight conditions.
 - b. Materials or wastes containing potential non-visible pollutants stored under watertight conditions, but a breach, leak, malfunction, or spill occurred that was not

- c. cleaned up before the precipitation.
 - d. Chemical applications occurring within 24 hours preceding precipitation or during precipitation that could discharge pollutants to surface waters or drainage systems, including fertilizer, pesticide, herbicide, methyl methacrylate concrete sealant, or non-pigmented curing compound.
 - e. Applied soil amendments, including soil stabilization materials that could change pH levels or contribute toxic pollutants to stormwater runoff and discharge pollutants to surface waters or drainage systems, unless available independent test data is available to indicate acceptable concentrations of non-visible pollutants in the soil amendment.
 - f. Stormwater runoff from an area contaminated by historical usage of the site that could discharge pollutants to surface waters or drainage systems.
9. The SAP shall identify locations for sampling downstream and control samples, and the reasons for selecting those locations. Select control sample locations where the sample does not come in contact with materials, wastes, or areas associated with potential non-visible pollutants or disturbed soil areas.
 10. For multiple discharge points, describe procedures for obtaining samples from a single upstream and a single downstream location.
 11. The CSMP shall address the assessment of stormwater pollution control practices, site conditions, and surrounding influences to determine the probable cause for an increase in levels of turbidity, pH, and other constituents.
 12. The District will not adjust payment for an increase or decrease in the quantity of stormwater sampling and analysis required during the course of the project.
 13. The SAP shall describe procedures for obtaining samples and analyzing turbidity as shown in the following table:

Parameter	Test method	Detection limit (min)	Unit
Turbidity	Field test with calibrated portable instrument	1	NTU ^a

^a **Nephelometric turbidity units (NTU)**

14. The SAP shall describe procedures for obtaining samples and analyzing suspended sediment concentration when the turbidity NEL is exceeded as shown in the following table:

Parameter	Test method	Detection limit (min)	Unit
Suspended sediment concentration	ASTM D 3977	5	mg/L

15. The SAP shall describe procedures for obtaining samples and analyzing pH as shown in the following table:

Parameter	Test method	Detection limit (min)	Unit
pH	Field test with calibrated portable instrument	0.2	pH units

16. The SAP shall describe procedures for obtaining samples from representative and accessible locations upstream of the discharge point and downstream of the discharge

point.

H. The project is subject to NALs as shown in the following table:

Numeric Action Levels

Parameter	Test method	Detection limit (min)	Unit	Numeric action level (NAL)
pH	Field test with calibrated portable instrument	0.2	pH	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test with calibrated portable instrument	1	NTU ^a	250 NTU

^a Nephelometric turbidity units (NTU)

I. The project is subject to NEL's as shown in the following table:

Numeric Effluent Limits

Parameter	Test method	Detection limit (min)	Unit	Numeric effluent limit (NEL)
pH	Field test with calibrated portable instrument	0.2	pH	Lower NEL = 6.0 Upper NEL = 9.0
Turbidity	Field test with calibrated portable instrument	1	NTU ^a	500 NTU

^a Nephelometric turbidity units (NTU)

1. The storm event daily average for storms up to the 5-year, 24-hour storm shall not exceed the NEL for turbidity.
2. The daily average sampling results shall not exceed the NEL for pH.

3.8 SWPPP RAIN EVENT ACTION PLANS (REAP's)

A. A QSP or QSD shall prepare a REAP designed to protect all exposed portions of the job site within 48 hours prior to any likely precipitation event. A likely precipitation event is defined as when the National Weather Service predicts a 50 percent or greater probability of precipitation within 72 hours in the vicinity of the job site.

B. The REAP shall include:

1. Site location.
2. Risk level.

- 3. Contact information including 24-hour emergency phone numbers for:
 - a. QSP.
 - b. Erosion and sediment control providers or subDesign-Build Entitys.
 - c. Stormwater sampling providers or subDesign-Build Entitys.

- 4. Storm Information.
- 5. Description of:
 - a. Construction, including active and inactive areas.
 - b. Plant Establishment, including maintenance on vegetation installed for final stabilization in inactive areas.
 - c. Areas where work activities have been suspended.
 - d. Active work areas and activities.
 - e. SubDesign-Build Entitys and trades on the job site.

- 6. Pre-storm activities including:
 - a. Responsibilities of the QSP.
 - b. Responsibilities of the crew and crew size.
 - c. Stabilization for active and inactive disturbed soil areas
 - d. Stockpile management.
 - e. Corrective actions taken for deficiencies identified during pre-storm visual inspection.

- 7. Activities to be performed during storm events including:
 - a. Responsibilities of the QSP.
 - b. Responsibilities of the crew and crew size.
 - c. BMP's for maintenance and repair.

- 8. Flood contingency measures.

- C. The QSP shall submit a REAP to the District at least 48 hours before a predicted rain event.
- D. The Design-Build Entity shall have the REAP onsite at least 24 hours before a predicted rain event.
- E. The QSP shall ensure that crews are being mobilized to implement REAP's no later than 24 hours before precipitation occurs.
- F. A printed copy of each REAP shall be kept at the job site as part of the SWPPP.
- G. The District will not adjust payment for an increase or decrease in the quantity of REAP's prepared.

- 3.9 SWPPP STORMWATER ANNUAL REPORT
 - A. The QSP shall prepare the annual report for the reporting period from July 1st to June 30th.
 - B. The following information shall be included in the report:
 - 1. Project information such as description and work locations
 - 2. Stormwater monitoring information including:

- a. Summary and evaluation of sampling and analysis results and laboratory reports.
 - b. Analytical methods, reporting units, and detections limits for analytical parameters.
 - c. Summary of corrective actions.
 - d. Identification of corrective actions or compliance activities not implemented.
 - e. Summary of violations.
 - f. Names of individuals performing storm water inspections and sampling.
 - g. Logistical information for inspections and sampling including location, date, time, and precipitation.
 - h. Visual observation and sample collection records.
3. Documentation of all training for:
- a. Individuals responsible for NPDES permit compliance.
 - b. Individuals responsible for BMP installation, inspection, maintenance, and repair.
 - c. Individuals responsible for preparing, revising, and amending the SWPPP.
- C. Upload the Annual Report onto SMARTS no later than July 15th if construction occurs from July 1st through June 30th or within 15 days after Contract acceptance if construction ends before June 30th. Notify the LRP or AS that the report has been uploaded. Allow 10 days for the District's review. The District will provide comments and specify the date when the review stopped if revisions are required.
- D. Submit a revised report within five days of receiving the District's comments.
- E. The District does not adjust payment for an increase or decrease in the quantity of Annual Reports submitted.
- F. For each failure to submit a completed Annual Report by the September 1st submittal deadline, the Design-Build Entity will be required to compensate the District for any additional fees paid to the SWRCB due to the delay.

3.10 CONSTRUCTION SITE MANAGEMENT

- A. Implement effective erosion and sediment control practices as well as effective handling, storage, usage, and disposal practices thereby controlling potential pollutants on the job site before they come in contact with storm drain systems and receiving waters in accordance with Attachment C, D, or E of the CGP as required by the Project Risk Level.
- B. Guidance for the implementation of BMP's required to control pollution from erosive activities at the job site is located in Section 3 of the CASQA Construction Handbook (Erosion and Sediment Control BMP's).
- C. Guidance for the implementation of BMP's required to control material pollution and manage waste and non-stormwater discharges at the job site is located in Section 4 of the CASQA Construction Handbook (Non-Stormwater Management and Material Management BMP's).
- D. The following Construction Site Management is required for construction materials and potential pollutants:
 - 1. The QSP shall keep an inventory of the materials and equipment onsite that are not designed to be outdoors and exposed to environmental conditions (potential pollutant sources). This potential pollutant list shall be kept with the SWPPP and shall identify all non-visible pollutants that are known, or expected, to occur on the construction site.
 - 2. The QSP shall conduct an assessment from the inventory of potential pollutant sources

and identify any areas of the site where additional BMP's are necessary to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. Stormwater discharges and authorized non-stormwater discharges regulated by the CGP shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges. At a minimum, the QSP shall consider the following:

- a. The quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.
 - b. The degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.
 - c. The direct and indirect pathways that pollutants may be exposed to stormwater or authorized non-stormwater discharges, including an assessment of past spills or leaks, non-stormwater discharges, and discharges from adjoining areas.
 - d. Sampling results, visual observations, and inspection records.
 - e. The effectiveness of existing BMP's in reducing or preventing pollutants in stormwater discharges and authorized non-storm water discharges.
 - f. Nothing in the CGP or the D-SWPPP relieves the Design-Build Entity from any responsibilities, liabilities, or penalties to which the Design-Build Entity is or may be subject to under Section 311 of the Clean Water Act.
3. The QSP shall ensure that the appropriate MSDS forms are available onsite at least five days before hazardous substances are used or stored onsite
- E. The following Good Site Management Housekeeping is required for construction materials:
1. Minimize exposure of potential pollutant sources to precipitation.
 2. Cover and berm (contain) stockpiled construction materials that are not actively being used, materials that are adversely affected by wind and rain such as fertilizer, mulches, topsoil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.
 3. Stack erodible landscape material on pallets and cover or store such materials when not being used or applied.
 4. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).
 5. Implement BMP's to prevent the offsite tracking of loose construction and landscape materials.
 6. Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.
 7. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.
- F. The following Good Site Management Housekeeping is required for waste management:
1. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.
 2. Ensure the containment of portable toilets to prevent discharges of pollutants to the storm drain system or receiving water.
 3. Clean portable toilets on a regular basis inspecting them for leaks and spills. When a problem is identified, corrective action shall be taken in a timely manner (within 72 hours or prior to any likely precipitation event, whichever is more immediate).
 4. Cover waste disposal containers at the end of every business day and during rain events.
 5. Prevent discharges from waste disposal containers to the storm drain system or receiving water.
 6. Contain and securely protect stockpiled waste material from wind and rain at all times

- unless actively being used.
7. Implement procedures that effectively address hazardous and non-hazardous spills.
 8. Develop a spill response and implementation plan as part of the SWPPP prior to commencement of construction activities.
 9. 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.
- G. The following Good Site Management Housekeeping is required for vehicle storage and maintenance:
1. Prevent any of the following substances from discharging to the storm drains or surface waters (not meant to be an all-inclusive list):
 - a. Transfer case oil.
 - b. Antifreeze.
 - c. Brake fluid.
 - d. Power steering fluid.
 - e. Transmission fluid.
 - f. Hydraulic fluid.
 - g. Grease.
 - h. Fuel.
 - i. Oil.
 2. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMP's.
 3. Clean leaks immediately and disposing of leaked materials properly.
- H. The following Good Site Management Housekeeping is required to control air deposition of site materials and from site operations (dust control):
1. Effective wind erosion control BMP's shall be implemented year round to prevent or alleviate dust, which may contain, but are not limited to, such particulates as sediment, nutrients, trash, metals, bacteria, oil and grease, and organics.
 2. Excavation, transportation, and handling of material containing hazardous waste or contamination shall result in no visible dust migration
- I. Document all Good Site Management Housekeeping BMP's in the SWPPP and REAP(s) in accordance with the nature and phase of the construction project (Grading and Land Development Phase, Streets and Utilities, or Vertical Construction for traditional land development projects).
- J. The following Good Site Management Housekeeping is required for non-stormwater management:
1. Effective BMP's shall be implemented to control all non-stormwater discharges during construction.
 2. Vehicles shall be washed in such a manner as to prevent non-stormwater discharges to surface waters or MS4 drainage systems.
 3. Streets shall be cleaned in such a manner as to prevent unauthorized non-stormwater discharges from reaching surface water or MS4 drainage systems.
 4. Dewatering shall be conducted in such a manner as to prevent sediment-laden or contaminated discharge from leaving the site:
 - a. The discharge of water from utility vaults and underground structures and surface

- waters is covered under the California Statewide permit, Order No. 2006-008-DWQ. Dischargers shall comply with BMPs that ensure the water discharged is not contaminated and will not create an adverse water quality impact when discharged.
- b. Dewatering BMP's shall be incorporated into the SWPPP. The dewatering of construction excavations is subject to San Diego Regional Water Quality Control Board regulations depending on where the accumulated construction water is discharged:
 - 1) Discharge to the sanitary sewer: Discharge of accumulated water to the sanitary sewer is not allowed without the permission of the Department of Public Works. Permission may be obtained by submitting a request to the appropriate Municipalities Public Works Department.
 - 2) Land application of construction site discharges: Land application will comply with Conditional Waiver #2 to the amendments to the Basin Plan Waste Discharge Requirements, as amended in San Diego RWQCB Resolution NO. R9-2007-0104. Design-Build Entity shall comply with the Construction site dewatering BMP's specified in Conditional Waiver #2 and will submit a Notice of Intent if requested by the RWQCB.
 - 3) Discharge to storm drain or surface waters: When the volume of accumulated groundwater is significant or when the drainage conditions do not allow land application, Design-Build Entity shall prepare an NOI to seek permit coverage under San Diego RWQCB Order No. R9-2008-0002, Discharges from Groundwater Extraction and Similar Discharges to Surface Waters and Storm Drains or Order No. R9-2007-0034, Discharges from Groundwater Extraction and Similar Discharges to San Diego Bay. A separate permit is required for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains, Order No. R9-2002-0020.
 - c. When the Design-Build Entity chooses to discharge slurries and drilling mud to land, the Design-Build Entity may be required to file an NOI with the RWQCB. Therefore the Design-Build Entity shall comply with Conditional Waiver #9, Discharges of Slurries to Land per the amendments to the Basin Plan Waste Discharge Requirements, Resolution No. R9-2007-0104. Choose how and where to discharge slurries and drilling mud.
 - d. Copy of the written approval to discharge into a sanitary sewer system at least five days before starting discharge activities, if applicable. This information shall be on site when discharging to a municipal sanitary sewer system.
 - e. Copy of the written approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system, if applicable. This information shall be on site when discharging to a municipal sanitary sewer system.
5. Authorized non-stormwater discharges regulated by the CGP shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges:
- a. Immediately stop working and notify the District if any of the following is discovered onsite:
 - 1) Design-Build Entity reasonably believes that the substance discovered is asbestos as defined in Labor Code § 6501.7 or a hazardous substance as defined in Health & Safety Code § 25316 and § 25317.
 - 2) An unidentifiable substance not described in the Contract or the SWPPP is discovered.

- 3) An identifiable substance that has not been made harmless is discovered.
 - b. Handle, store, and dispose of hazardous waste under 22 CA Code of Regulations Division 4.5.
 - c. Dispose of hazardous waste within 90 days of the start of generation. Use a hazardous waste manifest and a transporter registered with the California DTSC to transport hazardous waste to an appropriately permitted Class I Disposal Site.

- K. The following Good Site Management Housekeeping is required for erosion control:
 - 1. Provide effective soil cover for inactive areas and all finished slopes, open space, utility backfill, and completed lots:
 - a. Provide temporary irrigation equipment for vegetation.
 - 2. Limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, consider the use of plastic materials resistant to solar degradation.

- L. The following Good Site Management Housekeeping is required for sediment control:
 - 1. Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site for all projects regardless of the risk level.
 - 2. On sites where sediment basins are to be used, design at minimum, sediment basins according to the method provided in CASQA’s Construction BMP Guidance Handbook.

- M. Implement appropriate erosion control BMP’s (runoff control and soil stabilization) in conjunction with sediment control BMP’s for areas under active construction, including but not limited to:
 - 1. Linear sediment controls along toe to slopes face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths.

Critical Slope/Sheet Flow Length Combinations

Slope Percentage	Sheet flow length not to exceed
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

- 2. Limiting construction activity traffic to and from the project to entrances and exits that employ effective controls to prevent offsite tracking of sediment.
 - 3. Storm drain protection for all inlets with the potential to receive runoff from areas impacted by construction activities
 - 4. Perimeter protection
 - 5. Daily inspections of all immediate access roads with removal of any sediment or other deposited materials prior to any rain event by vacuuming or sweeping.
-
- N. The RWQCB may require implementation of additional site specific sediment control requirements when the installed sediment control BMP’s are not adequate to protect receiving waters.
-
- O. The following Good Site Management Housekeeping is required for run-on and runoff control:
 - 1. All projects shall effectively manage all run-on, all runoff within the site, and all runoff that discharges off the site.
 - 2. Run-on from offsite shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in the CGP.

- 3.11 SWPPP TEMPORARY ADVANCED TREATMENT SYSTEMS (ATS)
- A. The SWPPP shall describe and include the use of the ATS as a water pollution control practice for sediment control.
 - B. Design, installation, operation, and monitoring of an ATS and the treated effluent shall only be done by appropriately trained and experienced individuals as prescribed in CGP Attachment F.
 - C. An ATS Plan shall be prepared and shall include:
 - 1. Title sheet.
 - 2. Table of contents.
 - 3. Certification and approval sheet described in section 100 of the preparation manual.
 - 4. Amendment log and format described in section 200 of the preparation manual.
 - 5. Description and schedule of the dewatering and discharge activities.
 - 6. Discharge alternatives, including:
 - a. Reuse of treated water for construction activities such as dust control, irrigation, fill compaction, or concrete batch plant.
 - b. Percolation.
 - c. Storm sewers.
 - d. Surface waters.
 - 7. Treatment system description and components.
 - 8. Anticipated flow rates.
 - 9. Operation and system maintenance procedures and example maintenance logs for ATS:
 - a. Operation and maintenance manual for equipment.
 - b. Monitoring, sampling and reporting plan, including quality assurance/quality control (QA/QC).
 - c. Health and safety plan.
 - d. Spill prevention plan.
 - 10. Field-recorded data, visual inspection, and calibration procedures and example logs.
 - 11. Measuring equipment descriptions.
 - 12. Shop drawings for dewatering and discharge activities showing:
 - a. Section and plan views of storm water effluent treatment systems.
 - b. Location of sampling points for water quality measurements.
 - c. Flow path and placement of pipes, hoses, pumps, holding tanks, and other equipment used to convey water.
 - d. General position of treatment dewatering and discharge components relative to excavations or other activities requiring dewatering.
 - e. Point of storm water discharge.
 - D. Daily inspection reports shall be documented. The daily inspection report shall include:
 - 1. Discharge volumes.
 - 2. Water quality monitoring records.
 - 3. Discharge point information that includes:
 - a. Date and time.
 - b. Weather conditions including wind direction and velocity.
 - c. Presence or absence of water fowl or aquatic wildlife.
 - d. Color and clarity of the effluent discharge.

- e. Erosion or ponding downstream of the discharge site.
 - f. Photographs labeled with the time, date, and location.
4. When observations and measurements confirm that water quality limits are exceeded:
- a. Submit a notice of discharge report within three business days after exceeding the limits.
 - b. Document the reasons for exceeding the water quality limits and any corrective work performed to prevent a recurrence in the notice of discharge.
- E. Daily inspection report shall be retained onsite. The report shall be certified as true and accurate and be signed by the person who gathered the information.
- F. Include a copy of the publicly owned treatment works municipal batch discharge permit when required.
- G. Include a coagulant prevention work plan when the Design-Build Entity uses chemical coagulants, in-line flocculants, or both, in the treatment system. The coagulant prevention work plan shall include:
- 1. Description of BMP's to prevent accidental spillage, overfeeding into the treatment system, or other mishandling of coagulant agents.
 - 2. Monitoring plan for all coagulant or flocculant agents to be used.
 - 3. Description of the agents, chemical and trade name description
 - 4. Determination of acute and chronic toxicity for aquatic organisms conforming to EPA methods for the agents.
 - 5. Monitoring proposal to detect residual agent at concentrations at or below established acute toxicity levels for freshwater and marine conditions for that agent.
- H. Start the following process for the ATS Plan within 30 days of Contract approval:
- 1. Submit a copy of the ATS Plan. Allow 30 days for the District's review. The District will provide comments and specify the date when the review stopped when revisions are required.
 - 2. Revise and resubmit a revised ATS Plan within 15 days of receiving the District's comments. The District's review will resume when a complete ATS Plan has been resubmitted.
 - 3. When the District accepts the ATS Plan, submit an electronic copy and a printed copy of the accepted ATS Plan.
 - 4. Allow 14 days for the District to submit the accepted ATS Plan to the State Water Resources Control Board (SWRCB). A paper copy of the ATS Plan shall be available onsite during ATS operation.
 - 5. When the District requests changes to the ATS Plan based on the RWCQB's comments, amend the ATS Plan within five (5) days.
- I. Records of delivery and removal of ATS components shall be retained onsite
- J. ATS implementation shall include the following:
- 1. Place ATS components at the job site:
 - a. Before dewatering work.
 - b. In the immediate area of the dewatering work where authorized.
 - c. Away from construction traffic or public access areas.
 - 2. Divert stormwater away from excavations that would require dewatering.

3. Residual chemical for the coagulant shall be less than 10 percent of the Maximum Allowable Threshold Concentration (MATC) for the most sensitive species.
 4. Water quality limits shall comply with the receiving water limitations monitoring and discharge effluent limitations discussed in the next section. When observations and measurements confirm the water quality limits are exceeded:
 - a. Stop the discharge immediately.
 - b. Notify the District.
 - c. Start corrective measures to change, repair, or replace the equipment used to discharge the treated water.
 5. After the District inspects and accepts your corrective measures, resume dewatering and discharge activities.
 6. Start the startup-phase sampling requirements before resuming regular-phase sampling requirements. Then start the regular-phase sampling requirements.
 7. Relocate the ATS as needed for dewatering work.
- K. ATS Monitoring:
1. Comply with the manufacturer's instructions for all calibrations of the flow meter. Perform calibrations in the presence of the QSP.
 2. While the ATS is being operated, monitor:
 - a. Influent turbidity.
 - b. Effluent turbidity.
 - c. Influent pH.
 - d. Effluent pH.
 - e. Residual chemical.
 - f. Effluent flow rate.
 - g. Effluent flow volume.
 3. Monitoring equipment for the ATS shall record data at least once every 15 minutes. Cumulative flow data shall be recorded daily. The recording system shall have the capacity to record a minimum of seven days of continuous data.
 4. Monitoring equipment shall be interfaced with the control system of the ATS to provide shutoff or recirculation in the event that effluent readings exceed limits for turbidity and ph. The control system shall default to recirculation or shutoff during a power failure or other catastrophic event.
 5. The control system shall control the dose of the coagulant or flocculant to prevent overdosing.
 6. Take water quality measurements to verify requirements of receiving water limitations and discharge effluent limitations for:
 - a. Discharges of water that exceed 4 hours in duration occurring within a 24-hour period as follows:
 - 1) When the discharge could affect the receiving body of water in a stormwater drainage system, take measurements at the background and receiving water sampling locations not more than 1 hour before discharging the treated water.
 - 2) Start the start-up phase sampling 10 to 30 minutes after measurable runoff occurs during a storm. Startup-phase sampling includes stormwater runoff, background, and receiving water measurements taken during the first three days of discharge. Take samples at regular intervals during the storm. Take at least 4 samples for each discharge lasting 4 hours or more. The time

- between sampling shall not exceed 4 hours.
- 3) Perform regular-phase sampling at least twice daily. Regular-phase sampling includes effluent, background, and receiving water measurements that occur after the 3rd day of activities. Take samples at regular intervals.
 - 4) When the receiving body of water noticeably changes color or clarity, take additional effluent, background, and downstream measurements.
 - 5) When an initial measurement shows that the water quality limits are exceeded, take an additional measurement not less than 15 minutes and not more than 1 hour after the initial measurement.
 - 6) When the 2nd test confirms the limits were exceeded, revert to the startup-phase sampling requirements before resuming regular-phase sampling.
 - 7) For cofferdam maintenance dewatering, regular-phase monitoring may be discontinued after 10 days if the effluent and receiving water measurements are consistently below the water quality limits.
- b. Discharges of water less than 4 hours in duration occurring within a 24-hour period as follows:
- 1) When the discharge could affect the receiving body of water in a stormwater drainage system, take measurements at the background and receiving water sampling locations no more than 1 hour before discharging the treated water.
 - 2) Take effluent, background, and receiving water measurements from 10 to 30 minutes after initiating the discharge. Continue to take measurements every hour.
 - 3) When an initial measurement shows that the water quality limits are exceeded, take an additional measurement not more than 15 minutes after the initial measurement.
 - 4) When the receiving waterbody noticeably changes color or clarity, take additional effluent, background, and downstream measurements.
- c. Discharges of water as follows:
- 1) Measure stormwater effluent turbidity and pH at the end of the outfall or in-line sampling port.
 - 2) Measure receiving water turbidity, pH, and dissolved oxygen at a point within 15 feet downstream of the discharge point.
 - 3) Measure natural background turbidity, dissolved oxygen, and pH at a location that is from 9 to 15 feet upstream of the discharge point. When other construction activity is being performed, measure at least 150 feet upstream of the discharge point.
 - 4) When the discharge is made into a surface body of water or into a stormwater drainage system that produces an observable effect on the receiving body of water, monitor the receiving waterbody.
- d. Receiving water and natural background measurements as follows:
- 1) When the receiving water is deeper than 3 feet, take depth-averaged measurement by taking samples from 3 points within the water column and averaging the following 3 measurements:
 - a) 12 inches below the surface.
 - b) Mid-depth.
 - c) 12 inches above the bottom.

- 2) When the receiving water is less than 3 feet in depth, take the measurement 12 inches below the surface.
 7. Comply with the manufacturer's instructions for the use and calibration of meters and devices for taking water quality measurements. Perform calibrations in the presence of the QSP.
 8. Maintain the ATS to provide proper function and prevent leaks. When a component of the dewatering equipment is not functioning properly, discontinue the dewatering activities and repair or replace the component.
 9. Sediments removed from uncontaminated areas during maintenance of the treatment system shall be dried, distributed uniformly, and stabilized at a location within the project limits where authorized.
- 3.12 SWPPP NOTICE OF TERMINATION (NOT)
- A. Within 90 days of the final completion date of the Project, the QSP shall electronically file a Notice of Termination (NOT) through SMARTS and upload a final site map and photos.
 - B. When a complete NOT package has not been uploaded through SMARTS within the allotted amount of time, the Design-Build Entity will be required to compensate the District for any additional fees paid to the SWRCB due to the delay.
 - C. When the Design-Build Entity has failed to achieve final stabilization in accordance with Section II.D of the CGP within 90 days of the final completion date of the Project, the Design-Build Entity will be required to compensate the District for any additional fees paid to the SWRCB due to the delay.
- 3.13 TEMPORARY BMP INSTALLATION, OPERATION, AND MAINTENANCE
- A. All temporary water pollution control BMP's shall be indicated at a unit price in the Contract Plans and Specifications.
 - B. The SWPPP or WPCP shall describe and include the specific use of each type of water pollution control BMP as required for adherence to water quality objectives.
 - C. When a temporary construction entrance or roadway is being used, do not allow soil, sediment, or other debris that is tracked onto the pavement to enter storm drains, open drainage facilities, and watercourses.
 - D. When material is tracked onto the pavement, remove it within 24 hours unless the District authorizes a longer period.
 - E. Retain records of street sweeping activities including sweeping times, sweeping locations, and the quantity of disposed sweeping waste as part of the SWPPP.
 - F. Before installing erosion control measures remove and dispose of trash, debris and weeds in areas to receive erosion control materials.
 - G. Protect any hardscape, lined drainage channels, and existing vegetation from hydraulically applied material overspray.
 - H. Proper selection of materials is critical for specific slopes and slope distances. No one product is applicable for all situations. Erosion control products should be selected on a case by case

basis.

- I. Do not drive vehicles upon erosion control products following placement.
- J. Install temporary fencing for the protection of ESA's and the preservation of existing vegetation:
 - 1. If wood posts are used, fasteners shall be staples or nails.
 - 2. If steel posts are used, fasteners shall be tie wires or locking plastic fasteners.
 - 3. Spacing of the fasteners shall be no more than 8 inches apart.
 - 4. Before clearing and grubbing activities.
 - 5. From outside of the protected area.
 - 6. With posts spaced 8 feet apart and embedded at least 16 inches in the soil.
 - 7. Signs shall be attached with the top of the sign panel flush with the top of the high visibility fabric and placed 100 feet apart along the length and at each end of the fence.
 - 8. Install fence to enclose the drip line of foliage canopy of protected plants and protect visible roots from encroachment.
- K. Provide a certificate of compliance (certified weed free from the vendor) for temporary straw bales when used as visibility or noise barriers in ESA's.
- L. Place gravel-filled bags behind Type K temporary railings if used in an area with run-on.

3.14 POST-CONSTRUCTION BMP's

- A. Install post-construction BMP's as required by the Contract Documents and described in the SWPPP to minimize or mitigate for post-construction activities that may be potential sources of stormwater pollution.
- B. Provide maintenance for any post-construction BMP's that have been adversely affected by construction activities:
 - 1. Maintenance activities will vary depending upon the BMP's in place and the construction activities.
 - 2. The District will not pay for maintenance of post-construction BMP's unless arrangements are made prior to project initiation.
 - 3. Manufacturer's specifications, civil drawings, and maintenance and operation manuals/plans for each post-construction BMP shall be included in the Record Documents submittal to the District.
- C. The Design-Build Entity is responsible for ensuring that all post-construction BMP's are in proper working order with no maintenance required prior to the next rain event.

3.15 MAINTENANCE PRIOR TO FINAL ACCEPTANCE

- A. Maintain planted areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include the filling, leveling, and repairing of any washed or eroded areas, as may be necessary and sufficient watering to maintain the plant materials in a healthy condition.
- B. The District may require replanting of any areas in which the establishment of the vegetative ground cover does not appear to be developing satisfactorily.

END OF SECTION 01 57 23

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