

## SECTION 01 35 35

### WATER POLLUTION CONTROL

#### **PART 1 – GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Requirements for water pollution control during construction, including preparation of Storm Water Pollution Prevention Plans (SWPPP) and installation, maintenance, inspection, removal, and documentation of Best Management Practice (BMP) measures.
- B. Requirements for permanent water pollution control facilities post-construction, if required, including design and installation of storm water treatment facilities to prevent water pollution during construction of a specific Measure R Project.

##### **1.02 RELATED SECTIONS**

- A. Section 01 33 00: Submittal Procedures
- B. Section 01 35 43: Environmental Procedures for Hazardous Materials
- C. Section 01 35 63: Sustainability Plan
- D. Section 01 43 10: Project Quality Program Requirements - Design/Build or  
Section 01 43 20: Project Quality Program Requirements - Design/Bid/Build  
(as applicable)
- E. Section 01 57 13: Temporary Erosion and Sedimentation Controls
- F. Section 01 57 19: Temporary Environmental Control

##### **1.03 REFERENCES (Not Used)**

##### **1.04 QUALITY ASSURANCE**

- A. Comply with Project Quality Program Requirements (see 1.02 above).

##### **1.05 SUBMITTALS**

- A. Refer to Section 01 33 00 – Submittal Procedures, for submittal requirements and procedures.
- B. Construction Water Pollution Control:
  - 1. Contractor shall submit to Metro all documentation necessary for coverage under the Construction General Permit, including but not limited to Permit Registration Documents (PRDs). PRD's shall include calculations related to Risk Level, the

SWPPP, which should be prepared using with the Caltrans or California Stormwater Quality Association (CASQA) SWPPP template, the names and qualifications of the Qualified SWPPP Practitioner (QSP) and Qualified SWPPP Developer (QSD), a certification of the SWPPP by the QSD. The documentation requested should be available prior to the commencement of the project, not prior to any earth disturbing activities. Construction mobilization activities have the potential to cause storm water pollution as well as excavation.

2. Contractor shall allow sufficient time for Metro or its designee and external agency to review SWPPP, as outlined in Section 01 33 00 – Submittal Procedures, but in no case shall submit the initial draft for review more than 60 days after Notice Proceed (LNTP). The documentation requested should be available prior to the commencement of the project, not prior to any earth disturbing activities. Construction mobilization activities have the potential to cause storm water pollution as well as excavation. Site disturbing activity may not begin until the SWPPP has been approved for use, uploaded to Storm Water Multi-Application and Reporting System (SMARTS) and a Waste Discharge Identification (WDID) Number received. Metro will setup the SMARTS website and will be entered as the Legally Responsible Party (LRP). The Contractor will be provided the Notice of Intent (NOI) form or submittal to the State Water Resources Control Board. The SWPPP shall conform to the provisions in the referenced Manuals, the requirements of the appropriate NPDES permits, including the Construction General Permit, and the Construction Specifications approved by Metro or its designee. Contractor shall be responsible for all permit fees.
  - a. Contractor's SWPPP shall provide a schedule for the erosion control construction site housekeeping measures and Work included in the Contract for all water pollution control measures and BMPs. The SWPPP shall also include post-construction measures which shall be coordinated with permanent measures discussed in Article 1.08 General Requirements of this Section.
  - b. If revisions to the SWPPP are required, as determined by Metro, the Contractor shall submit a revised plan within the time frame set forth in Section 01 33 00 – Submittal Procedures.
  - c. The SWPPP shall be updated and revised due to changes in the Project in accordance with the Construction General Permit. Contractor shall update the SWPPP when changes to the Project affect the site drainage patterns or potential discharge of pollutants to surface waters, groundwater, or a separate municipal storm sewer system. The change shall be recorded by amending (updating) the SWPPP in accordance with the regulatory provisions for SWPPP amendment. The SWPPP shall also be updated to incorporate new measures whenever existing measures are deemed ineffective by Metro or regulatory agency inspectors.
  - d. Contractor shall incorporate the "Minimum Requirements" presented in the referenced Manuals into the SWPPP. In addition to the "Minimum Requirements", the Contractor shall complete the Caltrans BMP or local city and county BMP consideration checklist, (whichever is more stringent). Checklist presented in the referenced Manuals and incorporates all BMPs required to effectively manage onsite storm water, prevent adverse impacts to water quality and avoid off-site runoff. The Caltrans or local city and county BMP (whichever is more stringent), consideration checklist shall be used for all Work.

- e. The SWPPP shall also include a detailed spill prevention and response plan for any volatile and/or otherwise hazardous materials onsite.
- f. Contractor shall submit the weekly storm water inspection reports required by the NPDES permits and the SWPPP to Metro no later than one week following the inspection. For potential violations of the NPDES permits, Contractor shall notify Metro and initiate corrective action, documenting activity as required by law and as outlined in Section 01 57 19 - Temporary Environmental Control.
- g. Contractor shall submit all sampling and analyses results required by the NPDES permits and the SWPPP to Metro or its designee for review no later than one week following receipt of the analytical results from labs. Results from field testing of pH and turbidity shall be submitted to Metro or its designee within 72 hours of the end of a qualifying storm event, as defined by the CGP. Sampling and testing of water quality (discharges) shall be performed in accordance with sampling and analysis requirements provided in the NPDES permits. In the event of exceedances, Contractor shall immediately notify Metro or its designee, and initiate corrective action. Documentation of such an event shall be provided to Metro or its designee in writing within 24 hours of initiating corrective action. Contractor shall utilize proper water pollution control measures to ensure that stormwater run off does not exceed water quality limits as contained in the appropriate NPDES permit.
- h. Contractor shall submit the quarterly non-storm water inspection reports required by the NPDES permits and the SWPPP to Metro or its designee for review no later than one week following the inspection or previous quarter close, whichever comes first.
- i. Contractor shall prepare an Annual Report summarizing corrective actions, lab reports, sampling and analyses, and any corrective actions not implemented as per Section XVI of the Construction General Permit covering each yearly period in accordance with the permit conditions. Contractor shall submit Annual Report to Metro or its designee for review and, address Metro comments in accordance with the requirements of Section 01 33 00 – Submittal Procedures. As directed by Metro or its designee, Contractor shall provide the documentation to Metro for uploading the final report to the SMARTS by September 1st of each year or in accordance with permit conditions, if permit conditions differ from these data assembly and upload requirements.
- j. The SWPPP shall also include requirements for notifying Metro or its designee, and conducting emergency response and cleanup in the event contaminated water reaches onsite catch basins, offsite catch basins, ditches, or creeks. All response measures shall be documented, and shall be inspected for effectiveness and maintained in good working order. Ineffective measures shall be repaired or replaced immediately at Contractor's cost and schedule expense.
- k. Contractor shall notify Metro or its designee of any Regional Water Quality Control Board (RWQCB) or other stormwater regulatory inspections within 24 hours of the inspection. The Contractor shall provide written notification to Metro or its designee of any findings by the RWQCB, including verbal warnings.

- I. Contractor shall submit working or shop drawings for any additional unit descriptions (other water pollution control measures designated by the Contractor and included in the Schedule of Values) to Metro or its designee for review and approval.
  - m. Site-specific Water Pollution Control Plans (Site WPC Plans) shall be included in the SWPPP Appendix and shall include site maps showing a combination of the Contract drainage, stage construction, contour grading plans, stockpile locations, construction site entrance, street sweeping plan, sanitation facilities, washout facilities, waste disposal, hazardous material storage, and water pollution control components, including location of all proposed BMPs. Contractor shall update these site maps and the Site WPC Plans to accurately show the actual site conditions at various phases of construction. The Site WPC Plans shall graphically show the use of temporary water pollution control and temporary erosion control items specified elsewhere in these Technical Documents.
- C. Post-Construction Permanent Water Pollution Control:
1. Projects subject to a local Municipal Separate Storm Sewer System Permit (MS4) requirement: Contractor shall conform to requirements of the MS4 as implemented by applicable jurisdictions, including preparation and submittal of documentation necessary to verify said conformance on City and County facilities in City and County-owned right-of-way, and shall apply permanent BMPs consistent with BMPs outlined in the Local City and County Runoff Pollution Prevention Program and as applicable to the area of work. Contractor shall consider and coordinate design and implementation requirements with the construction and post-construction requirements associated with the Construction General Permit. Separate reports shall be prepared for Work within each jurisdiction. All reports and documentation shall be submitted to Metro or its designee. Documentation to be submitted includes, but is not limited to, completed calculations, design drawings, hydraulic and hydrologic reports for all storm water treatment facilities, and Construction Site Inspection Program required under the MS4, as well as completed permit applications and forms, as applicable. Contractor's attention is directed to the fact that adjustments to the required reports and documentation may be needed to address the concerns of the various regulatory agencies and individual municipalities. Contractor shall support Metro or its designee in coordination meetings, and revise design and documentation as required to comply with said permits and local requirements.
  2. Project areas outside of City- and County-owned Right of Way: Contractor shall submit to Metro or its designee all documentation and any revisions necessary to satisfy Section XIII "Post Construction Standards" and APPENDIX 2 "Post-Construction Water Balance Performance Standard Spreadsheet" of the Construction General Permit. All documentation shall be submitted along with the Permit Registration Documents for the Construction General Permit and SWPPP in accordance with requirements of this Section. Documentation that may be required includes but is not limited to a completed pre and post-project water balance, including calculations, design drawings, and hydraulic and hydrologic reports quantifying all pre and post-project runoff as well as structural and non-structural controls included in the post-construction water balance calculator. Contractor shall support Metro in regulatory agency meetings, and revise design and documentation as required to comply with said permit.

## 1.06 DEFINITIONS

- A. BMP: Best Management Practice.
- B. CASQA: California Stormwater Quality Association
- C. CGP: Construction General Permit
- D. NTP: Notice to Proceed
- E. NPDES: National Pollutant Discharge Elimination System
- F. PRD: Permit Registration Documents
- G. QSD: Qualified SWPPP Developer.
- H. QSP: Qualified SWPPP Practitioner
- I. REAP: Rainfall Event Action Plan
- J. RFP: Request for Proposal
- K. RWQCB: Regional Water Quality Control Board
- L. SMARTS: Stormwater Multi-Application & Reporting System
- M. SWPPP: Storm Water Pollution Prevention Plan.
- N. SWRCB: State Water Resources Control Board
- O. WPC: Water Pollution Control

## 1.07 RELATED MATERIALS

- A. State of California, Department of Transportation (Caltrans), Standard Specifications Section 20, "Erosion Control and Highway Planting."
- B. The Caltrans "Storm Water Pollution Prevention Plan and Water Pollution Control Program Preparation Manual" and the "Construction Site Best Management Practices Manual," and addenda thereto issued up to, and including, the date of the RFP, hereafter referred to respectively as the "Preparation Manual" and the "Construction Site BMP Manual" and collectively as the "Manuals." Copies of the Manuals may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520.

1. Copies of the Manuals may also be obtained from Caltrans' Internet Web Site portal at:

<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>

- C. The California Storm water Quality Association (CASQA) "Storm water Best Management Practice Handbook Portal: Construction," including Appendix B, the "Storm Water Pollution Prevention Plan Outline" and Appendix D, "Field Monitoring and Analysis Guidance" and addenda thereto issued up to, and including, the date of advertisement of the Project, hereafter referred to respectively as the "Manuals." Copies of the Manuals and the National Pollutant Discharge Elimination System (NPDES) permits may be obtained by accessing CASQA's Internet Web Site portal at:  
<https://www.casqa.org/resources/bmp-handbooks/>
- D. State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ (as amended), NPDES General Permit No. CAS000002, Storm Water Discharges Associated With Construction and Land Disturbance Activities, September 2, 2009 (hereafter Construction General Permit or CGP).
- E. State Water Quality Control Board Municipal Storm Sewer System permits (Order No. R4-2012-0175 or Order No. R4-2014-0024, as applicable).

#### **1.08 GENERAL REQUIREMENTS**

- A. Implementation of Storm Water Pollution Prevention Plan (SWPPP) measures shall be the first order of business upon site mobilization. Make documentation available prior to commencement of Project.
- B. Metro will not be liable to the Contractor for failure to accept all or any portion of an originally submitted or revised SWPPP program, nor for any delays to the Work due to the Contractor's failure to submit an acceptable SWPPP.
- C. A copy of the SWPPP, inspection records, prepared REAP reports, and sampling records, together with updates, revisions and amendments shall be kept at the construction site. At the request of Metro or its designee, the Contractor shall furnish multiple copies of the SWPPP for distribution.
- D. Contractor shall designate qualified QSD/QSP staff prior to commencement of Project and no later than submission of all required SWPPP materials to Metro to prepare and implement the SWPPP, defined by the CGP as follows:
  - 1. Qualified SWPPP Developer (QSD): The Contractor's QSD shall have registrations/certifications listed in Section VII of the CGP by commencement of Work. A QSD must prepare and sign the SWPPP, the SWPPP must be in place prior to any construction activities.
  - 2. Qualified SWPPP Practitioner (QSP): The Contractor's QSP shall have registrations/certifications listed in Section VII of the CGP and successfully complete the SWRCB sponsored or approved QSP training course and pass the QSP exam prior to any Contractor mobilization
  - 3. If either the QSP or the QSD is no longer employed by the Contractor or is no longer associated with the Work, the Contractor shall notify Metro or its designee within 24

hours, and designate a replacement within 72 hours, so Metro can update the SWRCB's Storm Water Multi-Application & Reporting System (SMARTS) within 72 hours.

- a. The replacement QSD or QSP shall have the registrations/certifications as required by the CGP.
4. Contractor shall designate individual(s) as QSP, QSD, and Data Submitter(s), to be approved and certified by Metro or its designee. Contractor shall upload data electronically into Storm Water Multi-Application & Reporting System (SMARTS) for Metro to review and certify as the LRP. The SWPPP, quarterly inspection reports, Annual Reports, and all sampling results for non-visible pollutants shall be uploaded onto SMARTS by the certified Data Submitter(s), at Metro's or its designee's request.
- E. Contractor shall provide updates to submittal items monthly or as directed by Metro or its designee per the requirements of this Specification, and shall provide documents for Metro to review prior to upload to SMARTS.
- F. Contractor shall design and incorporate BMPs into the Project design in a manner that ensures that Project facilities comply with the requirements of the respective permits.
- G. Contractor shall implement the permitted design and shall conduct all necessary monitoring and testing and any modifications deemed necessary for compliance prior to final completion and hand over of the Project Work to Metro, providing requisite reports to Metro or its designee upon request.
- H. The Contractor shall be responsible for complying with Sections 5650 and 12015 of the Fish and Game Code, and other applicable statutes relating to prevention or abatement of water pollution.
- I. All areas of exposed earth created by the Contractor beyond what is shown on the Drawings and referred to in the Construction Specifications shall also be subject to these provisions except that the Contractor shall be fully responsible for all costs and liabilities associated with stormwater discharge controls, slope protection Work, erosion controls, and sediment controls in these areas.

#### **1.09 CONSTRUCTION WATER POLLUTION CONTROL**

- A. General: The Contractor's program to control water pollution shall be included in the SWPPP to prevent any net increase in pollution of storm water runoff from entering waterways. The Contractor shall exercise every reasonable precaution to protect the creeks within the Project area from pollution including fuels, oils, and other harmful materials and shall conduct the operations and schedule the operations so as to avoid muddying and silting of the creek in accordance with the CGP. The Contractor shall provide effective temporary water pollution control measures for all creeks or their tributaries. Such measures shall include but not be limited to providing dikes, basins, ditches, and applying straw and seed. Contractor shall coordinate water pollution control work with all other Work done on the Contract.
- B. Training: Contractor shall provide Water Pollution Control training as required by the CGP. Documentation of training shall be provided to Metro or its designee within one

week of the training. Training shall be performed by qualified staff and documentation of training shall be kept on site with the SWPPP documents as defined by the SWRCB.

- C. Water Pollution Control Maintenance: Contractor shall furnish sufficient personnel, materials and adequate equipment to perform the water pollution control maintenance work immediately and to work continuously until its completion. Water pollution control maintenance work shall consist of maintaining and replacing temporary water pollution control measures throughout the duration of the Contract until permanent measures are accepted by Metro. Maintenance work and SWPPP implementation shall be considered as integral functional practices to implement water pollution control. Failure to fully comply with the requirements of the Construction General Permit shall subject the Contractor to all fines, damages and job delays incurred due to failure to implement and properly update the SWPPP.
- D. Water Pollution Control Effectiveness: If the measures being taken by the Contractor are inadequate to control water pollution effectively, Metro or its designee may direct the Contractor to revise its operations and its SWPPP program. Such directions will be in writing and will specify the items of Work for which the Contractor's water pollution control measures are inadequate. No further Work shall be performed on said items until the water pollution control measures are adequate and, if also required, a revised SWPPP program has been accepted.
- E. SWPPP Implementation: The Contractor shall be responsible upon approval of the SWPPP and throughout the duration of the Project for installing, constructing, inspecting, maintaining, removing and disposing of the water pollution control measures included in the SWPPP. Unless otherwise directed by Metro or its designee, the Contractor's responsibility for SWPPP implementation shall continue throughout any temporary suspension of Work ordered in conformance with the Contract Provisions. Requirements for installation, construction, inspection, maintenance, removal, and disposal of water pollution control measures are specified in the Manuals and specified herein.
  - 1. Contractor's program for implementing, inspecting, and maintaining water pollution control practices for wind erosion control, tracking control, non-storm water control, and waste management and materials pollution control shall be year round.
  - 2. The National Weather Service weather forecast shall be monitored for the project's zip codes and used by the Contractor on a daily basis. If there is any chance of rain forecast within 48 hours, the forecast shall be printed out and kept with the SWPPP. If the chance of precipitation is greater than 50%, the necessary water pollution control practices shall be deployed prior to the onset of the precipitation, and monitoring shall increase, as required by law and outlined in the Construction General Permit. For Risk Level II and III locations within the project, a Rainfall Event Action Plan (REAP) shall be prepared as required by the SWPPP. The REAP shall be provided to Metro or its designee within 72 hours of completion. The National Weather Service weather forecast is found at:  
<http://www.wrh.noaa.gov/>
  - 3. The Contractor shall maintain a rain gage at the site at all times during construction. Rain gage readings shall be recorded daily and provided to Metro within 72 hours whenever the daily rainfall total is greater than 0.25 inches per day or whenever the



rainfall is a part of a qualifying storm event as defined by the CGP.

4. For all project Risk Levels, the QSP, or a Metro approved substitute designated and trained by the QSP (QSP-substitute) shall inspect the site before a forecast storm (within 48 hours prior to a forecast storm), during the storm (at 24-hour intervals during extended rains), and after a storm (not later than 48 hours after rain event). Inspections shall be documented as specified in the Manual. Inspection forms shall be provided to Metro or its designee within 72 hours of the inspection
5. Stormwater inspections shall be performed by the QSP or QSP-substitute year round a minimum of once a week at all active areas and all areas with installed BMPs as required by permit and the SWPPP. More frequent monitoring is required for rain events. Contractor shall provide a rain gauge on site as specified above and record the measurements in rain event inspection reports.
6. Non-Stormwater inspections shall be performed quarterly by the QSP, QSP-substitute, Metro or its designee (quarterly inspection time periods are January-March, April-June, July-September, and October-December).
7. Contractor shall conduct sampling and analyses of storm water as required by the Construction General Permit. Sampling shall be performed by the QSP or Metro approved QSP-substitute.
8. If the Contractor or Metro identifies a deficiency in any aspect of the implementation of the approved SWPPP or amendments, the deficiency shall be corrected immediately (within 72 hours of identification). The deficiency may be corrected at a later date and time if requested by the Contractor and approved by Metro in writing, but not later than the onset of any precipitation event. If the Contractor fails to correct the identified deficiency by the date agreed or prior to the onset of precipitation, the Project shall be in noncompliance. Attention is directed to the Contract Documents for possible noncompliance penalties.
9. If the Contractor fails to conform to the approved SWPPP and Construction General Permit, Metro may order the suspension of construction operations which create or have the potential to create water pollution.
10. Implementation of water pollution control practices may vary by season. The Construction Site BMP Manual and this Section shall be followed for control practice BMP selection of year round, water pollution control practices.
11. Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continue to occur or will occur during the ensuing 14 days. Non-active areas shall be protected as required within 14 days of cessation of soil disturbing activities or prior to the onset of any precipitation event, whichever occurs first.
12. The Contractor shall provide barriers adequate to prevent flow of muddy water, vegetation debris, soil and other materials into any creek or drainage channel. During construction of such barriers, muddying of the creek/drainage channel shall not be allowed. Oily or greasy substances originating from the Contractor's operations shall not be allowed to enter or be placed where they may potentially enter any creek or drainage channel.

## **1.10 POST-CONSTRUCTION PERMANENT WATER POLLUTION CONTROL**

- A. Contractor's program to control water pollution for permanent facilities shall be in accordance with regulatory requirements, the applicable MS4 Permit and local jurisdiction requirements, and the Construction General Permit as outlined in Article 1.05, Submittals, of this Section.
- B. Contractor shall provide pre-construction surveys as outlined in Section 01 71 24 – Preconstruction Surveys, and shall include all necessary hydraulic and hydrologic studies and runoff drainage calculations to comply with NPDES requirements as well as sustainability goals, and those included in the Metro Environmental Policy and Water Use and Conservation Policy ([www.metro.net/sustainability](http://www.metro.net/sustainability)). Contractor shall participate with Metro or its designee upon request in regulatory agency meetings regarding NPDES compliance.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION 01 35 35**