

# WATER AGENCIES' STANDARDS

## Design Guidelines for Water and Sewer Facilities

### SECTION 4.6

#### National Pollutant Discharge Elimination System (NPDES) Permit Guidelines

##### 4.6.1 PURPOSE

The purpose of this section is to provide guidance to member water districts for compliance with State and Regional NPDES Permits as well as applicable local ordinances to preserve the quality of California's water resources.

##### 4.6.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

The following terms and definitions as found in this section shall have the following meaning:

**Best Management Practice (BMP):** A technique, measure, or structural control that is used for a given set of conditions to manage the quantity and improve the quality of storm water runoff.

**Non-Storm Water Discharge:** release of water that result from construction activities, including pipe flushing, street cleaning, or dewatering. These discharges are authorized only where they do not cause or contribute to a violation of any water quality standard and are controlled through implementation of appropriate BMPs.

**Notice of Intent (NOI):** A notice that is submitted to the State Water Resources Control Board prior to construction in order to obtain coverage under the General Construction Storm Water Permit and the General Permit for Small LUPs.

**Notice of Termination (NOT):** A notice that is submitted to the Regional Water Quality Control Board along with photographs of post-construction BMPs when construction activities are complete.

**Post-construction Best Management Practices (BMP's):** Permanent measures installed during construction, which are designed to reduce or eliminate pollutant discharges from the site after construction is completed.

**Storm Water Pollution Prevention Plan (SWPPP):** A document that is prepared in accordance with the General Permit for Construction Activities to:

- A. Identify all pollutant sources.
- B. Identify non-storm water discharges.
- C. Identify, construct, implement and maintain BMP's.
- D. Develop a maintenance schedule for BMP's installed during construction.

**Storm Water Sampling and Analysis Plan:** In accordance with Resolution No. 2001-046, a plan for monitoring and testing for pollutants that are either not visibly detectable in storm water, or for sediment and silt in some circumstances.

**Small LUP:** Small Linear Underground/Overhead Projects.

#### **4.6.3 GENERAL**

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the Agency's Engineer.

#### **4.6.4 GUIDELINE**

Section 4.6 provides direction necessary to meet the following regulatory requirements:

- A. Waste Discharge Requirements for discharges of Urban Runoff From the Municipal Separate Storm Sewer System (MS4s) Draining the Watersheds of the County of SD, the Incorporated Cities of San Diego County, and the Unified Port District (RWQCB Order No. 2001-0001).
- B. General Permit for Storm Water Discharges Associated with Construction Activity (Order No. 99-08-DWQ).
- C. Adopted Modifications of the Construction Activities Storm Water General Permit (Resolution No. 2001-046).
- D. General Permit for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains (Order No. R9-2002-0020).
- E. California General Dewatering Permit (Order Nos. 2001-90 and 2001-96).
- F. General Permit for Storm Water Discharges Associated with Construction Activity from Small LUP's. (SWRCB Order No. 2003-0007-DWQ).

#### **4.6.5 QUALIFICATION REQUIREMENTS**

Design engineer shall have available competent project staff trained in all aspects of NPDES regulatory requirements including the design, specification and use of Best Management Practices (BMPs). The Design Engineer shall demonstrate that personnel assigned to ensure full compliance with applicable permits have been appropriately trained. Training should be both formal and informal, occur on an ongoing basis when it is appropriate and convenient, and should include training workshops offered by the SWRCB, RWQCB, or other locally recognized agencies or professional organizations.

Sediment basin calculations must be signed by a licensed, registered civil engineer and either is included in the SWPPP or by reference in separate document.

#### **4.6.6 SCOPE OF WORK**

This section describes the responsibilities for preparing required documentations in compliance with State and Regional NPDES Permits and local ordinances.

- A. Member Water Agency:

Evaluate and determine whether the proposed project would result in soil disturbance exceeding one acre in accordance with applicable regulatory requirements.

As applicable, prepare and submit a NOI to the RWQCB prior to the start of construction and NOT after completion of construction activities (except for groundwater permits).

B. Engineer of Work:

Review the above orders to identify all NPDES regulations & standards that apply to the project. Key considerations are as follows:

1. Order No. 99-08-DWQ: determine if project is subject to General Permit based on project construction area and type (maintenance activities are exempted).
2. Resolution No. 2001-046: after confirming if a project is under Order 99-08, determine if discharge to a Section 303(d) water body would occur during construction.
3. Order No. R9-2002-0020: determine if project will involve a regulated discharge of hydrostatic test or potable water during construction.
4. Order Nos. 2001-90 and 2001-96: determine if project would involve groundwater dewatering to the environment.
5. Order No. 2003-0007-DWQ: Small LUP General Permit: determine if project is subject to General Permit based on project construction area and type (maintenance activities are exempted). Also, determine if regulated project should comply with Tier I or II permit requirements.

Evaluate, determine and address in the design all potential water discharges including but not limited to: hydrostatic test water, flushing water, groundwater, and storm water. Obtain all necessary approvals from regulatory agencies.

As applicable, prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the Member Water Agency for review and approval. The SWPPP shall be submitted as part of each required design submittal package and shall be completed to a 90% design level.

For each SWPPP, prepare technical specifications describing requirements for BMP's. This Section shall include, at a minimum, the following:

- Site Management
- Planning and Scheduling
- Performance Standards
- BMP Implementation and Maintenance
- Reporting Requirements

Review the Member Water Agency Standard Specifications and incorporate appropriate NPDES technical plans and specifications.

Provide inspection of the Contractor's site to evaluate compliance with the above-mentioned regulatory requirements as requested by the Agency.

C. Contractor:

Designate a qualified person (QP) for the proposed project. The QP shall be trained and competent in the use and maintenance of BMPs. Implement discharge requirements set forth in the Project Specifications and the SWPPP (if applicable).

Complete 90% SWPPP to the 100% level. Review all NPDES submittals, including the 100% SWPPP, during the project for applicability to the current regulations and the specific project constraints. Continually maintain BMP's throughout construction.

File a construction permit for discharge of groundwater.

#### **4.6.7 POST CONSTRUCTION BMP'S**

When appropriate, a post construction (PC) erosion and sediment control plan shall be prepared for the project improvements and included with the SWPPP.

The PC plan shall be entitled "Post Construction Erosion and Sediment Control Plan", and shall be incorporated into the contract documents. The PC plan shall include the following:

- A. Identify all pollutant sources and non-storm water discharges.
- B. Define post construction BMP's to reduce or eliminate pollutants in storm water discharges after construction.
- C. Reflect or address any changes of discharge points or drainage patterns.
- D. Develop a maintenance program for the BMP's if necessary.

Existing vegetation shall be preserved as applicable. Post Construction BMP's should minimize impermeable areas; include parking areas designed to drain into landscape areas; other configurations designed to percolate potential runoff where feasible. At the completion of construction, implement seeding or other landscaping of all remaining disturbed soil areas not longer than fourteen (14) days beyond the cessation of construction activities.

#### **4.6.8 DELIVERABLES**

The following is the schedule of deliverables that apply under this Section:

- A. Statement indicating personnel assigned to perform the project related requirements are qualified to ensure:
  - 1. Full compliance with the permits listed in this section.
  - 2. Implementation of associated design elements. This shall include a list of staff assigned and all relevant Educational/Training obtained within the last three (3) years.
- B. SWPPP including the Storm Water Sampling and Analysis Plan. If required, the SWPPP shall be submitted with all design review levels.
- C. NPDES Specification Section addressing all required permits; due at 90% review submittal.
- D. Individual BMP Drawings required for the Project due at 90% submittal.
- E. Construction Status and Reports of Non-Compliance to be submitted as-needed during construction.
- F. Post Construction BMP Drawings to be incorporated with Project Documents; submitted at the 50% and 90% review stages if required.

#### **4.6.9 REFERENCE**

- A. Should the reader have any suggestions or questions concerning the material in this section, please contact one of the agencies listed.

- B. The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the user's convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

[www.swrcb.ca.gov/](http://www.swrcb.ca.gov/)

[www.swrcb.ca.gov/stormwtr/linear\\_const.html#lup](http://www.swrcb.ca.gov/stormwtr/linear_const.html#lup)

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