

Section 2 NPDES Phase II Program and Requirements

Description of the Phase II NPDES Program

The Phase II NPDES Program is intended to address potentially adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of storm water discharges that have the greatest likelihood of causing continued environmental degradation. The environmental problems associated with discharges from MS4s in urbanized areas and discharges resulting from construction activity are outlined below. Although these problems provide the basis and rationale for the Phase II Program, it is important to note that these problems do not necessarily exist or pertain to the storm drains that are the subject of the MRSWMP.

Storm water discharges from MS4s in urbanized areas are a concern because of the potential for these discharges to contain pollutants. Concentrated development in urbanized areas substantially increases impervious surfaces, such as city streets, driveways, parking lots, and sidewalks, on which pollutants from concentrated human activities can settle and remain until a storm event washes them into nearby storm drains.

Common pollutants include pesticides, fertilizers, oils, salt, litter and other debris, and sediment. Another concern is the possible illicit connections of sanitary sewers, which can result in fecal coliform bacteria entering the storm sewer system. Storm water runoff can pick up and transport these and other potentially harmful pollutants and discharge them untreated to waterways via storm sewer systems. Under some circumstances, these discharges can result in fish kills, the destruction of spawning and wildlife habitats, a loss in aesthetic value, and contamination of drinking water supplies and recreational waterways that can threaten public health.

Uncontrolled runoff from construction sites is a water quality concern because of the effects that sedimentation can have on local water bodies, particularly small streams. Numerous studies have shown that the amount of sediment transported by storm water runoff from construction sites with no controls is significantly greater than from sites with controls. In addition to sediment, pollutants such as pesticides, petroleum products, construction chemicals, solvents, asphalts, and acids can be present at construction sites and have the potential under some circumstances to be picked up by storm water. During storms, construction sites can be the source of sediment-laden runoff, which can overwhelm a small stream channel's capacity, resulting in streambed scour, stream bank erosion, and loss of near-stream vegetative cover. Where left uncontrolled, sediment-laden runoff has been shown to result in the loss of in-stream habitats for fish and other aquatic species, an increased difficulty in filtering drinking water, the loss of drinking water reservoir storage capacity, and negative impacts on the navigational capacity of waterways.

The Phase II NPDES Program contains the following six program elements, termed "Minimum Control Measures."

1. *Public Education and Outreach*

Distributing educational materials and performing outreach to inform citizens about the potential impacts polluted storm water runoff discharges can have on water quality.

2. *Public Participation/Involvement*

Providing opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives to attend storm water management program meetings.

3. *Illicit Discharge Detection and Elimination*

Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system. This includes developing a system map, informing the community about hazards associated with illegal discharges and improper disposal of waste, and enforcement measures.

4. *Construction Site Runoff Control*

Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb 1 or more acres of land (controls could include silt fences and temporary storm water detention ponds).

5. *Post-Construction Runoff Control*

Developing, implementing, and enforcing a program to address discharges of post-construction storm water runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas (e.g., wetlands) or the use of structural BMPs such as grassed swales or porous pavement.

6. *Pollution Prevention/Good Housekeeping*

Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques, which might include such things as regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch-basin cleaning.

Summary of State Phase II General Permit Requirements

General

The EPA delegated to the State Water Resources Control Board (SWRCB) the authority to administer and enforce the Phase II NPDES Program within the State of California. In 2003 the SWRCB adopted a General Permit for storm water discharges from regulated Small MS4s. An “MS4” is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying storm water; (ii) which is not a combined sewer; and (iii) which is not part of a Publicly Owned Treatment Works (POTW) as defined at Title 40 of the Code of Federal Regulations (CFR) §122.2.

A “Small MS4” is defined as an MS4 within a U.S. Census Bureau defined “urbanized area” that is not a permitted MS4 under the Phase I regulations. This definition of a Small MS4 applies to MS4s operated within cities and counties as well as governmental facilities that have a system of storm sewers.

Federal regulations allow two permitting options for storm water discharges (individual

permits and general permits). The SWRCB elected to adopt a statewide general permit in order to efficiently regulate numerous storm water discharges under a single permit. In certain situations a storm water discharge may be more appropriately and effectively regulated by an individual permit, a region-specific general permit, or by inclusion in an existing Phase I permit. In these situations, the Regional Water Quality Control Board (RWQCB) Executive Officer (EO) will direct the MS4 operator to submit the appropriate application, in lieu of a Notice of Intent to comply with the terms of this General Permit. In these situations, the individual or regional permits will govern, rather than the General Permit.

Entities Subject to the General Permit

The General Permit regulates discharges of storm water from “regulated Small MS4s.” A “regulated Small MS4” is defined as a Small MS4 that discharges to a water of the U.S. or other MS4 regulated by an NPDES permit and is designated in one of the following ways:

1. Automatically designated by U.S. EPA pursuant to 40 CFR §122.32(a)(1) because it is located within an urbanized area defined by the Bureau of the Census (see Attachment 1); or
2. Individually designated by the SWRCB or RWQCB after consideration of the following factors:

a. High population density – High population density means an area with greater than 1,000 residents per square mile. Also to be considered in this definition is a high density created by a non-residential population, such as tourists or commuters.

b. High growth or growth potential – If an area grew by more than 25% between 1990 and 2000, it is a high growth area. If an area anticipates a growth rate of more than 25% over a 10-year period ending prior to the end of the first permit term, it has high growth potential.

c. Significant contributor of pollutants to an interconnected permitted MS4 – A small MS4 is interconnected with a separate permitted MS4, if storm water that has entered the Small MS4 is allowed to flow directly into a permitted MS4. In general, if the Small MS4 discharges more than 10% of its storm water to the permitted MS4, or its discharge makes up more than 10% of the other permitted MS4’s total storm water volume, it is a significant contributor of pollutants to the permitted MS4. In specific cases, the MS4s involved, or third parties, may show that the 10% threshold is inappropriate for the MS4 in question.

d. Discharge to sensitive water bodies – Sensitive water bodies are receiving waters, including groundwater, which are a priority to protect. They include the following:

- Those listed as providing or known to provide habitat for threatened or endangered species;
- Those used for recreation that are subject to beach closings or health warnings; or
- Those listed as impaired pursuant to CWA §303(d) due to constituents of concern in urban runoff (these include BOD, sediment, pathogens, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and other constituents that are found in the MS4 discharge). Additional criteria to qualify as a sensitive water body may exist and may be determined by the SWRCB or RWQCB on a case-by-case basis along with the MS4’s designation justification.

e. Significant contributor of pollutants to waters of the United States – Specific conditions presented by the MS4 may lead to significant pollutant loading to waters of the U.S. that are otherwise unregulated or inadequately regulated. An example of such a condition may be the presence of a large transportation industry.

These factors are considered when the SWRCB evaluates whether a Small MS4 should be

required to implement a storm water program that meets the provisions of the General Permit. An MS4 and the population that it serves need not meet all of the factors to be designated. These factors were chosen to target MS4s that in general have the potential to impact water quality due to conditions influencing discharges into their system or due to where they discharge.

The definition of a Small MS4 provided at §122.26(b)(16) includes systems of storm water conveyances owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. This term does not include separate storm sewers in very discrete areas, such as individual buildings.

There is a wide array of governmental facilities with varying storm water conveyance structures. Some of the structures clearly form a system of conveyances similar to those in municipalities while others do not. In general, storm water structures serving public campuses (including universities, community colleges, primary schools, and other publicly owned learning institutions with campuses), military bases, and prison and hospital complexes are Small MS4s that are similar to traditional storm water systems that serve cities and counties. Those Small MS4s within or adjacent to a regulated Small, medium, or large MS4s are themselves regulated Small MS4s and are subject to an MS4 storm water permit.

There may be instances where a governmental facility does not have a storm sewer system that is similar to a traditional MS4 but is a significant source of pollutants and may be designated as a regulated Small MS4 by §122.26(a)(v).

While discharges from Small MS4s serving a city or county within the permit area of a permitted city or county will be regulated under the respective city or county permit, discharges from Small MS4s serving other governmental facilities (i.e. facilities owned and operated by the federal or state government) do not fall under the jurisdiction of the city or county and therefore may need to be permitted separately. Additionally, similar facilities operated privately are not subject to this permit because, by definition, only public entities operate Small MS4s, and the city or county has legal authority over the private entity.

Notification Requirements

As required by 40 CFR §122.33(c)(1) and the Porter-Cologne Water Quality Control Act (Porter-Cologne) §13376, regulated Small MS4s automatically designated because they are within an urbanized area must submit to the appropriate RWQCB by March 10, 2003, a Notice of Intent (NOI) to comply with the terms of the General Permit, a Storm Water Management Program (SWMP), and a fee.

Regulated Small MS4s that fail to either (1) obtain coverage under this General Permit or a separate individual permit, or (2) secure a waiver from the NPDES program from the implementing agencies, will be in violation of the CWA and the Porter-Cologne Water Quality Control Act.

Once the RWQCB has approved its SWMP, a regulated Small MS4 will be considered to be permitted. The MS4 shall then begin implementing its SWMP. The Permittee may subsequently propose to the RWQCB changes in its SWMP. The RWQCB may also request changes to the SWMP, if it deems it appropriate in order to achieve compliance with the General Permit.