



City of Vernon

Development Planning for Storm Water Management

**A Manual for the
Standard Urban Stormwater Mitigation Plans
(SUSMPs)**

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City of Vernon

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Storm Water Program

Introduction

1.1 Background

Urban and stormwater runoff is a serious concern, in both the dry and rainy season. Studies have shown that stormwater runoff from urban and industrial areas typically contain the same general types of pollutants that are often found in wastewater from industrial discharges. Pollutants commonly found in stormwater runoff include heavy metals, pesticides, herbicides, fertilizer, animal droppings, trash, food wastes, and synthetic organic compounds such as fuels, waste oils, solvents, lubricants, and grease. Waters that flow over streets, parking lots, construction sites and industrial facilities carry these pollutants through the storm drain network directly to the lakes, streams and beaches of southern California.

These compounds can have damaging effects on both human health and aquatic ecosystems. In addition to pollutants, the high volumes of stormwater discharged from the storm drain system in areas of rapid urbanization have had significant impacts on aquatic ecosystems due to physical modifications such as bank erosion and widening of channels.

Water Quality Assessments conducted by the Regional Water Quality Control Board (Regional Board) identified impairment of a number of water bodies in Los Angeles County. The beneficial uses of certain water bodies specifically identified in these assessments are either impaired or threaten to be impaired. Pollutants found causing impairment include: heavy metals, coliform, enteric viruses, pesticides, nutrients, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, organic solvents, sediments, trash, debris, algae, scum, and odor. An epidemiological study conducted during the summer of 1995 for the Santa Monica Bay Restoration Project (SMBRP) demonstrated that there is an increased risk of acute illnesses caused by swimming near flowing storm drain outlets in Santa Monica Bay.

The Regional Board therefore considers stormwater and urban runoff discharges to be significant sources of pollutants that may be causing, threatening to cause, or contributing to the impairment of the water quality and beneficial uses of the receiving water bodies in Los Angeles County.

Urban runoff is considered to be one of the largest sources of pollution to the waterway and coastal areas of the United States. Locally, we see the impacts in increased health risks to

swimmers near storm drains, high concentrations of toxic metals in harbor and ocean sediments, and toxicity to aquatic life. These impacts translate into losses to the County's annual tourism economy, loss of recreational resources, dramatic cost increases for cleaning up contaminated sediments and impaired function and vitality of our natural resources.

1.2 Legal Framework

In 1987, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from stormwater is effectively prohibited, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. The 1987 amendments to the CWA added Section 402(p) which established a framework for regulating municipal, industrial and construction stormwater discharges under the NPDES program. In California, these permits are issued through the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards.

On December 13, 2001, the Regional Water Quality Control Board, Los Angeles Region (RWQCB), adopted Order No. 01-182. This Order is the NPDES Permit (NPDES No. CAS004001) for municipal stormwater and urban runoff discharges within the County of Los Angeles. As adopted, the requirements of Order No. 01-182 (the "Permit") covers 85 cities and the unincorporated areas of Los Angeles County, with the exception of the portion of Los Angeles County in the Antelope Valley including the cities of Lancaster and Palmdale, and the City of Avalon. Under the Permit, the County of Los Angeles is designated as the Principal Permittee and the 85 incorporated cities as Permittees. The Principal Permittee coordinates and facilitates activities necessary to comply with the requirements of the Permit, but is not responsible for ensuring compliance of any of the Permittees.

In compliance with the Permit, the Permittees, including the County, have embarked on a variety of stormwater management programs with the ultimate goal of accomplishing the requirements of the Permit and reducing the pollutants in stormwater and urban runoff. These programs are broken up into various categories of the Model Programs that were created as a requirement of the Permit. These categories are Illicit Connection/Illicit Discharge, Development Planning, Development Construction, Public Agency Activities, and Public Information and Participation. Each Permittee is required by the Permit to have developed and implemented.

1.3 Standard Urban Stormwater Mitigation Plan

One specific requirement from the Development Planning Model Program is the Standard Urban Stormwater Mitigation Plan (SUSMP). This manual serves as a guideline for compliance with this SUSMP. The SUSMP outlines the necessary Best Management Practices (BMPs), which must be incorporated into design plans for the following new developments:

- 1) Ten or more unit homes (includes single family homes, multifamily homes, condominiums and apartments);
- 2) A 100,000 or more square feet of impervious surface area industrial/commercial development;
- 3) Automotive service facilities (SIC 5013, 5014, 5541, 7532-7534 and 7536-7539);
- 4) Retail gasoline outlets;
- 5) Restaurants (SIC 5812);
- 6) Parking lots 5,000 square feet or more of surface area or with 25 or more parking spaces; and
- 7) Redevelopment projects in subject categories that meet Redevelopment thresholds.

"Redevelopment" means land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site.

Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development storm water quality control requirements, the entire project must be mitigated. Where Redevelopment results in an alteration to less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development storm water quality control requirements, only the alteration must be mitigated, and not the entire development.

Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety.

Existing single family structures are exempt from the Redevelopment requirements.

Site Specific Mitigation

A site-specific plan to mitigate post-development storm water shall be implemented for new development and redevelopment not requiring a SUSMP but which may potentially have adverse impacts on post-development storm water quality, where one or more of the following project characteristics exist:

- a) Vehicle or equipment fueling areas;
- b) Vehicle or equipment maintenance areas; including washing and repair;
- c) Commercial or industrial waste handling or storage;
- d) Outdoor handling or storage of hazardous materials;
- e) Outdoor manufacturing areas;
- f) Outdoor food handling or processing;
- g) Outdoor animal care, confinement, or slaughter; or
- h) Outdoor horticulture activities.

Storm Water Program

Permitting and Inspection of SUSMP

2.1 General Description of Permitting & Inspection of SUSMP

Any project submitted to the City of Vernon for review and approval may be subjected to the requirements of the NPDES Permit. Development projects submitted for review and approval will be screened to determine if a SUSMP is required.

All development projects listed in Table 2-1, will be required to submit a drainage concept and storm water quality plan. Details of facilities and measures which mitigate impacts to water quality would then be shown on the improvement plans and reviewed as part of those plans.

To assist in the preparation of this plan, a SUSMP has been developed for the eight project types listed in Table 2-1. This SUSMP outlines the BMPs to be incorporated into the project design. Development projects having characteristics or activities listed in Table 2-2 may be required to submit site specific mitigation when completing the project design.

Table 2-1
Standard Urban Stormwater Mitigation Plan
Project Types
Ten or more unit homes (includes single family homes, multifamily homes, condominiums and apartments)
A 100,000 or more square feet of impervious surface area industrial/commercial development
Automotive service facilities (SIC 5013, 5014, 5541, 7532-7534 and 7536-7539)
Retail gasoline outlets
Restaurants (SIC 5812)
Parking lots 5,000 square feet or more of surface area or with 25 or more parking spaces
Redevelopment projects in subject categories that meet Redevelopment thresholds

“Redevelopment” means land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site.

Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development storm water quality control requirements, the entire project must be mitigated. Where Redevelopment results in an alteration to less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development storm water quality control requirements, only the alteration must be mitigated, and not the entire development.

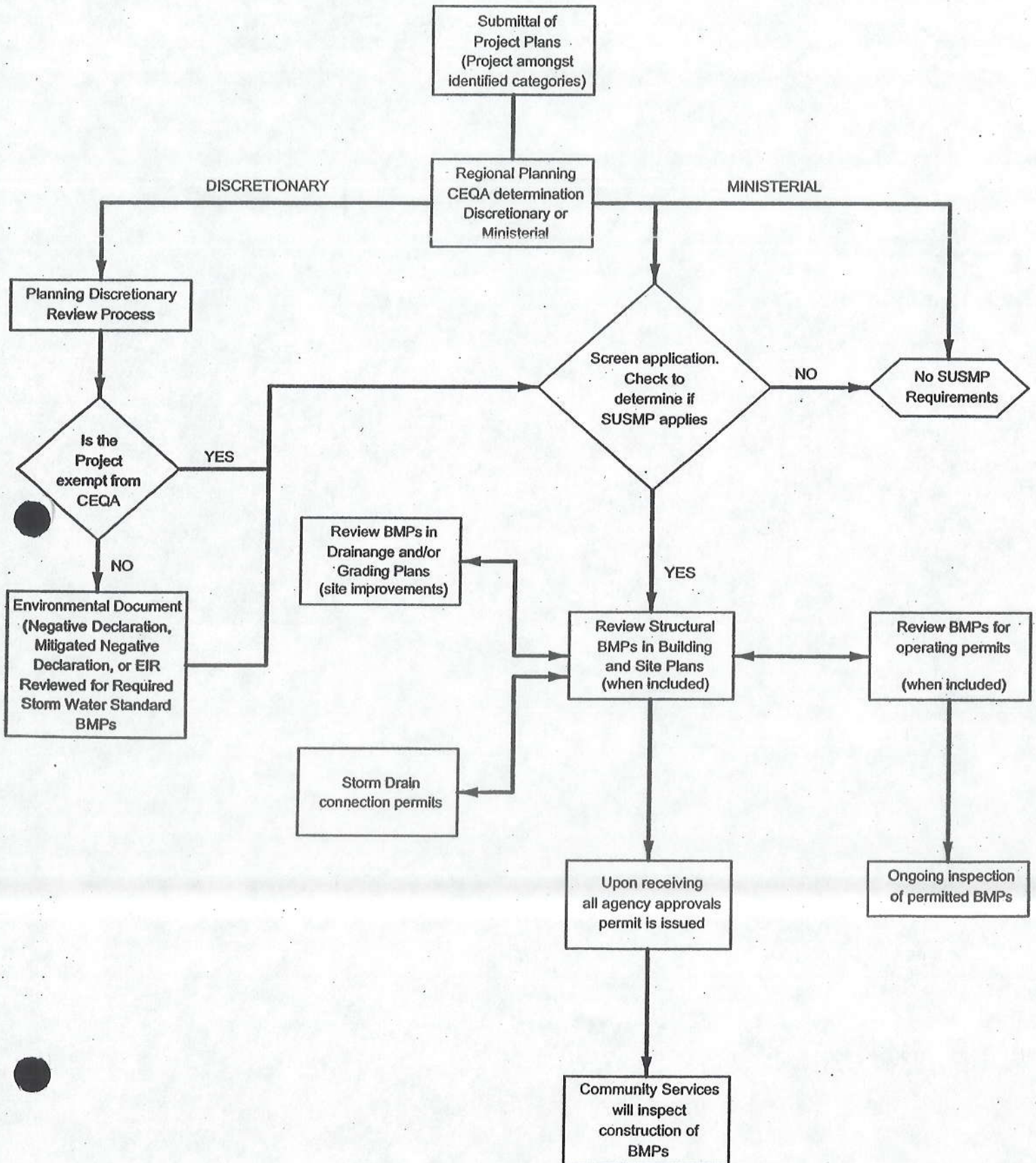
Redevelopment does not include routing routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety.

Existing single family structures are exempt from the Redevelopment requirements.

Table 2-2
Standard Urban Stormwater Mitigation Plan
Characteristics & Activities
Vehicle or equipment fueling area
Vehicle or equipment maintenance areas, including washing and repair
Commercial or industrial waste handling or storage
Outdoor handling or storage of hazardous materials
Outdoor manufacturing areas
Outdoor food handling or processing
Outdoor animal care, confinement, or slaughter
Outdoor horticulture activities

Please refer to the following flow chart for your specific project permitting and inspection process.

FIGURE 2-1
 PERMITTING AND INSPECTION OF SUSMP



Section

3

Standard Urban Stormwater Mitigation Plan

CITY OF VERNON

STANDARD URBAN STORM WATER MITIGATION PLAN
