



## **AGENDA REPORT**

### **CITY OF MAYWOOD**

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**DATE:** JULY 8, 2013

**TO:** HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

**FROM:** LILIAN MYERS, CITY MANAGER *ym*

**BY:** ELROY L. KIEPKE, ASSISTANT CITY ENGINEER

**SUBJECT:** INTRODUCTION OF AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MAYWOOD TO AMEND CHAPTER 6-10 OF THE MAYWOOD MUNICIPAL CODE TO INCLUDE LOW IMPACT DEVELOPMENT (LID) STANDARDS AS REQUIRED BY THE NEW MS4 PERMIT FOR URBAN STORM WATER MITIGATION, MANAGEMENT AND DISCHARGE

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#### **RECOMMENDATION**

That the City Council introduce for first reading an Ordinance of the City Council of the City of Maywood amending Chapter 6-10 of the Maywood Municipal Code to include Low Impact Development (LID) standards as required by the new MS4 permit for urban storm water mitigation, management and discharge.

#### **FISCAL IMPACT**

The adoption of the ordinance will have no fiscal impact on the City budget.

#### **LEGAL REVIEW**

This report and the draft ordinance have been reviewed by the City Attorney.

#### **BACKGROUND**

On November 8, 2012, the Regional Water Quality Control Board – Los Angeles Region – adopted the new Municipal Separate Storm Sewer System permit (MS4) which became effective December 28, 2012. This new MS4 permit made changes to the Planning and Land Development Program that must be included in the City Municipal Code to enable the City to enforce the new program. These changes are presented as an amendment to the City's current Municipal Code.

## **DISCUSSION**

The City Municipal Code, Chapter 6-10, contains the current development and redevelopment provisions, specifically Section 6-10.01 definitions, Section 6-10.08 Urban Storm Water Mitigation Plans Required, Section 6-10.09 Content of the USWMP, Section 6-10.10 Project Specific Issues to be addressed by the USWMP, Section 6-10.11 Review of the USWMP and Section 6-10.12 Filing of the USWMP.

### **Ordinance Recommendation**

The attached Ordinance adds definitions to Section 6-10.01 to make the Municipal Code consistent with the new MS4 permit. The major changes will occur in Section 6-10.08, with item B being removed completely to be replaced, Item C will be replaced, Items A, D, E, and F will remain but the definition will include an impervious area and one new item will be added to address street projects.

A new section will be added to the Municipal Code to address the requirements to retain on site the increased runoff caused by development and the various other standards imposed by the new MS4 permit.

Attachments: 1) Ordinance  
2) Section VI.D.7 of the new MS4 permit

**ATTACHMENT 1**

**Ordinance**

**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MAYWOOD, CALIFORNIA, AMENDING THE MAYWOOD MUNICIPAL CODE CHAPTER 6-10, TO EXPAND THE APPLICABILITY OF THE EXISTING URBAN STORM WATER MITIGATION PLANS BY IMPOSING RAINWATER LOW IMPACT DEVELOPMENT (LID) STRATEGIES ON PROJECTS THAT REQUIRE BUILDING, GRADING AND ENCROACHMENT PERMITS**

**WHEREAS**, the City Council is authorized by Article XI, Section 5 and Section 7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity; and

**WHEREAS**, the federal Clean Water Act establishes Regional Water Quality Control Boards in order to prohibit the discharge of pollutants in stormwater runoff to waters of the United States; and

**WHEREAS**, the City is a permittee under the California Regional Water Quality Control Board, Los Angeles Region Order No. R4-2012-0175, issued on November 08, 2012 which establishes Waste Discharge Requirements for Municipal Separate Storm Sewer Systems (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4; and

**WHEREAS**, Order No. R4-2012-0175 contains requirements for municipalities to establish an LID Ordinance in order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program; and

**WHEREAS**, the Regional Board has adopted Total Maximum Daily Loads (TMDLs) for pollutants which are numerical limits that must be achieved effectively through LID implementation; and

**WHEREAS**, the City Council has the authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity that might degrade waters of the State; and

**WHEREAS**, the City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental and economic considerations; and

**WHEREAS**, urbanization has led to increased impervious surface areas resulting in increased water runoff and less percolation to groundwater aquifers causing the transport of pollutants to downstream receiving waters; and

**WHEREAS**, is it the intent of the City Council to expand the applicability of the existing LID requirements by providing stormwater and rainwater LID strategies for all projects for Development and Redevelopment projects as defined under "Applicability."

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MAYWOOD, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:**

**SECTION 1.** The City Council finds and determines the foregoing recitals to be true and correct and hereby makes them a part of this ordinance.

**SECTION 2.** Section 6-10.01 (Definitions) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby amended with the replacement of the following terms and/or definitions:

Replace the term and definition of “Automotive repair shops” in its entirety with the following:

“Automotive service facility” means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5511, 5541, 7532-7534, and 7536-7539 ~~provided that these facilities have no outside activities or materials that may be exposed to stormwater (Order No. R4-2012-0175).~~

Replace the definition for the term “Basin plan” in its entirety with the following:

“Basin plan” means the Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Order No. R4-2012-0175).

Replace the definition for the term “Best Management Practice (BMP)” in its entirety with the following:

“Best management practice (BMP)” means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Order No. R4-2012-0175).

Replace the definition for the term “Commercial development” in its entirety with the following:

“Commercial development” means any development on private land that is not heavy industrial or residential. The category includes, but is not limited to: hospitals, laboratories and other medical facilities, educational institutions, recreational facilities, plant nurseries, car wash facilities; mini-malls and other business complexes, shopping

malls, hotels, office buildings, public warehouses and other light industrial complexes (Order No. R4-2012-0175).

Replace the definition for the term “Discharge” in its entirety with the following:

“Discharge” means any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid, or solid substance.

Replace the term and definition of “MS4” in its entirety with the following:

“Municipal separate storm sewer system (MS4)” means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- (i) Owned or operated by 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, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a combined sewer; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR Section 122.2.

(40 CFR Section 122.26(b)(8)) (Order No. R4-2012-0175)

Replace the definition for the term “NPDES” in its entirety with the following:

“National Pollutant Discharge Elimination System (NPDES)” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA Section 307, 402, 318, and 405. The term includes an “approved program” (Order No. R4-2012-0175).

Replace the definition for the term “New development” in its entirety with the following:

“New development” means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision (Order No. R4-2012-0175).

Replace the definition for the term “Pollutant” in its entirety with the following:

“Pollutant” means any “pollutant” defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Section 13373 (Order No. R4-2012-0175).

Replace the definition for the term “Redevelopment” in its entirety with the following:

“Redevelopment” means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Order No. R4-2012-0175).

Replace the definition for the term “Regional Board” in its entirety with the following:

“Regional Board” means the California Regional Water Quality Control Board, Los Angeles Region.

Replace the definition for the term “Restaurant” in its entirety with the following:

“Restaurant” means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Order No. R4-2012-0175).

Replace the definition for the term “Storm drain system” in its entirety with the following:

“Storm Drain System” means any facility or any parts of the facility, including streets, gutters, conduits, natural or artificial drains, channels and watercourse that are used for the purpose of collecting, storing, transporting or disposing of stormwater and are located within the City.

**SECTION 3.** Section 6-10.01 (Definitions) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby amended with the addition of the following definitions, to be incorporated in the definition list of the Section in alphabetical order:

**“Biofiltration” means a LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term “biofiltration” as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board’s Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Order No. R4-2012-0175).**

**“Bioretention” means a LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in this Ordinance, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by Order No. R4-2012-0175 as biofiltration (Order No. R4-2012-0175).**

**“Bioswale” means a LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Order No. R4-2012-0175).**

**“City” means the City of Maywood.**

**“Clean Water Act (CWA)” means the Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.**

**“Commercial malls” means any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls, other retail complexes, and enclosed shopping malls or shopping centers (Order No. R4-2012-0175).**

**“Construction activity” means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See “Routine Maintenance” definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Order No. R4-2012-0175).**

**“Control”** means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Order No. R4-2012-0175).

**“Development”** means construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Order No. R4-2012-0175).

**“Directly adjacent”** means situated within 200 feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area (Order No. R4-2012-0175).

**“Disturbed area”** means an area that is altered as a result of clearing, grading, and/or excavation (Order No. R4-2012-0175).

**“Flow-through treatment BMPs”** means a modular, vault type “high flow biotreatment” devices contained within an impervious vault with an underdrain or designed with an impervious liner and an underdrain (Order No. R4-2012-0175).

**“Full capture system”** means any single device or series of devices, certified by the Executive Officer, that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate Q resulting from a one-year, one-hour storm in the sub-drainage area (Order No. R4-2012-0175).

**“General Construction Activities Storm Water Permit (GCASP)”** means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from construction activities under certain conditions (Order No. R4-2012-0175).

**“General Industrial Activities Storm Water Permit (GIASP)”** means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions (Order No. R4-2012-0175).

**“Green Roof”** means a LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Order No. R4-2012-0175).

**“Hillside”** means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Order No. R4-2012-0175).

**“Industrial/Commercial Facility”** means any facility involved and/or used in the production, manufacture, storage, transportation, distribution, exchange or sale of goods

and/or commodities, and any facility involved and/or used in providing professional and non-professional services. This category of facilities includes, but is not limited to, any facility defined by either the Standard Industrial Classifications (SIC) or the North American Industry Classification System (NAICS). Facility ownership (federal, state, municipal, private) and profit motive of the facility are not factors in this definition (Order No. R4-2012-0175).

“Industrial park” means land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Order No. R4-2012-0175).

“Infiltration BMP” means a LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Order No. R4-2012-0175).

“Low Impact Development (LID)” consists of building and landscape features designed to retain or filter stormwater runoff (Order No. R4-2012-0175).

“Natural drainage system” means a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Order No. R4-2012-0175).

“Non-stormwater discharge” means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Order No. R4-2012-0175).

“Outfall” means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances with connect segments of the same stream or other waters of the United States and are used to convey waters of the United States. (40 CFR Section 122.26(b)(9)) (Order No. R4-2012-0175).

“Parking lot” means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Order No. R4-2012-0175).

“Project” means all development, redevelopment, and land disturbing activities. The term is not limited to “Project” as defined under CEQA (Pub. Resources Code Section 21065) (Order No. R4-2012-0175).

“Rainfall Harvest and Use” means a LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Order No. R4-2012-0175).

**“Receiving Water” means “water of the United States” into which waste and/or pollutants are or may be discharged (Order No. R4-2012-0175).**

**“Retail gasoline outlet” means any facility engaged in selling gasoline and lubricating oils (Order No. R4-2012-0175).**

**“Routine Maintenance” includes, but is not limited to projects conducted to:**

- 1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.**
- 2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.**
- 3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.**
- 4. Update existing lines\* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.**
- 5. Repair leaks**

**Routine maintenance does not include construction of new\*\* lines or facilities resulting from compliance with applicable codes, standards and regulations.**

**\* Update existing lines includes replacing existing lines with new materials or pipes.**

**\*\* New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Order No. R4-2012-0175).**

**“Significant Ecological Areas (SEAs)” means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:**

- 1. The habitat of rare, endangered, and threatened plant and animal species.**
- 2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.**
- 3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.**
- 4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.**

5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.
6. Areas important as game species habitat or as fisheries.
7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.
8. Special areas (Order No. R4-2012-0175).

“Site” means land or water area where any “facility or activity” is physically located or conducted, including adjacent land used in connection with the facility or activity (Order No. R4-2012-0175).

“Storm Water or Stormwater” means runoff and drainage related to precipitation events (pursuant to 40 CFR Section 122.26(b)(13); 55 Fed. Reg. 47990, 47995 (Nov. 16, 1990)).

“Urban Runoff” means surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial or industrial activities involving the use of potable and non-potable water.

**SECTION 4.** Section 6-10.08 (Urban storm water mitigation plan required) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby repealed in its entirety and replaced with the following:

**6-10.08 – Low impact development measures for new development and/or redevelopment planning and construction activities.**

- a) **Objective.** The provisions of this Section establish requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current “Order No. R4-2012-0175,” lessen the water quality impacts of development by using smart growth practices, and integrate LID practices and standards for stormwater pollution mitigation through means of infiltration, evapotranspiration, biofiltration, and rainfall harvest and use. LID shall be inclusive of new development and/or redevelopment requirements.
- b) **Scope.** This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City to further define and adopt stormwater pollution control measures, and to develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, grant waivers from the LID requirements, and collect funds for projects that are granted waivers. Except as otherwise provided herein, the City shall administer, implement and enforce the provisions of this Section.
- c) **Applicability.** Development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:

- (1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.
- (2) Industrial parks 10,000 square feet or more of impervious surface area.
- (3) Commercial malls 10,000 square feet or more of impervious surface area.
- (4) Retail gasoline outlets with 5,000 square feet or more of impervious surface area.
- (5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of impervious surface area.
- (6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.
- (7) Streets and roads construction of 10,000 square feet or more of impervious surface area. Street and road construction applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects.
- (8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of impervious surface area.
- (9) **Redevelopment Projects**
  - a. 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 on Planning Priority Project categories.
  - b. 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-construction stormwater quality control requirements, the entire project must be mitigated.
  - c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.
  - d. 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. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.
  - e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

- d) **Specific Requirements.** The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.
- (1) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.
- (2) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:
- a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:
- i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or
  - ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.
- b. ~~Minimize hydromodification impacts to natural drainage systems as defined in Order No. R4-2012-0175.~~
- c. To demonstrate technical infeasibility, the project applicant must demonstrate that the project cannot reliably retain 100 percent of the SWQDv on-site, even with the maximum application of green roofs and rainwater harvest and use, and that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following:
- i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.
  - ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;
  - iii. Locations within 100 feet of a groundwater well used for drinking water;
  - iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;
  - v. Locations with potential geotechnical hazards;
  - vi. Smart growth and infill or redevelopment locations where the density and/or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

- d. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in Order No. R4-2012-0175.
  - i. Additional alternative compliance options such as offsite infiltration and groundwater replenishment projects may be available to the project Site. The project Site should contact the City of Maywood to determine eligibility.
- e. The remaining SWQD that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per Order No. R4-2012-0175. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:
  - i. 0.2 inches per hour, or
  - ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

**SECTION 5.** Section 6-10.09 (Content of urban storm water mitigation plan) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby amended as follows: *(Revisions are highlighted with strikethrough for words to be deleted and underline for words to be added)*

**6-10.09 - Content of ~~urban storm water mitigation~~ Low Impact Development (LID) plan.**

The ~~USWMP~~ LID required by this section shall be prepared by a Registered Civil Engineer, Licensed Architect, Landscape Architect or any other professional knowledgeable about storm water management issues and shall evaluate and propose BMP's to address each source of pollutants identified by the project evaluation. As a minimum the designer shall address the BMP's listed in the Commercial Site Visit Program, for the proposed use of the site, as approved by the Regional Water Quality Control Board—Los Angeles by Resolution 98-08 on April 13, 1998. All ~~USWMP's~~ LID's shall contain the following elements: . . .

**SECTION 6.** Section 6-10.10 (Project specific issues to be addressed by the USWMP) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby amended as follows: *(Revisions are highlighted with strikethrough for words to be deleted and underline for words to be added)*

**6-10.10 – Project specific issues to be addressed by the USWMP LID.**

In addition to the ~~six (6) items~~ listed in Section ~~6-10.08 11.12.542 BGMG~~ of MMC, the following projects must also consider issue unique to the occupancy: ...

**SECTION 7.** Section 6-10.11 (Review of urban storm water mitigation plan by City) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby amended as follows: *(Revisions are highlighted with strikethrough for words to be deleted and underline for words to be added)*

**6-10.11 - Review of the ~~urban storm water mitigation~~ Low Impact Development LID plan by City.**

The City shall review the USWMP LID to assure that all elements of the plan have been addressed and that the applicant has identified the BMP's necessary to protect the MS4. The Director or his designee shall identify any deficiencies in the plan and return it to the applicant for modification. When the plan is found to comply with the provisions of this section the grading or building permits may be issued for the project. If, ~~during construction, the plan is found to be deficient by the City or any other interested~~ party the applicant shall amend the plan to address the deficiency.

**SECTION 8.** Section 6-10.12 (Filing of the urban storm water mitigation plan) of Chapter 10 (Urban Storm Water Mitigation, Management and Discharge) of Title 6 (Sanitation and Health) of the Maywood Municipal Code is hereby amended as follows: *(Revisions are highlighted with strikethrough for words to be deleted and underline for words to be added)*

**6-10.12 - Filing of the ~~urban storm water mitigation~~ Low Impact Development LID plan.**

Upon acceptance of the USWMP LID by the City the applicant shall file a signed original of the plan with the County Recorder. The document shall contain sufficient legal description to identify the property covered and shall be binding on the applicant and all successors in interest to the property. The form shall be provided by the City and shall only be amended or removed from title with the consent of the City.

**SECTION 9.** The City Council finds that this Ordinance is not subject to the California Environmental Quality Act ("CEQA") pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirectly physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly.

**SECTION 10.** If any section, subsection, subdivision, sentence, clause, phrase, or portion of the Ordinance for any reason is held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City council hereby declares that it would have adopted this Ordinance, and each section, subsection, subdivision, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or unconstitutional.

**SECTION 11.** This ordinance shall take affect thirty (30) days after its final passage and within fifteen (15) days after its passage, the City Clerk of the City of Maywood shall certify to the passage and adoption of this ordinance and to its approval by the Mayor and City Council and shall cause the same to be published in a newspaper in the manner required by law.

**PASSED, APPROVED AND ADOPTED ON** this \_\_\_\_\_ day of \_\_\_\_\_ 2013.

\_\_\_\_\_  
Oscar Magana, Mayor

**ATTEST:**

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Sergio Calderon, City Clerk

\_\_\_\_\_  
Richard L. Adams II, City Attorney

STATE OF CALIFORNIA )  
COUNTY OF LOS ANGELES )  
CITY OF MAYWOOD )

I, Sergio Calderon, Secretary of the City Council of the City of Maywood, do hereby certify the foregoing Ordinance, being Ordinance No. \_\_\_\_\_ as passed by the City Council of the City of Maywood, signed by the Mayor of said Council, and attested by the City Clerk, at a regular meeting of the City Council held on the \_\_\_ of \_\_\_\_\_ 2013, and that the same was passed by the following vote, to wit:

**AYES:**

**NAYS:**

**ABSENT:**

**ABSTAINED:**

**ATTACHMENT 2**

**Section VI.D.7 of the New MS4 Permit**

Pollutant-Generating Activity	BMP Narrative Description
Parking/ Storage Area Maintenance	Implementation of effective parking/ storage area designs and housekeeping/ maintenance practices
Storm water Conveyance System Maintenance Practices	Implementation of proper conveyance system operation and maintenance protocols
Pollutant-Generating Activity	BMP Narrative Description from Regional Water Board Resolution No. 98-08
Sidewalk Washing	1. Remove trash, debris, and free standing oil/grease spills/leaks (use absorbent material, if necessary) from the area before washing; and 2. Use high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area.
Street Washing	Collect and divert wash water to the sanitary sewer – publically owned treatment works (POTW). Note: POTW approval may be needed.

**g. Significant Ecological Areas (SEAs)**

See VI.D.6.e.ii.3.

**h. Progressive Enforcement**

Each Permittee shall implement its Progressive Enforcement Policy to ensure that Industrial / Commercial facilities are brought into compliance with all storm water requirements within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

**7. Planning and Land Development Program**

**a. Purpose**

i. Each Permittee shall implement a Planning and Land Development Program pursuant to Part VI.D.7.b for all New Development and Redevelopment projects subject to this Order to:

- (1) Lessen the water quality impacts of development by using smart growth practices such as compact development, directing development towards existing communities via infill or redevelopment, and safeguarding of environmentally sensitive areas.
- (2) Minimize the adverse impacts from storm water runoff on the biological integrity of Natural Drainage Systems and the beneficial uses of water

bodies in accordance with requirements under CEQA (Cal. Pub. Resources Code § 21000 et seq.).

- (3) Minimize the percentage of impervious surfaces on land developments by minimizing soil compaction during construction, designing projects to minimize the impervious area footprint, and employing Low Impact Development (LID) design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use.
- (4) Maintain existing riparian buffers and enhance riparian buffers when possible.
- (5) Minimize pollutant loadings from impervious surfaces such as roof tops, parking lots, and roadways through the use of properly designed, technically appropriate BMPs (including Source Control BMPs such as good housekeeping practices), LID Strategies, and Treatment Control BMPs.
- (6) Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function, and avoid the breeding of vectors<sup>25</sup>.
- (7) Prioritize the selection of BMPs to remove storm water pollutants, reduce storm water runoff volume, and beneficially use storm water to support an integrated approach to protecting water quality and managing water resources in the following order of preference:
  - (a) On-site infiltration, bioretention and/or rainfall harvest and use.
  - (b) On-site biofiltration, off-site ground water replenishment, and/or off-site retrofit.

## **b. Applicability**

### **I. New Development Projects**

- (1) Development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:
  - (a) All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area
  - (b) Industrial parks 10,000 square feet or more of surface area
  - (c) Commercial malls 10,000 square feet or more surface area
  - (d) Retail gasoline outlets 5,000 square feet or more of surface area
  - (e) Restaurants (SIC 5812) 5,000 square feet or more of surface area

<sup>25</sup> Treatment BMPs when designed to drain within 96 hours of the end of rainfall minimize the potential for the breeding of vectors. See California Department of Public Health *Best Management Practices for Mosquito Control in California* (2012) at <http://www.westnile.ca.gov/resources.php>

- (f) Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces
- (g) Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets<sup>26</sup> (December 2008 EPA-833-F-08-009) to the maximum extent practicable. Street and road construction applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects.
- (h) Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area
- (i) Redevelopment projects in subject categories that meet Redevelopment thresholds identified in Part VI.D.6.b.ii (Redevelopment Projects) below
- (j) Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA), where the development will:
  - (i) Discharge storm water runoff that is likely to impact a sensitive biological species or habitat; and
  - (ii) Create 2,500 square feet or more of impervious surface area
- (k) Single-family hillside homes. To the extent that a Permittee may lawfully impose conditions, mitigation measures or other requirements on the development or construction of a single-family home in a hillside area as defined in the applicable Permittee's Code and Ordinances, each Permittee shall require that during the construction of a single-family hillside home, the following measures are implemented:
  - (i) Conserve natural areas
  - (ii) Protect slopes and channels
  - (iii) Provide storm drain system stenciling and signage
  - (iv) Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability
  - (v) Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

ii. Redevelopment Projects

- (1) Redevelopment projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:
  - (a) Land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area

<sup>26</sup> <http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm>

on an already developed site on development categories identified in Part VI.D.6.c. (New Development/Redevelopment Performance Criteria).

- (b) 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-construction storm water quality control requirements, the entire project must be mitigated.
- (c) Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, only the alteration must be mitigated, and not the entire development.
- (i) 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. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.
- (ii) Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.
- (d) In this section, Existing Development or Redevelopment projects shall mean all discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Order. Projects that have been deemed complete within 90 days of adoption of the Order are not subject to the requirements Section 7.c. For Permittee's projects the effective date shall be the date the governing body or their designee approves initiation of the project design.
- (e) Specifically, the Newhall Ranch Project Phases I and II (a.k.a. the Landmark and Mission Village projects) are deemed to be an existing development that will at a minimum, be designed to comply with the Specific LID Performance Standards attached to the Waste Discharge Requirements (Order No. R4-2012-0139). All subsequent phases of the Newhall Ranch Project constructed during the term of this Order shall be subject to the requirements of this Order.

Feb. 8, 2013

**c. New Development/ Redevelopment Project Performance Criteria**

**I. Integrated Water Quality/Flow Reduction/Resources Management Criteria**

- (1) Each Permittee shall require all New Development and Redevelopment projects (referred to hereinafter as "new projects") identified in Part VI.D.7.b to control pollutants, pollutant loads, and runoff volume emanating from the project site by: (1) minimizing the impervious surface area and (2) controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use.
- (2) ~~Except as provided in Part VI.D.7.c.ii. (Technical Infeasibility or Opportunity for Regional Ground Water Replenishment), Part VI.D.7.d.i (Local Ordinance Equivalence), or Part VI.D.7.c.v (Hydromodification),~~ below, each Permittee shall require the project to retain on-site the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:
  - (a) The 0.75-inch, 24-hour rain event or
  - (b) The 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, *whichever is greater.*
- (3) Bioretention and biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.
- (4) When evaluating the potential for on-site retention, each Permittee shall consider the maximum potential for evapotranspiration from green roofs and rainfall harvest and use.

**II. Alternative Compliance for Technical Infeasibility or Opportunity for Regional Ground Water Replenishment**

- (1) In instances of technical infeasibility or where a project has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location, each Permittee may allow projects to comply with this Order through the alternative compliance measures as described in Part VI.D.7.c.iii.
- (2) To demonstrate technical infeasibility, the project applicant must demonstrate that the project cannot reliably retain 100 percent of the SWQDv on-site, even with the maximum application of green roofs and rainwater harvest and use, and that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following:
  - (a) The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv on-site.

- (b) Locations where seasonal high ground water is within 5 to 10 feet of the surface,
  - (c) Locations within 100 feet of a ground water well used for drinking water,
  - (d) Brownfield development sites where infiltration poses a risk of causing pollutant mobilization,
  - (e) Other locations where pollutant mobilization is a documented concern<sup>27</sup>,
  - (f) Locations with potential geotechnical hazards, or
  - (g) Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the on-site volume retention requirement.
- (3) To utilize alternative compliance measures to replenish ground water at an offsite location, the project applicant shall demonstrate (i) why it is not advantageous to replenish ground water at the project site, (ii) that ground water can be used for beneficial purposes at the offsite location, and (iii) that the alternative measures shall also provide equal or greater water quality benefits to the receiving surface water than the Water Quality/Flow Reduction/Resource Management Criteria in Part VI. ~~(d)~~ c.i.

### III. Alternative Compliance Measures

When a Permittee determines a project applicant has demonstrated that it is technically infeasible to retain 100 percent of the SWQDv on-site, or is proposing an alternative offsite project to replenish regional ground water supplies, the Permittee shall require one of the following mitigation options:

#### (1) On-site Biofiltration

- (a) If using biofiltration due to demonstrated technical infeasibility, then the new project must biofiltrate 1.5 times the portion of the SWQDv that is not reliably retained on-site, as calculated by Equation 1 below.

Equation 1:

$$B_v = 1.5 * [SWQD_v - R_v]$$

Where:

B<sub>v</sub> = biofiltration volume

<sup>27</sup> Pollutant mobilization is considered a documented concern at or near properties that are contaminated or store hazardous substances underground.

**SWQDv** = the storm water runoff from a 0.75 inch, 24-hour storm or the 85<sup>th</sup> percentile storm, *whichever is greater*.

**Rv** = volume reliably retained on-site

**(b) Conditions for On-site Biofiltration**

(i) Biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.

(ii) Biofiltration systems discharging to a receiving water that is included on the Clean Water Act section 303(d) list of impaired water quality-limited water bodies due to nitrogen compounds or related effects shall be designed and maintained to achieve enhanced nitrogen removal capability. See Attachment H for design criteria for underdrain placement to achieve enhanced nitrogen removal.

**(2) Offsite Infiltration**

(a) Use infiltration or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv, less the volume of storm water runoff reliably retained on-site, at an approved offsite project, and

(b) Provide pollutant reduction (treatment) of the storm water runoff discharged from the project site in accordance with the Water Quality Mitigation Criteria provided in Part VI.D.7.c.iv.

(c) The required offsite mitigation volume shall be calculated by Equation 2 below and equal to:

Equation 2:

$$Mv = 1.0 * [SWQDv - Rv]$$

Where:

Mv = mitigation volume

SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85<sup>th</sup> percentile storm, *whichever is greater*

Rv = the volume of storm water runoff reliably retained on-site.

**(3) Ground Water Replenishment Projects**

Permittees may propose, in their Watershed Management Program or EWMP, regional projects to replenish regional ground water supplies at offsite locations, provided the groundwater supply has a designated beneficial use in the Basin Plan.

- (a) Regional groundwater replenishment projects must use infiltration, ground water replenishment, or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv for new development and redevelopment projects, subject to Permittee conditioning and approval for the design and implementation of post-construction controls, within the approved project area, and
- (b) Provide pollutant reduction (treatment) of the storm water runoff discharged from development projects, within the project area, subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution in accordance with the Water Quality Mitigation Criteria provided in Part VI.D.7.c.iv.
- (c) Permittees implementing a regional ground water replenishment project in lieu of onsite controls shall ensure the volume of runoff captured by the project shall be equal to:

Equation 2:

$$Mv = 1.0 \cdot [SWQDv - Rv]$$

Where:

Mv = mitigation volume

SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85th percentile storm, whichever is greater

Rv = the volume of storm water runoff reliably retained on-site.

- (d) Regional groundwater replenishment projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) as the new development or redevelopment projects which did not implement on site retention BMPs . Each Permittee may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.

#### (4) Offsite Project - Retrofit Existing Development

Use infiltration, bioretention, rainfall harvest and use and/or biofiltration BMPs to retrofit an existing development, with similar land uses as the new development or land uses associated with comparable or higher storm water runoff event mean concentrations (EMCs) than the new development.

Comparison of EMCs for different land uses shall be based on published data from studies performed in southern California. The retrofit plan shall be designed and constructed to:

- (a) Intercept a volume of storm water runoff equal to the mitigation volume (Mv) as described above in Equation 2, except biofiltration BMPs shall be designed to meet the biofiltration volume as described in Equation 1 and
- (b) Provide pollutant reduction (treatment) of the storm water runoff from the project site as described in the Water Quality Mitigation Criteria provided in Part VI.D.7.c.iv.

**(5) Conditions for Offsite Projects**

- (a) Project applicants seeking to utilize these alternative compliance provisions may propose other offsite projects, which the Permittees may approve if they meet the requirements of this subpart.
- (b) Location of offsite projects. Offsite projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) as the new development or redevelopment project. Each Permittee may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.
- (c) Project applicant must demonstrate that equal benefits to ground water recharge cannot be met on the project site.
- (d) Each Permittee shall develop a prioritized list of offsite mitigation, ground water replenishment and/or retrofit projects, and when feasible, the mitigation must be directed to the highest priority project within the same HUC-12 or if approved by the Regional Water Board Executive Officer, the HUC-10 drainage area, as the new development project.
- (e) Infiltration/bioretention shall be the preferred LID BMP for offsite mitigation or ground water replenishment projects. Offsite retrofit projects may include green streets, parking lot retrofits, green roofs, and rainfall harvest and use. Biofiltration BMPs may be considered for retrofit projects when infiltration, bioretention or rainfall harvest and use is technically infeasible.
- (f) Each Permittee shall develop a schedule for the completion of offsite projects, including milestone dates to identify, fund, design, and construct the projects. Offsite projects shall be completed as soon as possible, and at the latest, within 4 years of the certificate of occupancy for the first project that contributed funds toward the

construction of the offsite project, unless a longer period is otherwise authorized by the Executive Officer of the Regional Water Board. For public offsite projects, each Permittee must provide in their annual reports a summary of total offsite project funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite projects. Funding sufficient to address the offsite volume must be transferred to the Permittee (for public offsite mitigation projects) or to an escrow account (for private offsite mitigation projects) within one year of the initiation of construction.

- (g) Offsite projects must be approved by the Permittee and may be subject to approval by the Regional Water Board Executive Officer, if a third-party petitions the Executive Officer to review the project. Offsite projects will be publicly noticed on the Regional Water Board's website for 30 days prior to approval.
- (h) The project applicant must perform the offsite projects as approved by either the Permittee or the Regional Water Board Executive Officer or provide sufficient funding for public or private offsite projects to achieve the equivalent mitigation storm water volume.

#### (6) Regional Storm Water Mitigation Program

A Permittee or Permittee group may apply to the Regional Water Board for approval of a regional or sub-regional storm water mitigation program to substitute in part or wholly for New and Redevelopment requirements for the area covered by the regional or sub-regional storm water mitigation program. Upon review and a determination by the Regional Water Board Executive Officer that the proposal is technically valid and appropriate, the Regional Water Board may consider for approval such a program if its implementation meets all of the following requirements:

- (a) Retains the runoff from the 85<sup>th</sup> percentile, 24-hour rain event or the 0.75 inch, 24-hour rain event, whichever is greater;
- (b) Results in improved storm water quality;
- (c) Protects stream habitat;
- (d) Promotes cooperative problem solving by diverse interests;
- (e) Is fiscally sustainable and has secure funding; and
- (f) Is completed in five years including the construction and start-up of treatment facilities.
- (g) Nothing in this provision shall be construed as to delay the implementation of requirements for new and redevelopment, as approved in this Order.

#### (7) Water Quality Mitigation Criteria

- (a) Each Permittee shall require all New Development and Redevelopment projects that have been approved for offsite mitigation or ground water replenishment projects as defined in Part VI.D.7.c.ii-iii to also provide treatment of storm water runoff from the project site. Each Permittee shall require these projects to design and implement post-construction storm water BMPs and control measures to reduce pollutant loading as necessary to:
- (i) Meet the pollutant specific benchmarks listed in Table 11 at the ~~treatment systems outlet or prior to the discharge to the MS4,~~ and
  - (ii) Ensure that the discharge does not cause or contribute to an exceedance of water quality standards at the Permittee's downstream MS4 outfall.
- (b) Each Permittee may allow the project proponent to install flow-through modular treatment systems including sand filters, or other proprietary BMP treatment systems with a demonstrated efficiency at least equivalent to a sand filter. The sizing of the flow through treatment device shall be based on a rainfall intensity of:
- (i) 0.2 inches per hour, or
  - (ii) The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, *whichever is greater.*

**Table 11. Benchmarks Applicable to New Development Treatment BMPs<sup>28</sup>**

**Conventional Pollutants**

Pollutant	Suspended Solids mg/L	Total P mg/L	Total N mg/L		TKN mg/L	
<b>Effluent Concentration</b>	14	0.13	1.28		1.09	

**Metals**

Pollutant	Total Cd µg/L	Total Cu µg/L	Total Cr µg/L	Total Pb µg/L	Total Zn µg/L
<b>Effluent Concentration</b>	0.3	6	2.8	2.5	23

<sup>28</sup> The treatment control BMP performance benchmarks were developed from the median effluent water quality values of the six highest performing BMPs, per pollutant, in the storm water BMP database (<http://www.bmpdatabase.org/>, last visited September 25, 2012).

- (c) In addition to the requirements for controlling pollutant discharges as described in Part VI.D.7.c.iii. and the treatment benchmarks described above, each Permittee shall ensure that the new development or redevelopment will not cause or contribute to an exceedance of applicable water quality-based effluent limitations established in Part VI.E pursuant to Total Maximum Daily Loads (TMDLs).

**iv. Hydromodification (Flow/ Volume/ Duration) Control Criteria**

Each Permittee shall require all New Development and Redevelopment projects located within natural drainage systems as described in Part VI.D.7.c.iv.(1)(a)(iii) to implement hydrologic control measures, to prevent accelerated downstream erosion and to protect stream habitat in natural drainage systems. The purpose of the hydrologic controls is to minimize changes in post-development hydrologic storm water runoff discharge rates, velocities, and duration. This shall be achieved by maintaining the project's pre-project storm water runoff flow rates and durations.

**(1) Description**

- (a) Hydromodification control in natural drainage systems shall be achieved by maintaining the Erosion Potential ( $E_p$ ) in streams at a value of 1, unless an alternative value can be shown to be protective of the natural drainage systems from erosion, incision, and sedimentation that can occur as a result of flow increases from impervious surfaces and prevent damage to stream habitat in natural drainage system tributaries (see Attachment J - Determination of Erosion Potential).
- (ii) Hydromodification control may include one, or a combination of on-site, regional or sub-regional hydromodification control BMPs, LID strategies, or stream and riparian buffer restoration measures. Any in-stream restoration measure shall not adversely affect the beneficial uses of the natural drainage systems.
- (iii) Natural drainage systems that are subject to the hydromodification assessments and controls as described in this Part of the Order, include all drainages that have not been improved (e.g., channelized or armored with concrete, shotcrete, or rip-rap) or drainage systems that are tributary to a natural drainage system, except as provided in Part VI.D.7c.iv.(1)(b)--Exemptions to Hydromodification Controls [see below]. The clearing or dredging of a natural drainage system does not constitute an "improvement."
- (iv) Until the State Water Board or the Regional Water Board adopts a final Hydromodification Policy or criteria, Permittees shall implement the Hydromodification Control Criteria described in Part VI.D.7.c.iv.(1)(c) to control the potential adverse impacts of changes in hydrology that may result from new development and

GREEN STREETS POLICY  
DOCS



## AGENDA REPORT CITY OF MAYWOOD

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**DATE:** JUNE 10, 2013

**TO:** HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

**FROM:** LILIAN MYERS, CITY MANAGER *LM*

**BY:** ELROY L. KIEPKE, ASSISTANT CITY ENGINEER

**SUBJECT:** ADOPTION OF GREEN STREETS POLICY FOR TRANSPORTATION CORRIDORS

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### RECOMMENDATION

That the City Council review the proposed Green Streets Policy (the "Policy") as presented by staff and either adopt the Policy or provide staff direction to amend the Policy and return it to the City Council for approval to implement the policy as identified in the new MS4 permit.

### FISCAL IMPACT

The adoption of this proposed Policy will have no immediate fiscal impact on the City Budget. The proposed Policy would establish a practice to consider the feasibility of implementing Green Streets Best Management Practices ("BMPs") for City and private projects that result in the improvement of transportation corridors that pass through the City of Maywood.

### LEGAL REVIEW

This report and the draft Policy have been reviewed by the City Attorney.

### BACKGROUND

On November 8, 2012, the Regional Water Quality Control Board – Los Angeles Region, adopted the new Municipal Separate Storm Sewer System permit (MS4) which became effective December 28, 2012. This new MS4 permit made changes to the Planning and Land Development Program that seeks to have Cities evaluate the feasibility of Green Streets BMPs during the design phase of transportation corridors through the City. These changes are presented to you as a proposed policy for implementation by City staff during

the design of City Capital Projects and for private developments that make improvements to the transportation corridors that run through the City.

## **DISCUSSION**

Cities adopt and implement policies in a number of situations, primarily in the implementation of the General Plan, but also in areas related to Engineering and Public Works. This proposed Policy is requested by the Regional Water Quality Control Board when improvements are made to the City's transportation corridors. For Maywood, this will probably be limited to the Slauson Avenue corridor and the Atlantic Boulevard corridor.

### **Green Streets**

Beginning with a basic understanding of what Green Streets policies are, roads present many opportunities for green infrastructure application. One principle of green infrastructure involves reducing and treating stormwater close to its source. Urban transportation right-of-ways integrated with green techniques are often called "Green Streets".

Green Streets provide a source control for a main contributor of stormwater runoff and pollutant load. In addition, green infrastructure complements street facility upgrades, street aesthetic improvements, and urban tree canopy efforts that also make use of the right-of-way and allow it to achieve multiple goals and benefits. Using the right-of-way for treatment also links green with gray infrastructure by making use of the engineered conveyance of roads and providing connections to conveyance systems when needed.

With this basic understanding of what Green Streets accomplishes, it is staff's goal to present a Policy for consideration that will allow the City to consider the feasibility of implementing Green Streets where neighborhood conditions will support it and where the facility will enhance the Urban environment while also functionally treating storm water pollutants.

- Attachments: 1) Proposed Green Streets Policy  
2) Managing Wet Weather with Green Infrastructure Municipal Handbook  
Green Streets-33-F-08-009

**ATTACHMENT 1**  
**Proposed Green Streets Policy**

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## Green Street Policy

### Purpose

The City of Maywood, has established a policy on the implement green street Best Management Practices (BMPs) for transportation corridors associated with new and redevelopment street and roadway projects, including Capital Improvement Projects (CIPs). This policy is implemented to demonstrate compliance with the NPDES MS4 Permit for the Los Angeles Region (Order No. R4-2012-0175).

~~Green streets are an amenity that provides many benefits including water quality improvement, groundwater replenishment, creation of attractive streetscapes, creation of greenbelts, and pedestrian and bicycle accessibility. Green streets are defined as right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff as well as a design element that creates attractive streetscapes.~~

### Policy

- ~~A. Application. The City of Maywood shall require new private development and/or~~ redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs where the BMPs will not lead to excessive maintenance or deterioration of the street improvements. Transportation corridors projects are major arterials as defined in the City of Maywood General Plan which add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.
- B. Amenities. The City of Maywood shall consider opportunities to replenish groundwater, create attractive streetscapes, and provide pedestrian and bicycle accessibility through new private development and redevelopment of streets and roadway projects and CIPs.
- C. Guidance. The Department of Public Works shall use the City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*<sup>1</sup>, or equivalent guidance developed by the Department of Public Works for use in public and private developments.
- D. Retrofit Scope. The City of Maywood shall use the City's Watershed Management Program to identify opportunities for green street BMP retrofits. Final decisions regarding implementation will be determined by the City Engineer based on the availability of adequate funding and the soils condition at the site that may lead to excessive maintenance or deterioration of the proposed improvements.
- E. Training. The City of Maywood shall incorporate aspects of green streets into internal annual staff trainings.

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<sup>1</sup> EPA-833-F-08-009, December 2008.