City of Compton

Stormwater and Watershed Management Program

Section One

Programmatic Overview

205 South Willowbrook Avenue
Compton, CA 90220

Section One: Stormwater and Watershed Management Programs Programmatic Overview

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1.0 Summary

The **City of Compton** (City) has prepared a Watershed Management-focused Stormwater Management Program Plan in accordance with Order R4-2012-0175, NPDES Permit No. CAS4001, *Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4* (Order or MS4 Permit). The MS4 Permit was adopted on November 12, 2012 and became effective 45 days later on December 28, 2014. The City submitted a *Notice of Intent* to prepare an Individual Watershed Management Program (I-WMP) Plan, prior to June 28, 2014, to address MS4 Permit requirements. The NOI was subsequently approved by the Regional Board's Executive Officer.

The purpose of the Stormwater Management Program Plan (SWMP) is twofold. First, to place the City into compliance with the current MS4 Permit through the implementation of the six (6) core programs in accordance with §40 CFR section 122.26(d)(2)(iv). The implementation of the SWMP places the City into compliance with total maximum daily loads (TMDLs) and other water quality standards while the submittal is pending approval. Second, SWMP also serves as the basis for the development of an Individual Watershed Management Program (I-WMP), which is to be submitted to the Regional Board by June 28, 2014. Until the I-WMP is finally approved by the Regional Board, the SWMP shall continue to be in effect, thereby enabling Permittees to be in compliance with TMDLs and other water quality standards.

The I-WMP is a watershed-specific SWMP that is to be shaped by enhancements (best management practices primarily)[1] determined by analyte monitoring and a Reasonable Assurance Analysis (RAA) based on Water Quality Modeling (WQM). The City has proposed to use the "peer reviewed" Los Angeles County Watershed Management Modeling System (WMMS)[2] to determine the pollutant loads and simulate possible reductions in waste loads discharged from the City. The purpose of the RAA/WQM is to identify BMPs that are likely to meet TMDL WLAs. The RAA/WQM report is located in **Appendix B.**

It should be noted that there are no outfall data to demonstrate at this point in time that any municipal Permittee is currently not meeting a TMDL waste load allocation (WLA) or, for that matter, any other water quality standard. In fact, it may take several years of monitoring at the outfall and ambient (dry weather) data collected from receiving waters before additional BMPs can be prescribed.

The SWMP/I-WMP is in effect a plan to develop a plan. Complicating its preparation is the absence of guidance or criteria to assure it is keeping with the Regional Board's expectations. The only instructions for preparing the SWMP/I-WMP is the MS4 Permit itself – a Permit that in many critical places lacks clarity and is so confusing that gives rise to multiple interpretations. During the Permit's development, the City, along with others, asked for clarification for proposed Permit requirements in writing and during the Permit's adoption hearings. The same occurred during "info-sessions" hosted by Regional Board staff after the Permit was adopted. During the first

[1]BMPs here include non-structural controls such as source controls and public education outreach and structural controls such as a wide-variety of infiltration (low impact development) controls, including regional multi-benefit controls such as spreading grounds and infiltration basins that provide for groundwater recharge and/or flood control, in addition to meeting water quality standards.

info-session, several cities stated that certain provisions of the Permit that unclear

The City's concern is that the SWMP/I-WMP submittal may be "hit or miss" proposition that could result in its rejection simply because it did not guess right. The City is acting in good faith and hopes that the Regional Board will accept its submittal and, if necessary, provide clarifying requirements later. Nevertheless, the City is confident that its SWMP/I-WMP programmatic approach will lead to improved water quality by incrementally reaching water quality standards.

1.1 City-Specific Information

The City has been a Permittee to the Los Angeles County MS4 program since 1993 and has been subject to the 1990, 1996, and 2001 MS4 Permits. Compton is assigned to the Dominguez Channel and Los Angeles River Watershed Management Areas. Compton City Hall is located at 205 South Willowbrook Avenue, CA, 90220. The City lies in the southwestern portion of Los Angeles County. Compton's geo-coordinate location is 33.896715-118.225078. The City's population is a little over 96, 000 and occupies an area of about 10.6 square miles. The City's primary land use is residential. Land use distribution is about 40% industrial, 50% residential, 5% commerical, and 5% institutional (see land use map in **Monitoring and Reporting Program (MRP)**.

1.2 Watershed/Sub-watershed Location

The City is located in multiple watersheds/sub-watersheds. Most of the City (76%) drains into Compton Creek, which is tributary to the lower Los Angeles River. The remaining 24% of the City drains

into a segment of the Dominguez Channel, below Vermont Avenue, which is unlined.

1.3 Beneficial Use Protection

The purpose of the MS4 Permit is to protect the beneficial uses of receiving waters – in this case Dominguez Channel, Vermont Avenue reach. The beneficial uses for this reach are listed below in Table I. They include potential uses for municipal water supply; intermittent ground water; intermittent contact recreation use (though access is prohibited by the County of Los Angeles); intermittent non-contact recreation use; potential warm water use; potential wildlife use; and existing rare, threatened, or endangered species

Table I – Beneficial Uses

Water Body	USE	USE	USE	USE	USE	USE	USE
Dominguez Channel (below Vermont Avenue)	MUN (P)	GWR (I)	REC-1 (Pm)	REC-2 (I)	WARM (P)	WILD (P)	RARE E

Water Body	USE	USE	USE	USE	USE	USE	USE
Compton Creek	MUN (P)	IND (P)	REC-1 (E)	REC-2 (E)	WARM (E)	WILD (E)	WET E

P *is the abbreviation for potential beneficial use*; **E** *for existing beneficial use*; **I** *for intermittent beneficial use*; **m** *"access prohibited by Los Angeles County Department of Public Works in concrete-channelized areas."*

Beneficial Use Category Definitions

"IND" means Industrial Service Supply: Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.

"MUN" means municipal and domestic water supply: Uses for community, military, or individual water supply systems, including but not limited to drinking water supply.

"GWR" means ground water recharge: Uses for water for natural or artificial recharge of ground water for future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.

"REC-1" means contact water recreation: Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.

"REC-2" means non-contact water recreation: Uses of water for recreational activities involving proximity of water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment with the above activities.

"WARM" means warm freshwater habitat: Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

"WET" means wetland habitat: Uses of water that support wetland ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).

"WILD" means wildlife habitat: Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates, or wildlife water and food sources).

"RARE" means rare, threatened, or endangered species: Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.

Where impairments have been determined, based on persistent exceedances of water quality standards required for the protection of beneficial uses, the federal Clean Water Act requires a TMDL, which is in effect a "super water quality standard." A TMDL may be numeric or non-numeric. TMDLs adopted by the California Regional Water Quality

Control Board, Los Angeles Region (Regional Board) are numeric and are referred to as waste load allocations (WLAs). WLAs are divided into wet and dry weather and are described more fully, along with their compliance dates, in the **Monitoring and Reporting Plan (MRP)**, a separate submittal.

1.4 Watershed/Sub-watershed Health

Notwithstanding that TMDLs have been assigned to each of the watersheds into which the City drains, if ambient standards were used to measure quality the general health of each sub-watershed (Dominguez Channel and Compton Creek) would appear to be generally good.

For Dominguez Channel, ambient water quality data generated by the Los Angeles Regional Water Quality Control Board Surface Water Ambient Monitoring Program (SWAMP) indicates that no ambient (dry weather) water quality issues exist. According to Regional Board SWAMP data based on samples taken in August of 2003, all toxics sampled yielded non-detect (ND) results (see table below)

Table II – Ambient Sampled Toxics for Dominguez Channel

Toxic Analytes		
Acenaphthene, Total	DDD(o,p'), Total	Dacthal, Total
Acenaphthylene, Total	DDD(p,p'), Total	Fluorenes, C2-, Total
Aldrin, Total	DDE(o,p'), Total	Fluorenes, C3-, Total
Ametryn, Total	DDE(p,p'), Total	Fonofos, Total
Anthracene, Total	DDMU(p,p'), Total	HCH, alpha-, Total
Aspon, Total	DDT(o,p'), Total	HCH, beta-, Total
Atraton, Total	DDT(p,p'), Total	HCH, delta-, Total
Atrazine, Total	Demeton-s, Total	HCH, gamma-, Total
Azinphos Ethyl, Total	Diazinon, Total	Heptachlor Epoxide, Total
Azinphos Methyl, Total	Dibenz(a,h)anthracene, Total	Heptachlor, Total
Benz(a)anthracene, Total	Dibenzothiophene, Total	Hexachlorobenzene, Total

Benzo(a)pyrene, Total	Dibenzothiophenes, C1-, Total	Indeno(1,2,3-c,d)pyrene, Total
Benzo(b)fluoranthene, Total	Dibenzothiophenes, C2-, Total	Leptophos, Total
Benzo(e)pyrene, Total	Dibenzothiophenes, C3-, Total	Malathion, Total
Benzo(g,h,i)perylene, Total	Dichlofenthion, Total	Merphos, Total
Benzo(k)fluoranthene, Total	Dichlorvos, Total	Methidathion, Total
Biphenyl, Total	Dicrotophos, Total	Methoxychlor, Total
Bolstar, Total	Dieldrin, Total	Methylnaphthalene, 1-, Total
Carbophenothion, Total	Dimethoate, Total	Methylnaphthalene, 2-, Total
Chlordane, cis-, Total	Dimethylnaphthalene, 2,6-, Total	Methylphenanthrene, 1-, Total
Chlordane, trans-, Total	Dioxathion , Total	Mevinphos, Total
Chlordene, cis-, Total	Disulfoton, Total	Mirex, Total
Chlordene, trans-, Total	Endosulfan I, Total	Molinate, Total
Chlorfenvinphos, Total	Endosulfan II, Total	Naled, Total
Chlorpyrifos Methyl, Total	Endosulfan Sulfate, Total	Naphthalene, Total
Chlorpyrifos, Total	Endrin Aldehyde, Total	Naphthalenes, C1-, Total
Chrysene, Total	Endrin Ketone, Total	Naphthalenes, C2-, Total
Chrysenes, C1-, Total	Endrin, Total	Naphthalenes, C3-, Total
Chrysenes, C2-, Total	Ethion, Total	
Chrysenes, C3-, Total	Ethoprop, Total	
Naphthalenes, C4-, Total	Famphur , Total	
Nonachlor, cis-, Total	Simazine, Total	
Nonachlor, trans-, Total	Simetryn, Total	
Nonachlor, cis-, Total	Sulfotep, Total	
Ciodrin, Total	Tedion, Total	
Oxadiazon, Total	Terbufos, Total	
Oxychlordane, Total	Terbuthylazine, Total	
Parathion, Ethyl, Total	Terbutryn, Total	
Parathion, Methyl, Total	Tetrachlorvinphos, Total	
PCB 005, Total	Thiobencarb, Total	
PCB 008, Total	Thionazin, Total	
PCB 015, Total		
PCB 018, Total		
PCB 027, Total		
PCB 028, Total		
PCB 029, Total		
PCB 031, Total		
PCB 033, Total		
PCB 044, Total		

PCB 049, Total
PCB 052, Total
PCB 056, Total
PCB 060, Total
PCB 066, Total
PCB 070, Total
PCB 074, Total
PCB 087, Total
PCB 095, Total
PCB 097, Total
PCB 099, Total
PCB 101, Total
PCB 105, Total
PCB 110, Total
PCB 114, Total
PCB 118, Total

Compton occupies an 8.6 square mile area that drains into Compton Creek, which is tributary to the Los Angeles River and is subject to its TMDLs, including bacteria, metals, nutrients and trash. 2005 SWAMP data revealed no exceedances for any dissolved metal (viz., aluminum, arsenic, cadmium, copper, manganese, mercury, nickel, selenium, silver, and zinc). Nutrients were also evaluated, including: ammonia, dissolved chloride, dissolved nitrate, dissolved, nitrate; nitrogen (total Kjeldahl, Orthophosphate, Phosphorous, and dissolved sulfate). SWAMP recorded minor exceedances for orthophosphate and phosphorous. It is not certain if these exceedances present a serious problem to receiving water quality. Eutrophication which causes oxygen depletion in lakes, rivers and oceans, has not been identified as a beneficial use impairment for Compton Creek. No SWAMP data for bacteria for Compton Creek is available.

Compton Creek is also 303(d) listed for trash. Trash is not expected to be an issue because Compton – along with the City of

Compton – has installed debris screens in most of its catch basins that are hydrologically connected to Compton Creek and to Los Angeles River, Reach 1.

The City is proposing in its **Monitoring and Report Program** (MRP) plan to conduct ambient monitoring for all TMDL and other water quality standards. The data will be used to further evaluate the health of the receiving waters into which the City drains and validate the 2005 SWAMP data for toxics, metals, and nutrients. Ambient monitoring will also generate new data for bacteria to determine the validity of the bacteria TMDL for Compton Creek and Los Angeles River, Reach 1.

1.5 Total Maximum Daily Load Requirements (TMDLs)

As mentioned the City is subject to several TMDLs subject to Dominguez Channel, the Los Angeles River and its tributaries; and Machado Lake.

1.6 Compliance with TMDLs and Water Quality Standards

Under the 2001 MS4 Permit compliance with water quality standards (includes TMDLs) was achieved by implementing the SWMP (referred to as the Stormwater Quality Management Program), a monitoring plan, and meeting certain administrative requirements required by federal stormwater regulations, (e.g., establishing legal authority and having sufficient fiscal resources to implement the program). Should persistent exceedances of a water quality standard be detected through monitoring, a procedure referred to as the "iterative process" would be triggered. This process calls for notifying the Regional Board of the exceedances, reporting BMPs that are

being implemented to reduce or eliminate the pollutant causing or contributing to the exceedance, and proposing improved BMPs to accomplish the same end. If this process is followed, then no receiving water limitation violation can arise.

While the City is subject to several TMDLs and their numeric waste load allocations, it is not required to strictly comply with any of them, with the exception of the trash TMDL, until its I-WMP is approved by the Regional Board. As mentioned, compliance is attained by implementing the SWMP in the interim.

1.7 Concerns with Watershed Management Program (I-WMP)

Permittees choosing the MS4 Permit limits the iterative process (which it also refers to as the adaptive management process) in a manner that is inconsistent with State Board Water Quality Order 99-05. This precedential order determines compliance for all MS4 Permits issued by all State Water Boards, and with receiving water limitation provisions contained in Part V.A 1-4. The I-WMP, however, limits the iterative process to two iterations and only allows compliance with "interim" waste load allocations for TMDLs. This limitation, however, is in conflict with Part V.A of the current Permit, which imposes no such limitations, as the following affirms:

1. *Discharges from the MS4 that cause or contribute to the violation of receiving water limitations are prohibited.*

2. *Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance.*

3. *The Permittees shall comply with Parts V.A.1 and V.A.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other*

requirements of this Order including any modifications. The storm water management program and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of receiving water limitations persist, notwithstanding implementation of the storm water management program and its components and other requirements of this Order, the Permittee shall assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:

a. *Upon a determination by either the Permittee or the Regional Water Board that discharges from the MS4 are causing or contributing to an exceedance of an applicable Receiving Water Limitation, the Permittee shall promptly notify and thereafter submit an Integrated Monitoring Compliance Report (as described in the Program Reporting Requirements, Part XVIII.A.5 of the Monitoring and Reporting Program) to the Regional Water Board for approval. The Integrated Monitoring Compliance shall describe the BMPs that are currently being implemented by the Permittee and additional BMPs, including modifications to current BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of receiving water limitations. The Integrated Monitoring Compliance Report shall include an implementation schedule. This Integrated Monitoring Compliance Report shall be incorporated in the annual Storm Water Report unless the Regional Water Board directs an earlier submittal. The Regional Water Board may require modifications to the Integrated Monitoring Compliance Report.*

b. *The Permittee shall submit any modifications to the Integrated Monitoring Compliance Report required by the Regional Water Board within 30 days of notification. Within 30 days following the Regional Water Board Executive Officer's approval of the Integrated Monitoring Compliance Report, the Permittee shall revise the storm water management program and its components and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, an implementation schedule, and any additional monitoring required.*

c. *The Permittee shall implement the revised storm water management program and its components and monitoring program according to the approved implementation schedule.*

4. *So long as the Permittee has complied with the procedures set forth in Part V.A.3. above and is implementing the revised storm water management program and its components, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Water Board to modify current BMPs or develop additional BMPs.*

During the public hearing on the adoption of the MS4 Permit in November of 2012, the Regional Board's Executive Officer asserted that a conditional "safe harbor," afforded through the iterative process, applies to both I-WMP and E-WMP options, which are also supposed to be voluntary. The safe harbor, apparently, would forgive Permittees in the event of pollutant exceedances detected at the outfall or in a receiving water, through water quality sampling and chemical analysis. However, the Executive Officer apparently was not aware that the 9th Circuit Court of Appeal had ruled a year earlier that the iterative process was not a safe harbor that could forgive violations. This point was raised by environmental NGOs in their administrative petition against the current MS4 Permit. This places the City in a difficult position. If the iterative process, in the form of a safe harbor, does not apply to the I-WMP, and the City has opted for it, the City could be out of compliance and subject to third party litigation. The City notes, on the other hand, that the MS4 Permit and State Board Water Quality Order 99-05 entitles Permittees to an iterative process when implementing SWMP.

Further complicating matters is the duality of compliance mechanisms to meet TMDLs and water quality standards through the I-WMP. Section VI.C.8 of the Permit states that I-WMPs are subject

to an adaptive management process, which is a type of iterative process, which is affirmed as follows:

- *Permittees in each WMA shall implement an adaptive management process, every two years from the date of program approval, adapting the Watershed Management Program or I-WMP to become more effective, based on, but not limited to a consideration of the following:*

  - *Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R, according to established compliance schedules;*

  - *Progress toward achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data;*

  - *Achievement of interim milestones;*

  - *Re-evaluation of the water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;*

  - *Availability of new information and data from sources other than the Permittees' monitoring program(s) within the WMA that informs the effectiveness of the actions implemented by the Permittees;*

  - *Regional Water Board recommendations; and*

  - *Recommendations for modifications to the Watershed Management Program solicited through a public participation process.*

The MS4 Permit goes on to say: *The adaptive management process fulfills the requirements in Part V.A.4 to address continuing exceedances of receiving water limitations*. This provision, however, conflicts with the iterative process specified under Part V.A.1-4, which as mentioned earlier specifies the SWMP, not the I-WMP as being entitled to the iterative process. V.A.4 specially states:

*So long as the Permittee has complied with the procedures set forth in Part V.A.3. above and is implementing the revised **storm water management program and its components,** the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Water Board to modify current BMPs or develop additional BMPs*

Thus, the adaptive management process does not exist either as a safe harbor to forgive violations or as a mechanism to prevent preempt them because V.A.4 only applies to the SWMP. The invalidity of the WMP and E-WMP as a means of allowing exceedances of TMDLs and other water quality standards makes the MS4 Permit unenforceable and could possibly expose Permittees to third party litigation in the event exceedances are recorded at the outfall or receiving water.

The City also opposes having to comply with non-stormwater discharges based on outfall monitoring. TMDLs are divided into wet weather and dry weather waste load locations (WLAs), which are numeric targets that have been deemed necessary to restore impaired receiving waters. The City, however, objects to having to comply with dry weather WLAs for reasons it has expressed to the Regional and State Boards on numerous occasions. Dry weather discharges are non-stormwater discharges, which do not require regulation to the same extent as stormwater discharges.

Federal stormwater regulations, supported by State Board water quality orders, do not require compliance with non-stormwater discharges from the MS4 (viz., the outfall). Congress, when it adopted 402(p) of the Clean Water Act in 1987, established two standards for runoff for MS4 Permits. For stormwater, 402(p)(B)(iii) of the act says that MS4 Permits *shall require controls to reduce the*

discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. For non-stormwater, Congress had a different standard in mind. Under 402(p)(B)(ii), it mandated that MS4 Permits *shall include a requirement to effectively prohibit non-storm water into the storm sewers.* Three years later, USEPA added that if non-stormwater discharges could not be prohibited they would have to be covered under a discharge permit other than an MS4 Permit.

The City's most serious concern with the non-stormwater compliance with TMDLs and other water quality standards is that compliance must be absolute. If a non-stormwater WLA is not met it will be in violation. This is because there is no iterative process that is applied to non-stormwater discharges, a point that was established in State Board order 2009-0008.

1.8 Summary of Basic Changes from Previous MS4 Permit

The City is subject to the current MS4 Permit, which differs from the previous MS4 Permit to the following extent:

- It allows compliance through three options: (1) stormwater management program; (2) an enhanced watershed management program plan (E-WMP); and (3) watershed management program plan (I-WMP).
- It requires a Comprehensive Intregrated Monitoring Program (CIMP).
- It requires a Reasonable Assurance Analysis (RAA) to be achieved through Water Quality Modeling.

- It eliminates the **Development Planning Program** and replaces it with the **Planning and Land Development Program** (PLDP) which changes the thresholds for certain development/redevelopment categories and adds low impact development (LID) requirements and a Green Street Policy. However, the MS4 Permit apparently has eliminated, by accident it seems, the Standard Urban Stormwater Management Plan (SUSMP). The proposed SWMP/I-WMP, however, restores the SUSMP to implement LID, source, and use-specific controls.

- It modifies the **Development Construction Program** by clarifying minimum BMPs for projects under one acre.

- It requires specific design standards to control hydromodification, which does not apply to the City because it drains into concretized conveyances.

- It amends the **Illicit Connection and Discharge and Detection (ICID) Program** to add outfall non-stormwater monitoring to determine compliance with TMDLs and other water quality standards. The City opposes this requirement because it exceeds federal law and would make compliance with TMDL waste load allocations impossible because there is no iterative process that is applied to non-stormwater discharges.

- It makes no significant changes to the **Public Agency Program**

- It makes no significant changes to the **Industrial and Commercial Facilities Program**.

1.9 Stormwater/Watershed Management Program Elements

Contained in the SWMP/I-WMP are 6 core programs required by federal stormwater regulations at CFR 40 122.26(d)(2)(iv) and are listed in the table below by section.

Section 2	Planning and Land Development/SUSMP Program
Section 3	Development Construction Program
Section 4	Illicit Connection and Detection Elimination Program
Section 5	Public Agency Program
Section 6	Industrial and Commercial Facilities Program
Section 7	Public Information Program

1.10 Implementation Schedule (Milestones)

The table below provides a schedule for implementing MRP/CIMP tasks.

Table III – Implementation Schedule

Task	Deadline Date
• Submit SWMP/I-WMP, MRP/CIMP, and SWMM Water Quality Model to Regional Board	No later than June 28, 2014
• Submit 6 core programs (Planning and Land Development, Development Construction, Illicit Connection and Discharge Detection and Elimination, Public Agency, Industrial and Commerical Inspection, and Public Education programs	No later than June 28, 2014
• Implement SWMP/I-WMP	One month after Regional Board approval
• Implement MRP/CIMP	See MRP/CIMP Imple-

	mentation Schedule
• Implement SWMM	At the direction of the Regional Board with consultation from the TAC and County of Los Angeles Department of Public Works

1.11 Monitoring and Reporting Program

The MRP is a separate MS4 Permit requirement that addresses all aspects of requisite monitoring. Because the City has opted for the SWMP/I-WMP it is entitled to compliance with the **Coordinated Integrated Monitoring Program (CIMP)** which allows for extended compliance deadlines with TMDLs while the SWMP/I-WMP is pending approval by the Regional Board. The CIMP is submitted through MRP which is contained in a separate binder.

End Section One

Appendix A

MS4 Permit

Appendix B

Reasonable Assurance Analysis Computer Modeling Report

Appendix B Reasonable Assurance Analysis

1.0 Introduction

This report was prepared in accordance with the March 25, 2014 guidance document *Guidelines for Conducting Reasonable Assurance Analysis in a Watershed Management Program, Including an Enhanced Watershed Management Program* issued by the Los Angeles Regional Water Quality Control Board staff. The report is prepared in compliance with Part VI.C.5.b.iv.(5) of Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Order Number R4-2012-0175 (NPDES Permit Number CAS004001).

As outlined in the guidance document, one of the models listed in *Table 1, List of Available Models*, has been used: Loading Simulation Program in C++ (LSPC)[1]. The LSPC model is available from the Los Angeles County Watershed Management Modeling System (WMMS)[2] website. LSPC is a watershed modeling system that

[1] Tetra Tech, 2009. Loading Simulation Program in C++ (LSPC) Version 3.1
[2] http://dpw.lacounty.gov/wmd/wmms/

includes streamlined Hydrologic Simulation Program Fortran (HSPF) algorithms for simulating hydrology, sediment, and general water quality on land as well as a simplified stream fate and transport model. LSPC model has been used frequently to simulate pollutant loading and impacts to water bodies. LSPC, in particular, has been applied widely throughout California and in other states to support TMDL development for various parameters, including a number of TMDLs developed by U.S.EPA for water bodies in Los Angeles County. LSPC has been robustly evaluated and calibrated with local land use, weather and soils data. HSPF is a dynamic watershed model driven by time-variable weather input data that produces time series results for hydrologic and pollutant storages and fluxes. HSPF estimates the behavior of a number of watershed features such as the overland flow plane, the vadose and saturated zones, as well as in-stream components of the system, using an area-weighted or "lumped" methodology. It is capable of simulating loadings from mixed land use settings for nutrients, toxics, pathogens, metals, and sediment. In addition to predicting loadings from land uses, HSPF simulates in-stream processes that predict the fate and transport of pollutants once they reach a receiving water body.

2.0 Dominguez Channel and Los Angeles and Long Beach Harbors Toxic and Metals TMDLs

Compton wet weather discharges are subject to wasteload allocations (WLAs) contained in the *Dominguez Channel and Los Angeles and Long Beach Harbors Toxic and Metals TMDLs, LARWQCB Resolution Number R11-008*, which to effect on March 23, 2012.

The TMDL contains wet weather freshwater interim metal concentration allocations for metals for Dominguez Channel and Torrance Lateral:

- Total Copper- 207.51 ug/L
- Total Lead- 122.88 ug/L
- Total Zinc- 898.87 ug/L

Final TMDL wet weather WLAs[3] for Dominguez Channel freshwater watershed above Vermont Avenue are:

- Total Copper – 1,300.3 g/day (2.87 lbs/day)
- Total Lead – 5,733.7 g/day (12.64 lbs/day)
- Total Zinc – 9,355 g/day (20.62 lbs/day)

[3] Based on maximum daily flow measured at a location within the Dominguez Channel is equal to or greater than 62.7 cfs

These daily mass loading values are based on the following concentration numeric targets:

- Total Copper – 9.7 ug/L (6.99 ug/l dissolved)
- Total Lead – 42.7 ug/L (30.14 ug/L dissolved)
- Total Zinc – 69.7 ug/L (65.13 ug/L dissolved)

Compton is also subject to year round sediment and fish based WLA in the Dominguez Channel Estuary. Sediment based interim mass-based wasteload allocations (WLAs) for Dominguez Channel listed below.

Water Body	Interim Effluent Limitations					
	Copper	Lead	Zinc	DDT	PAHs	PCBs
Dominguez Channel Estuary (below Vermont Avenue)	220.0	510.0	789.0	1.727	31.60	1.490

The city may demonstrate compliance with these interim sediment based concentrations by meeting the interim allocations in the discharge over a three-year averaging period. Since the model predicted that the interim wet weather effluent concentrations are met, it is reasonable to assume that the city also complies with sediment based interim WLAs in the Dominguez Channel. Mass-based WLAs are applied as annual limits.

Final receiving water (salt) water column concentrations WLAs for Dominguez Channel Estuary are:

- Copper – 3.73 ug/L
- Lead – 8.52 ug/L
- Zinc – 85.6 ug/L
- PAHs – 0.049 ug/L
- Chlordane – 0.00059 ug/L
- 4,4-DDT – 0.00059 ug/L
- Dieldrin – 0.00014 ug/L
- Total PCBs – 0.00017 ug/L

Permittees shall comply with the following final mass-based water quality- based effluent limitations, expressed as an annual loading of pollutants in the sediment deposited to Dominguez Channel Estuary:

Water Body	Final Effluent Limitations			
	Total Cu	Total Pb	Total Zn	Total PAHs
Dominguez Channel	22.4	54.2	271.8	0.134

In addition, there is a final concentration-based sediment WLA for Cadmium applied to Dominguez Channel Estuary of 1.2 mg/kg dry sediment.

Furthermore, Permittees shall comply with the following final mass-based water quality-based effluent limitations, expressed as an annual loading of total DDT and total PCBs in the sediment deposited to Dominguez Channel Estuary:

Water Body	Final Effluent Limitations Annual (g/yr)	
	Total DDTs	Total PCBs
Dominguez Channel	0.250	0.207

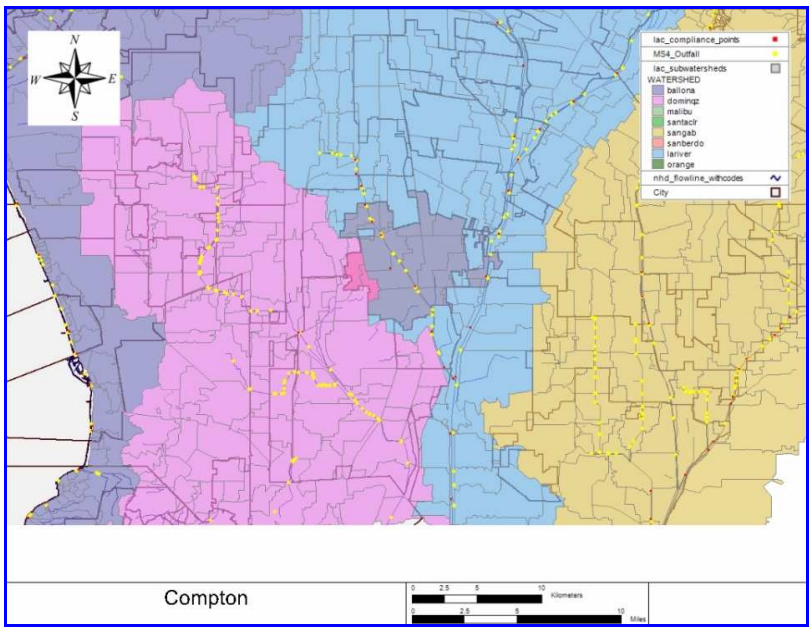
Interim WLAs are based on the 95th percentile of sediment data collected from 1998-2006. Based on the fact that the model estimated that freshwater concentrations will not exceed the interim allocations it is assumed that the sediment allocations will also not be exceeded.

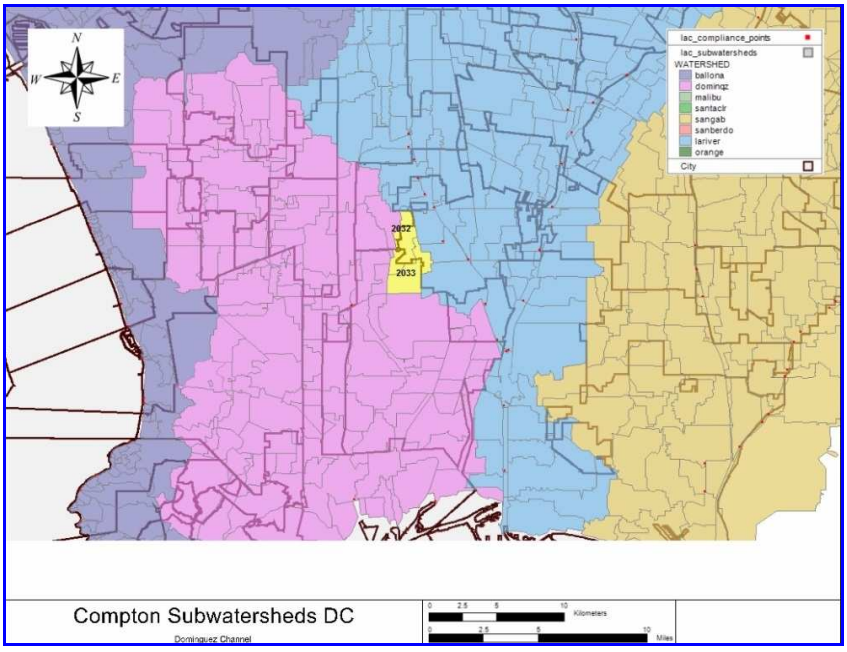
As stated in the technical support document for the *Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Loads*, the freshwater TMDLs within Dominguez Channel are based on water column pollutants. The loading capacity is based on meeting CTR criteria for metals in freshwaters for both Dominguez Channel and Torrance Lateral. For downstream saline receiving waters – Dominguez Estuary and greater Harbor waters, the loading capacity for metals, organochlorine and PAH TMDLs are based on an estimate of annual pollutant loads that can be delivered to sediments and still meet the sediment targets. These TMDLs acknowledge that pollutant load reductions are required by watershed (stormwater) sources as well as existing bed sediments to attain the allowable loading capacity. Water column concentration-based allocations are also included for receiving waters; these allocations are equal to existing CTR criteria for protection of aquatic life or human health.

As a general rule of thumb, reductions necessary to meet target Cu levels will also attain Pb, Zn and PAHs allocations. Necessary copper reductions range from 25 – 87%. Likewise, necessary reductions to meet DDT or PCB levels, up to 99%, will also attain the other bio-accumulative compound allocations.

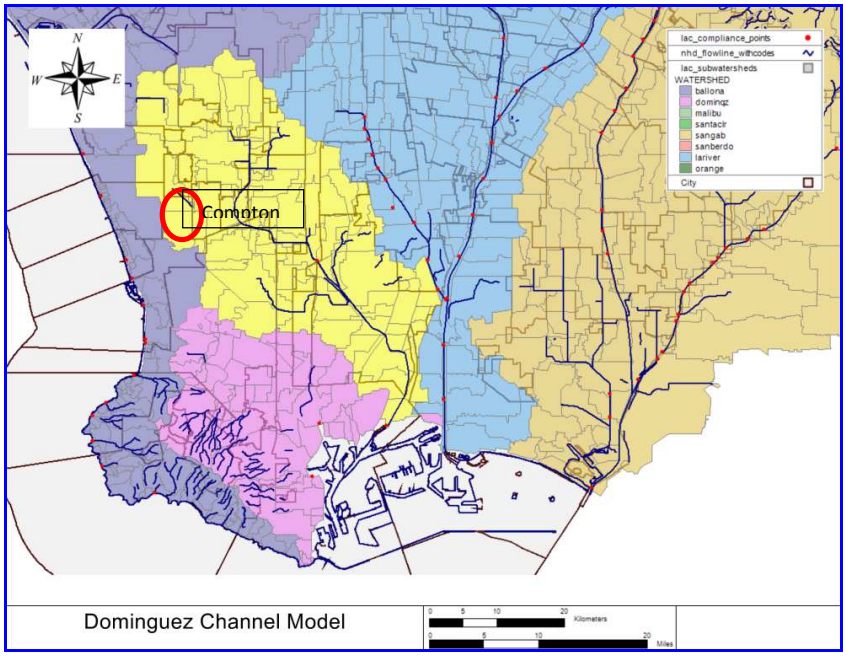
3.0 Compton Modeling Approach

The City of Compton occupies an area of 10.16 square miles[4] (see maps below).





[4] Data accessed on 04/01/2014 at http://www.comptoncity.org/



Within Dominguez Channel upper watershed 83 sub-basins are within or immediately surrounding Compton's municipal area with a total area of 71.9 square miles. About one square mile of area from Compton drains to Dominguez Channel. Since there are no major changes in the profile of the urban area in the sub-basins within the city's area, it is considered that the area is homogenous and it is assumed that Compton has the same characteristics as the larger sub-watershed area that contains the city boundaries (see Model Simulation Analysis).

% Compton = Compton area/Sub-watershed area = 1/71.9 = 1.4%

This approach is used to determine the load contribution from the city as a percentage of the total load from the sub-watershed, similar with the percentage of the city area out of the total area of the sub-basins analyzed.

4.0 Dominguez Channel Model Simulation Analysis

The LSPC load simulation was performed considering standard options and the data enclosed in the default database containing the standard attributes and coefficients assigned to the sub-watersheds. The simulation run included the portion of the watershed draining through the first downstream outlet (sub-watershed 2001 with a compliance point) that included all the 83 upper sub-watersheds used in the model simulation by default and including the municipal area draining to the portion of the stream analyzed, as shown in the picture above. For all load simulations, the following standard values have been used:

- Model input start time: 04/01/1996, end time: 09/30/2006; time step 60 minutes
- Model output start time: 10/01/1996, end time: 09/30/2006; daily interval
- Standard model output was used, simulating long term average annual values.

[Electronic copies of the files produced by the simulations are attached to this document on a CD for review.]

The basic assumption is that in case wet weather discharges from the city comply with freshwater metal concentration allocations then it will comply with the other interim metal allocations in the estuary. In addition, application of BMPs that will lead to reduction in metal loads will lead to similar reductions in the loads of the other pollutants identified in the TMDLs.

The long term simulation estimated that the City of Compton is predicted to comply at all times with interim wasteload allocations. The highest dissolved concentrations predicted by the stream component of the model at the downstream outlet (compliance point) of sub-watershed 2001 were:

- 64.3 ug/L for Copper
- 54.3 ug/L for Lead
- 644.68 ug/L for Zinc

The model also predicted that the estimated current annual average mass contributions of pollutants from the city (based on a 1.4% share of the considered sub-basins in the model run) were:

- 24.63 lbs for Copper
- 21.02 lbs for Lead
- 243.79 lbs for Zinc

This estimate includes loads from other entities discharging from this area, including highways, schools, industrial and construction sites, etc. that also contribute to the loads. Therefore, these estimated load values are very conservative and may over predict the actual contribution from the city. A more accurate calculation may be performed subtracting the contribution of the other sources, which in some cases may be significant, such in the case of freeways, from the values calculated here.

Assuming that the above values represent the baseline and based on the modeled predictions contained in the technical documents for the TMDL (Table 6-3, page 78) the estimated percent reductions needed from the current baseline are:

- 72.0% for Copper or 17.73 lbs per year
- 3.1% for Lead or 0.65 lbs per year
- 76% for Zinc or 185.28 lbs per year

These reductions must be achieved by year 2032, when the final wasteload allocation requirements become mandatory. As outlined in the TMDL, it is assumed that achieving reductions in the metal loadings will also lead to achieving similar reductions for the other constituents addressed in the TMDLs for these water bodies.

5.0 Los Angeles River TMDLs

Compton is subject to a number of TMDLs adopted for the Los Angeles River watershed.

- ***Los Angeles River Metals TMDL***

Compton is subject to the requirements of the *Los Angeles River and Tributaries Metals TMDL* in effect since October 29, 2008. The City must comply with WLAs for Reach 1, Compton Creek, and Reach 2, Rio Hondo, Arroyo Seco and all contributing sub-watersheds reaches.

- Dry Weather

Permittees shall comply with the following grouped dry weather water quality- based effluent limitations no later than January 11, 2024, expressed as total recoverable metals.

Water Body	Effluent Limitations Daily Maximum (kg/day)		
	Copper	Lead	Zinc
LA River Reach 1	WER* x 0.14	WER x 0.07	---
LA River Reach 2	WER x 0.13	WER x 0.07	---
Compton Creek	WER x 0.04	WER x 0.02	---

*WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

The dry weather targets apply to days when the maximum daily flow in the River is less than 500 cfs ($1.2x10^9$ liters).

In lieu of calculating loads, Permittees may demonstrate compliance with the following concentration-based water quality-based effluent limitations during dry weather no later than January 11, 2024, expressed as total recoverable metals:

Water Body	Effluent Limitations Daily Maximum (µg total recoverable metals/L)		
	Copper	Lead	Zinc
LA River Reach 1	WER* x 23	WER x 12	---
LA River Reach 2 and	WER x 22	WER x 11	---
Compton Creek	WER x 19	WER x 8.9	---

*WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

- **Wet weather**

Permittees shall comply with the following grouped[5] wet weather[6] water quality- based effluent limitations no later than January 11, 2028, expressed as total recoverable metals discharged to all reaches of the Los Angeles River and its tributaries.

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER* x 2.8×10^{-9} x daily volume (L) – 1.8
Copper	WER x 1.5×10^{-8} x daily volume (L) – 9.5
Lead	WER x 5.6×10^{-8} x daily volume (L) – 3.85
Zinc	WER x 1.4×10^{-7} x daily volume (L) – 83

*WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

Wet weather allocations are based on the following concentration based waste load allocations:

[5]The wet weather water quality-based effluent limitations are grouped-based and shared among all MS4 Permittees located within the drainage area.

[6] Wet weather is defined as any day when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs measured at the Wardlow gage station.

Constituent	Maximum Concentration (total recoverable metals) (ug/L)	Maximum Concentration (dissolved) (ug/L)
Cadmium	3.1	3
Copper	17	11
Lead	62	51
Zinc	159	97

Permittees shall comply with interim and final water quality-based effluent limitations for metals discharged to the Los Angeles River and its tributaries, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)	
	Dry weather	Wet weather
January 11, 2012	50	25
January 11, 2020	75	--
January 11, 2024	100	50
January 11, 2028	100	100

- ***Los Angeles River Bacteria TMDL***

Compton is subject to the requirements of the *Los Angeles River Bacteria TMDL* in effect since March 23, 2012. The City must comply with WLAs in Los Angeles Segment A, Segment B and Compton Creek.

Permittees shall comply with the following grouped[7] interim dry weather single sample bacteria water quality-based effluent limitations for specific river segments and tributaries as listed in the table below:

River Segment or Tributary	Daily Maximum E. coli Load (10^9 MPN/Day)
Los Angeles River Segment A (Willow to	301

[7] The interim dry weather water quality-based effluent limitations are group-based and shared among all MS4 Permittees located within the drainage area. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer.

Los Angeles River Segment B (Rosecrans to Figueroa)	518
Compton Creek	7

- **Receiving Water Limitations**

Permittees shall comply with the following grouped[11] final single sample bacteria receiving water limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Time Period	Annual Allowable Exceedance Days of the Single Sample	
	Daily Sampling	Weekly Sampling
Dry Weather	5	1
Non-HFS[8] Water Bodies Wet	15	2
HFS Water Bodies Wet Weather	10 (not including	2 (not including HSF

Permittees shall comply with the following geometric mean receiving water limitation for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 mL	126/100 mL

[8] HFS stands for high flow suspension as defined in Chapter 2 of the Basin Plan.

Table O-1: Los Angeles River Bacteria Implementation Schedule for Dry Weather

Implementation Action	Responsible Parties	Deadline
SEGMENT A TRIBUTARY (Compton Creek)		
First phase – Segment A Tributary		
Submit a Load Reduction Strategy (LRS) for Segment A tributary (or submit an alternative	MS4 Permittees discharging to Segment A tributary	March 23, 2018
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2022
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2025
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary, if using alternative compliance plan	September 23, 2025
Second phase, if necessary – Segment A Tributary for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment A tributary	September 23, 2026
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2030
Achieve final water quality-based effluent limitations in Segment A tributary or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2032

- ***Los Angeles River Trash TMDLs***

Compton is subject to the requirements of the *Trash TMDL for the Los Angeles River Watershed* in effect since September 23, 2008. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to the Los Angeles River, per the schedule below:

Los Angeles River Watershed Trash Effluent Limitations per Storm Year[9] (Gallons of Uncompressed Trash)

Permittees	Baseline	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 (0%)
Compton	6832	2050	1366	683	225	0

[9] Storm year is defined as October 1 to September 30

Los Angeles River Watershed Trash Effluent Limitations per Storm Year (Pounds of Drip-dry trash)

Permittees	Baseline	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 (0%)
Compton	10208	3062	2042	1021	337	0

- ***Los Angeles River Nutrients TMDLs***

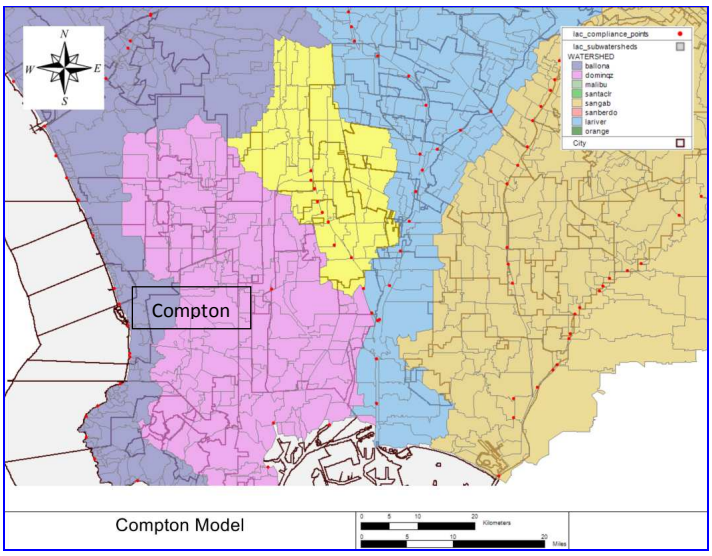
Compton is subject to the requirements of the *Nitrogen Compounds and Related Effects TMDL for Los Angeles River Watershed* in effect since March 23, 2004.

Based on the model prediction from the Los Angeles River sub-watershed run at outlet from the sub-basin 6018 predicted that the highest concentration daily average value discharged was 2.75 mg/L for total Nitrogen, lower than the 30-day average WLA of 8 mg/L. This highest value was predicted for all conditions modeled, wet and dry seasons of the ten year period considered. The city will continue to comply with the WLA for nitrogen compounds and due to the further implementation of BMPs in the future, it is envisioned that the city will reduce even more its load contribution.

6.0 Los Angeles River Simulation Analysis

To assess city's loads contributions to L.A. River watershed a sub-watershed containing 46 sub-basins within the city's area have been selected. The 46 sub-basins cover an area of 40.68 sq. miles. The city drains 10.16 – 1 = 9.16 sq. miles to L.A. River drainage. The model run employed the same parameters as in case of the Dominguez Channel simulation.

% Compton = Compton area/Sub-watershed area = 9.16/40.68 = 22.5%



The basic assumption is that in case wet weather discharges from the city comply with metal concentration allocations. In addition, application of BMPs that will lead to reduction in metal loads will lead to similar reductions in the loads of the other pollutants identified in the TMDLs.

The long term simulation estimated that the City of Compton is predicted to comply at all times with interim wasteload allocations. The highest dissolved concentrations predicted by the stream component of the model at the downstream outlet (compliance point) of sub-watershed 6018 were:

- 110.71 ug/L for Copper
- 99.74 ug/L for Lead
- 1081.48 ug/L for Zinc

The model also predicted that the estimated current annual average mass contributions of pollutants from the city (based on a 22.5% share of the considered subbasins in the model run) were:

- 243.20 lbs for Copper;
- 217.42 lbs for Lead;
- 2315.44 lbs for Zinc.

This estimate includes loads from other entities discharging from this area, including highways, schools, industrial and construction sites, etc. that also contribute to the loads. Therefore, these estimated load values are very conservative and may over predict the actual contribution from the city. A more accurate calculation may be performed subtracting the contribution of the other sources, which in some cases may be significant, such in the case of freeways, from the values calculated here.

Assuming that the above values represent the baseline and based on the modeled predictions contained in the technical documents for the TMDL the estimated percent reductions needed from the current baseline are:

- 76.6% for Copper or 186.29 lbs per year
- 27.3% for Lead or 59.36 lbs per year
- 70% for Zinc or 1620.81 lbs per year

These reductions must be achieved by year 2032, when the final wasteload allocation requirements become mandatory. As outlined in the TMDL, it is assumed that achieving reductions in the metal loadings will also lead to achieving similar reductions for the other constituents (such as Cadmium) addressed in the TMDLs for these water bodies.

7.0 Individual Watershed Management Program Implementation Actions for TMDL and Water Quality Standards Compliance

The City of Compton submits the programs enumerated in Table 1 as its proposed individual watershed implementation plan (IWMP) in order to reduce pollutants in storm water discharges so that MS4 discharges do not persistently exceed TMDLs and WQS as identified in the Order. The expected reduction in pollutant loads in order to meet the TMDL targets or WQS criteria were determined through a reasonable assurance analysis using the LSPC model. Storm water control measures to be implemented for optimum effectiveness in reducing pollutants in storm water are, in addition to the Storm Water Management Program provisions of the Order, based on recommendations of a National Academy of Sciences report to the U.S. EPA on reducing urban storm water pollution.[10]

The City notes that the California Water Board's Regional Bio-assessment Monitoring conducted under its Surface Ambient Water Quality Monitoring Program (SWAMP) for the period 2009 – 2013 is a more accurate assessment of the condition of the receiving waters in Southern California than TMDLs. The Regional Bio-assessment determines stream condition using multiple lines of evidence including the California Rapid Assessment Method (CRAM), benthic algae, and benthic macro invertebrate community. TMDLs on the other hand are single numerical values that are computed using hydrologic and water quality models, with very little consideration given to their inherent assumptions and uncertainties. It is also significant that the Water Board has not provided error bounds for its TMDLs and water quality criteria that are being used for compliance purposes. The single value TMDLs and water quality criteria in the Order thus do not take into account variations in methodologies and assumptions, which can lead to wide variability in value prediction.[11] The science of storm water modeling is not sufficiently advanced to sufficiently predict the water quality and environmental impacts of pollutants and stressors and the physical, chemical, and biological responses of the receiving waters.[12]

The preliminary results of the Regional Bio-assessment Monitoring for the Southern California region indicate that nutrients and habitat impacts from variations in flow

[10] See Stormwater Management Approaches at p. 339 in Urban Stormwater Management in the United States, National Research Council, National Academy of Sciences, 561 pp. (2009)
[11] Accuracy and Precision of the Volume-concentration Method for Urban Stormwater Modeling, M. Park, Swamikannu, X., Stenstrom, M.K., 2009. Water Research 43, 2773- 2786.
[12] Ibid Footnote 13. See recommendations on the use of watershed models for predicting downstream impacts at p. 331.

present greater risks to stream biological health than do contaminants such as metals and pesticides.[13]

The proposed IWMP constitutes an affirmative and good faith effort by the City to reduce pollutants in storm water discharges to the MS4, while at the same time meeting the intent of the provisions in the Order.

Table I. Individual Watershed Implementation Plan Summary and Metrics

IWMP Element	Description of Quantifiable Measure	Control Measures to Be Implemented to Achieve Reduction	Control Measure Metric	TMDL Pollutant(s) to Be Addressed	Expected Reduction in Pollutant Load from Baseline
1.A. Public Information Participation Program – Disseminate pollution prevention practices information to industry and business	Information Sheets and Brochures with pollutant information	Will distribute material to industry and businesses	No of industrial and business operators reached over a three year period	Heavy Metals (Cd, Pb, Cu, Zn) pH, CN Nutrients Pesticides Pathogens, Anthropogenic trash	2% 5% 10% 10% 2% N/A*
1.B. Public Information Participation Program – Disseminate pollution prevention practices material to residents	Public Service Announcements (PSAs) on print and electronic media	Will participate in PSAs in watershed and other resident outreach efforts via the web site	Estimate of Number of residents reached and Number of electronic visitors on webpage	Heavy metals (Cd, Pb, Cu, Zn), Nutrients Pesticides, Pathogens, Anthropogenic trash	2% 5% 10% 3% N/A*
2.A. Public Agency Activities – Implement control measures at public agency facilities to reduce pollutants in storm water runoff	Number of public agency facilities and cumulative land area mitigated	Control measures to reduce flow from facilities such as swales and permeable surfaces	Number of facilities retrofitted and cumulative land area mitigated.	Heavy metals (Cd, Pb, Cu, Zn), pH, CN Nutrients Pesticides, Pathogens, Anthropogenic trash	4% 5% 5% 10% 5% N/A*
3.A. Public Construction Activities – Implement erosion and sediment controls at sites < 1 acre	Number of public construction projects where sediment/ erosion controls are	Sediment and erosion control measures	Total Number and land area of small public construction projects mitigated	Heavy metals (Cd, Pb, Cu, Zn), Nutrients Anthropogenic trash	1% 5% N/A*

[13] See, Health of Streams in the South Coast Region: Preliminary Analysis of the SMC's 5 Year Survey, Presentation at the Southern California Coastal Water Research Project, Costa Mesa, CA, May 27, 2014.

IWMP Element	Description of Quantifiable Measure	Control Measures to Be Implemented to Achieve Reduction	Control Measure Metric	TMDL Pollutant(s) to Be Addressed	Expected Reduction in Pollutant Load from Baseline
	implemented				
3.B. Public Construction Activities 1 Acre or More – Obtain State Permit Coverage	Number of public construction projects covered under the General Construction Activity Storm Water Permit (GCASP)	Storm water Control measures to reduce pollutants during construction and post construction	Total Number and cumulative land area of public GCASP projects that are mitigated	Heavy metals (Cd, Pb, Cu, Zn), Pesticides, Anthropogenic trash	1% 5% N/A*
4. A. Preventive Maintenance of Sanitary Sewer Systems	Number of miles of Sanitary Sewer System inspected in partnership with Sewer Agency	Inspection of Sanitary Sewer for Preventive Maintenance	Cumulative Number of miles of Sanitary Sewer System inspected	1. Heavy metals (Cd, Pb, Cu, Zn), 2. pH, CN 3. Nutrients 5. Pathogens	2% 5% 5% 20%
5.A. Illicit Connection/ Discharge Elimination – Eliminate illicit connections or require NPDES permit for discharge	Number of miles of storm drain system inspected and the number of referrals to Water Board for NPDES permits	Inspection of storm drain system for illicit connections and NPDES permit referrals	Number of miles of storm drain system inspected, Number of illicit connections removed, and No of NPDES referrals	Heavy metals (Cd, Pb, Cu, Zn), pH, CN Nutrients Pesticides, Pathogens,	2% 30% 5% 5% 20%
5.B. Inspect MS4 and Terminate illicit discharges to the MS4	Number of miles of storm drain system inspected and number of illicit discharges terminated	Inspection of storm drain system to remove illicit discharges or to refer them for an NPDES permit	Number of miles of storm drain inspected, Number of illicit discharges removed, and Number of dischargers referred for NPDES permitting	Heavy metals (Cd, Pb, Cu, Zn) pH, CN Nutrients Pesticides, Pathogens,	2% 30% 5% 5% 20%
6.A. Industrial/ Commercial – Inspect facilities with No Exposure Certification (NEC)	Number of industrial facilities inspected for NEC	Inspection of industrial facilities for no exposure	No of industrial facilities inspected for NEC and total land area credited for no exposure	Heavy metals (Cd, Pb, Cu, Zn), pH, CN Nutrients Pesticides, Anthropogenic trash	2% 5% 5% 5% N/A*
6.B. Industrial/ Commercial Facilities Program – Inspect critical businesses and facilities	Number of critical industrial/ commercial facilities inspected	Inspection of industrial/ commercial facilities for implementation of pollutant controls	Number of industrial/ commercial facilities inspected and total industrial activity land area	Heavy metals (Cd, Pb, Cu, Zn), pH, CN Nutrients	15% 15% 5%

IWMP Element	Description of Quantifiable Measure	Control Measures to Be Implemented to Achieve Reduction	Control Measure Metric	TMDL Pollutant(s) to Be Addressed	Expected Reduction in Pollutant Load from Baseline
			mitigated	Pesticides, Pathogens, Anthropogenic trash,	15% 5% N/A*
7.A. Private Construction Activities - Implement erosion and sediment controls at sites < 1 acre	Number of private construction projects where sediment/ erosion controls are implemented	Sediment and erosion control measures	Total Number and land area of small private construction projects mitigated	Heavy metals (Cd, Pb, Cu, Zn), Nutrients Anthropogenic trash	1% 5% N/A*
7.B. Private Construction Activities 1 Acre or More – Obtain State Permit Coverage	Number of private construction projects covered under the General Construction Activity Storm Water Permit (GCASP)	Storm water Control measures to reduce pollutants during construction and post construction	Total Number and cumulative land area of private GCASP projects that are mitigated	Heavy metals (Cd, Pb, Cu, Zn), pH, CN Nutrients Anthropogenic trash	2% 2% 5% N/A*
7.C. Private Construction Projects – Inspection of construction sites	Number of private construction projects inspected for construction and post-construction storm water control measures, and total land area mitigated	Inspection of private construction projects for construction and post construction controls	Number of private construction projects inspected for construction and post construction SCMs and total land area mitigated	Heavy metals (Cd, Pb, Cu, Zn), pH, CN Nutrients Anthropogenic trash	5% 2% 5% N/A*
8.A. Planning/ Land Development - Implementation of WQ/ Flow Reduction Control Measures	Number and Category of WQ/ Flow Reduction SCMs implemented on New and Re-Development Projects, and total land area mitigated	Implementation of WQ/ Flow Reduction SCMs on New and Re-Development Projects	Number and category of WQ/ Flow Reduction SCMs implemented and Total Land area mitigated	Heavy metals (Cd, Pb, Cu, Zn) Nutrients, Pesticides, Pathogens,	10% 5% 10% 10%
8.B. Planning/ Land Development - Implementation of LID and Green Streets Ordinances	Number of projects subject to the LID and Green Streets Ordinances	Adoption and Implementation of LID and Green Street Ordinances	Number of projects reviewed under the LID and Green Streets Ordinance and total land area mitigated	Heavy metals (Cd, Pb, Cu, Zn), Pathogens,	5% 5%
9. Participation in Lake/ River Enhancement and	Lake or River Drainage Area	Restoration or Mitigation of	Total Lake or River Drainage	Heavy metals (Cd, Pb, Cu, Zn),	2%

IWMP Element	Description of Quantifiable Measure	Control Measures to Be Implemented to Achieve Reduction	Control Measure Metric	TMDL Pollutant(s) to Be Addressed	Expected Reduction in Pollutant Load from Baseline
Rehabilitation Projects	Mitigated or Lake Shore or Riverine Length Restored	Drainage Area or Shoreline	Area Mitigated or Lake Shore or Riverine Length Restored	Nutrients Anthropogenic trash	5% N/A*
10. Participation in Regional Storm Water Mitigation Projects	Number of regional mitigation projects with participation	Regional SCMs	Estimated reduction in pollutant loads from regional SCM modeling	Heavy metals (Cd, Pb, Cu, Zn), Nutrients PCBs Pathogens, Anthropogenic trash	2% 10% 20% 5% N/A*
11. Product Substitution to eliminate pollutant	Substitution of pollutant generating product	Substitute or replace Product by Working with Manufacturer and Legislature	Estimate of pollutant load eliminated through modeling	Heavy Metals (Cd, Pb, Cu, Zn), Pesticides PCBs	25% 25% 80%
12. Impervious Cover Reduction	Surface area of impervious cover removed	Remove impervious surfaces and replace with pervious cover	Total area of impervious cover removed during redevelopment and street greening	Heavy metals (Cd, Pb, Cu, Zn), Nutrients Pathogens,	5% 5% 5%
13. Conservation of Natural Areas	Preservation of natural areas and land purchases	Purchase and preservation of natural areas	Total area of land purchased or preserved for conservation purposes	Heavy metals (Cd, Pb, Cu, Zn), Anthropogenic trash	1% N/A*
14.Retrofit of Catch Basins to Capture Trash	Number of Catch basin inserts fitted with 5 mm mesh	Catch basin inserts with 5 mm mesh	Number of catch basins fitted in industrial, commercial and residential areas	Anthropogenic Trash	100%
15.Installation of Full Capture Devices Installation for trash	Vortex units to capture trash	Installation of vortex units	Drainage Area of vortex units servicing high trash generating zones	Anthropogenic Trash	100%
16.Implementation of partial capture measures for trash removal	Number of Partial capture devices	Installation of partial capture devices	Number of catch basins fitted with partial capture devices	Anthropogenic Trash	100%
17.Implementation of Institutional controls for trash reduction	Supply of plastic bags at grocery stores	Adoption of ordinance that prohibits distribution of plastic bags at grocery stores	Number of grocery stores affected by the ordinance	Anthropogenic Trash	100%
18.Implementation of minimum frequency of Street	Street trash collections	Frequency of street trash	Number of annual days of	Anthropogenic Trash	100%

IWMP Element	Description of Quantifiable Measure	Control Measures to Be Implemented to Achieve Reduction	Control Measure Metric	TMDL Pollutant(s) to Be Addressed	Expected Reduction in Pollutant Load from Baseline
trash collection	schedule in industrial, commercial, and residential, areas	collection	street trash collection, and wet weight of trash collected in industrial, commercial, and residential areas		
			Total		
			1. Heavy metals (Cd, Pb, Cu, Zn),		77%
			2. pH ,CN		99%
			3. Nutrients		100%
			4. Pesticides		100%
			5. PCBs		100%
			6. Pathogens		100%
			7. AnthropogenicTrash		100%

*Trash TMDL is a WQBEL that requires the installation of debris excluder screens and, in the alternative, institutional controls.

8.0 Conclusions

The City has completed a Reasonable Assurance Analysis (RAA) for TMDL pollutants and those pollutants that may reasonably be expected to exceed ambient water quality standards in receiving waters during wet weather conditions. Facilitating the RAA is the model recommended by Los Angeles County: *Loading Simulation Program in C++ (LSPC).* The City has also included a Draft Individual Watershed Management Plan (Draft IWMP) with tentative estimates of expected pollutant reductions from the baseline, at the end of the permit term, after the implementation of proposed storm water control measures, as its "good faith" effort to achieve pollutant reductions. Based on data generated by the "model runs," the City is expected to meet all of the TMDLs to which it is subject, with the exception of metals. Nevertheless the model reveals that 77% of the metals TMDL baselines will be achieved.

The City recognizes that in order to achieve the Regional Water Board's TMDLs for certain pollutants, drastic actions such as change in manufacturing practices, or an outright government product ban, or product substitutions -- actions that are best initiated at the State administrative level or Legislature. The costs for achieving stringent numeric values required of the TMDLs -- albeit with little assurance of commensurate environmental benefits -- can be expected to be prohibitive. The City strongly urges the Regional Board to consider using better and more comprehensive metrics and objectives, based on the most current Regional Surface Water Ambient Program (SWAMP) Bio-assessment study, and its conclusions, when determining water quality protection priorities. Also, Water Quality and Hydrologic Models such as the LSPC have large uncertainties inherent in their mathematical construction, and while good for planning purposes, are not reliable for use as compliance tools unless

the potential uncertainties are acknowledged ahead of the intended use and accommodated for when evaluating compliance.
It is expected that the City's monitoring of MS4 discharges from outfalls it owns or operates will help improve the understanding of the effectiveness of its implementation of storm water control measures. The City intends to provide updates on its progress with implementation of the IWMP in its Annual Report submittal to the Regional Water Board beginning in 2015.

End Section

Section Two: Planning and Land Development Program

Section Two Planning and Land Development

2.0 Summary

Planning and Land Development Program (PLDP) is intended to replace the Development Planning Program carried over from the previous Los Angeles County MS4 permit. According to the current MS4 permit permittees are required to implement a PLDP pursuant to Part VI.D.7.b for all new development and redevelopment projects. The purpose of the PLDP is similar to the DPP which it is intended to replace, is as follows:

- *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*
- *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.).*
- *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.*
- *Maintain existing riparian buffers and enhance riparian buffers when possible.*
- *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.*
- *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.*

- *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:*
  - *On-site infiltration, bioretention and/or rainfall harvest and use.*
  - *On-site biofiltration, off-site ground water replenishment, and/or off-site retrofit.*

2.1 New Development Redevelopment Projects Subject to PLDP

The PLDP revises project categories subject to LID, source controls, and other requirements carried over from Development Planning Program (DPP) requirements associated with the previous MS4 permit. It also includes LID controls for new public and private streets 10,000 or more square feet in area.

The current MS4 permit defines new development as land disturbing activities and structural development, including construction or installation of a building or structure, creation of impervious surfaces and land. It includes the following project categories:

i. All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area

ii. Industrial parks 10,000 square feet or more of surface area

iii. Commercial malls 10,000 square feet or more surface area

iv. Retail gasoline outlets 5,000 square feet or more of surface area

v. Restaurants (SIC 5812) 5,000 square feet or more of surface area

vi. Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces

vii. Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance

viii. Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area

ix. Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA), where the development will:

a. discharge storm water runoff that is likely to impact a sensitive
b. biological species or habitat; and create 2,500 square feet or more of impervious surface area

x. Redevelopment projects in subject categories that meet redevelopment thresholds identified in Part VI.D.6.b.ii (Redevelopment Projects) 2.2 below.

xi. Single-family hillside homes requiring only[1]:

a. Conservation of natural areas
b. Protection of slopes and channels
c. Application of storm drain system stenciling and signage
d. Diversion of roof runoff to vegetated areas before discharge unless the diversion would result in slope instability
e. Direction surface flow to vegetated areas before discharge unless the diversion would result in slope instability

Note that the 10 or more housing development category (single, multi-family homes, condominiums and apartments) has been eliminated. Also eliminated are one acre (soil disturbing) industrial and commercial categories. They have been replaced by industrial parks and commercial malls 10,000 square feet in area (non-soil disturbing). However, if a development project that is expected to disturb one acre of soil and add 10,000 square feet of impervious surface happens to be a housing development it would be a subject project.

[1]No LID controls may be required because of the potential of slope failure.

2.2 Redevelopment Projects

Redevelopment continues to mean a 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 a routine maintenance activity; and land disturbing activities 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.

Redevelopment projects include:

i. Any of the foregoing new development categories where an increase of more than 50% of impervious surface area is planned, in which case applicable SUSMP requirements shall apply to the entire project, not just to the new impervious area.

ii. Any of the foregoing new development categories where an increase of less than 50% of impervious surface area is planned, in which case applicable SUSMP requirements shall apply only to the newly created impervious area.

iii. Single family hillside homes, which shall only be subject to source controls, unless the City's building official determines the need for additional measures.

iv. Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA)[2] and is planned to create 2,500 square feet or more of impervious surface area.

[2]Note: The MS4 permit uses the term "Sensitive Ecological Area" (SEA) which is the term used by the County of Los Angeles County. The previous permit used the term Environmentally Sensitive Areas

2.3 Activity-Specific Post-Construction BMPs

Activity-specific projects are projects that require the implementation of a site-specific plan to mitigate post-development storm water from a new development or redevelopment associated with a specific characteristic that has the potential to pollute stormwater or non-stormwater runoff. Single or multiple activities are not covered under a Standard Urban Stormwater Mitigation Plan (SUSMP) because it is only applicable to certain project categories. For example, a municipal corporate yard adding a fueling station ordinarily would not trigger a SUSMP because such facilities are not SUSMP subject unless one acre of soil is disturbed and adds 10,000 square feet of surface area. Thus, it is important to identify the pollution generating activity and prescribe appropriate post-construction controls. Site-specific activities that trigger post-construction BMPs include the following:

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
f. outdoor food handling or processing
g. outdoor animal case, confinement, or slaughter, or
h. outdoor horticulture activities

Site characteristic “a” will require fueling-related BMPs while “b” will require covered and enclosed equipment maintenances from which runoff cannot be discharged to the MS4 (which may require a sewer-connected

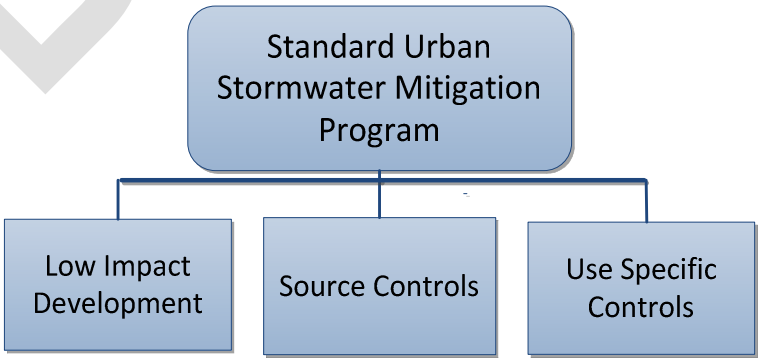
(ESAs) which the City used and will continue to use. The term is effectively the same because as SEA in that it evaluates runoff impact on sensitive biological species or habitats.

clarifier if infeasible). Activities c through h require structures to prevent stormwater contact pollutants used in connection with these activities and treatment controls, if necessary, such as clarifiers connected to the sewer system and grease traps and interceptors.

2.4 Implementation of PLDP through SUSMP

The City will implement the PLDP to achieve its foregoing purposes through the SUSMP. Although the current permit does not specifically state that the PLDP is to be implemented through the SUSMP (see **Appendix A**). Regional Board staff has interpreted the permit to mean that SUSMP provisions are in effect. The SUSMP offers several advantages. To begin with, many developers in Los Angeles County are accustomed to the SUSMP. The SUSMP has been the instrument for implementing Development Planning Program requirements required under the previous permit (from 2002 to present). The SUSMP not only implements post-construction runoff mitigation control requirements, source controls, and use-specific structural and non-structural BMPs, but also provides a predictable and standardized plan developers can use to report compliance to permittees. Further, it can easily be revised to implement PLDP requirements under the current MS4 permit.

Table I



2.5 Low Impact Development (LID)

LID is the center piece for the PLDP. As mentioned, LID is not new to the City. Starting in 2006, and at the behest of the Regional Board, the City began "preferring" infiltration controls over mechanical treatment controls to meet post-construction runoff pollution mitigation controls for subject new development and redevelopment projects through the Development Planning/SUSMP program.

Prior to Regional Board's policy shift to infiltration controls, the City allowed developers to select from a menu of mechanical treatment and infiltration BMPs. Because treatment controls -- particularly the relatively inexpensive catch basin inserts -- were an option, developers routinely chose them over infiltration controls. However, as it was discovered, catch basin inserts proved to be poor performers in removing certain pollutants. Because inserts require a high level of maintenance (viz., changing filters sometimes as often as after one storm event), they often became sources of pollution rather than effective pollution mitigation measures.

Typically, the City has accepted a variety of infiltration controls specific to project types. Some included vegetation, which is the preferred to type, coupled with pre and post-treatment controls (typically catch basin inserts). The inserts that were used for pre-treatment were placed in vegetated areas that were prone to generating sediment that could compromise the performance of the vegetation. On occasion, the City allowed the use of inserts for post-treatment of runoff from vegetated areas which allowed for the release of overflow and operated to trap sediment. Also accepted were various french drain variants and sub-surface retention systems that are used when vegetative controls are impractical because of space limitations.

Since 2006, the use of LID controls has increased. Many of them are described in the Low Impact Development (LID) manual developed by Los Angeles County (See **SUSMP Appendix A-1**). The City intends to use this LID manual as one of several resources to facilitate developer compliance with LID controls prescribed by the City. The City also reserves the right under its land use discretion to prescribe LID controls that it feels are necessary and appropriate to new and redevelopment projects as opposed to allowing developers to select their own. The City is also committed to use USEPA's Green Street Guidance: *Managing Wet Weather with Green Infrastructure Municipal Handbook, Green Streets, (EPA-833-F-08-009)* (see **SUSMP Appendix A-2**).

The PLDP appears to prefer bio-retention and bio-swales infiltration controls. The City, as matter of practice, has preferred vegetative controls over other types of infiltration controls (e.g., sub-surface infiltration chambers). Vegetative controls addressing a variety of pollutants (oil, grease, nutrients, and metals) and are very effective in their pollutant removal capabilities. Beyond this, vegetative controls enhance the appearance of projects and contribute to meeting landscaping requirements. The **SUSMP Appendix** provides more detail on vegetative and non-vegetative infiltration controls and mechanical treatment controls.

2.6 Source Controls

Source controls are pollution prevention measures that prevent stormwater and non-storm water contact with pollutant materials which would otherwise be transported to the MS4. Source controls fall under two categories: (1) mandatory minimum controls (catch basin stenciling with no dumping message and properly designed trash enclosures; (2) activity

specific controls (preventing ground-traveling runoff and rainfall contact with pollutant materials stored outdoors, covering or enclosing warehouses or other structures where pollutant materials are transferred from vehicles to loading areas; and (3) illicit discharge/connection prohibition. The **SUSMP Appendix** provides detailed information on source controls and their applicability to certain projects. The table below summarizes post-construction source control requirements for each specific project category.

Table II – Source Controls for New Development and Redevelopment Projects

Project Category	Post-Construction BMP
• All project categories	• Deployment of trash receptacles at high generation trash locations
• All project categories (to the extent applicable)	• Concentrate or cluster Development on portions of a site while leaving the remaining land in a natural undisturbed condition. • Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection. • Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants. • Promote natural vegetation by using parking lot islands and other landscaped areas. • Preserve riparian areas and wetlands.

• All projects that include on-site curb outlet or drop inlet catch basins	• No dumping messaging on on-site curb-outlet and drop-inlet catch basins
• Storage of hazardous and other pollutant materials	• Store indoors or outdoors raised off the ground and covered to prevent stormwater contact
• Load docks or areas associated with industrial or commercial developments	• Cover loading areas to prevent stormwater contact with pollutant materials transferred from vehicles or other sources to a warehouse or other enclosed structure; or design warehouse or storage building to allow direct transfer of materials from vehicles without exposure to stormwater contact
• Storage of hazardous and other pollutant materials	• Store indoors or outdoors raised off the ground and covered to prevent stormwater contact
• All industrial and commercial facilities	• Prohibit installation or catch basins or other on-site conveyances to the MS4 (e.g., trench drains) in areas where pollutant materials handled, stored, disposed of or transferred from a vehicle to warehouse or other building where such materials are stored
• All industrial and commercial facilities	• Prohibit installation or catch basins or other on-site conveyances to the MS4 (e.g., trench drains) in areas where pollutant materials are handled, stored, disposed of or transferred from a vehicle to a warehouse or other building where such materials are stored to provide accidental discharges to the MS4
• All industrial and commercial facilities	• Prohibit the installation of illicit connections (connections between an actual or potential source of contaminated discharges and the MS4)

2.7 Use-Specific Controls

This category of controls is carried over from the previous permit to reduce pollutant discharges from specific projects and activities. Projects requiring use-specific BMP controls are shown in the table below and are more particularly described in the **SUSMP Appendix**.

Table III – Use-Specific BMP Controls for New and Redevelopment Projects

Project/Activity	Post-Construction BMP
• Retail Gasoline Stations (RGOs) and industrial/commercial facilities equipped with fueling facilities	• Canopy over fueling island/pad • Trench drain (connected to MS4) to intercept runoff before reaching the fueling pad, or • Grade around fueling area to prevent runoff contact • Indoor storage of pollutant materials or if not feasible, outdoor storage under cover and off the ground • Installation of properly sized clarifier (oil and water separator) connected to the municipal sewerage system and permitted by appropriate regulating agency (e.g., Sanitation District of Los Angeles County) • No washing of indoor or outdoor area unless runoff is directed to a clarifier drain (cleaning of surfaces must employ damp or dry cleaning techniques) • Outdoor surfaces must be free of staining, visible oil or other fluids associated with vehicle maintenance
• Automotive Service Facilities (referenced above by SIC code)	• Indoor storage of pollutant materials or if not feasible, outdoor storage under cover and off the ground • Installation of properly sized

	clarifier (oil and water separator) connected to the municipal sewerage system and permitted by appropriate regulating agency (e.g., Sanitation District of Los Angeles County) • No washing of indoor or outdoor area unless runoff is directed to a clarifier drain (cleaning of surfaces must employ damp or dry cleaning techniques) • Outdoor surfaces must be free of staining, visible oil or other fluids associated with vehicle maintenance
• Restaurants (stand alone)	• Grease trap or interceptor designed in accordance with the City's Sewer System Management Program)
• Nurseries or Garden Centers	• Proper[3] indoor and outdoor storage of fertilizers, nutrients, herbicides, insecticides, etc.

2.8 Hydromodification

Hydromodification evolved from the peak flow requirements under the previous MS4 permit that were intended to prevent stream-bank erosion. The requirement was to prevent pre-construction peak-flow from exceeding post-construction peak flow. However, neither peak flow nor hydromodification (which is met by requiring post-construction controls designed to meet a 95th percentile design standard) is an issue for the City because both of its sub-watersheds drain into concretized flood control channels and subsequently flow into spreading grounds. Nevertheless,

[3]Note: Proper here means storage in a manner that prevents storm water and non-storm water contact with these and pollutants that can enter the MS4 through sheet flow or through on-site catch basin.

the City intends to require peak flow be maintained at pre-construction levels as a means of maximizing impervious areas.

2.9 Off-site Mitigation

The City does not plan to opt for off-site mitigation for purposes of off or on-site ground infiltration at this time. Computer modeling, however, may demonstrate the need for off-site mitigation in the future if the implementation of the City's SWMP/I-WMP is not sufficient to meet TMDL waste load allocations.

2.10 Control Design Requirements

Typically, LID controls shall be designed to meet the 85th percentile infiltration requirement (see **SUSMP Appendix**). However, in the event infiltration at any rate is feasible, the City will prescribe mechanical treatment controls that meet the benchmarks for new and redevelopment projects indicated in the table below.

Table IV – Benchmarks for New and Redevelopment Treatment Controls

Conventional Pollutants

Pollutant	Suspended Solids-mg/l	Total P mg/l	Total N mg/l		TKN mg/l	
Effluent Concentration	14	0.13	1.28		1.09	

Metals

Pollutant	Total Cd ug/l	Total Cu ug/l	Total Cr ug/l	Total Pb ug/l	Total Zn u/l	
Effluent Concentration	0.3	6	2.8	2.5	23	

2.11 Condition Assignment and Compliance Process

SUSMP requirements are determined shortly after a subject project is introduced to the City through the Planning Department or Building and Safety. The first step is to determine if the project is subject. This is done by using a check list for new development and redevelopment projects. If the project is "tagged" as subject, the City notifies the applicant he or she must comply with SUSMP requirements, the extent to which will depend on the type of new development or redevelopment and the specific type of project being proposed.

Subject SUSMP Project Categories – New Development
☐ All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area (includes housing developments as well)
☐ Industrial parks 10,000 square feet or more of surface area
☐ Commercial malls 10,000 square feet or more surface area
☐ Retail gasoline outlets 5,000 square feet or more of surface area
☐ Restaurants (SIC 5812) 5,000 square feet or more of surface area
☐ Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces
☐ Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance
☐ Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area
☐ Single-family hillside homes

Subject SUSMP Project Categories – Redevelopment[4]
☐ Existing 1 acre development projects with an expected soil disturbance of 5,000 square feet
☐ Existing industrial parks 10,000 square feet or more of surface area with an expected soil disturbance of 5,000 square feet
☐ Existing commercial malls 10,000 square feet or more surface area with an expected soil disturbance of 5,000 square feet
☐ Retail gasoline outlets 5,000 square feet or more of surface area
☐ Restaurants (SIC 5812) 5,000 square feet or more of surface area
☐ Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces
☐ Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance (does not apply to maintenance projects that do not disturb original line and grade
☐ Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area
☐ Single-family (non-hillside) homes that add 10,000 square feet of new impervious surface

If the project is a new development or redevelopment project, the next step is to inform the developer applicant of SUSMP requirements and require additional project-related information including but not limited to:

- project name, location, and tract (if applicable)

[4]Any addition, creation, or replacement of 50% or more of an impervious area, based on total project area requires a SUSMP to be applied to the entire site, while less than 50% only applies to new addition, creation, or replacement of the impervious area.

- intended use (which is SUSMP-subject)
- project area
- amount of new impervious area/new surface area
- applicant and project engineer's, address, phone number, and email
- project type
- location coordinates
- previous land use
- amount of original land and line to be disturbed
- sub-watershed location
- project location with isohyetal (rainfall) zone
- original purpose of property
- estimation of site soil conditions
- project location in ESA or SEA
- subject to General Construction Activity Stormwater Permit
- expected time to begin grading

Based on the foregoing information, the City will conduct a further evaluation to determine what site specific activities will be conducted at the site that would require source controls and use-specific BMPs. Once completed, the conditions would be sent to the applicant and engineer. Conditions include:

- a menu of LID controls that will prefer "green" or vegetative infiltration devices (bioretention and biofiltration)
- design criteria for the controls (viz., 85th percentile based on project location within isohyetal zone)
- source controls (standard and site specific)

- use-specific controls (if applicable) and design specifications (e.g., dimensions for canopies and sizing for sewer-connected clarifiers)

- maintenance agreement for LID and other controls (in accordance with MS4 permit requirements)

- if the project is subject to GCASP applicant must demonstrate compliance by showing waste discharge identification number (WDID) issued by the State Water Resources Control Board

Completion of the evaluation will be formally transmitted to the applicant and engineer for compliance. An inspection of the project site will be conducted by the City to verify the proper installation of LID and inclusion of other controls. No certificate of occupancy will be issued until all control conditions are met and a maintenance agreement has been finalized.

Once completed all of the required recorded information (see below) will be completed for annual reporting and archival purposes.

2.12 New Development/Redevelopment Effectiveness Tracking

The PLDP also requires each new development and redevelopment for which LID and other controls are required to be tracked, ostensibly for reporting purposes to the Regional Board and for various municipal internal uses. Tracking should include the following:

- Project identification number assigned by the City
- State Board waste discharge identification (WDID) number
- Project area
- BMP Type and Description
- BMP Location (coordinates)

- Date of Acceptance
- Date of Maintenance Agreement
- Maintenance Records
- Inspection Date and Summary
- Corrective Action
- Date Certificate of Occupancy Issued
- Replacement or Repair Date

Much of the information required by the tracking form can be taken from the project evaluation form discussed above. The tracking form will be finalized one month following approval of the watershed management program plan. All projects will be tracked using GIS coordinates.

2.13 Low Impact Development Ordinance

The City has adopted a LID ordinance that will include infiltration controls for street projects that meet the 10,000 square foot threshold prior to the June 28, 2014 submittal deadline date for the I-WMP. The LID ordinance is attached as **Appendix B**.

2.14 Training

All impacted City personnel shall be provided "classroom" training using Power Point and counter training on PLDP requirements annually, prior to the end of the fiscal year. Training will be verified using a "sign in sheet." Impacted personnel will include employees (non-contract and contract), from planning, building and safety, and engineering divisions.

2.15 Developer Information Materials

PLDP changes from Development Planning Program necessitate revisions to developer hand-outs and other informational materials required to facilitate a clear understanding of the new requirements as they relate to: (1) the emphasis on LID; (2) green streets; (3) revised sizing requirements for infiltration controls; (4) source controls; (5) use specific controls; and (6) activity-specific controls. This will require a revision to the existing SUSMP and general guidelines for completing SUSMP requirements. These materials will be made available as hard copies at the counter. Also in the works is uploading these and other materials (including the Los Angeles County's LID Standards Manual and USEPA's Municipal Handbook for Green Streets and the *Best Management Practice Handbook for New Development and Redevelopment prepared by the California Stormwater Quality Association)*.

2.16 Implementation Schedule (Milestones)

The table below provides a schedule for implementing the PLDP/SUSMP.

Table V – Implementation Schedule

Task	Due Date
• PLDP/SUSMP Submittal	June 28, 2014
• PLDP/SUSMP Implementation	One month after Regional Board's approval of SWMP or I-WMP
• Low Impact Development Ordinance	June 28, 2014
• Green Street Policy	June 28, 2014
• Training	Prior to June 20, 2015[5]

[5]Previews of new PLDP requirements will be provided when the City conducts on-going training for Development Planning requirements which is typically presented in May or June of each year.

• New Development/Development Tracking	One month after the Regional Board's approval of the SWMP or I-WMP
• Developer Information Materials	One month after the Regional Board's approval of the SWMP or WMP

END SECTION

Appendices

Planning and Land Development Program

Appendix A

Standard Urban Stormwater Management Program Plan

Appendix B

Low Impact Ordinance

ORDINANCE NO. 2,252

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COMPTON AMENDING SECTION 31-1.11 OF CHAPTER 31 (RUNOFF POLLUTION CONTROL) OF THE COMPTON MUNICIPAL CODE – REQUIRING LOW IMPACT DEVELOPMENT CONTROLS AND ESTABLISHING A "GREEN STREET" POLICY IN COMPLIANCE WITH THE MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT ("MS4") FOR LOS ANGELES COUNTY.

WHEREAS, on November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (hereinafter "Regional Board") adopted Order No. R4-2012-0175, NPDES Permit No. CAS 004001, the Municipal Separate Storm Sewer Permit for Los Angeles County (hereinafter "MS4 Permit"); and

WHEREAS, among other things, the MS4 Permit requires the City of Compton (hereinafter "City") and other subject MS4 permittees to:

> (1) adopt an ordinance establishing legal authority to require low impact development (hereinafter "LID") controls applicable to certain development projects as a means of reducing pollutant discharges to receiving waters into which the City discharges (viz., the Los Angeles River); and
>
> (2)establish a "Green Street" policy to reduce stormwater runoff discharges from municipal streets to receiving waters.

WHEREAS, the City has been requiring LID controls since 2006, which emphasize infiltration to treat runoff from completed development projects, under the Development Planning/Standard Urban Stormwater Management Program (hereinafter "SUSMP"), a requirement under the previous MS4 permit that is still in effect, however, according to Regional Board staff, the City must demonstrate that it has adopted an updated LID ordinance by June 28, 2014; and

WHEREAS, the City supports LID not only because of its positive impact on stormwater quality and the receiving waters into which it discharges, but also because it facilitates watershed conservation and aesthetically enhances the community; and

WHEREAS, the City shall continue to use LID guidance documents developed by the County of Los Angeles, the California Association of Stormwater Quality Agencies, and USEPA to facilitate the preparation of an updated list of acceptable LID control techniques and strategies that are to be prescribed by the City and applied to subject projects at its discretion will be in place by June 28, 2014, taking into consideration such factors including but not limited to soil conditions, previous project use, control performance, aesthetics, and cost; and

WHEREAS, impacted City planning and engineering staff will be trained to identify appropriate LID controls for certain project categories; and

WHEREAS, by this Ordinance, the City intends to implement a "Green Street" program in accordance with USEPA and other applicable guidelines through:

> (1) its current Development Planning/SUSMP program and subsequent land use development program (which is intended to replace the former when the City obtains approval from the Regional Board for its watershed management program), that will require infiltration controls for private developments calling for the construction of new streets 10,000 square feet or more; and
>
> (2) its public agency program for public street projects that exceed this threshold.

WHEREAS, "Green Street" LID techniques shall be incorporated into the City's development planning program and triggered by residential, commerical, or industrial developments that include streets 10,000 square feet or more; and

WHEREAS, "Green Street" LID techniques shall also apply to the construction of any new public street or roadway, as a capital improvement project, triggered by the 10,000 square foot threshold and a capital cost exceeding $500,000; and

WHEREAS, the City's selection of LID techniques shall generally include but not be limited to bio-swales, bio-retention curb extensions and sidewalk planters, and permeable unit pavers -- the selection of which shall depend on project location, soil conditions, average daily traffic, and cost; and

WHEREAS, impacted City staff shall be trained in "Green Street" LID techniques by June 30, 2014 and shall have available to it, by this time, guidance materials based on USEPA's Managing Wet Weather with Green Structure, Municipal Handbook, Green Streets; and

WHEREAS, green controls for streets and roadways shall be designed to infiltrate, or treat if infiltration is infeasible, the volume of runoff resulting from 85th percentile 24-hour storm event, to the maximum extent practicable.

WHEREAS, in accordance with the Los Angeles County Municipal Stormwater Permit, Section 31-1.11 of the Compton Municipal Code must be updated and amended.

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

Section 1. That Section 31-1.11 (Control of Pollutants from New Development) of Chapter XXXI of the Compton Municipal Code is hereby amended in its entirety to read as follows:

31-1.11 Planning and Land Use Development and Standard Urban Stormwater Mitigation Plan.

a. Standard Urban Stormwater Mitigation. Subject new development and redevelopment projects are required to comply with SUSMP conditions assigned by the City that shall consist of: (1) low impact development ("LID") structural and non-structural best management practices ("BMPs"); (2) source control BMPs; and (3) structural and non-structural BMPs for specific types of uses. LID controls effectively reduce the amount of impervious area of a completed project site and promote the use of infiltration and other controls that reduce runoff. Source control BMPs prevent runoff contact with pollutant materials that would otherwise be discharged to the MS4. Specific controls are also required to address pollutant discharges from certain uses including but not limited to housing developments, retail gasoline outlets, automotive-related facilities, restaurants, and industrial and commercial facilities where pollutant materials are disposed, stored, or handled.

b. Standard Urban Stormwater Mitigation Plan Review and Approval. An applicant subject to new development or redevelopment requirements shall submit a SUSMP for City review and approval, which shall be incorporated into the applicant's project plans.

c. California Environmental Quality Act ("CEQA"). Any project subject to CEQA review, but is not specified in a redevelopment or development project category may be required to comply with any of the SUSMP requirements at the City's discretion.

d. Stormwater Management/Watershed Management Program. The City's Stormwater Management Program ("SWMP") plan or watershed management program ("WMP") plan, whichever is in effect at the time of review, shall contain specific conditions and procedures for meeting Planning Land Development and SUSMP requirements. The program plans shall contain guidance documents to facilitate compliance including but not limited to an updated SUSMP guidance manual, a LID impact design manual, and USEPA's Green Street guidance manual.

e. Certificate of Occupancy. As a condition for issuing a Certificate of Occupancy for new development or redevelopment project identified in subsection (a) of this Section, the authorized enforcement officer shall require facility operators and/or owners to build all the storm water pollution control Best Management Practices and structural or treatment control BMPs that are shown on the approved project plans and to submit a signed certification statement stating that the site and all structural or treatment control BMPs will be maintained in compliance with the SUSMP and other applicable regulatory requirements.

f. Transfer of Properties.

(i) The transfer or lease of a property subject to a requirement for maintenance of structural and treatment control BMPs shall include conditions requiring the transferee and its successors and assigns to either (a) assume responsibility for maintenance of any existing structural or treatment control BMP, or (b) to replace existing structural or treatment control BMPs with new control measures or BMPs meeting the then current standards of the City and the SUSMP. Such requirement shall be included in any sale or lease agreement or deed for such property. The condition of transfer shall include a provision that the successor property owner or lessee conduct maintenance inspections of all structural or treatment control BMPs at least once a year and retain proof of inspection.

(ii) For residential properties where the structural or treatment control BMPs are located within a common area which will be maintained by a homeowner's association, language regarding the responsibility for maintenance shall be included in the project's conditions, covenants and restrictions (CC&Rs). Printed educational material will be required to accompany the first deed transfer to highlight the existence of the requirement and to provide information on what storm water management facilities are present, signs that maintenance is needed, and how the necessary maintenance can be performed. The transfer of this information shall also be required with any subsequent sale of the property.

(iii) If structural or treatment control BMPs are located within an area proposed for dedication to a public agency, they will be the responsibility of the developer until the dedication is accepted.

Section 2. That the City Council declares that, should any provision, section, subsection, sentence, paragraph, clause, phrase or word of this Ordinance, hereby adopted, be rendered or declared invalid by any final court action in a court of competent jurisdiction, or by any reason of any preemptive legislation, the remaining provisions, sections, subsections, sentences, paragraphs, clauses, phrases or words of this Ordinance hereby adopted shall remain in full force and effect.

Section 3. That a copy of this Ordinance shall be filed in the offices of the City Clerk, City Manager, City Attorney, Public Works and Municipal Utilities Department.

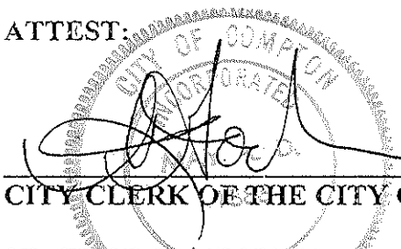
Section 4. That this Ordinance shall take effect thirty (30) days from after adoption by the City Council.

Section 5. That the Mayor shall sign and the City Clerk shall attest to the adoption of this Ordinance and shall cause same to be published as required by law.

ADOPTED this 24th day of June, 2014.

MAYOR OF THE CITY OF COMPTON

ATTEST:



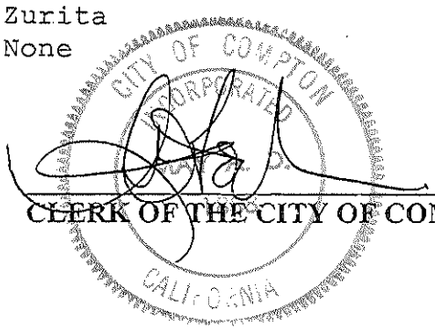
CITY CLERK OF THE CITY OF COMPTON

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss
CITY OF COMPTON)

I, Alita Godwin, City Clerk of the City of Compton, do hereby certify that the foregoing Ordinance was adopted by the City Council of the City of Compton, signed by the Mayor and attested by the City Clerk at a regular meeting thereof held on the 24th day of June, 2014.

That said Ordinance was adopted by the following vote, to wit:

AYES: **COUNCIL MEMBERS** - Galvan,Arceneaux,Jones,Brown
NOES: **COUNCIL MEMBERS** - None
ABSENT: **COUNCIL MEMBERS** - Zurita
ABSTAIN: **COUNCIL MEMBERS** - None

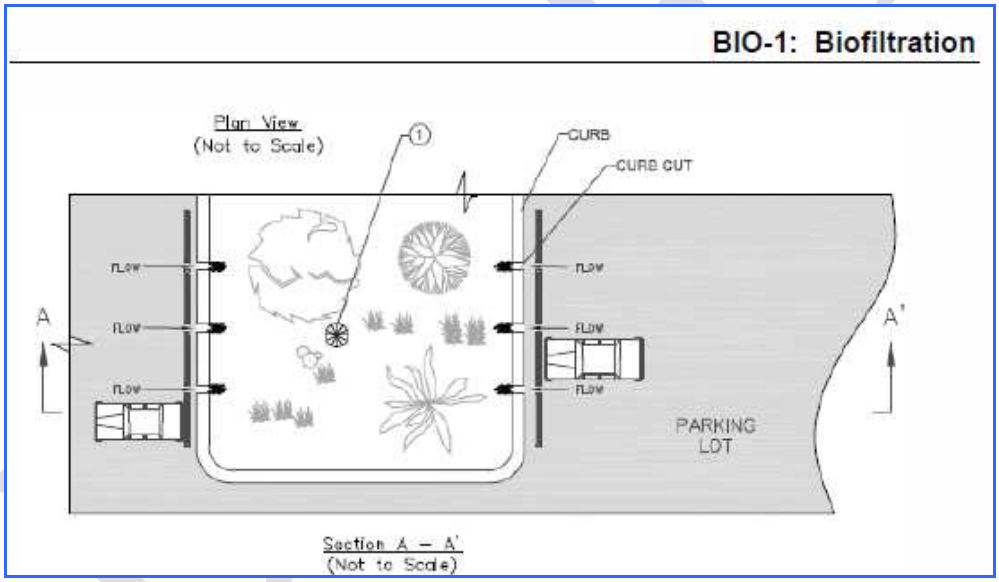


CLERK OF THE CITY OF COMPTON

Appendix A

Standard Urban Storm Water Mitigation (SUSMP) Requirements

City of Compton



June 28, 2014

I. Standard Urban Stormwater Mitigation Program (SUSMP)

1.0 Summary

The Standard Urban Stormwater Mitigation Program (SUSMP) Plan effectively implements the Planning Land Use Development Program. In the 2001 Los Angeles MS4 permit subject SUSMP projects included certain new developments and redevelopments. These categories have changed slightly under the current MS4 permit. The SUSMP is also plan that informs the permittee how a subject development intends to comply with LID, source control, use-specific, and activity-specific controls, in-keeping with what the City prescribes based on its project evaluation.

The previous SUSMP Plan Guidance Manual, which was developed by the County of Los Angeles Watershed Management Division in 2000, has been updated to reflect PLDP requirements to the following extent:

i. revisions to subject new development and redevelopment categories in keeping with the MS4 permit

ii. expanded infiltration controls that must given preference over mechanical treatment controls unless infeasible

iii. specifying infiltration sizing criteria based on the 85th percentile (95th percentile if hydromodification is an issue) design storm

iv. a provision for treating runoff from public and private projects that are 10,000 square feet or more in area

The SUSMP Guidance Manual is heavily based on the *Low Impact Development Standards Manual* developed by the County of Los Angeles Department of Public Works (February of 2014), which is included herein as a reference document **Appendix A-1**. The manual in effect replaces the SUSMP guidance manual the County developed over a decade ago.

A SUSMP plan must be submitted as a condition of project approval to assure that the developer/applicant conforms to the City's PLDP/SUSMP requirements (see **Appendix A-2, Developer SUSMP Guidelines)**. The City prescribes the type of controls required for the project, but allows the developer some discretion in determining the exact type. For example, in situations where high performance vegetative controls (bioswales and biofiltration) are not feasible, the City will allow sub-surface retention controls. The applicant is also responsible for entering into a maintenance agreement to assure the proper functioning of the controls once installed. The City will not issue a Certificate of Occupancy (C of O) until Building and Safety has verified the installation of the controls through an inspection.

2.0 Subject New Development Projects

New development is defined as land disturbing activities and structural development, including construction or installation of a building or structure, creation of impervious surfaces and land. It includes the following subject project categories:

i. All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area

ii. Industrial parks 10,000 square feet or more of surface area

iii. Commercial malls 10,000 square feet or more surface area

iv. Retail gasoline outlets 5,000 square feet or more of surface area

v. Restaurants (SIC 5812) 5,000 square feet or more of surface area

vi. Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces

vii. Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance

viii. Automotive service facilities (SIC 5013, 5014, 5511, 5541, 532-7534 and 7536-7539) 5,000 square feet or more of surface area

Note that the 10 or more housing development category (single, multi-family homes, condominiums and apartments) has been eliminated. Also eliminated are one acre (soil disturbing) industrial and commercial categories. They have been replaced by industrial parks and commercial malls 10,000 square feet in area (non-soil disturbing).

3.0 **Redevelopment Projects**

Redevelopment continues to mean a 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 a routine maintenance activity; and land disturbing activities 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.

Redevelopment projects include:

i. Any of the foregoing new development categories where an increase of more than 50% of impervious surface area is planned, in which case applicable SUSMP requirements shall apply to the entire project, not just to the new impervious area.

ii. Any of the foregoing new development categories where an increase of less than 50% of impervious surface area is planned, in

which case applicable SUSMP requirements shall apply only to the newly created impervious area.

iii. Single family hillside homes, which shall only be subject to source controls, unless the City's building official determines the need for additional measures.

iv. Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA)[1] and is planned to create 2,500 square feet or more of impervious surface area.

4.0 Applicability of LID, Source, Use-Specific and Activity Specific Post Construction Controls (BMPs)

Each of the aforementioned projects may subject to multiple post-construction controls including LID, source and use-specific controls. Activity-specific controls are limited to source controls and technology controls, depending on the activity.

5.0 Low Impact Development Controls

The City's policy is to prescribe LID controls for any of the subject new development and redevelopment projects to the extent feasible. Typical LID controls include but are not limited:

- Bio-retention provides rainfall storage, infiltration, and evapotranspiration and operate to remove pollutants in stormwater runoff through plants and other vegetation appropriate to climate and soil conditions. Such controls are preferred stand alone controls for small developments and parking lots. In addition to being functional they are also aesthetically appealing. Bio-retention, if constructed properly can provide excellent pollutant removal for sediment, nutrients, trash (through trapping), metals, bacteria, oil and grease, and organics.

[1]Note: The MS4 permit uses the term "Sensitive Ecological Area" (SEA) which is the term used by the County of Los Angeles County. The previous permit used the term Environmentally Sensitive Areas (ESAs) which the City used and will continue to use. The term is effectively the same because as SEA in that it evaluates runoff impact on sensitive biological species or habitats.

- Vegetated swales are open, shallow trenches filled with low-lying vegetation covering side slopes and bottoms that collect and slowly release runoff flow to discharge points. Because vegetated swales do not have sufficient detention times their pollutant removal capability for sediment, metals, oil/grease, and organics are rated “medium,” while for bacteria, nutrients, and trash are low. However, vegetated swales can be modified to allow for longer detention that would increase their performance in removing typical pollutants associated with new development and redevelopment projects.

- Vegetated buffers treat sheet flow stormwater form impervious areas or “intensive” landscaped surfaces such as golf courses and parks. Buffers slow runoff velocities to filter-out sediment and other pollutants while providing some infiltration to underlying soils wherein some remediation can occur. Typically buffers are used as pre-treatment controls in tandem with other controls with better performance capabilities. Because space is required for vegetated buffers and are only moderate in removing pollutants, they are not likely to be appropriate for most new development or redevelopment projects.

- Dry wells (includes french drains and shallow injection wells) use gravity to infiltrate stormwater runoff into the sub-surface. Pollutant removal performance for these controls relative to the aforementioned constituents is high. This control category is used where space does not allow for bio-retention.

- Infiltration chambers operate like dry wells but are of fabricated out of plastic, concrete and other materials. This control category is used where space does not allow for bio-retention.

- Infiltration trenches are long, elongated controls that are placed in ditches over porous soils, backfilled with rocks or stones, and lined with filter fabric. Stormwater runoff enters this media where it is detained and eventually infiltrates into the soil where the pollutants are remediated. Pollutant removal performance is also excellent.

- Infiltration basins are designed to infiltrate surface water through permeable soils. Their pollutant removal capability is the same for the foregoing infiltration controls. Infiltration basins are not

likely to be prescribed by the City because of their space requirements and costs. However, they could be considered as an off-site control for infiltrating runoff from other parts City.

- Planter boxes are an infiltration control variant consisting of two types: (1) contained planters for planting trees, shrubs, and ground cover to be place over imperious surfaces (but are deep enough to remediate all pollutants); and (2) infiltration planters are structural landscaped reservoirs to collect, filter, and infiltration stormwater runoff to allow pollutants to settle and filter-out as water percolates through the planter control and enters the sub-surface for remediation. Planter boxes are effective for infiltrating roof-top runoff from a new or replaced building where no other runoff from impervious surfaces exist.

- Porous pavement consists of a variety of materials including special asphalt, concrete (highly pervious), and a mix of various materials such as gravel, paving stones, and brick. Porous pavement/surfaces are effective for patios, driveways, parking lots, and some portions of streets. Prescription of this type of control should limited to patios and sidewalks and under limited certain circumstances to other applications. Because porous materials are not durable as conventional materials they tend to unravel under traffic and should not, be placed in traffic lanes. Further, porous materials require a high level of maintenance because the pores tend to clog easily with road dust, oil and grease, and particulate emissions from vehicles. Nevertheless, pollutant removal performance of the LID control is effective against all of the standard pollutants except sediment, bacterial, and organics.

- Unit pavers fall under the same category as above.

- Cisterns and rain barrels are appropriate for rooftops. They capture rainwater from the rain gutter which is then routed to a barrel or above/below cistern. The collected runoff can be reused for irrigation purposes and reduces the amount of flow to the MS4. Pollutant removal capability for roof-top sourced pollutants is rated high for these types of controls. However, in order for them to perform properly the rainwater contained in them must be released.

A more comprehensive listing of LID controls is contained in the County's *Low Impact Development Standards Manual*.

6.0 LID and Street Runoff

The MS4 permit requires any new street 10,000 square feet or more in area to infiltrate runoff. This requirement applies to private streets as part of new development or redevelopment projects and public streets. The City expects this requirement to more often affect subject private developments rather than City projects. The City, which is built-out, is not expected to construct new public streets. Maintenance projects that do not result in a disturbance of original line and grade (e.g., repaving, slurry seal, etc.) are not subject.

USEPA's Municipal Handbook for Green Streets (see **Appendix A-3**) is the basic reference source for the selection and design of controls to infiltrate street runoff. The controls focus on street-related pollutants including: sediment and other particulates: metals (copper, zinc, lead, and arsenic); and organics associated with petroleum products (oil, grease, vehicle fluids, and polyaromatic hydrocarbons). The Green Street Handbook discusses a variety of street controls including: bioretention areas; street-side swales that run parallel to streets; pervious pavers; sidewalk trees and tree boxes; vegetated curb extensions. Other controls are now being developed by the County of Los Angeles Department of Public Works that will be incorporated in the SUSMP once they become available.

7.0 Numeric Design Standards for Sizing Controls

The MS4 permit changes the basic sizing metric for infiltration and other structural controls has changed from being volumetric and flow-

based to being volumetric based only. Under the previous permit the following volumetric design options were available for sizing treatment controls:

i. The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998); or

ii. The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/ Commercial, (1993); or

iii. The volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system; or

iv. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" (0.75 inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

Developers preferred design option "iii" which was the basic standard for over a decade. Under the current MS4 permit, the preference has shifted from ¾" storm event to 85th percentile design storm. The 85th percentile design storm requires infiltration from a storm event that produces 1" to 1 ½" of runoff. Determining whether the 1" or 1 ½" volume is to be infiltrated (or treated if infiltration is not feasible) will be what isohyetal zone the project lies within (see below section 8.0).

8.0 Calculating the Stormwater Quality Design Volume

The current permit simplifies calculating the design storm by using the formula SWQDv. By complying with the SWQDv it is expected that

pollutant loads, which are typically higher during the beginning of storm events, will be reduced in the discharge to or prevented from reaching the receiving waters. The County's recent LID manual provides a detailed method for calculating the design storm, from which the SWQDv is calculated, which is defined as the greater of the ¾", 24-hour storm event or the 85th percentile, 24-hour rain event as determined from the Los Angeles County 85th percentile precipitation isoheytal map (see 6-1 to 6-4 of the LID Standards Manual).

9.0 Source Controls

Source controls operate to prevent stormwater contact with pollutant materials and avoid illicit discharges by prohibiting them and their connections to the MS4. The table below summarizes post-construction source BMPs for project categories.

Table I – Source Controls for New Development and Redevelopment Projects

Project Category	Post-Construction BMP
• Conserve Natural Areas (to the extent applicable)	• Concentrate or cluster Development on portions of a site while leaving the remaining land in a natural undisturbed condition. • Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection. • Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants. • Promote natural vegetation by using parking lot islands and other landscaped areas.

	• Preserve riparian areas and wetlands.
• All project categories	• Deployment of trash receptacles at high generation trash locations
• All projects that include on-site curb outlet or drop inlet catch basins	• No dumping messaging on on-site curb-outlet and drop-inlet catch basins
• Storage of hazardous and other pollutant materials	• Store indoors or outdoors raised off the ground and covered to prevent stormwater contact
• Load docks or areas associated with industrial or commercial developments	• Cover loading areas to prevent stormwater contact with pollutant materials transferred from vehicles or other sources to a warehouse or other enclosed structure; or design warehouse or storage building to allow direct transfer of materials from vehicles without exposure to stormwater contact
• Storage of hazardous and other pollutant materials	• Store indoors or outdoors raised off the ground and covered to prevent stormwater contact
• All industrial and commercial facilities	• Prohibit installation or catch basins or other on-site conveyances to the MS4 (e.g., trench drains) in areas where pollutant materials handled, stored, disposed of or transferred from a vehicle to warehouse or other building where such materials are stored
• All industrial and commercial facilities	• Prohibit the installation of illicit connections (connections between an actual or potential source of contaminated discharges and the MS4)

• All industrial and commercial facilities (equipped with repair and/or maintenance bays)	• Repair/maintenance bays must be indoors or designed in such a way that do not allow storm water run-on or contact with storm water runoff. • Design a repair/maintenance bay drainage system to capture all wash-water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit. • Install clarifier connected to the sewer system and permitted by appropriate local agency
• All industrial and commercial facilities (equipped with vehicle equipment wash facilities)	• Prohibit outdoor washing of equipment or impervious surfaces that have the potential of being conveyed to the MS4 • Install clarifier connected to the sewer system and permitted by appropriate local agency

10.0 Use-Specific Controls

This category of controls is carried over from the previous permit to reduce pollutant discharges from specific projects and activities. Projects requiring use-specific BMP controls are shown in the table below and are more particularly described in the County's LID manual.

Table II – Use-Specific BMP Controls for New and Redevelopment Projects

Project/Activity	Post-Construction BMP
• Retail Gasoline Stations (RGOs) and industrial/commercial facilities equipped with fueling facilities	• Canopy over fueling island/pad • Trench drain (connected to MS4) to intercept runoff before reaching the fueling pad, or • Grade around fueling area to prevent runoff contact • Indoor storage of pollutant materials or if not feasible, outdoor storage under cover and off the ground • Installation of properly sized clarifier (oil

	and water separator) connected to the municipal sewerage system and permitted by appropriate regulating agency (e.g., Sanitation District of Los Angeles County) • No washing of indoor or outdoor area unless runoff is directed to a clarifier drain (cleaning of surfaces must employ damp or dry cleaning techniques) • Outdoor surfaces must be free of staining, visible oil or other fluids associated with vehicle mainten-ance
• Automotive Service Facilities (refer-enced above by SIC code)	• Indoor storage of pollutant materials or if not feasible, outdoor storage under cover and off the ground • Installation of properly sized clarifier (oil and water separator) connected to the municipal sewerage system and permitted by appropriate regulating agency (e.g., Sanitation District of Los Angeles County) • No washing of indoor or outdoor area unless runoff is directed to a clarifier drain (cleaning of surfaces must employ damp or dry cleaning techniques) • Outdoor surfaces must be free of staining, visible oil or other fluids associated with vehicle maintenance
• Restaurants (stand alone)	• Grease trap or interceptor designed in accordance with the City's Sewer System Management Program)
• Nurseries or Garden Centers	• Proper[2] indoor and outdoor storage of fertilizers, nutrients, herbicides, insecticides, etc.

11.0 Activity-Specific Post-Construction BMPs

Activity-specific projects are projects that require the implementation of a site-specific plan to mitigate post-development storm water for new development not requiring a Standard Urban Stormwater Mitigation Plan (SUSMP) but which may potentially have adverse impacts on post-development storm water quality, where the following project characteristic exist:

[2]Note: Proper here means storage in a manner that prevents storm water and non-storm water contact with these and pollutants that can enter the MS4 through sheet flow or through on-site catch basin.

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
f. outdoor food handling or processing
g. outdoor animal case, confinement, or slaughter, or
h. outdoor horticulture activities

12.0 Project Review and Condition Assignment

The City's Community Development Department is primarily responsible for reviewing development projects for SUSMP applicability, review, condition assignment, and compliance. Development projects are introduced to the Planning Division and then forwarded the Building and Safety Division for further review and verification for SUSMP applicability. If subject, the project is forwarded to the City's environmental consultant for condition assignment using a SUSMP evaluation form (see **Appendix A-4**). The consultant then contacts the applicant and specifies in writing the conditions, which are based on project type and location that must be met. No grading permit will be issued until the applicant has fully complied with the assigned conditions. Further, the City's Engineer shall be responsible for verifying proper compliance with sizing calculations to meet design stormwater requirements and once approved, the Engineer shall notify the environmental consultant that the controls have been properly designed. Once the SUSMP plan submittal is approved the applicant may begin construction. Prior to completion, the Building and Safety Division shall inspect the project to assure that requisite post-construction controls have been properly installed. Once the inspection is completed to the satisfaction of the Building inspector the City's environmental consultant shall be notified at which time the applicant will be required to enter into a

maintenance agreement with the City (see **Appendix A-5**). At this point, the consultant shall inform the Building and Safety Division that the project is in conformance, which will then issue the certification of occupancy – provided that all other City conditions are met.

13.0 SUSMP Plan

The SUSMP plan is required for all subject new development and redevelopment projects and must include the following:

i. A site plan with standardized information requested by the city including: (1) a colorized layout of the project area showing the location of all controls (LID, source, and use specific); (3) location of any catch basins with no dumping messaging; (4) direction flow from all impervious and pervious surfaces to the MS4; (5) landscape; (6) north arrow.

ii. A narrative section providing a project description of relevant information, including: project location (address, tract, and/or GPS coordinates); name, address, telephone number, and email address of application and project engineering; identification of whether the project is a new development or redevelopment project; project footprint, total pre-construction existing pervious and impervious area; previous land use; total post-construction impervious and pervious area; sub-watershed location; narrative explanation of the fate of runoff from the time it makes contact with surface areas (pervious and impervious); description of the LID control(s) and why it was selected; how it was sized (based on the 85th percentile design storm and rainfall data from ISO map (supported by calculation formulas); and SUSMP plan's

preparer and civil engineering certification with the requisite language:

> *"As the architect/engineer of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity."*

iii. A grading plan to be submitted after the LID controls have been proposed and approved.

iv. A description of any source controls and the rationale for their selection

v. A description of use-specific controls and specification sheets (e.g., canopies for fueling facilities, trench drains to intercept runoff before reaching the fueling pad or grading around the fueling area to demonstrate runoff contact avoidance)

vi. A maintenance agreement issued by the City specifying appropriate maintenance requirements for the types of controls prescribed

END APPENDIX A - SUSMP

Appendix A-1

Los Angeles County
Low Impact Development

Appendix A-2

Developer SUSMP Guidelines

Appendix A-3

USEPA's Municipal Handbook for Green Streets

Appendix A-4

SUSMP Evaluation and Tracking Form

Appendix A-5

Maintenance Agreement

City of Compton

Stormwater and Watershed Management Program

Section Three
Development Construction

Section Four
Illicit Connection and Discharge

205 South Willowbrook Avenue
Compton, CA 90220

Section Three: Development Construction Program

Section Three Development Construction Program

3.0 Summary

The Development Construction Program (DCP) under the current MS4 permit has changed from the previous permit to the following extent:

i. The Local Stormwater Pollution Prevention Plan (Local-SWPPP) has been eliminated.

ii. The DCP reflects revisions made to the General Construction Activity Stormwater Permit (GCASWP) which includes multiple compliance tiers for soil-disturbing projects over 1 acre.

iii. Minimum best management practices (BMPs) for construction projects less than one acre are more defined.

The purpose of the Development Construction Program (DCP) continues to assure that subject private and municipal construction projects are managed in a manner that: (1) does not expose construction-related pollutants to stormwater or non-stormwater that would result in their transport into the municipal separate storm sewer system (MS4) and the receiving water; and (2) eliminates illicit discharges and connections to the MS4. DCP more specifically requires appropriate BMPs to:

i. Prevent illicit discharges and illicit connections through which illicit discharges pass to the MS4 from the construction site.

ii. Reduce pollutants from the construction site to the MS4 to aid in preventing water quality standard exceedances to the maximum extent practicable (MEP).

iii. Prevent construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.

As was the case under the previous MS4 permit, the City is obligated to control pollutants from two construction activity categories:

i. Projects expected to disturb one acre or more of soil by grading, clearing, and excavating, which must obtain a General Construction Activity Stormwater Permit (GCASP) from the State Water Resources Control Board (SWRCB).

ii. Projects that disturb less than one acre of soil by grading, clearing, and excavating, which require "minimum BMPs."

A Development Construction Project is one that involves soil disturbing activities including, but not limited to, clearing, grading, excavation, and road construction. It does not include maintaining original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety; interior remodeling with no outside exposure of construction material or construction waste to storm water; mechanical permit work; or sign permit work.

3.1 Reviewing Construction Projects for Conditions Assignment

Construction projects are reviewed for development construction conditions at the same time they are reviewed for Planning and Land Development/SUSMP conformance. Projects are introduced to the Planning Department and then are referred to Building and Safety for further evaluation. If the project is expected to cause a soil disturbance of one acre or more, the applicant must be notified that it is subject to General Construction Activity Stormwater Permit (GCASWP) requirements mandated by the State Water Resources Control Board ("State Board"). Grading permit issuance is dependent on obtaining GCASWP coverage. If the project is expected to disturb less than 1 acre

of soil, Building and Safety is responsible for assigning minimum BMPs based on site characteristics and location.

3.2 Projects Subject to the General Storm Water Construction Permit and Requirements

A project is subject to the GCASWP if it disturbs more than one acre or more of soil by grading, clearing, excavating, and/or other activities. The MS4 permit prohibits municipal permittees from issuing a grading permit to a project applicant who has not applied for a GCASWP (see **Appendix A,** *Fact Sheet*). The applicant, at a minimum, must show a copy of a Waste Discharge Identification (WDID) number to the permittee issued by the State Water Resources Control Board (State Board). A WDID number is issued when the applicant has submitted a Notice of Intent (NOI) to apply for a GCASWP (see **Appendix B,** *NOI Checklist*).

Although the City may issue a grading permit to an applicant based on a proof of having a WDID, no grading may be begin until a SWPPP has been prepared and uploaded to the State Board's *Storm Water Multiple Application and Report Tracking System* (SMART system). Requirements for SWPPP preparation are provided in the GCASWP application and on the State Board's website.[1] The Storm Water Pollution Prevention Plan (SWPPP) and a Monitoring Program Plan (MRP) must be prepared by a qualified SWPPP developer (QSD) or a qualified SWPPP preparer (QSP).

The City is not required to review either of the documents for approval. The State Board, in effect, has ultimate regulatory control over GCASWP requirements. Nevertheless, a valid SWPPP should include, at

[1] http://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.shtml).

a minimum, the following BMPs: (1) properly anchored silt fencing or rows of sand bags placed perpendicular to flow to minimize the discharge of sediment to the MS4; (2) trash receptacles in areas where debris is expected to be generated; (3) portable toilets; (4) concrete wash-out areas or potable wash-out controls; (5) stabilized construction area to prevent vehicle tracking of dirt to the street (a component of the MS4[2]); (6) covering stockpiled material (dirt, concrete, gravel, etc.); and storage of pollutant materials under cover and raised off the ground away from drainage pathways, if possible.

It should be noted that current GCASWP requirements that were in effect during the previous MS4 permit have changed substantially and are more complicated to the extent that it requires:

- **Risk-Based Permitting Approach:** Establishes three levels of risk possible for a construction site. Risk is calculated in two parts: (1) Project Sediment Risk, and (2) Receiving Water Risk.
- **Minimum Requirements Specified:** Imposes more minimum BMPs and requirements that were previously only required as elements of the SWPPP or were suggested by guidance.
- **Project Site Soil Characteristics Monitoring and Reporting:** Provides the option for dischargers to monitor and report the soil characteristics at their project location. The primary purpose of this requirement is to provide better risk determination and eventually better program evaluation.
- **Effluent Monitoring and Reporting:** Requires effluent monitoring and reporting for pH and turbidity in storm water discharges. The purpose of this monitoring is to determine compliance with the NELs and evaluate whether NALs included in this General Permit are exceeded.
- **Receiving Water Monitoring and Reporting:** Some Risk Level 3 dischargers to monitor receiving waters and conduct bio-assessments.

[2]MS4 typically includes streets, catch basins, storm drains, and other conveyances natural or man-made that operate to convey runoff to receiving waters.

- **Post-Construction Storm Water Performance Standards:** Specifies runoff reduction requirements for all sites not covered by a Phase I or Phase II MS4 NPDES permit, to avoid, minimize and/or mitigate post-construction storm water runoff impacts.

- **Rain Event Action Plan:** Requires certain sites to develop and implement a Rain Event Action Plan (REAP) that must be designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event.

- **Annual Reporting:** Requires all projects that are enrolled for more than one continuous three-month period to submit information and annually certify that their site is in compliance with these requirements. The primary purpose of this requirement is to provide information needed for overall program evaluation and public information.

3.3 Inspection requirements for GCASWP Sites

The MS4 permit specifies inspections for one acre construction projects subject to GCASWP in accordance with requirements contained in the table below.

Table I - Inspection Frequencies for Sites One Acre or Greater

Site	Inspection Frequency
• All sites 1 acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under the CWA § 303(d)	• when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA • within 48 hours of a 1/2-inch rain event and at (3) least once every two weeks
• Other sites 1 acre or more determined to be a significant threat to water quality	
• All other construction sites with 1 acre or more of soil disturbance not meeting the criteria above	• At least monthly

Inspections require a site evaluation using the *Construction Site Inspection Checklist* (see **Appendix C**). If the inspection results in the detection of a compliance issue such as improper or no BMPs at the site, the City's inspector has the authority to compel the construction manager to correct the deficiency(ies). The inspector can also require the manager to provide a copy of the SWPPP (which includes erosion control provisions) for review to determine if the SWPPP is deficient. The inspector will note the deficiency, and depending on the severity of the problem, will require correction within a reasonable period of time with the threat of issuing a stop work order if compliance is not achieved. If the issue is an illicit discharge, the inspector shall demand immediate correction. If not corrected, the inspector can issue a stop work order and instruct the City's code enforcement officer to issue a citation as a misdemeanor violation. If the problem is egregious and/or reoccurring, the City will notify the Regional Board of the problem and ask for its intervention. All inspection visits are logged and tracked using the site inspection checklist

3.4 Requirements for Construction Projects Less than One Acre

Under the previous MS4 permit, construction projects that disturb less than one acre of soil by grading, clearing, excavating, and other activities required "minimum BMPs." Determining which minimum BMPs to prescribe was left up to the discretion of permittees. The current MS4 permit provides more prescriptive guidance. It requires the following:

1. *Through the use of the Permittee's erosion and sediment control ordinance, or and/or building permit, require the implementation of an effective combination of erosion and sediment control BMPs chosen from Table I to prevent erosion and sediment loss, and the discharge of construction wastes.*

Table II - Applicable Set of BMPs for All Construction Sites

Erosion Controls	Scheduling
	Preservation of Existing Vegetation
Sediment Controls	Silt Fence
	Sand Bag Barrier
	Stabilized Construction Site Entrance/Exit
Non-Storm Water Management	Water Conservation Practices
	Dewatering Operations
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management
	Concrete Waste Management
	Sanitary/Septic Waste Management

The assignment of the BMPs contained in the above table will be based on site-specific considerations using the Mandatory and *Discretionary Minimum Best Management Practices Checklist* (**Appendix D**). If an activity requires a BMP contained in the table, it is cross-referenced to the CASQA Construction BMP Handbook. **Appendix E** contains applicable BMPs that are alpha-numerically coded – for example, EC for Erosion Control, SE for Sediment Control, NS for Non-Stormwater Management Control; and WM for Waste Management and Materials Pollution Control.

Each subject developer/contractor applicant shall submit an Erosion Control and Sediment Plan (ECSP) based on BMPs prescribed by the City. The ECSP shall be submitted and approved by the City as a condition for grading permit issuance.

2. *Possess the ability to identify all construction sites with soil disturbing activities that require a permit*

This City has in place a system for recording and tracking all construction projects using a computerized data base. Projects are inputted into an Excel spreadsheet that provides the following information: (1) name of the project applicant (contractor/developer); (2) applicant contact information (address, geo-coordinates, telephone number, fax, email address); (2) project start and completion date; (3) project size; (4) project use; (5) inspection dates; (6) location within watershed/sub-watershed; (7) grading permit number and date of issuance; and (8) watershed/sub-watershed location.

3. *Inspect construction sites as needed based on the evaluation of the factors that are a threat to water quality.*

The City exceeds the inspection requirement for projects less than one acre. It inspects all projects that require grading permits. Inspectors are trained to look for sediment charges to the MS4 from the right of way, which is the most common construction site issue. Sediment in the street indicates a failure of sediment controls, typically improper installation or maintenance of silt fences, sand bags, or catch basin inlet protection (mandatory BMPs for all construction projects). Other issues may be detected such as illicit discharges (e.g., from concrete wash-out). Once on site, the inspector will use the construction site checklist to conduct a comprehensive evaluation. If deficiencies are recorded, the inspector will inform the site manager to correct the problem within a period of time that depends on the severity of the deficiency. If an illicit discharge (e.g., from concrete wash out) is an issue, the discharge must be halted immediately and any downstream catch basin inlet must be protected to prevent the release from entering the storm drain. Sediment in the street

during a storm event would also call for immediate corrective action. The failed BMP that gave rise to the problem should be repaired immediately and any sediment discharges to the street should be removed immediately as well. If applicable, downstream catch basin inlet protection should be in place and, if not, the construction site operator must install one immediately. If the sediment discharge is detected during dry days, the inspector may allow the construction operator to correct the problem (fixing the BMP and removing the sediment) by the end of the work day.

4. *Enforcement of BMP Conditions and Other Requirements*

The City's enforcement policy relative to stormwater compliance and other requirements for construction sites, as mentioned, is to issue a stop work order in the event corrective action is ignored. Citation action may also be invoked, but usually the stop work order threat is sufficient to compel compliance because of the financial impact on the contractor or owner.

3.5 Legal Authority for Development Construction Requirements

The City's current runoff control ordinance empowers the City to require compliance development construction requirements and has had such authority since 1998.

3.6 Training

Training for conformance with development construction requirements has been on-going since the 2001 Los Angeles County MS4 permit. Classroom and at-the-counter training has been provided annually to impacted personnel. Planning, public works, building and

safety, and code enforcement personnel are required to attend annual development construction training.

3.7 Implementation Schedule (Milestones)

The table below provides a schedule for implementing the Development Construction Program.

Table III – Implementation Schedule

Task	Due Date
• Development Construction Submittal	June 28, 2014
• Development Construction Implementation	One month after Regional Board's approval of SWMP or WMP
• Training	Prior to June 20, 2015
• Legal Authority Update[3]	Three months after the Regional Board's approval of the SWMP or WMP

End Section

[3]The City already has legal authority to require compliance with development construction requirements.

Appendix A

General Construction Activity Stormwater Permit Fact Sheet

Appendix B

Notice of Intent (NOI) Fact Sheet

Appendix C

Construction Site Inspection Checklist

Appendix D

Mandatory and Discretionary Minimum BMP Checklist

Appendix E

Excerpts from CASQA Construction BMP Handbook

Section Four: IC/ID

Section Four Illicit Connection and Discharge Detection and Elimination Program

4.0 Summary

The Los Angeles County MS4 Permit Permittees to implement an Illicit Connection and Illicit Discharge Elimination (IC/ID) program. The IC/ID program under the current permit is essentially the same as the previous permit. The purpose of the IC/ID program is to detect and eliminate illicit discharges and connections to the MS4 which are deemed to be harmful to receiving water quality. An illicit discharge is any discharge that is not entirely composed of storm water and is not exempted as a permissible discharge to the MS4. An illicit connection is any connection that operates to convey an illicit discharge to the MS4. This section provides guidance on what specific tasks the City is required to perform to comply with IC/ID program requirements.

The Permit contains requirements specifically for the identification and elimination of illicit connections and illicit discharges to the municipal separate storm sewer system (MS4). They include: (1) written procedures conducting source investigations for IC/IDs; (2) written procedures for eliminating the source of IC/IDs; (3) written procedures for public reporting of illicit discharges; (4) preparation of a spill response plan; and (5) IC/ID education and training for impacted Permittee staff.

IC/ID requirements are grounded in federal Clean Water Act section 402(p)(3)(B)(ii), which effectively prohibits non-stormwater discharges into the storm sewers. The term non-stormwater discharge, however, has been qualified by USEPA to include exempted discharges and non-exempted -- impermissible non-stormwater discharges referred to as illicit discharges. The current MS4 Permit imposes more stringent

conditions on non-stormwater discharges than the previous Permit. It conditions them on meeting water quality standards, including TMDLs. This requirement, however, exceeds federal stormwater regulations. When Congress amended the Clean Water Act in 1987 to add stormwater regulations, it deliberately made a distinction between non-stormwater discharges and stormwater discharges. Congress required stormwater discharges to be controlled at the outfall through BMPs. For non-stormwater discharges, Congress required MS4 Permittees only to prohibit illicit discharges. If a Permittee cannot persuade a discharger to prohibit its impermissible discharges to the MS4, because of lack of will or technical infeasibility, the discharger must obtain a separate discharge Permit.

Further, requiring municipal Permittees to comply with water quality standards for non-stormwater discharges poses a serious problem to compliance. Unlike stormwater discharges, which are subject to the iterative process, which preempts violations if properly followed, non-stormwater discharges are not entitled to the iterative process. This of course is attributed to the fact that impermissible non-stormwater discharges only require prohibition or coverage under a separate Permit. It should be noted that the County of Los Angeles attempted to argue in an administrative petition challenging a revision to the 2001 MS4 Permit that if non-stormwater discharges are to be subject to water quality standards they too should be entitled the iterative process. The State Board, which ruled on this matter, said that the iterative process does not apply to non-stormwater discharges. Thus, in the event of an exceedance of a non-stormwater discharge detected at the outfall, a Permittee will automatically be in violation – even if the discharge was managed with

the proper BMPs. The City has challenged this requirement in an administrative petition to the State Board on this basis.

4.1 Exempted Non-stormwater Discharges

Eliminating illicit discharges and connections requires City personnel to distinguish exempted non-stormwater discharges from impermissible non-stormwater discharges (viz. illicit discharges). The MS4 Permit specifies categories of exempted non-stormwater discharges, including:

- Natural springs and rising ground water
- Flows from riparian habitats or wetlands
- Stream diversions, Permitted by the State Board
- Uncontaminated ground water infiltration [as defined by 40 CFR 35.2005(20)]
- Flows from emergency fire fighting activity (conditioned on BMPs specified in Table I below)
- Reclaimed and potable landscape irrigation runoff
- Potable drinking water supply and distribution system releases (conditioned on BMPs specified in Table I below)
- Drains for foundations, footings, and crawl spaces
- Air conditioning condensate
- Dechlorinated/debrominated swimming pool discharges
- Dewatering of lakes and decorative fountains
- Non-commercial car washing by residents or by non-profit organizations and
- Sidewalk rinsing.

Table I – Conditionally Exempt Non-Stormwater Discharges

Conditional Non-Stormwater Discharge Type	Best Management Practices(s)
• Discharges from essential non-emergency fire-fighting activities	Appropriate BMPs are implemented based on the CAL FIRE, Office of the State Fire Marshal's *Water-Based Fire Protection Systems Discharge Best Management Practices Manual* (September 2011) for water-based fire protection system discharges, and based on Riverside County's *Best Management Practices Plan for Urban Runoff Management* (May 1, 2004) or equivalent BMP manual for fire training activities and post-emergency fire fighting activities.
• Discharges from drinking water supplier distribution systems, where not regulated by an individual or general NPDES Permit[1]	Appropriate BMPs are implemented based on the American Water Works Association (California-Nevada Section) Guidelines for the Development of Your Best Management Practices (BMP) Manual for Drinking Water System Releases (2005) or equivalent industry standard BMP manual. Additionally, each Permittee shall work with drinking water suppliers that may discharge to the Permittee's MS4 to ensure for all discharges greater than 100,000 gallons: (1) notification at least 72 hours prior to a planned discharge and as soon as possible after an unplanned discharge; (2) monitoring of any pollutants of concern in the drinking water supplier distribution system release; and (3) record keeping by the drinking water supplier. Permittees shall require that the following information is maintained by the drinking water supplier(s) for all discharges to the MS4 (planned and unplanned) greater than 100,000 gallons: name of discharger, date and time of notification (for planned discharges), method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total number of gallons discharged, type of dechlorination equipment used, type of dechlorination chemicals used, concentration of residual chlorine, type(s) of

[1]The City shall require all water producers to obtain a separate NPDES Permit if their non-stormwater discharges are not in fact potable, which shall be determined based on water quality sampling and analysis performed by the producers. If the discharge is potable, the water producer shall only be required to notify the City and LACFCD of any planned or unplanned release to the City's MS4 of 100,000 gallons or more.

	sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. Records shall be retained for five years and made available upon request by the Permittee or Regional Water Board.

4.2 Non-stormwater Discharges from Community Water Systems

The City is served by one "community water system": California Service Water Company. The **City of Compton** also operates its own municipal water system. The MS4 Permit calls for municipal Permittees to enter into memos of understanding (MOUs) with each CWS. The MOU, in effect, allows discharges from CWSs to enter a Permittee's MS4 without the need for a separate discharge Permit. The City, however, shall not enter into an MOU with any of the CWSs for two reasons.

First, under federal regulations at §40 CFR 122.26, which addresses illicit discharges, MS4 Permittees and not the Permitting agency (the Regional Board in this case), are only authorized to determine whether potable water discharges and other non-stormwater discharges are illicit or permissible discharges. Neither the City, nor any other municipal Permittee that it is aware of, has conducted non-stormwater monitoring to determine if potable water discharges contain pollutants in concentrations that need to be prohibited or Permitted. The City, however, intends to require CWSs to provide non-stormwater quality data on an annual basis to demonstrate that its discharges are in fact potable. Until this time, the City will assume that discharges from CWSs are potable and, therefore, allowable to its MS4.

Second, non-stormwater discharges from a CWS have the potential to exceed TMDLs or other water quality standards. The MS4 Permit impermissibly imposes discharge limitations on non-stormwater

and as well as stormwater discharges. If the discharge is not potable, or if the discharge makes contact with a pollutant that results in an exceedance detected by outfall monitoring, Permittees would be in violation of receiving water limitations. But as the City has argued in its administrative petition, federal regulations and State Board orders do not require MS4 Permittees to meet water quality standards at the outfall. Again, Permittees are only responsible for meeting water quality standards for stormwater discharges monitored at the outfall.

If a CWS is unable to demonstrate that its discharges are not potable on a consistent basis, the City will require it to obtain a separate discharge Permit as is required by federal regulations (MS4 (Fed. Reg. Vol. 55, No. 222 [November 16, 1990] page 47995) which state:

> … *operators of non-stormwater discharges need to obtain NPDES Permits under the present framework (rather than the municipal operator (Permittee) of the MS4.)*

4.3 Procedures for Conducting Source Investigations for IC/IDs Based on Reports from the Public or City Personnel

The City's IC/ID source investigation program has, since the adoption of the 2001 MS4 Permit, consisted of the following:

1. Conducting outfall and field screening visual monitoring for non-storm water discharges and conduct water quality sampling and analysis (**see MRP**).
2. Encouraging the public to report illicit discharges to the City's reporting hotline or directly to the City's Environmental Services Program Unit under the Community Development Department. Public reporting is encouraged through public education outreach materials. Reports are recorded using the IC/ID reporting form (see **Appendix A**). The City plans to encourage reporting through

its web site with an on-line reporting form (in English and Spanish).

3. Training City personnel to identify potential illicit discharges and report them to the City for investigation.

4. Training field personnel to respond to reports of illicit discharges, including identifying the source of the discharge if possible, halting the discharge if still in progress, recording the location of the discharge (to be used later to plot discharges on GIS using geo-coordinates). If the discharge is innocuous (e.g., wash water), and the source is from an individual, City personnel shall inform him/her that the discharge is in violation of the City's stormwater ordinance and is a misdemeanor violation. Serious discharges such as dumping hazardous materials should result in code enforcement. The County's flood control district must also be notified because of the potential for the hazardous material discharge to enter the flood control channel or other receiving water. If the discharge is sewage, the City is required *under State Board Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.*

5. Training will include discussion of a Standard Operating Procedure (SOP) for responding to illicit discharges and detecting illicit connections. The SOP will based on MS4 Permit IC/ID requirements and *USEPA's Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assistance* (see **Appendix B**).

6. Training shall provide guidance on how to identify exempted discharges and illicit discharges.

7. Training City personnel responsible for conducting industrial and commercial inspections to identify illicit discharges and connections including the use of fluorometric dye tests.

8. Training plan check personnel to condition building Permits on prohibitions on illicit connections[2] (e.g., floor drains to the MS4).

[2]The Uniform Plumbing Code, which the City has adopted, prohibits the illicit connections to the MS4.

9. Training construction inspection personnel to identify illicit discharges and connections during construction activities.

4.4 Procedures for Eliminating the Source of IC/IDs

Once the illicit discharge has been verified and the illicit connection has been identified, the next step is to eliminate the discharge and, if applicable, the connection. Not all illicit discharges are conveyed through illicit connections. For example, an auto repair shop employee hosing down an outdoor area to flush away oil and grease directly to the street (a component of the MS4) creates an illicit discharge, but there is no illicit connection. However, if the discharge enters an indoor drain that is connected to a street curb outlet, then an illicit connection issue arises.

Eliminating the illicit discharge can be as simple as the City notifying the discharger that the practice of flushing pollutants directly to the MS4 or through an on-site drain is in violation of the City's stormwater ordinance subject to misdemeanor violations and other sanctions such as denying reissuance of the operator's business license. But to assure that the operator does not engage in the same illicit discharge activity again the City will:

1. Provide BMPs specific to automotive-related businesses resulting from commercial inspections, a complaint from the public called into the City directly to the 1-800-CleanLA reporting hotline. The BMPs will include "dry cleaning" techniques for removing pollutants and source controls to prevent pollutant discharges to outdoor surfaces.

2. If the discharge does not include the disposal of pollutant materials such as motor oil or paint directly or directly to the MS4, the City shall provide a warning to the operator. If a second instance occurs the facility will be cited. If the issue is an illicit connection, the operator may be required to physically remove the connection or cap the drain. If hosing down an outdoor or indoor surface is necessary to the business, the City will require the installation of an

oil/water separator (also referred to as a clarifier) connected to the municipal sewer system or to a sub-surface sump. However, no use of water for cleaning purposes will be allowed until the clarifier is installed. Failure to comply with this requirement will result in enforcement action.

3. If the discharge involves a pollutant material such as gasoline, oil, paint, or other chemicals, the City will immediately issue a citation and notify LACFCD for further enforcement action.

4. The incident will be recorded using the IC/ID reporting form, information from which will be inputted into a data base. If the discharge is more serious, the operator will be cited immediately. The County of Los Angeles Flood Control District shall also be notified for further enforcement action.

5. A follow-up inspection visit should be scheduled to verify that the facility operator is not engaging in the same activity. If it is, the City shall take enforcement action by issuing a misdemeanor citation and, if the issue is repeated, the City shall meet with the operator and use the threat of license revocation to compel compliance.

4.5 Time Lines for Compliance for Investigating and Resolving IC/ID Issues

The MS4 Permit specifies time lines for completing IC/ID related tasks. They include:

1. At a minimum, each Permittee shall initiate an investigation(s) to identify and locate the source within 72 hours of becoming aware of an **illicit discharge**. In real world terms, this is not always possible because in many instances the illicit discharge may be temporary or a single event such as an accident for example. If the discharge is in progress and is of a serious nature, the City shall to the extent feasible, dispatch City personnel to investigate. However any report of a sewage release is responded to immediately during working hours and as soon as possible during after-hours or over the weekends and holidays. The City has personnel on “stand-by” to respond to sewage releases and water main breaks.

2. A report of a suspected illicit connection, the Permittee is required to initiate an investigation within 21 days to determine the: (1) source of the connection, (2) nature and volume of discharge through the connection, and (3) responsible party for the connection. It should be noted that reports of illicit connections are rarely reported and in any case, if an illicit discharge is conveyed through the connection the discharge shall be terminated at the source of the connection and/or removed or capped.

4.6 Public Reporting of Releases to the MS4

The City has effectively operated a reporting hotline since the 1996 MS4 Permit was issued for Los Angeles County. The City encourages the public to use the 1-888-CLEANLA hotline on its public information materials such as BMP pamphlets for residents in English and Spanish. It also has its own reporting number directly to the City. The hotline is also referenced in BMP materials that are handed out to subject industrial and commercial facilities during inspection visits. The City plans to place these materials on its web site, along with instructions for reporting various types of releases to the MS4: oil, batteries, paint, paint wash, and other hazardous waste; trash; and sewage releases. As mentioned, reports to the hotline and City are recorded using the aforementioned IC/ID reporting form.

4.7 Spill Control Plan

The City relies on two types of spill control plans. First, a Hazardous Waste and Materials Response Plan that is implemented by the Los Angeles County Fire Department in the event of deliberate dumping or accidental spills. Second the City is also required to address sewage releases to the MS4 through its Overflow Emergency Response Plan – a requirement of the *Sewer System Management* Plan mandated by Waste

Discharge Order 2006-0003. The Spill Control Plan is based on SSMP requirements (see **Appendix C**). Additional spill control measures are discussed in Section 5, **Public Agency Program** (see **Appendix A-1**).

4.8 Training

The City continues to provide annual training to impacted City personnel – a requirement of the previous MS4 – which includes IC/ID. As mentioned in Section 4.3, new IC/ID requirements will be addressed during training sessions. This includes procedures for identifying and detecting illicit discharges and connections and eliminating them. IC/ID training will also include how to differentiate between permissible non-stormwater discharges illicit discharges.

4.9 Legal Authority

The City has ample legal authority under its current municipal code to require compliance with IC/ID requirements.

4.10 Issues with IC/ID Requirements

The IC/ID section of the MS4 contains two requirements that are inappropriate. First, under ii.1:

> *Each Permittee, upon confirmation of an illicit MS4 connection, shall insure that the connection is: (1) Permitted or documented, provided that storm water and non-water is allowed under the Permit or other individual or general NPDES Permit or Waste Discharge Order*.

Here the Permit is in error because an illicit connection cannot be Permitted or documented to make it an allowable discharge. Once again, an illicit connection is a connection that conveys an illicit discharge. An illicit discharge is an impermissible non-stormwater discharge specified in

the Permit. It is also one determined by Permittees. Further, not all illicit discharges can be made a permissible by covering it under a separate Permit. For example, non-stormwater mixed with a pollutant such as paint, fuel, motor oil, etc., cannot be allowed under a separate discharge Permit. The discharge must be routed to the sanitary sewer and covered under an industrial waste discharge Permit.

Second, the Permit requires Permittees to comply with the following:

> *In the event the Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, including the inability to find the responsible party/parties, the Permittee shall provide for diversion of the entire flow to the sanitary sewer or provide treatment.*

This requirement has no legal authority under federal stormwater regulations or state law. Further, if the City cannot terminate the discharge using its existing legal authority such as prohibiting the discharge or requiring it to be covered under a separate discharge Permit, it would be the Regional Board's responsibility to use its authority under the Clean Water Act to compel compliance.

4.11 Implementation Schedule (Milestones)

The table below provides a schedule for implementing the Illicit Connection and Discharge and Detection and Elimination Program.

Table II – Implementation Schedule (Milestones)

Task	Due Date
• IC/ID Submittal	June 28, 2014
• IC/ID Implementation	One month after Regional Board's approval of SWMP or WMP

• Training	Prior to June 20, 2015
• Preparation of an IC/ID Standard Operating Procedures	Prior to June 20, 2015
• Legal Authority Update[3]	Three months after the Regional Board's approval of the SWMP or WMP

End Section

[3]The City already has legal authority to require compliance with development construction requirements.

Appendix A

IC/ID Reporting Form

Appendix B

USEPA Guidance Manual on Illicit Connections and Discharges

Appendix C

Spill Control Plan (Spill System Overflow Prevention Plan)

City of Compton

Stormwater and Watershed Management Program

Section Five

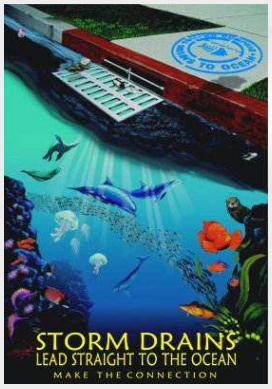
Public Agency Activity

Section Six

Industrial and Commercial Facility

Section Seven

Public Information and Participation



205 South Willowbrook Avenue
Compton, CA 90220

Section Five: Public Agency Activity Program

Section Five Public Agency Activity Program

5.0 Summary

Municipal construction and maintenance operations are governed by the MS4 Permit through the Public Agency Activities Program (PAAP) and its BMP requirements, the purpose of which is to eliminate or reduce pollutant discharges to the MS4 to the maximum extent practicable, and to detect and eliminate illicit connections and discharges. More specifically PAAP requirements include:

i. Public Construction Activities Management
ii. Public Facility Inventory
iii. Inventory of Existing Development for Retrofitting Opportunities
iv. Public Facility and Activity Management
v. Vehicle and Equipment Wash Areas
vi. Landscape, Park, and Recreational Facilities Management
vii. Storm Drain Operation and Maintenance
viii. Streets, Roads, and Parking Facilities Maintenance
ix. Emergency Procedures
x. Municipal Employee and Contractor Training

With the exception of the *Public Facility Inventory and Inventory of Existing Development for Retrofitting Opportunities,* all of the above PAAP tasks are carry-overs from the previous MS4 permit that have been implemented by the City.

5.1 Public Construction Activities Management

The PAAP requires the following:

i. Each Permittee shall implement and comply with the Planning and Land Development Program requirements in Part VI.D.7 of the Permit at Permittee-owned or operated (i.e., public or

Permittee sponsored) construction projects that are categorized under the project types identified in Part VI.D.7.b of this Permit.

ii. Each Permittee shall implement and comply with the appropriate Development Construction Program requirements in Part VI.D.8 of this Order at Permittee-owned or operated construction projects as applicable.

iii. For Permittee-owned or operated projects (including those under a capital improvement project plan) that disturb less than one acre of soil, each Permittee shall require an effective combination of erosion and sediment control BMPs from Table 13 (see Construction Development Program, minimum BMPs).

iv. Each Permittee shall obtain separate coverage under the Construction General Permit for all Permittee-owned or operated construction sites that require coverage.

The City intends to comply with **Planning and Land Development** program requirements contained in **Section Two** of this submittal, which addresses LID and other requirements applicable to municipal projects.

The City also intends to comply with **Development Construction Program** requirements contained in **Section Three** of this submittal. This includes compliance with *General Construction Activity Stormwater Permit* (GCASWP) requirements and minimum BMPs for municipal projects that are the less than one acre (by grading, clearing, excavating, and other soil disturbance activities).

5.2 Public Facility Inventory

This PAAP requirement calls for the City to develop an inventory of all of its facilities. This includes, but is not limited to, the following, if applicable:

- Animal control facilities
- Chemical storage facilities
- Composting facilities
- Equipment storage and maintenance facilities (including landscape maintenance-related operations)
- Fueling or fuel storage facilities (including municipal airports)
- Hazardous waste disposal facilities
- Hazardous waste handling and transfer facilities
- Incinerators
- Landfills
- Materials storage yards
- Pesticide storage facilities
- Fire stations
- Public restrooms
- Public parking lots
- Public golf courses
- Public swimming pools
- Public parks
- Public works yards
- Public marinas
- Recycling facilities
- Solid waste handling and transfer facilities
- Vehicle storage and maintenance yards
- Storm water management facilities (e.g., detention basins)
- All other Permittee-owned or operated facilities or activities that each Permittee determines may contribute a substantial pollutant load to the MS4.

The purpose of this requirement is to: (1) identify potential sources of pollution; (2) ensure that each facility is implementing BMPs to reduce or eliminate pollutants in stormwater discharges; and (3) to detect and eliminate illicit connections and discharges. The City intends to begin

implementing this task no later than one two months following the Regional Board's approval of the City's SWMP/I-WMP and shall be completed no later than September 28, 2015. Subject City facilities shall be plotted on GIS.

Each subject facility shall be tracked using an Excel data base that will capture the following information:

- Name of facility
- Name of facility manager and contact information
- Address of facility (physical and mailing)
- A narrative description of activities performed and potential pollution sources.
- Coverage under the Industrial General Permit – if applicable -- or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.

The data base shall be updated once every five years or as often as new information becomes available.

5.3 Inventory of Existing Development for Retrofitting Opportunities

The Permit imposes a PAAP requirement that was not contained in the previous MS4 Permit that poses a serious challenge to compliance. The PAAP provision of the permit requires:

i. Each Permittee shall develop an inventory of retrofitting opportunities that meet the requirements of this Part VI.9.d. Retrofit opportunities shall be identified within the public right-of-way or in coordination with a TMDL implementation plan(s). The goals of the existing development retrofitting inventory are to address the impacts of existing development through regional or sub-regional retrofit projects that reduce the discharges of storm water pollutants into the MS4 and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards as defined in Part V.A, Receiving Water Limitations.

ii. Each Permittee shall screen existing areas of development to identify candidate areas for retrofitting using watershed models or other screening level tools.

iii. Each Permittee shall evaluate and rank the areas of existing development identified in the screening to prioritize retrofitting candidates. Criteria for evaluation may include, but are not limited to:

1. Feasibility, including general private and public land availability;
2. Cost effectiveness;
3. Pollutant removal effectiveness;
4. Tributary area potentially treated;
5. Maintenance requirements;
6. Landowner cooperation;
7. Neighborhood acceptance;
8. Aesthetic qualities;
9. Efficacy at addressing concern; and
10. Potential improvements to public health and safety.

iv. Each Permittee shall consider the results of the evaluation in the following programs:

1. The Permittee's storm water management program: Highly feasible projects expected to benefit water quality should be given a high priority to implement source control and treatment control BMPs in a Permittee's SWMP.

2. Off-site mitigation for New Development and Redevelopment: Each Permittee shall consider high priority retrofit projects as candidates for off-site mitigation projects per Part VI.D.7.c.iii.(4).(d).

3. Where feasible, and at the discretion of the Permittee, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs per Part VI.D.9.e.ii.(2) below.

v. Each Permittee shall cooperate with private landowners to encourage site specific retrofitting projects. Each Permittee shall consider the following practices in cooperating with private landowners to retrofit existing development:

1. Demonstration retrofit projects;
2. Retrofits on public land and easements that treat runoff from private developments;
3. Education and outreach;
4. Subsidies for retrofit projects;
5. Requiring retrofit projects as enforcement, mitigation or ordinance compliance;
6. Public and private partnerships;
7. Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

5.4. Challenges to Compliance with Retrofitting Opportunities

Complying with retrofitting opportunities poses serious compliance challenges that include, but are not limited to: (1) how to develop an inventory of candidates for retrofitting that are to be identified within the right-of-way or in coordination with TMDL plans; (2) understanding what a “highly feasible retrofit new development and redevelop project" is; (3) understanding the definition of “retrofit;” (4) what criteria is supposed to be used to determine candidates for retrofit projects; and (5) what if the City cannot afford to participate in regional multi-benefit projects? Further, language contained in this provision suggests that participation is discretionary. For example, Permittees are only required to cooperate with landowners to encourage them to retrofit projects. Another challenge is legal authority. Do permittees have the legal authority to compel an existing development to do stormwater control retrofit?

Nevertheless, the City shall explore the possibility of retrofitting new and redevelopment projects based on: (1) whether the property is located in a drainage area subject to a TMDL (other than trash) that is not being met; (2) whether these properties already have infiltration controls prescribed through the SUSMP program; (3) whether the properties are located upstream of spreading grounds or other off-site infiltration controls (e.g., debris basins, infiltration/detention basins) which operate as existing sub-regional structural treatment controls; (4) if computer modeling can accurately predict that retrofitting is capable of meeting TMDL waste load allocations, (5) how many properties, based area considerations, require inclusion and over what period of time; (6) whether the City can legally require retrofitting outside of the LID/SUSMP program; and (7) whether the retrofit can be economically acceptable to the property owner (e.g., installing bio-swales).

The City will begin evaluating candidate retrofit developments once computer modeling has been completed and outfall monitoring for TMDLs and other water quality standards have been performed over the term of the permit. If outfall monitoring results in persistent exceedances for a TMDL, the City shall propose an amendment to its SWMP/WMP through the Report of Waste Discharge (ROWD).

5.5. General Industrial Activity Stormwater Permit Applicability

The PAAP calls for Permittees to obtain General Industrial Activity Stormwater Permit (GIASWP) for subject facilities. Typically, municipal Permittees are subject to GIASWP requirements if they, for example, operate a transit facility, transfer station, or landfill. The City, however, does not operate any of these or other subject industrial facilities.

5.6. Flood Control Management Projects

The PAAP requires each Permittee to assess impacts of flood management projects on receiving water quality and evaluate existing structural flood control facilities to determine if retrofitting is feasible. The City does not operate flood control management projects. This requirement appears to apply only to the Los Angeles County Flood Control District (LACFCD).

5.7. Implementation and Maintenance of BMPs

The PAAP requires a continuation of BMPs affecting various municipal maintenance operations including: vehicle and equipment washing; landscape, park, and recreational facilities maintenance; streets, roads, and parking facilities maintenance; emergency procedures; municipal employee and contractor training; and ICID (already covered under the ICID program submittal).

- *Vehicle and Equipment Washing*

The City has been implementing vehicle and equipment washing BMPs since the adoption of the 2001 MS4 Permit through the Stormwater Management Pollution Prevention Program (SWPPP) plan. The BMPs contained in the SWPPP are in keeping with the BMPs contained in Table 18 referenced in the PAAP section of the Permit and are more extensively described in the Los Angeles County Model Program for Public Agency Program (see **Appendix A-2**).

The BMPs were more specifically developed based on the model program developed by the County of Los Angeles pursuant to the 2001 MS4 permit.

The current Permit, however, does not require a SWPPP for municipal operations. Nevertheless, the City intends to update the SWPPP to reflect applicable BMPs.

With regard to vehicle and equipment washing, the City will continue to comply with the general requirements specified in the previous MS4 permit, which calls for equipping that area where vehicle washing and maintenance is performed with either a clarifier (also known as an oil/water separator) connected to the sanitary sewer. Any City facility improvement that is subject to the development planning program where vehicle or equipment washing is performed shall be required to install a clarifier. The clarifier shall also comply with an Industrial Waste Permit. The SWPPP also prohibits the use of water for any purpose that results in the discharge of pollutants to the MS4. Leaks and spills are to be cleaned using damp or dry cleaning techniques. The SWPPP shall be updated no later than June 28, 2015. Training impacted City personnel will be based on the SWPPP.

- *Landscape, Park, and Recreational Facilities Management*

This program component is applicable to all Permittees that own and operate recreational facilities. Maintenance practices at parks and recreation facilities generally include fertilizer and pesticide applications, vegetation maintenance and disposal, swimming pool chemical maintenance and draining, and trash and debris management. All of these maintenance practices have the potential to contribute pollutants to the storm drain system. If improperly managed, potential pollutants can be transported in runoff to the storm drain system and subsequently discharged to receiving waters. The purpose of the program for landscape and recreational facilities management is to make storm water quality a concern when conducting operation and maintenance activities. These potential pollutant generating

activities have been governed by BMPs specified in the City's municipal operations SWPPP, which shall be updated no later than June 28, 2015. The BMPs are based on the Los Angeles County's Model Program for *Landscape and Recreational Facilities Management* (see **Appendix A-3**).

- *Catch Basin Cleaning*

The current Permit carries over catch basin cleaning requirements contained in the 2001 MS4 Permit. All City and County catch basins are GIS mapped (see **Appendix B-1**). All City and County catch basins have been designated as Priority B catch basins, which consistently generate moderate volumes of trash and/or debris. The Permit requires such catch basins to be cleaned-out once prior to the onset of the wet season (commencing October 1) and once again during the wet season. The City contracts with the County of Los Angeles Department of Public Works to provide this service. The need to clean-out catch basins more frequently is diminished by the catch basin debris screens that have been installed in many of the City's catch basins (see **Appendix B-2**).

- *Catch Basin Stenciling*

City and County owned catch basins are stenciled with "no dumping" messaging. Before the end of the dry season (September 30), the County of Los Angeles Department of Public Works is responsible for evaluating the legibility of existing stenciling. Faded stenciling is scheduled for re-stenciling, but only during the dry season.

The City has no open channels, creeks, or urban lakes that would require no dumping signage. However, Machado Lake, which is operated by the County of Los Angeles, has such signage posted in areas of public access.

- *Trash Management*

The City occasionally puts on public events, none of which takes place in areas where trash can be disposed into the MS4. Further, many of the City's catch basins are with equipped with debris exclusion screens. Typically, community events are held the City's parks, where there are a sufficient number of trash receptacles deployed. After an event, City's recreational staff routinely picks-up any debris lying on the surface.

- *Retrofitting Catch Basins with Debris Excluders*

The Permit requires the installation of debris controls in areas that are not subject to a trash TMDL no later than four years after the effective date of the Permit (December 28, 2017). The City is not subject to this requirement because it is subject to a trash TMDL and is required to install screens in all of its catch basins by 2016.

- *Storm Drain Maintenance*

The scope of the storm drain maintenance program includes the following tasks: (1) annual visual monitoring of Permittee-owned open channels and other drainage facilities for trash and debris; (2) removal of trash and debris from open channels at a minimum of once a year prior to the wet season; (3) elimination of the discharge of contaminants during MS4 maintenance and clean-outs; and (4) proper disposal of debris and trash removal during catch basin and storm drain clean-outs. Tasks 1 and 2 are not applicable to the City. The City has no open channels, and as a mentioned, catch basins are routinely cleaned-out twice a year -- once prior to the on-set of the wet season and once during the wet season. Task 3 is unclear but appears to be related to task 4. The County is responsible for the proper

removal of trash, which means in a manner that does not cause trash to re-enter the MS4. Storm drain maintenance BMPs are referenced in **Appendix A-4**).

- *Sewer System Management*

The Permit requires the implementation of a program to control and prevent sewer releases to the MS4 to the following extent:

1. Each Permittee shall implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4.

2. Each Permittee that operates both a municipal sanitary sewer system and a MS4 must implement controls and measures to prevent and eliminate infiltration of seepage from the sanitary sewers to the MS4s that must include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both. Implementation of a Sewer System Management Plan in accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems may be used to fulfill this requirement.

3. Each Permittee shall implement controls to limit infiltration of seepage from sanitary sewers to the MS4 where necessary. Such controls must include:

    - Adequate plan checking for construction and new development;
    - Incident response training for its municipal employees that identify sanitary sewer spills;
    - Code enforcement inspections;
    - MS4 maintenance and inspections;
    - Interagency coordination with sewer agencies; and
    - Proper education of its municipal staff and contractors conducting field operations on the MS4 or its municipal sanitary sewer (if applicable).

Tasks 1 and 2 are complied with through the City's Sewer System Management Program, pursuant to State Water Resources Control Board Order 2006-0003, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*. Task 3 is fairly easy to comply with. New developments and redevelopment projects are plan checked for conformance with **Uniform Plumbing Code** requirements pertaining to the sewer. As mentioned in the ICID program section, a ***Spill Control Plan*** for sewage releases has been developed, based on the ***Sewer Systems Operation*** component of the Los Angeles County Model Program developed in 2002 (see **Appendix A-1)**. Illicit connections such as cross-connections from the sewer system to the storm drain are performed when there is reason to believe that sewage is being discharged to the MS4. The City also notifies the County of Los Angeles Flood Control District in the event of sewage releases to the MS4 that can enter a flood control channel or other receiving water.

- *Permittee Owned Treatment Control BMPs*

The Permit requires the City to implement an inspection and maintenance program for its treatment control BMPs. The only treatment controls the City is responsible for at this time are catch basin debris excluders. The City inspects the excluders once a year prior to the onset of the wet season and once during the wet season. The inspection routine consists of looking for debris trapped on screens and checking the retracting mechanisms for obstructions that could prevent them from opening and closing. The debris is removed and properly disposed of in the same manner as debris removed from catch basins during clean-outs.

5.8. Streets, Roads, and Parking Facilities Maintenance

- *Street Sweeping Frequency*

As was the case with the previous MS4 Permit, the current Permit requires street sweeping frequency based on a priority scheme ranging from A through C according to the table below.

Table I – Prioritized Street Sweeping

Priority	Trash Generation	Required Street Sweeping Frequency
A	High Volume	Twice a month
B	Moderate	Once a month
C	Low	Once a year

The City exceeds the requirement for Priority A street segments because it sweeps all of its streets at least once a week.

- *Road Work*

Street and road construction work are pollutant generating activities that have the potential to be flushed by runoff or deposited into the MS4. This includes such projects as roadbed, street paving, repaving, patching, dig-outs, or resurfacing roadbed surfaces. These activities generate pollutants that have the potential to enter the MS4 -- activities such as grinding, which generates asphaltic particulates; paving, which involves the use of asphaltic or concrete material; and stripping, which involves the use of paint and other chemicals – all of which can enter the MS4 during a storm event or can be discharged to it by wind or vehicular activity. The primary BMP is catch basin inlet protection (see development construction BMPs).

To control pollutants associated with these activities, the MS4 Permit requires each Permittee to implement the following BMPs to the extent applicable:

- Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall unless required by emergency conditions.

- Install sand bags or gravel bags and filter fabric at all susceptible storm drain inlets and at manholes to prevent spills of paving products and tack coat;

- Prevent the discharge of release agents including soybean oil, other oils, or diesel into the MS4 or receiving waters.

- Prevent non-storm water runoff from water use for the roller and for evaporative cooling of the asphalt.

- Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.

- Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled or disposed of properly.

- Collect solid waste by vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled or disposed of properly.

- Cover the “cold-mix” asphalt (i.e., pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm.

- Cover loads with tarp before haul-off to a storage site, and do not overload trucks.

- Minimize airborne dust by using water spray during grinding.

- Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near MS4 or receiving waters.

- Protect stockpiles with a cover or sediment barriers during a rain.

Appendix A-5, *Streets and Road Maintenance* provides additional BMP-related information. **Section Three, Development Construction Program**

also contains similar BMPs for roadway work applicable to private and public construction projects.

- *Parking Facilities Maintenance*

The MS4 Permit carries-over from the previous Permit the requirement for municipally owned and operated parking facilities, which has remained the same:

> *Permittee-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned no less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a Permittee-owned parking lot be cleaned less than once a month.*

Typically, this requirement has been met by deploying street sweepers to subject parking lots and structures at least once a month (see **Appendix A-6**, *Parking Facilities Management*).

- *Emergency Procedures*

The MS4 Permit provides for a waiver in the event of an emergency. The Permit does not, however, explain what constitutes an emergency, nor does it explain what the waiver exactly does – specifically what MS4 Permit requirement is waived during the undefined emergency? More information is needed in order to understand how and why the City needs to comply with this provision. **Appendix A-7** contains Emergency Procedures related compliance information.

- *Municipal Employee and Contractor Training, Pesticide Management*

The MS4 permit calls for Permittees, no later than 1 year after the Permit's adoption and annually thereafter before June 30th, to train all

employees and contractors who use or have the potential to use pesticides or fertilizers (whether or not they normally apply these as part of their work). Training is to include: (1) potential for pesticide-related surface water toxicity; (2) proper use, handling, and disposal of pesticides; (3) least toxic methods of pest prevention and control, including integrated pest management; and (4) reduction of pesticide use.

The City has been complying with this training requirement for impacted employees since 2002. Annual Public Agency training is provided to City parks and recreation personnel, as well as to personnel engaged in storm drain, sewer, and vehicle/equipment operations and maintenance. Individuals responsible for applying pesticides, herbicides, fungicides, and other products necessary to landscape maintenance are required to receive training in their proper use and disposal. They are also prohibited from using such products before impending storm events. Beyond this, impacted personnel are made aware that certain chemical products (e.g., DDT and Diazinon) are federally banned and any remaining inventory must be disposed of immediately.

Most important, impacted personnel are informed that although chemical products are necessary to landscape maintenance, they are toxic pollutants that are harmful to receiving water quality. Even fertilizer poses a threat to water quality. Nutrients contained in chemical and organic fertilizer can have an adverse impact on aquatic life by promoting eutrophication -- a process that causes the growth of vegetative blooms in an aquatic system such as lake, river, or ocean. The result is hypoxia, which depletes oxygen in water and, as a consequence can kill fish and other aquatic life by oxygen starvation.

The Permit also requires individuals who are contracted to apply chemical products to abide by use, storage, storage cautions that are

specified on the product and Material Safety Data Sheets (MSDS). Some products, such as Roundup™, require certification for municipal and contractor applicators. The City does not employ outside contractors for landscape services.

5.9 Illicit Discharge Source Investigation and Elimination

The ICID is already addressed and in **ICID Program Section IV** and in **Development Construction Program Section III**, which addresses roadway construction and other activities that have the potential to cause illicit discharges or create illicit connections.

5.10 Implementation Schedule (Milestones)

Table V below provides compliance milestones for tasks associated with the PAAP.

Table V – Implementation Schedule (Milestones)

Task	Due Date
• PAAP Submittal	June 28, 2014
• PAPP Implementation	Currently being implemented as a carry-over requirement from the previous MS4 Permit
• Training	Prior to June 20, 2015
• Public Agency Inventory	September 28, 2015
• Preparation of an ICID Standard Operating Procedures	Prior to June 20, 2015
• Municipal Stormwater Pollution Prevention Plan (SWPPP) Update	Prior to June 20, 2015

Appendix A

Public Agency BMPs from 2002 Los Angeles County Public Agency Program

Appendix A-1

Section One:
Sewer System Operations

Appendix A-2

Section Three:
Vehicle Maintenance, Material Storage, and Facilities Management

Appendix A-3

Section Four:
Landscape and Recreational Facilities Management

Appendix A-4

Section Five:
Storm Drain Operation & Management

Appendix A-5

Section Six:
Streets and Roads Maintenance

Appendix A-6

Section Seven:
Parking Facilities Management

Appendix A-7

Section Nine:
Emergency Procedures

Appendix B

Catch Basin Maps

Appendix B-1

Catch Basin Location Map

Appendix B-2

Catch Basin Debris Screens Location Map

(to be added later)

Section Six: Industrial and Commercial Facilities Program

Section Six Industrial and Commercial Facilities Program

6.0 Summary

The MS4 Permit continues the Industrial and Commercial Facilities Program (ICFP) that was initiated under the 2001 MS4 Permit. Essentially, the ICFP requires inspections for certain categories of industrial and commercial facilities. The industrial facilities have been identified by stormwater regulations and are referred to as Phase I facilities. These facilities require coverage under a *General Industrial Activity Stormwater Permit* (GIASWP) issued by the State Water Resources Control Board. The purpose of this type of inspection visits for these facilities is twofold: (1) to determine if they are implementing appropriate BMPs in accordance with the City's stormwater ordinance and; (2) to inform industrial facility operators that are not covered under a GIASWP that they are required by the Clean Water Act and by the City's stormwater ordinance to obtain one. The commercial facilities that require inspections twice during the 5-year term of the Permit include: retail gasoline outlets (RGOs); automotive repair shops; restaurants (stand alone); and nurseries. The purpose of the commercial inspection visits is also twofold: (1) to evaluate compliance with BMPs specified in the City's stormwater ordinance; and (2) to verify compliance with SUSMP post-construction runoff control requirements.

The objective of the ICFP is to require subject facilities to comply with tasks that are expected to result in: (1) the detection and elimination of illicit discharges and connections to the MS4; (2) the reduction of pollutants in stormwater discharges from the subject facilities to the MS4 to the maximum extent practicable (MEP); and (3) the prevention of

discharges from the facilities that cause or contribute to a violation of receiving water limitations.[1] The requisite tasks include: (1) identifying and tracking subject facilities using GIS and a data base; (2) inspecting them periodically (twice during the term of the Permit); and (3) educating facility personnel to be aware that pollutants generated from their businesses can degrade water quality, and how they can be managed to protect receiving water quality through the implementation of BMPs.

6.1 Identifying and Tracking Facilities

The City will use the same methods for identifying and tracking subject commerical and industrial facilities as it had under the previous permit. Identifying subject facilities was accomplished by extracting them from the City's business license data base using standard industrial classification (SIC) codes or the North American Industrial Classification System (NAICS) that type each subject facility. Tables I and II below identify these facilities by SIC.

Table I – Subject Industrial Facilities

Facility Categories	Standard Industrial Classification Code
Sub-chapter "N" Facilities	0211 (feedlots); 4911 (steam electric generation); 2873, 2874, and 2875 (fertilizer manufacturing); 3241 (cement manufacturing); 2911 (petroleum refineries); 2810-2819 (phosphate manufacturing); 1220-1221 (coal mining); 1474, 1479, and 4181 (mineral mining and processing); 1011, 1031, 1044, 1061, 1094, 1099, 1459, and 1479 (ore mining and dressing)

[1]The City cannot meet this requirement because it has no ability to control discharges from either industrial or commercial facilities to prevent receiving water limitation violations. To do so would require monitoring of each and every subject commercial and industrial facility at the point of discharge to the MS4. The MS4 permit does not confer such authority on Permittees for this purpose. In the case of industrial facilities, the GIASWP controls and allows such facilities to exceed receiving water limitations, provided that they comply by GIASWP requirements, which includes the implementation of a Stormwater Pollution Prevention Plan (SWPPP) and a Monitoring Program Plan (MRP). The City is preempted from requiring GIASWP covered facilities to comply with TMDLs or other water quality standards.

Manufacturing Facilities	2400 - 2499 (*except 2434*); 2600 (*except 2650-2699 and 2670-2679*); 2800 (*except 2830-2839 and 2850-2859*); 2900-2999; 3110 - 3119; 3200-3299 (*except 3230-3239*; 3300-3399; 3441; and 3730-3739
Oil and Gas/Mining Facilities	1000-1400
Landfills	4953
Hazardous Waste Treatment, Storage or Disposal Facilities	4953
Recycling Facilities	5015 and 5093
Transportation Facilities	4000 - 4099; 4100 - 4199; 4200 - 4299; 4300 - 4399, 4400 - 4499; 4500 - 4599; and 5171
Sewage or Wastewater Treatment Works	4952
Other Manufacturing Facilities (where industrial materials, equipment or activities are exposed to storm water)	2000 - 2099; 2100 - 2199, 2200 - 2299; 2300 - 2399; 2434; 2500-2599; 2650- 2659; 2670-2679; 2700-2799; 2830- 2839; 2850-2859; 3000-3099; 3100-3199 (*except 3110 - 3119*); 3230-3239; 3400-3499 (*except 3441*); 3500-3599; 3600 - 3699; 3700 - 3799 (*except 3730 - 3739*); 3800-3899; 3900 - 3999; and 4221-4225

Table II – Commercial Facilities

Commercial Categories	Standard Industrial Classification Code
1. Automotive Service Facilities	5013, 5014, 5541, 5511, 7532-7534, or 7536-7539 and, conditionally, *5013, 5014, 5541, 5511* if there are outdoor activities materials that may be exposed to storm water (this requires an initial visit to make such a determination) 7542 (carwashes)
2. Restaurants	5812
3. Retail Gas Stations	5541 (included above, under automotive facilities as well)
4. Nurseries	519306

The data base from business licensing is “loaded” into an Excel spreadsheet that was developed by the State Water Resources Control Board several years ago. It contains data fields that can accommodate the following information that the MS4 permit requires:

1. Name of facility
2. Name of owner/ operator and contact information
3. Address of facility (physical and mailing)
4. North American Industry Classification System (NAICS) code
5. Standard Industrial Classification (SIC) code
6. A narrative description of the activities performed and/or principal products produced
7. Status of exposure of materials to storm water
8. Name of receiving water
9. Identification of whether the facility is tributary to a CWA § 303(d) listed water body segment or water body segment subject to a TMDL, where the facility generates pollutants for which the water body segment is impaired.
10. Ability to denote if the facility is known to maintain coverage under the State Water Board’s General NPDES Permit for the Discharge of Stormwater Associated with Industrial Activities or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.
11. Ability to denote if the facility has filed a No Exposure Certification with the State Water Board.

The spreadsheet is located in **Appendix A**.

Once the ICFP data base of the inventoried facilities has been completed, the City will update it annually using business licensing data base. New facilities subject to the ICFP will be identified during the PLDP/SUSMP review and added to the ICFP data base.

6.2 Identifying Phase I Industrial Facilities Requiring GIASWP Coverage

Identifying Phase I industrial facilities in the City requires comparing the business license data that contains subject facilities by SIC/NAICS codes against the State Board's GIASWP data base. An industrial facility that is not listed in the State Board's data base will be flagged on the ICFP data base to be used by inspection personnel. The owner/operator will be informed by City inspection personnel that the facility must be covered under a GIASWP. The owner/operator will be given 6 months to obtain coverage. The City shall also notify the Regional Board that the facility lacks coverage and has provided it with this time frame to come into compliance.

Facilities that are subject to the GIASWP, but do not have outdoor exposure to stormwater, will be informed of the No Exposure Certification (NOC) option (see **Appendix B**). A facility qualifies for the NOC if: (1) it can demonstrate that it does not use, store, or handle pollutant materials outdoors; and (2) it has obtained coverage under the GIASWP. The benefit of the NOC to an industrial facility is that it waves the sampling and analysis requirement, which is a Monitoring and Reporting Program (MRP) requirement of the GIASWP.

The GIASWP facilities are also subject to Regional Board inspections. To avoid duplicative efforts, the MS4 Permit allows Permittees to exclude facilities from inspections if they already have been or will be inspected by the Regional Board. This will be determined by examining the State Board's GIASWP data base. The City's ICFP data base will reflect this information.

6.3 Identifying Commercial Facilities

The City's business license data base will also be used to cull-out subject commercial facilities to create the inspection data base.

6.4 Educating, Inspecting, and Ensuring Compliance

City or contract personnel will perform the following tasks as part of their inspection routine to comply with ICFP requirements:

- *Educate the owner/operator of the purpose of the site inspection visits.*

The owner/operator will be informed that the visits are necessary to determine if the business is complying with the City's stormwater ordinance and, if applicable, the State Board's GIASWP. Inspection personnel shall also explain that the ordinance and GIASWP are intended to require businesses to reduce pollutant discharges in stormwater from their facilities, which are potentially harmful to water quality. Written public education materials specific to industrial and commercial facilities shall also be distributed. The materials contain information about BMPs specific to their type of facility, along with an explanation of how the BMPs protect water quality (see **Appendix C-1**).

Table III - Check List for Phase I Industrial Facilities

1. **All prohibited non-storm water discharges have been eliminated or otherwise permitted?**	Yes ☐	No ☐
• Are materials or equipment cleaned outdoors?	Yes ☐	No ☐
• Are wash or rinse waters generated on-site?	Yes ☐	No ☐
• Are there any discharges (other than storm water) entering the storm drain system?	Yes ☐	No ☐
• Do any drains under roofed areas discharge to the storm drain system?	Yes ☐	No ☐
• Have there been any accidental spills into the storm drain system in the last year?	Yes ☐	No ☐

• Are any process waste-waters disposed of outdoors?	Yes ☐	No ☐
2. **All significant materials related to industrial activity (including waste materials) are not exposed to storm water or authorized non-storm water discharges**.	Yes ☐	No ☐
• Are there any materials stored outdoors?	Yes ☐	No ☐
• Are there any materials handled outdoors?	Yes ☐	No ☐
• Are there any outdoor loading docks?	Yes ☐	No ☐
• Are there any above ground liquid or non-liquid storage tanks outdoors?	Yes ☐	No ☐
• Are there any outdoor loading/unloading operations?	Yes ☐	No ☐
Are there any products or by-products manufactured or used outdoors?	Yes ☐	No ☐
• Are there any waste products manufactured or used outdoors?	Yes ☐	No ☐
• Are there any outdoor waste disposal areas?	Yes ☐	No ☐
• Is any process wastewater disposed of outdoors?	Yes ☐	No ☐
• Are there any drums, pallets, or containers outdoors?	Yes ☐	No ☐
• Are materials handled or stored on immediate access roads or railways?	Yes ☐	No ☐
• Are vehicles maintained or fueled outdoors?	Yes ☐	No ☐
• Are any materials stored or disposed of in outdoor ponds or impoundments?	Yes ☐	No ☐
• Are materials stored outdoors temporarily?	Yes ☐	No ☐
• Have there been any spills or leaks outdoors in the last year?	Yes ☐	No ☐
• Are there areas where materials remain exposed to storm water from past industrial activity?	Yes ☐	No ☐
• Does any manufacturing take place outdoors?	Yes ☐	No ☐

3. **All industrial activities and industrial equipment are not exposed to stormwater or unauthorized non-stormwater discharges**	Yes ☐	No ☐
• Are any material handling vehicles (such as forklifts) parked outdoors?	Yes ☐	No ☐
• Is permanent industrial equipment located outdoors?	Yes ☐	No ☐
• Is portable industrial equipment used outdoors?	Yes ☐	No ☐
• Do any material handling vehicles (such as forklifts and trucks) or outdoor industrial equipment come into contact with materials?	Yes ☐	No ☐
• Is there any un-housed rooftop equipment (such as air conditioners, scrubbers, etc.)?	Yes ☐	No ☐
4. **There is no exposure of storm water to significant materials associated with industrial activities through direct or indirect pathways such as from industrial activities that generate dust and particulates.**	Yes ☐	No ☐
• Are there any emissions of dust or particles from stacks or air exhaust systems?	Yes ☐	No ☐
• Are there any emissions of dust or particles from other outlets such as windows, loading docks, etc.?	Yes ☐	No ☐
• Have there been any spills or leaks associated with maintenance of stacks or air exhaust systems?	Yes ☐	No ☐

Table IV - Check List for Retail Gasoline Outlets and Automotive Repair Facilities

1. **All prohibited non-storm water discharges have been eliminated or otherwise permitted (addresses illicit discharges/connections)?**	Yes ☐	No ☐
• Are materials or equipment cleaned outdoors?	Yes ☐	No ☐
• Are any materials stored outdoors?	Yes ☐	No ☐

• Are wash or rinse waters generated on-site?	Yes ☐	No ☐
• Are there any discharges (other than storm water) entering the storm drain system?	Yes ☐	No ☐
• Do any drains under roofed areas discharge to the storm drain system?	Yes ☐	No ☐
• Have there been any accidental spills into the storm drain system in the last year?	Yes ☐	No ☐
• Are any process waste waters disposed of outdoors?	Yes ☐	No ☐
2. **Stormwater Pollution Prevention**		
• Does facility dispense fuel?	Yes ☐	No ☐
• If fueling is provided, is the fueling area covered with a canopy		
• Is there evidence of staining on fuel pumps and/or fueling pad?	Yes ☐	No ☐
• Are vehicle maintenance/repair activities conducted exclusively indoors?	Yes ☐	No ☐
• Is there a potential for stormwater contact with pollutant materials stored outdoors?	Yes ☐	No ☐
• Is there a clarifier connected to the sewer system?	Yes ☐	No ☐
• Is there a need for a clarifier (based on observations of oil, grease, and other pollutant materials lying on outdoor surfaces that can be exposed to stormwater and conveyed to the MS4)?	Yes ☐	No ☐
• Are trash bins stationed within an enclosed area and equipped with lids; and are trash receptacles covered with lids?	Yes ☐	No ☐
• Is there trash lying on the facility?	Yes ☐	No ☐

Table V - Check List for Restaurants

• Is cooking grease stored outdoors, and if so, is it properly stored?	Yes ☐	No ☐
• Are trash receptacles located on the property?	Yes ☐	No ☐
• Is there evidence of floor mats, utensils, etc., washed outdoors that have the potential to enter the MS4 through an on-site catch basin or sheet flow?	Yes ☐	No ☐
• Is trash lying on outdoor surface areas?	Yes ☐	No ☐
• Are trash bins located in an enclosed area and equipped with lids?	Yes ☐	No ☐
• Are the lids on the trash bins closed?	Yes ☐	No ☐
• Are trash receptacles equipped with lids and are they in closed positions.	Yes ☐	No ☐
• Is the restaurant equipped with a grease trap or interceptor?	Yes ☐	No ☐
• Is the parking area free of trash, oil, grease, and other leakage?	Yes ☐	No ☐
• Is there evidence of an illicit connection or discharge?	Yes ☐	No ☐

Table VI - Nurseries

• Is the nursery located adjacent to a flood control channel or a water body (receiving water)?	Yes ☐	No ☐
• Are materials containing pollutants (fertilizers, herbicides, pesticides, etc.) stored outdoors and exposure to stormwater contact (aerial and ground-traveling)?	Yes ☐	No ☐
• Is there any trash or debris lying on nursery grounds that can be transported to the MS4 and/or receiving water?	Yes ☐	No ☐
• Is there the potential for irrigation water to be discharged to the MS4 and/or receiving water?	Yes ☐	No ☐

• Is the receiving water 303(d) listed for impairments due to toxicity or nutrients?	Yes ☐	No ☐
• Are trash receptacles or bins located on site?	Yes ☐	No ☐
• Are trash receptacles or bins equipped with lids that are in a closed position?	Yes ☐	No ☐
• Is the parking area free of trash, oil, grease, and other leakage?	Yes ☐	No ☐

- *Inspections*

The City's inspection routine will be the same as it was under the previous MS4 Permit – twice for subject industrial and commercial facilities during the 5 year term of the Permit. The first round shall be initiated no later than December 28, 2015, two years after the effective date of the MS4 permit. Inspection personnel will use the checklists in the tables below to evaluate each categorical facility. A minimum period of six months is required before the second round of inspections may begin. The results of the inspections will be provided to the owner/operator once the inspection is completed. Issues found at the industrial facility will be communicated verbally and in writing through a copy of the inspection form. The inspector will also provide an information hand-out explaining the GIASWP program and its requirements. The hand-out also contains BMPs that are required of all businesses in the City that are mandated under the City's municipal code (see **Appendix C-1**). Owners and operators of RGOs and automotive-related repair facilities will also be informed of the results of the inspection. If deficiencies are noted, a copy of the inspection will be provided along with appropriate BMP hand-outs (see **Appendix C-2** for RGOs and auto-related businesses and **C-3** for Restaurants). A hand-out has not been developed for nurseries, but one will be

prepared for them prior to December 28, 2015. The inspector shall also notify the owner/operator if the facility drains to an Environmentally Sensitive Area (ESA) or to an area that is subject to valid TMDL. The purpose of this information is to further sensitize the owner/operator of the importance of stormwater management.

It should be noted that the BMPs contained in the hand-outs are in keeping with the source control BMPs contained in the MS4 Permit listed below in the table.

Table VII - Source Control BMPs at Commercial and Industrial Facilities

Pollutant-Generating Activity	BMP Narrative Description
• Unauthorized Non-Storm-water Discharges	Effective elimination of non-storm water discharges
• Accidental Spills/ Leaks	Implementation of effective spills and leaks prevention and response procedures
• Vehicle/ Equipment Fueling	Implementation of effective fueling source control devices and practices
• Vehicle/ Equipment Cleaning	Implementation of effective equipment/ vehicle cleaning practices and appropriate wash water management practices
• Vehicle/ Equipment Repair	Implementation of effective vehicle/ equipment repair practices and source
• Outdoor Liquid Storage	Implementation of effective outdoor liquid storage source controls and practices
• Outdoor Equipment Operations	Implementation of effective outdoor equipment source control devices and other practices
• Outdoor Storage of Raw Materials	Implementation of effective source control practices and structural devices
• Storage and Handling of Solid Waste	Implementation of effective solid waste storage/ handling practices and appropriate control measures
• Building and Grounds Maintenance	Implementation of effective facility maintenance practices

Pollutant-Generating	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	Remove trash, debris, and free standing oil/grease spills/leaks (use absorbent material, if necessary) from the area before washing; and 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)

At the conclusion of the first round of inspections, the City will decide whether it will be necessary to conduct a business outreach program to industrial and/or commercial facilities that would benefit from class-room style training on MS4 Permit requirements and BMPs. If necessary, the City could require mandatory training for those businesses that have been cited for non-compliance with the City's stormwater ordinance for failing to comply with BMP requirements.

- *Enforcement*

The City shall implement a progressive enforcement program vis-à-vis non-compliant facilities as it had under the previous MS4 Permit. Enforcement shall begin with a written notice of the deficiency – unless it is a serious issue such as an illicit discharge of hazardous of toxic pollutants to

the MS4, in which case the discharge must be halted immediately. And, depending on the severity of the discharge, the City could opt for citation issuance without progressive enforcement. Generally, the City will provide the non-compliant facility time to comply if, for example, the issue is improper outdoor storage of materials. If the facility fails to comply after being given reasonable notice, the City shall issue a misdemeanor citation through its code enforcement unit or Sheriff's Department. The City could also threatened revocation of the facility's business license. If illegal dumping is the issue which would necessitate cost-recovery to the City for clean-up costs, the City may need to resort to judicial action if a citation action fails. The City established legal authority for requiring compliance ICFP requirements in 2002.

6.5 Implementation Schedule (Milestones)

The table below provides a schedule for implementing the Illicit Connection and Discharge and Detection and Elimination Program.

Table VIII – Implementation Schedule (Milestones)

Task	Due Date
• ICFP Submittal	June 28, 2014
• ICFP Implementation	Data base to be developed by November of 2015 Inspections to begin by December of 2015

Appendix A

ICFP Data Base

Appendix B

No Exposure Certification

Appendix C-1

BMP Hand-out to GIASWP Facilities

Appendix C-2

BMP Hand-out to Restaurants

Appendix C-3

BMP Hand-out to RGOs and Auto-Repair Shops

Section Seven: Public Information and Participation Program

Section Seven Public Information and Participation Program

7.0 Summary

The Public Information and Participation Program (PIPP) is a carry over from the previous MS4 Permit. The requirements under the current MS4 Permit have changed only slightly. As was essentially the case under the previous MS4 Permit, the purpose of the PIPP is to:

1. *To measurably increase the knowledge of target audiences about the MS4 permit, the adverse impacts of stormwater pollution on receiving waters, and potential solutions to mitigate impacts.*

2. *To measurably change the waste disposal and stormwater pollution generation behavior of target audiences by developing and encouraging the implementation of appropriate alternatives.*

3. *To invoice and engage a diversity of socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of storm water pollution.*

These objectives are to be accomplished through the implementation of one or more of the following approaches: (1) participating in a County-wide PIPP; (2) participating in one or more Watershed Group sponsored PIPPs; and/or (3) individual participation within its jurisdiction. The Permit requires Permittees to designate a PIPP coordinator, along with contact information. In the event that the City staff person or consultant assigned to this role changes, the Permit requires contact information for the new PIPP coordinator to be made available 30 days after the change occurs.

The City intends to participate in a County-wide PIPP and implement its own PIPP. The County's PIPP is under development and is likely to produce new outreach materials including pamphlets, brochures, and media releases that will address watershed/sub-

watershed TMDLs. While the County is developing its revised PIPP, the City will continue to implement its program which is based on the County's model PIPP that was developed in 2002 (see **Appendix A**).

7.1 Public Participation

This program task must be implemented regardless of which of the aforementioned approaches a Permittee chooses. It is also a task specified in the previous MS4 permit and PIPP program. Public Participation focuses on public reporting of the following: (1) clogged catch basins or catch basins that are overflowing with trash; (2) faded or missing *no dumping messaging* on catch basins; (3) illicit discharges and illicit connections; and (4) general stormwater and non-stormwater pollution prevention information. To this end, the Permit allows individual Permittees to use the **1-888-CLEANLA** hotline as a general public reporting contact number.

The City has and will continue to use both the **1-888-CLEANLA** number and its own reporting number **(310) 605-5505)**. These numbers are listed on all outreach materials and will be on the City's web site. The Permit also requires this information to be included under the government section of the telephone directory. This requirement has been in effect since the previous MS4 Permit was adopted in 2002. Since then, information technology has expanded making telephone directories obsolete. The City would prefer to rely on reporting information contained on its public education materials.

The City's **Stormwater Water Program Manager**, who operates under the City's Public Works Department, is responsible for handling and responding illicit discharge/connection concerns and responding to questions regarding runoff pollution prevention from the public. The

names of staff that will be responsible for responding to public reports will be posted on the City's website (http://www.comptoncity.org). The City Code Enforcement is also charged with the responsibility of responding to illicit discharges and connections reported by the public or detected during its routine code enforcement duties.

The current MS4 Permit also requires Permittees to participate in community events to promote pollution prevention awareness. Such events include but are not limited to educating residents and residential sub-groups (viz., culturally diverse communities) on stormwater pollution prevention. The City has been sponsoring various community events since the adoption of the 2001 MS4 Permit. For example, the City, in partnership with Heal the Bay and the Friends of the Los Angeles River sponsor an annual Compton Creek Clean-Up Day. The event focuses attention on the environmental importance of Compton Creek and how it is impaired by trash and pollutants. The Compton Community, which is multi-ethnic, has consistently volunteered to participate in this major event.

7.2 Residential Outreach Program

The MS4 Permit requires the following to be incorporated into its residential outreach program:

1. Stormwater pollution prevention public service announcements and advertising campaigns.

2. Public education materials in English and Spanish that include information on the proper handling (i.e., disposal, storage and/or use) of:

    i. Vehicle waste fluids

ii. Household waste materials (i.e., trash and household hazardous waste, including personal care products and pharmaceuticals)

iii. Construction waste materials

iv. Pesticides and fertilizers (including integrated pest management practices [IPM] to promote reduced use of pesticides)

v. Green waste (including lawn clippings and leaves)

vi. Animal wastes

The City has already developed outreach materials that address the foregoing pollution issues. The MS4 permit also calls for distributing information materials to commercial businesses below:

i. Automotive parts stores

ii. Home improvement centers, lumber yards, hardware stores/paint stores

iii. Landscaping and gardening centers

iv. Pet shops and feed stores

The City has already developed runoff pollution prevention information and BMPs for automotive parts stores as part of its Industrial and Commercial Facilities Program (ICFP). It has not yet developed similar outreach materials for home improvement centers; lumber yards; hardware stores; paint stores; landscaping and gardening centers; pet shops; and feed stores. It should be noted that with the exception of auto parts stores, none of these businesses is subject ICFP inspections. Nevertheless, the City anticipates working cooperatively with the County Watershed Management Division to develop these materials in the future.

7.3 Runoff Pollution Prevention Web-site

The City's web-site is already used to promote runoff pollution prevention awareness. The City intends to augment its use for this purpose by making the following enhancements to it:

- Provide a listing of all public education outreach materials that are currently in hard-copy form This includes BMP pamphlets for residents that are contained in **Appendix C** herein and hand-outs for industrial and commercial facilities contained in the **ICFP** and (see **Appendices C1, C-2, and C-3**). New materials developed in conjunction with other Permittees and the County of Los Angeles Watershed Management Division will also be posted as they become available.

- Provide a specific section devoted to the ICID Program and the need for the Carson public to report dumping and illicit discharges to the MS4. An ICID reporting form will also be uploaded onto the ICID Program section to enable on-line reporting.

- Provide TMDL information to promote public awareness of pollution issues for Dominguez Channel, Machado Lake, and the Los Angeles River.

- Provide Planning and Land Development (PLDP) and SUSMP related information for developers and contractors. This includes guidelines, evaluation forms, LID references (including *the County's LID Standards Manual and USEPA's Green Street Handbook*).

- Provide outreach materials for public and private schools in the City.

- Announce clean-up days for the Dominguez Channel and other events that promote runoff pollution prevention awareness.

- List the County-wide reporting hotline number **(1-888-CLEANLA)** and the City's reporting number.

- Enhance the City's GIS program to enable access to maps of its storm drain system, catch basins, catch basins equipped with debris screens, outfall and in-stream monitoring locations, illicit discharges

and connections locations, new development and redevelopments where LID and other controls have been and will be required.

7.4 Outreach to Educational Facilities

The MS4 Permit continues to require outreach to public and private schools. Under the previous MS4 Permit, Permittees met this requirement by joining with the County, which had developed the *Environmental Defenders Program* for schools. The City plans to joint venture with the County and other cities to develop a similar program for schools within its jurisdiction. It is expected that the County will have a plan to implement this program some time before June of 2015. The City expects that the County's program will include "Erase the Waste" educational program and the California Environmental Education Interagency Network (CEEIN) to implement this requirement.

7.5 Outreach to the City's Culturally Diverse Community

The MS4 Permit require the use of "effective strategies to and involve ethnic communities in storm water pollution prevention through culturally effective methods." It should be noted that the Carson Community is very culturally diverse as illustrated below.

Table I – Ethnic Breakdown

Ethnic Group	Percentage of Population
• African American	32.1%
• Asian	0.2%
• Hispanic	65 %
• Native Hawaiian & Other Pacific Islander	2.5%
• White	0.8%
• Other	0.1%

The City sees no need to resort to cultural effective methods to these groups, which are English-speaking and are either American or are legal immigrants. However, some residents who are Hispanic have limited English speaking skills and, therefore, require outreach materials to be in Spanish. The City has addressed the needs of the Hispanic Community by providing outreach materials in Spanish and will continue to do so as more outreach materials are developed.

7.6 Implementation Schedule (Milestones)

The table below provides a schedule for implementing the PIPP.

Table V – Implementation Schedule (Milestones)

Task	Due Date
• PIPP Submittal	June 28, 2014
• PIPP Implementation	June 28, 2014
• Participation in Revised County-wide PIPP Program	Prior to June 28, 2015

Appendix A

County of Los Angeles
Department of Public Works
Storm Water/Urban Runoff
Public Education Model Program

Appendix B

Residential Outreach Materials