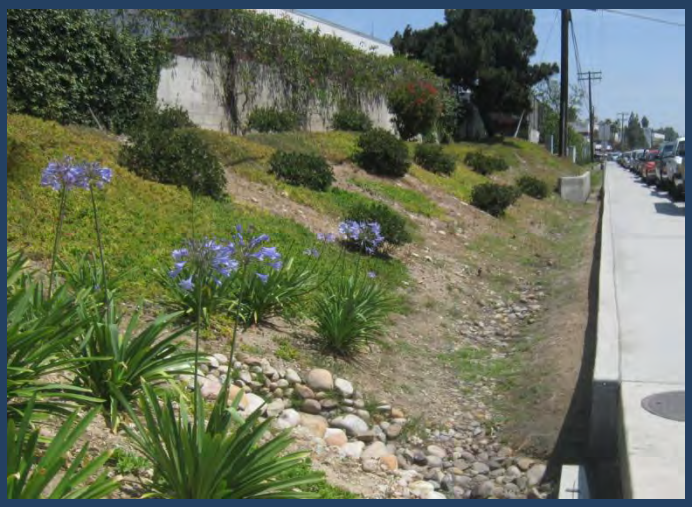
CITY OF LEMON GROVE

Jurisdictional Runoff Management Program

May 2019



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B. Stormwater Best Management Practices Manual

C. Summary of City of Lemon Grove Water Quality Improvement Plan Strategies

D. Municipal Inventory

E. Retrofit and Rehabilitation Projects

F. Program Implementation Tools

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
303(d) list	Clean Water Act Section 303(d) List of Water Quality Limited Segments
APN	Assessor's Parcel Number
ASBS	Areas of Special Biological Significance
BMP	Best Management Practice
CASQA	California Stormwater Quality Association
CFR	Code of Federal Regulations
CGP	SWRCB Order No. 2009-0009-DWQ, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ
CIA	Common Interest Area
CIP	Capital Improvement Project
City	City of Lemon Grove
Copermittees	18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District
CWA	Federal Water Pollution Control Act (also known as the Clean Water Act, or CWA)
DEH	County of San Diego Department of Environmental Health
ESA	Environmentally sensitive area
GIS	Geographic Information System
HA	Hydrologic area
HHW	Household Hazardous Waste
HOA	Home Owners Association
HMP	Hydromodification Plan
HPWQC	Highest Priority Water Quality Condition
HSA	Hydrologic subarea
HU	Hydrologic unit
HVAC	Heating, ventilating, and air conditioning
IC/ID	Illegal connection and illegal discharge

IDDE	Illegal Discharge Detection and Elimination
IGP	NPDES Industrial General Permit, Order No. 2014-0057-DWQ
IPM	Integrated Pest Management
JRMP	Jurisdictional Runoff Management Program
JURMP	Jurisdictional Urban Runoff Management Program
LGMC or Municipal Code	Lemon Grove Municipal Code
LID	Low Impact Development
MEP	Maximum extent practicable
MS4	Municipal separate storm sewer system
Municipal Permit	San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order no. R9-2015-0001
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
OES	State Office of Emergency Services
PUAC	Public Utilities Advisory Committee
RARE	Threatened
RMA	Residential Management Area
RWQCB	California Regional Water Quality Control Board, San Diego Region
SIC	Standard Industrial Classification
SSMP	Sewer System Management Plan
SSO	Sanitary sewer overflow
Stormwater Ordinance	Lemon Grove Stormwater Management and Discharge Control Ordinance (Chapter 8.48)
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Storm Water Quality Management Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TTWQ	Threat to water quality

USEPA	United States Environmental Protection Agency
WDID	Waste Discharge Identification
WMA	Watershed Management Area
WMAA	Watershed Management Area Analysis
WQIP	Water Quality Improvement Plan
WQTR	Water Quality Technical Report

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Executive Summary

The Jurisdictional Runoff Management Plan (JRMP) is the City of Lemon Grove's approach to improving water quality in local receiving water bodies through reducing discharges of pollutants to the municipal separate storm sewer system (MS4; hereafter, "storm drain system"). As the operator of a storm drain system, the City of Lemon Grove (City) is subject to a National Pollutant Discharge Elimination System (NPDES) Municipal Permit issued by the Regional Water Quality Control Board, San Diego Region (RWQCB). The permit requires the City to reduce pollutants in discharges from its storm drain system to receiving water bodies.

The City's storm drain system, like that of most other jurisdictions across the United States, conveys runoff from rain, irrigation runoff, natural groundwater seepage, and other sources of water to receiving water bodies without first being directed to a treatment plant. To reduce pollutants in these storm drain system discharges to receiving water bodies, the City implements or requires its residents and land owners to implement a variety of measures, commonly referred to as best management practices (BMPs). Some examples of BMPs include covering potential pollutant sources to prevent contact with rain, erosion control at construction sites, adjusting sprinklers to eliminate irrigation runoff, and sweeping streets and parking lots.

The most recent permit, RWQCB Order No. R9-2013-0001, as amended by R9-2015-0001 (Municipal Permit), requires the City of Lemon Grove and the other 20 municipal agencies in San Diego County to prepare both jurisdictional and watershed scale plans that detail how they will comply with the new requirements. Each agency, including the City, prepares its own JRMP. The JRMP presented herein is an update to the City's 2008 Jurisdictional Urban Runoff Management Plan (JURMP), which was prepared in response to the 2007 Municipal Permit. The watershed plans, known as Water Quality Improvement Plans (WQIP), are collaboratively prepared by the municipal agencies and each focus on a particular watershed. The Stormwater Division of the Development Services Department has led the City's efforts to update this JRMP and prepare one WQIP.

Permit-Required Plans:

- Jurisdictional Runoff Management Plan (1)
- Water Quality Improvement Plans (1)

Water Quality Improvement Plan (WQIP)

The City of Lemon Grove is located within the San Diego Bay Watershed Management Area (WMA). The City has collaboratively developed this WQIP along with the cities of Chula Vista,

Coronado, Imperial Beach, La Mesa, National City, and San Diego; the County of San Diego, the San Diego Unified Port District; the San Diego Regional Airport Authority; and Caltrans.

The WQIP identifies specific water quality priorities, establish numeric water quality goals and objectives, the schedules by which they will be achieved, and the implementation strategies to achieve them. The San Diego Bay WMA is comprised of multiple distinct sub-watersheds, and the goals, schedules, and strategies have been formulated in light of the specific characteristics of individual sub-watersheds.

The majority of the City of Lemon Grove is located within the Chollas Creek, which is subject to Total Maximum Daily Load (TMDL) regulations for bacteria, heavy metals (copper, lead, and zinc), and the pesticide diazinon. These pollutants have also been identified as the highest priority water quality conditions for the Chollas Creek sub-watershed. The WQIP incorporates numeric goals, timelines by which they are expected to be achieved, and strategies to meet the goals based on the requirements of the TMDLs. Because diazinon has been banned by the United States Environmental Protection Agency (USEPA) since 2004, the strategies primarily target heavy metals and bacteria. The City's JRMP has been developed in light of the water quality priorities, goals, and strategies identified in the WQIP.

Jurisdictional Runoff Management Program (JRMP)

The JRMP document presents an integrated programmatic approach to reducing the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) standard, effectively prohibit non-stormwater discharges, meet applicable WQIP goals, and protect and improve the quality of receiving water bodies in the City of Lemon Grove. The JRMP describes operational programs and activities developed to meet the requirements of Municipal Permit, and it also serves as the implementation mechanism for WQIP strategies.

WQIP and JRMP Connection

The new Municipal Permit preserves some of the programmatic specificity of past permits, but it generally allows the City and other permitted jurisdictions more discretion in determining the details of how their day-to-day programs will be implemented. This approach is intended to allow the City and other regulated agencies more flexibility in directing efforts toward the issues identified as the highest priorities in the San Diego Bay WMA, as identified in the WQIP. Addressing these highest priorities, however, involves meeting numeric water quality targets. The targets are more stringent metrics than those established by previous stormwater permits, which mostly used programmatic achievements to determine compliance.

Functionally, the WQIP serves as an overarching strategic planning document, setting watershed-scale water quality priorities, goals, schedules, and strategies for the City and the

other responsible agencies in the WMA. The JRMP document describes the City's minimum program implementation standards in compliance with the Municipal Permit and integrates the strategies defined by the WQIP. WQIP strategy integration includes both modifying existing activities to target WQIP priorities more effectively and developing new activities.

More detail about JRMP strategies, including where they have been modified to address WQIP priorities and integrate WQIP strategies, is provided in the following section. The full list of strategies the City has committed to implement in the San Diego Bay WQIP, as well as where each is discussed in the JRMP, is included in JRMP Appendix C.

JRMP Components

The JRMP has been developed to comply with new Municipal Permit requirements, including incorporating additional program enhancements to address highest priority water quality conditions within the San Diego Bay WMA. The components of the City's updated JRMP are discussed below, including changes with respect to the 2008 JURMP.

Introduction

The introduction includes a discussion of the general regulatory background leading up to the creation of this JRMP and the general objectives of updating the JRMP. City setting information, land use statistics, a map of the City's storm drain system, and information about the City's watershed setting are also included in this section.

Program Organization and Legal Authority

This section described the City's legal authority to implement its stormwater program. It also identifies and describes the departments within the City that conduct and oversee runoff management activities.

Key changes made with respect to the 2008 JURMP are summarized below:

- Added detail about legal authority, as outlined by the Municipal Permit.
- Revised departmental roles and responsibilities to account for changes in departmental organization.
- Provided additional detail on roles and responsibilities of different departments and divisions.

Illicit Discharge Detection and Elimination (IDDE)

Newly updated prohibitions of various non-stormwater discharges, discharges of water that do not originate from rain, and the City's approach to controlling such discharges are included in this section. These discharges can increase pollutant loads in the water that flows to the City's storm drain system and eventually to receiving waters. The categories of non-stormwater discharges the RWQCB or City has determined to be significant sources of pollutants are

identified. Appropriate control measures the City has identified to reduce the discharge of pollutants from such non-stormwater discharges are also discussed.

This section describes the processes by which illicit connections and illicit discharges (IC/IDs) are detected by the City. This includes the receipt and recording of violation reports made by the general public and City personnel. The City's Dry Weather Major MS4 Outfall Discharge Monitoring Program is another mechanism through which IC/IDs may be discovered. The City's sanitary sewer overflow and other spill response and prevention methods are also described.

Key changes made with respect to the 2008 JURMP are summarized below:

- Combined the non-stormwater discharge section with IDDE section.
- Revised the discharge prohibitions and exceptions. Some non-stormwater discharges that were previously conditionally allowed are now prohibited or more strongly regulated by the Municipal Permit. Eliminating irrigation runoff is expected to be a major focus across the San Diego region over the remainder of the Municipal Permit term (2015 through 2018), and it will also help the City meet WQIP goals to reduce flow rates in the storm drain system when it is not raining.
- Updated discussion on dry weather monitoring procedures, including IC/ID prioritization and follow-up.
- Provided more detail on public complaint response procedures and spill response actions.
- Provided more detail on IC/ID investigation methods not associated with MS4 outfall monitoring.

Development Planning

The development of urban areas has the potential to negatively impact the surrounding environment. The addition of impervious surfaces can alter the natural drainage patterns of the area, and development can facilitate the introduction of pollutants to the environment resulting from human activities. The City will update its post-construction BMP requirements for development projects based on the regionally-developed BMP Design Manual. The updates are expected to be completed in fiscal year 2015 as required by the Municipal Permit; in the meantime, the existing requirements for development projects will continue to apply. This section also discusses updated procedures for treatment control BMP maintenance verification activities. Methods for maintaining a prioritized, watershed-based inventory of completed projects with treatment control BMPs and conducting associated maintenance inspections are also included in this section.

Key changes made with respect to the 2008 JURMP are summarized below:

- Revised descriptions of the roles and responsibilities of different departments, divisions, and sections.
- Revised structural post-construction BMP project maintenance verification and prioritization procedures.
- Developed a process to identify retrofit and stream rehabilitation projects (Appendix E), as required by the Municipal Permit. Retrofit or rehabilitation projects are generally targeted at areas that have already been developed, including industrial, commercial, municipal, and residential land uses.

Construction Management

This section includes information and regulations applicable to construction activities within the City. It discusses the City's watershed-based inventory of construction sites and inspection frequencies and methods. This section also discusses procedures for ensuring that both private development projects and Capital Improvement Projects provide proper construction BMP plans and obtain coverage under the State Construction General Permit,[1] when necessary.

Key changes made with respect to the 2008 JURMP are summarized below:

- Developed revised minimum BMP requirements in the Stormwater Standards Manual based on the most recent version of the California Stormwater Quality Association Standards.
- Required projects to prepare erosion control plans that address all applicable phases of development, and clarified that City inspectors have the authority to require additional BMPs in the field where necessary to maintain compliance with the Municipal Permit.
- Developed revised follow-up and enforcement procedures to facilitate tracking and prompt resolution of violations.

Existing Development: Industrial and Commercial Facilities

This section discusses how the City updates and maintains its watershed-based inventory of industrial and commercial facilities, including mobile businesses. The City continues to use a similar prioritization procedure for industrial and commercial facilities based off the experience and knowledge gained through the inspections conducted during the previous permit cycle. The minimum industrial and commercial BMPs for industrial and commercial facilities have been updated in the Stormwater Standards Manual and are included as JRMP Appendix C. The industrial and commercial section also includes a discussion of facility inspection frequencies and procedures.

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[1] State Water Resources Control Board Order No. 2009-009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ

Key changes made with respect to the 2008 JURMP are summarized below:

- Revised threat to water quality prioritization procedures to target businesses identified through previous inspections as significant sources of pollutants associated with the highest priority water quality conditions in the Chollas Creek sub-watershed.
- Updated minimum industrial and commercial BMPs to address updates to the Municipal Permit and Stormwater Management and Discharge Control Ordinance (Lemon Grove Municipal Code Sections 8.48, or "Stormwater Ordinance"). The changes address deficiencies commonly observed during inspections over the past Permit cycle and increase clarity. The updated Stormwater Ordinance and BMPs are included in JRMP Appendices A and C, respectively.
- Added patrolling style inspections as an optional approach for assessing compliance at businesses. This approach is most useful for efficiently evaluating groups or areas of businesses, such as shopping centers, for the presence of non-stormwater discharges. Reducing non-stormwater discharges will be an important component of the City's approach to meeting numeric goals in the WQIP.

Existing Development: Municipal Facilities and Infrastructure

This section provides a discussion of the City's municipal properties and the process for maintaining its watershed-based inventory. The City requires its own facilities to comply with the same minimum BMPs required for industrial and commercial businesses, as listed in the Stormwater Standards Manual (Appendix C). The municipal properties component (Section 7) identifies inspection frequencies and procedures for municipal site inspections, which are used to verify compliance with the minimum BMPs. Additional detail on BMPs specific to municipal maintenance activities, such as storm drain cleaning and landscape maintenance, are described in the municipal infrastructure component of the JRMP (Section 8).

Key changes made with respect to the 2008 JURMP are summarized below:

- Updated the minimum municipal BMPs to be consistent with the BMPs required for industrial and commercial businesses.
- Added more detail about the City's efforts to conserve water and prevent runoff during landscape irrigation. Reducing dry weather flows, especially from irrigation, will help meet WQIP goals.

Existing Development: Residential Areas

The new requirements that have been incorporated into the residential inventory are included in this section. This section also provides a description of the newly updated residential oversight program and the oversight methods the City staff will use to implement the program.

Minimum residential BMPs required to be implemented for residential areas and activities are included in the Stormwater Standards Manual (Appendix C).

Key changes made with respect to the 2008 JURMP are summarized below:

- Developed minimum residential BMP requirements, which are included in the Stormwater Standards Manual (Appendix C).
- Created an inventory of Residential Management Areas (RMA) and developed an associated inspection/oversight program. To connect to the emphasis on reducing non-stormwater flows in both the WQIP and the Municipal Permit, the RMAs are based primarily on drainage areas.
- Provided more details on methods of residential area evaluations and oversight, including drive-through assessments and MS4 outfall field screening and upstream investigations.

Public Education and Participation

Outreach efforts specifically tailored for target communities and activities within the City are discussed. The updated education programs and activities that the City uses to foster awareness and encourage behavioral changes relating to stormwater activities are presented in this section. Information regarding educational programs conducted by the City, including content, form, and frequency, are discussed in detail in this section. This section describes the mechanisms that are used to encourage public participation in the City's stormwater program and the development of this updated JRMP.

Key changes made with respect to the 2008 JURMP are summarized below:

- In accordance with the WQIP and new Municipal Permit emphasis on reducing dry weather flows, proposed collaborating with Helix Water District to reduce landscape irrigation runoff and conserve water.
- Updated list of targeted audiences and applicable training topics.

Fiscal Analysis

The process for reporting on stormwater program expenditures and funding sources is discussed in this section. An example fiscal analysis reporting format has been developed and is included in Appendix F.

The key change made with respect to the 2008 JURMP is summarized below:

- Revised the fiscal analysis approach to meet the revised fiscal reporting requirements specified in the new Municipal Permit.

Enforcement Response Plan

The City has developed enforcement tools and procedures that will be used, as necessary, to bring about compliance with requirements to implement BMPs and eliminate IC/IDs. The City has developed an Enforcement Response Plan (Appendix B) that summarizes the City's approach to enforcing its stormwater requirements. The enforcement approach for each program component is discussed in that component's section, with additional details provided in the Enforcement Response Plan. The main function of the Enforcement Response Plan document is to provide a reference that lists where enforcement details applicable to each of the different program components can be found in the JRMP.

JRMP Implementation

Each City department is committed to implementing the relevant procedures and BMPs described in this JRMP. The goal of these actions is not only to meet regulatory requirements, but also to improve water quality for the City's residents. Results from the City's implementation of the JRMP will be documented and reported each year as part of the annual reporting process, similar to the approach in past years. Jurisdictional program data will be a significant part of the WQIP annual reports in watersheds in which the City has jurisdiction, and annual assessments will be completed through the WQIP annual reporting process. As part of the adaptive management and iterative approach, the City will refine its programs accordingly as new lessons are learned. When modifications to the JRMP are necessary, the updated JRMP will be posted online, and a summary of the changes will be included in the WQIP annual report.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Lydia Romero, City Manager
Phone: (619) 825-3800

Dec 20, 2018
Date

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1 Introduction

All cities in San Diego County, including the City of Lemon Grove (City), have municipal separate storm sewer systems (MS4s; also known as "storm drain systems") that are distinct from sanitary sewer systems. In contrast to wastewater in sanitary sewer systems, water that enters storm drain systems flows to local creeks and other water bodies without first being directed to a treatment plant. Because runoff that eventually reaches the storm drain systems may first pick up a variety of pollutants as it flows over and through roads, parking lots, outdoor storage areas, landscaped areas, and other developed areas, municipal agencies that operate storm drain systems are subject to permits that require actions to reduce pollution in discharges to storm drain systems. The Jurisdictional Runoff Management Program (JRMP) is the City of Lemon Grove's approach to meeting permit requirements and improving water quality in local water bodies through reducing discharges of pollutants to the storm drain system.

1.1 Regulatory Background

Storm drain system permits are a component of the National Pollutant Discharge Elimination System (NPDES) permitting program, which is authorized by the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA). The State of California administers the NPDES program within the state, and the San Diego Regional Water Quality Control Board (RWQCB) oversees NPDES permits within San Diego County and the southern portions of Orange and Riverside Counties. The RWQCB issued the first regional NPDES stormwater permit regulating all municipalities in San Diego County (collectively, "Copermittees") in 1990. Revised versions were issued in 2001 and 2008, with each successive permit including increasingly prescriptive requirements. The most recent permit, RWQCB Order No. R9-2013-0001, as amended by R9-2015-0001 (Municipal Permit), increases the focus on watershed-level planning and achieving water quality outcomes. The Municipal Permit preserves some of the programmatic specificity of past permits, but it generally allows Copermittees more discretion in determining the details of how their day-to-day programs will be implemented. This approach is intended to allow the City and other regulated agencies more flexibility in directing efforts toward the issues identified as the highest priorities in each Watershed Management Area (WMA). However, addressing these highest priorities involves meeting numeric water quality targets. These targets are more stringent metrics than those established by previous storm water permits, which mostly used programmatic achievements to determine compliance.

The Municipal Permit requires the City of Lemon Grove and the other 20 municipal agencies in San Diego County to prepare both jurisdictional (JRMP) and watershed (WQIP) plans that identify actions they will take to improve water quality. The JRMP is prepared individually by each agency and applies only to that agency's jurisdiction. Each WQIP focuses on one WMA and is collaboratively prepared by the municipal agencies within the WMA. The City of Lemon Grove is a responsible party for the WQIP for the San Diego Bay WMA. The WQIP for this WMA identifies the highest priority water quality conditions, corresponding numeric goals, and strategies that the City of Lemon Grove and other responsible agencies will implement to meet the goals. The JRMP is described in more detail in Section 1.2, and the relationship between the JRMP and the WQIPs is described in Section 1.3.

1.2 Purpose and Objectives

The primary purpose of the JRMP is to outline the strategies and supporting activities the City will implement to reduce the discharge of pollutants from its storm drain system to the Maximum Extent Practicable (MEP). To present the full picture of all activities the City performs to improve water quality and meet the requirements of the Municipal Permit, the strategies identified in the Water Quality Improvement Plan (WQIP) for the San Diego Bay WMA in which the City has jurisdiction are also included in the JRMP. Section 1.3 provides more information about the integration between the WQIPs and the JRMP.

The JRMP describes how the City implements or requires its residents and land owners to implement a variety of measures commonly referred to as best management practices (BMPs) to reduce pollutants in storm drain system discharges to water bodies. Some examples of BMPs include covering potential pollutant sources to prevent contact with rain, employing erosion reduction techniques at construction sites, adjusting sprinklers to eliminate irrigation runoff, sweeping streets and parking lots, and building green infrastructure techniques like planters that capture and treat runoff from new development projects. The City has developed minimum required BMPs for businesses, residents, construction sites, and development projects. In addition, the City's own activities meet BMP requirements to effectively prohibit non-stormwater discharges and to reduce discharges of pollutants in stormwater to the MEP. The Stormwater Management and Discharge Control Ordinance, codified in Lemon Grove Municipal Code Chapter 8.48, provides legal authority for the required BMPs and discharge prohibitions.

Each major component of the City's stormwater program, such as construction management and illicit discharge detection and elimination, has its own section within the JRMP. To increase usability for City staff who will implement these program components, each section has been written and formatted so that it is understandable on its own, without needing to reference a large number of other sections or external documents. For the same reason, acronyms and

abbreviations have also been defined the first time they occur in each section. Each JRMP program component section also identifies the departments and sections that will be responsible for implementing the activities described in the section. While the City's Stormwater Division has led the effort to update the JRMP, all responsible departments have been involved; therefore the updated JRMP reflects input from staff in all responsible departments.

1.3 Integration with Watershed Quality Improvement Plans

The City is a responsible party for and has helped develop the San Diego Bay WQIP. The WQIP for the San Diego Bay WMA has identified bacteria and dissolved metals in Chollas Creek as the highest priority water quality conditions in the watershed and established associated numeric goals.

The two highest priority conditions in Chollas Creek have approved Total Maximum Daily Loads (TMDL), so numeric targets based on the TMDL standards apply. These include the Chollas Creek Bacteria TMDL (commonly referred to as the Twenty Beaches and Creeks Bacteria TMDL) and the Chollas Creek Metals TMDL (TMDLs for Dissolved Copper, Lead, and Zinc in Chollas Creek). The City of Lemon Grove and most other cities within the San Diego Bay WMA have designed programs that will reduce or eliminate non-stormwater discharges. For example, irrigation runoff is prohibited by the permit because it conveys pollutants, such as metals, to the storm drain system and nearby waterways. Reducing non-stormwater discharges is expected to reduce levels of metals when it is not raining.

The list of strategies the City will implement to address WQIP priority conditions and meet numeric goals is provided in Appendix I of the JRMP. These strategies include the City's core day-to-day operational practices, as well as additional commitments necessary to meet the numeric goals within the timelines specified in the WQIP. All strategies the City has included in the WQIP, including both core day-to-day operations and additional commitments, are included in the JRMP. Appendix I identifies the component(s) of the JRMP into which each WQIP strategy has been incorporated. The JRMP serves as the City's primary mechanism for implementing its WQIP strategies.

1.4 City Setting

The City's storm water program has been developed in consideration of the City's land use patterns and geographic setting. The City of Lemon Grove lies in the southern portion of San Diego County and is entirely within the San Diego Bay WMA. The City is bordered by the City of San Diego to the west, the City of La Mesa to the north, and unincorporated portions of San Diego County to the east. The City covers approximately 2,232 acres (3.49 square miles), and has a population of approximately 26,000.

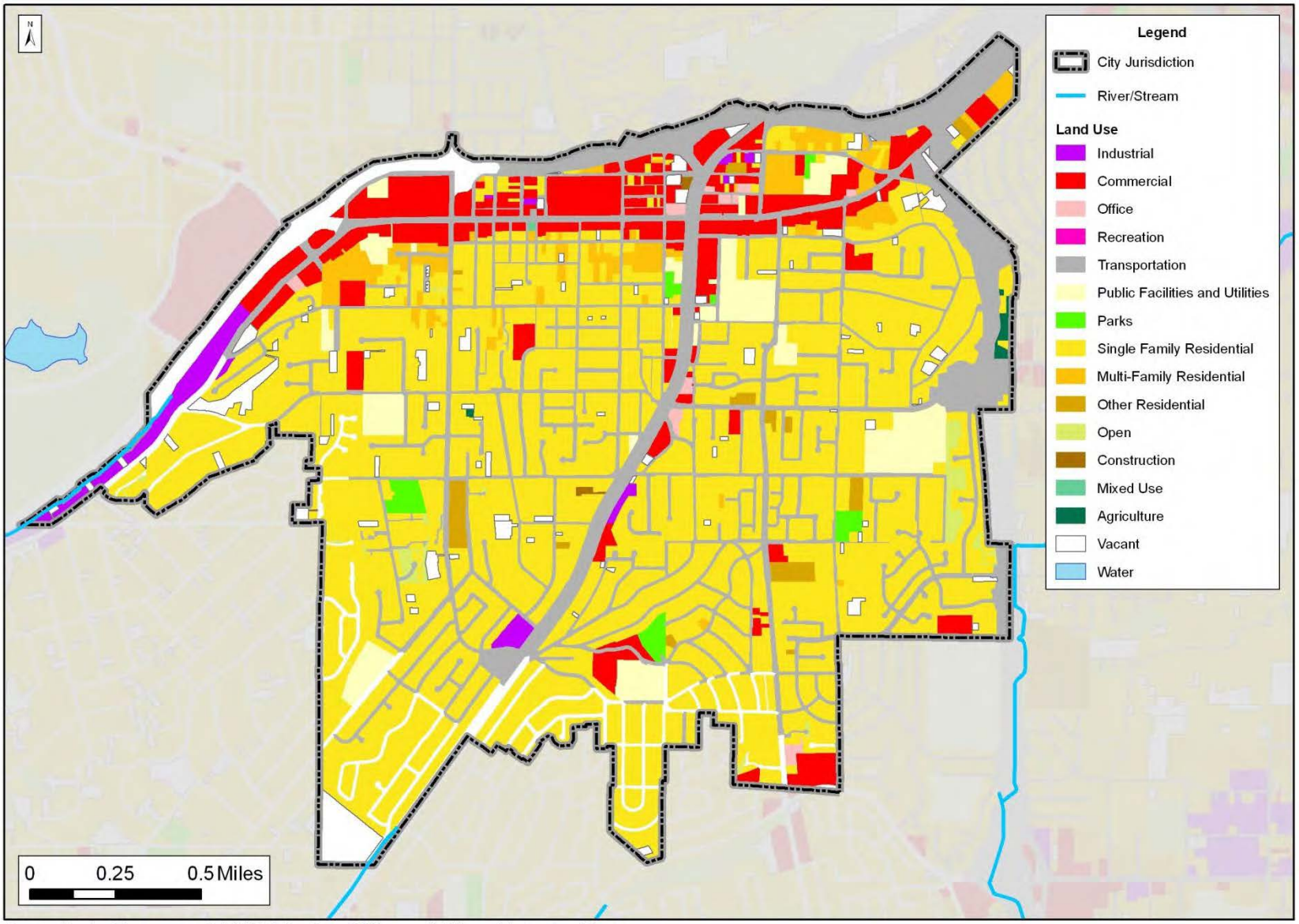
Land use within the City is mainly residential; other land uses in the City include transportation, industrial and commercial facilities, and a number of other categories. Land use categories with the corresponding acreage and percentage of land use in the City's boundaries are included in Table 1-1 and displayed in Figure 1-1.

Table 1-1. City of Lemon Grove Land Use Breakdown

Land Use	Total Area (Acres)	Percentage
Single Family Residential	1,333.9	60%
Transportation	366.6	16%
Commercial	198.8	9%
Public Facilities and Utilities	91.8	4%
Vacant	68.8	3%
Multi-Family Residential	68.5	3%
Industrial	33.8	2%
Other Residential	21.5	1%
Parks	17.6	1%
Open	16.2	1%
Office	8.5	<1%
Agriculture	4.2	<1%
Construction	1.5	<1%
Mixed Use	0.3	<1%
Total	**2,232.0**	**100%**

Source: 2014 San Diego Association of Governments land use data.

Figure 1-1. City of Lemon Grove Land Use



Base Data Sources: SANDAG, SanGIS, and City of Lemon Grove

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1.4.1 MS4

The City maintains an inventory if its MS4 structures, including inlets, pipes, and channels, in geographic information systems (GIS) format. A map of the City's MS4 is included in Appendix G of this JRMP document.

1.4.2 Watersheds

The City is located within the Pueblo San Diego Hydrologic Unit (HU) 908 and the Sweetwater River HU 909, which are both part of the San Diego Bay WMA. Table 1-2 summarizes the City's hydrologic setting.

Table 1-2. City of Lemon Grove Receiving Water Bodies and HSAs

Hydrologic Unit	Hydrologic Subarea (HSA)	Percentage of City within HSA	Receiving Water Body
Pueblo	908.22	85%	Chollas Creek
Sweetwater	909.12	15%	Sweetwater River

Table 1-3 summarizes the pollutants of concern for the City of Lemon Grove, which includes the HPWQCs for the San Diego Bay WMA and 303(d) impairments associated with receiving water bodies downstream of the City. Table 1-3 is used as a reference when assessing whether industrial and commercial sites, as described in later sections, may have the potential to contribute pollutants associated with 303(d) listed impairments and/or the HPWQCs for the San Diego Bay WMA. There are no 303(d) listed water bodies or other areas that would be considered environmentally sensitive areas, as defined in the Municipal Permit, within the City of Lemon Grove.

Table 1-3. City of Lemon Grove Pollutants of Concern

Water Body (HSA)	HPWQCs and/or 303(d) Impairments		Pollutant Category
Chollas Creek (908.22)	Indicator Bacteria[1] Copper[1] Diazinon[2] Lead[1]	Phosphorus Total Nitrogen as N Trash Zinc [1]	Bacteria/Viruses Heavy Metals Nutrients Trash & Debris
Sweetwater River, Lower (909.12)	Indicator Bacteria Phosphorus Selenium[3]	Total Dissolved Solids[3] Total Nitrogen as N Toxicity[4]	Bacteria/Viruses Nutrients

Notes: HSA = hydrologic subarea; HPWQCs = highest priority water quality conditions

1. HPWQC per the San Diego Bay WQIP.
2. Legacy pollutant; unlikely to be associated with any current business activities. If historical contamination is identified at any business, it will be dealt with on a site-specific basis.
3. There are no known classes of businesses identified as sources of these pollutants. If source is discovered during a site inspection, the business will be prioritized as a high priority.
4. Impairment has not been specifically associated with any particular pollutant at this time.

1.5 Report Organization

Section 1 Introduction

The introduction includes a general regulatory background leading up to the creation of this JRMP document. Land use statistics, City information, and information about the City's setting within the San Diego Bay Watershed are included in this section.

Section 2 Program Organization and Legal Authority

This section identifies and describes the departments within the City that conduct and oversee JRMP-related activities and presents the City's stormwater program organization.

Section 3 Illegal Discharge Detection and Elimination

This section describes the processes by which illegal connections and illegal discharges are detected, investigated, and eliminated by the City. This section describes non-stormwater discharge prohibitions and the City's approach to controlling such discharges.

Section 4 Development Planning

This section addresses how the City will reduce discharge of pollutants from development projects. Information regarding the City's General Plan, the City's newly updated post-construction BMP requirements and related implementation methods are also included.

Section 5 Construction Management

This section provides a description on the prioritization of the City's watershed-based inventory of construction sites within the City. Updates to the construction BMPs are also described. Other program implementation information, including construction and grading permit approval process and inspection procedures, is also included in this section.

Section 6 Existing Development: Industrial and Commercial Facilities

This section provides a description on the prioritization of the City's watershed-based inventory of industrial and commercial facilities within the City, including mobile businesses known to operate in the City. This section describes the minimum BMPs that are required to be implemented at industrial and commercial facilities. This section also includes a discussion of facility inspection frequencies and procedures.

Section 7 **Existing Development: Municipal Facilities**

This section provides a description on the updated prioritization of the City's watershed-based inventory of municipal facilities. A description of pollution prevention methods and minimum BMPs to be implemented at specific municipal facilities and during specific municipal activities is included in this section. This section also includes a discussion of municipal inspection frequencies and procedures.

Section 8 **Municipal Infrastructure**

A description of MS4 and sanitary sewer maintenance, street sweeping, and landscape activities conducted by City staff and associated BMPs for each activity is included in this section.

Section 9 **Existing Development: Residential Areas**

The new requirements that have been incorporated into the residential inventory are included in this section. This section also provides a description of the newly updated residential oversight program and the oversight methods the City staff will use to implement the program.

Section 10 **Education and Public Participation**

This section describes the education programs and activities that will be used by the City including content, form, and frequency for each target community as described by the Municipal Permit. This section describes the mechanisms that will be used to encourage public participation.

Section 11 **Fiscal Analysis**

This section provides the methods of reporting the yearly fiscal analysis in annual reports to the RWQCB. A description of the City's method of securing all necessary financial resources for the inclusion of all programs detailed in the JRMP is also included.

Section 12 **Reporting**

This section describes components of the City's JRMP that are required to be included in the Annual Report submission.

Section 13 **Conclusions and Recommendations**

This section describes conclusions and recommendations that were drawn from updates made to the JRMP document.

Section 14 **References**

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2 Program Organization and Legal Authority

2.1 Introduction

As specified in Section E.1.a of the Municipal Permit, the City of Lemon Grove establishes, maintains, and enforces adequate legal authority within its jurisdiction to control pollutant discharges into and from its MS4. The City has established and updated local ordinances, which have been incorporated into the City's Municipal Code, that provide legal authority for enforcing stormwater requirements. The City's Municipal Code is accessible via the City's website. The major ordinances relating to stormwater include the following:

- Lemon Grove Stormwater Management and Discharge Control Ordinance (Stormwater Ordinance), Lemon Grove Municipal Code (LGMC) Chapter 8.48
- Standard Urban Stormwater Mitigation Plan (SUSMP) of the City of Lemon Grove, LGMC Chapter 8.52
- Grading Ordinance of the City of Lemon Grove, LGMC Chapter 18.08

Where violations of the Municipal Code or the Municipal Permit are observed, administrative and judicial procedures may be employed to enforce stormwater requirements. This legal authority empowers the City to do the following:

1. Prohibit, prevent, and eliminate all IC/IDs to the City's MS4.
2. Control the contribution of pollutants in discharges of runoff (stormwater or non-stormwater) from industrial and construction activity to the MS4.
3. Regulate discharges from spills, dumping, and disposal of materials other than stormwater into the MS4. Section 3 of this document provides more information on discharge prohibitions.
4. Control the contribution of pollutants to the City's MS4 through interagency agreements, coordination, and cooperation with other owners of the MS4.
5. Require compliance with conditions in its statutes, ordinances, permits, contracts, order, or other similar means to hold dischargers to the MS4 accountable for their contributions of pollutants or flows. The City also has the authority to require the use of BMPs to prevent or reduce the discharge of pollutants in stormwater from the MS4 to the maximum extent practicable (MEP).
6. Necessitate documentation on the effectiveness of BMPs implemented to prevent or reduce the discharge of pollutants in stormwater from its MS4 to the MEP.

7. Use various enforcement measures, as discussed in the City's Enforcement Response Plan (included in Appendix B), to require compliance with its statutes, ordinances, permits, contracts, order, or similar means.
8. Conduct all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with its statutes, ordinances, permits, contracts, order, or similar means, which includes the authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from industrial facilities and construction sites discharging to the MS4.

The City's Stormwater Ordinance also includes, by reference, the City's updated minimum BMP requirements included in Appendix B of this document. Previously, the City utilized separate BMP manuals for each component of the stormwater program. The City's current minimum BMPs have been organized in a streamlined table format. Each of these manuals has been updated to include the new BMPs added to the City's JRMP to meet the new Municipal Permit requirements. The City also has litter and public nuisance ordinances which are not specific to stormwater but may in some cases be used to support stormwater program implementation.

Note that the City's ordinances, as discussed above, provide the City with legal authority to enforce stormwater requirements within the City's jurisdiction. There are some areas inside the City's boundaries that are not under the City's jurisdiction, such as school districts and Caltrans facilities. The City does not have enforcement authority to compel compliance with its stormwater requirements in areas outside its jurisdiction. When discharges or other potential sources of pollution are traced to properties outside the City's jurisdiction, the City notifies the agency with jurisdiction over the property and seeks to work collaboratively with them to resolve the issue.

2.2 Departmental Roles and Responsibilities

Personnel from various City departments are involved in the implementation of the City's stormwater program. The primary departments that conduct JRMP-related activities are the Development Services Department and the Public Works Department. Smaller roles are played by the Finance Department and the City Attorney's Office. The following is a list of departments, divisions, and programs within the City that conduct JRMP-related activities. Only those departmental responsibilities and activities directly related to compliance with the Municipal Permit are mentioned below.

City Manager and City Council

- Adopt ordinance revisions to carry out new Municipal Permit requirements

- Secure fiscal resources and approve budgets
- Provide public participation at City Council meetings
- Review and approve related policies and plans as needed
- Enter into formal agreements with Copermittees to define management structure, responsibilities, cost sharing, and decision making procedures for implementation of the Municipal Permit
- Oversee implementation of JRMP across multiple departments
- Sign and certify reports submitted to the RWQCB

City Attorney

- Review and approve stormwater related-documents and ordinances to ensure they are compliant with current laws and regulations
- Assist in the enforcement of the Municipal Code
- Ensure and certify adequate legal authority
- Review memoranda of understanding and cost share agreements

City Clerk

- Maintain records of ordinances approved by the City Council and oversee their incorporation into the Lemon Grove Municipal Code
- Process public record requests related to the Municipal Permit

Development Services Department

- Stormwater Division
    - Administer the City's JRMP
    - Maintain inventory and conduct inspections and enforcement of industrial, commercial, and municipal facilities
    - Oversee illegal discharge detection and elimination efforts, including monitoring, investigation, enforcement, and Stormwater Hotline operation and investigations
    - Assist with training of municipal personnel
    - Provide stormwater-related educational materials and outreach for target audiences

    - Act as representative in San Diego Bay watershed and regional Copermittee management activities
    - Serve as liaison to City departments regarding implementation of the Municipal Permit and the City's JRMP
    - Coordinate annual report preparation
    - Provide information for JRMP document updates and annual reports
- Building Division
    - Receive and review development and redevelopment applications
    - Ensure the City's minimum construction BMPs (Appendix B) are implemented for development sites that do not require grading
    - Responsible for development site enforcement for building activities
    - Provide education for new development and construction activities
    - Provide information for JRMP document updates and annual reports
- Capital Improvement Program (CIP), Engineering Division
    - Ensure that public projects meet new development standards
    - Inspect Priority Development Project CIPs to verify proper installation of structural post-construction BMPs prior to project finalization
    - Update construction site inventory
    - Modify development requirements as needed
    - Provide information for JRMP document updates and annual reports
- Code Enforcement Division
    - Enforce the City's stormwater regulations
    - Conduct IC/ID investigation and enforcement, including investigating complaints reported to the Stormwater Hotline
    - Provide information for JRMP document updates and annual reports
- Planning/Zoning Division
    - Update the City's General Plan and Environmental Review process, when necessary
    - Review development proposals that come to the City in the form of planning applications

    - Contribute to education and outreach for new development and construction activities
    - Provide information for JRMP document updates and annual reports
- Engineering Division
    - Review submitted post-construction BMP plans (Water Quality Technical Reports or equivalent) for compliance with the City's post-construction BMP standards
    - Maintain construction site inventory
    - Inspect construction sites for compliance with stormwater BMP requirements and take enforcement actions as necessary
    - Report non-compliant construction sites, including non-filers of the SWRCB Order No. 2009-0009-DWQ, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (Construction General Permit)
    - Inspect private Priority Development Projects to verify proper installation of structural post-construction BMPs prior to project finalization
    - Maintain the structural post-construction BMP inventory
    - Send out and process maintenance self-verification forms and inspect structural post-construction BMPs to verify maintenance
    - Provide education for new development and construction activities
    - Provide information for JRMP document updates and annual reports

Public Works Department

- Streets Division
    - Administer street sweeping program
    - Conduct preventative maintenance
    - Operate and maintain the stormwater conveyance system and municipal structural post-construction BMPs
    - Investigate complaints reported to the Stormwater Hotline, as applicable
    - Provide education and outreach for municipal personnel and contractors
    - Provide information for JRMP document updates and annual reports
- Sanitation District
    - Maintain the City's sanitary sewer system

    - Respond to sewage spills and contain and clean up such spills to prevent or minimize discharge to the stormwater conveyance system
    - Investigate complaints reported to the Stormwater Hotline, as applicable
    - Provide information for JRMP document updates and annual reports
- Grounds Division
    - Manage pesticides, herbicides, and fertilizers
    - Implement and maintain BMPs at City parks
    - Investigate complaints reported to the Stormwater Hotline, as applicable
    - Contribute to education and outreach for municipal personnel
    - Provide information for JRMP document updates and annual reports

Fire Department

- Implement and maintain BMPs at fire-related facilities and during fire-rescue activities as feasible
- Contribute to education and outreach for municipal personnel
- Provide information for JRMP document updates and annual reports

Finance Department

- Assist with updates to the industrial and commercial facilities inventory though use of the business license list
- Identify and secure sources of funds for the implementation of the City's JRMP
- Responsible for providing fiscal analysis information for annual reports

3 Illegal Discharge Detection and Elimination

3.1 Introduction

The City of Lemon Grove detects and eliminates IC/IDs and improper disposal of pollutants into the MS4 through the implementation of their Stormwater Division, which oversees the City's IDDE Program. The goal of the IDDE Program is to actively seek and eliminate IC/IDs to the storm drain system. This is achieved through the implementation of major MS4 outfall monitoring, enforcement, and public education programs. Unauthorized discharges or connections can result in illegal discharges of pollutants to the City's storm drain system and ultimately receiving waters. IC/IDs can be defined as the following:

- An ***illegal connection*** is a pipe, facility, or other device connected to the MS4 or receiving waters, which has not been authorized by the City; or a permitted/authorized pipe, facility, or other device, which conveys illegal discharges.
- An ***illegal discharge*** is any discharge into the MS4 or receiving waters that is prohibited by the City's Stormwater Management and Discharge Control Ordinance (Municipal Code Chapter 8.48) (Stormwater Ordinance).

The City's IDDE program involves coordination between City departments, including Stormwater Division staff and Public Works, as well as the Lemon Grove Sanitation District, Fire Department, County of San Diego Department of Environmental Health (DEH), and members of the public.

In support of the City's illegal discharge detection and elimination efforts, multiple stormwater program activities contribute to the detection of IC/IDs. Examples of these activities include:

- Dry Weather Major MS4 Outfall Discharge Monitoring Program (MS4 Outfall Monitoring Program) (Section 3.3.4)
- Existing development inspections (Sections 6, 7, 8, and 9).
- Maintenance of a Stormwater Hotline, available for reporting any water quality concern (Section 3.3.1)
- Public Education and Participation Program to increase public awareness and encourage environmental stewardship (Section 10).

The City investigates every IC/ID reported by the public or City staff to identify the source(s) of the discharge. Consistent with the City's Enforcement Response Plan (included in Appendix B), the primary goal is to abate the identified source of discharge. Education is utilized as a means to prevent future IC/IDs, where feasible; however, escalated enforcement may also be employed

by City staff when necessary. This section discusses prohibited discharges, non-stormwater discharge exemptions (allowable discharges), and the City's procedures for IC/ID detection, prevention, response, and enforcement.

3.2 Non-Stormwater Discharges

Non-stormwater discharges to the MS4 are prohibited unless the discharge has been authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit or are conditionally allowed by the Municipal Permit. Some categories of non-stormwater discharges are allowed on the condition that they are addressed in accordance with the requirements of the Stormwater Ordinance and the Regional Water Quality Control Board (RWQCB), San Diego Region Order No. R9-2013-0001 (Municipal Permit) which are discussed in Section 3.2.2.

The City will periodically review and evaluate conditionally allowed discharges to determine whether specified categories may be significant sources of pollutants to receiving waters. Where a category of non-stormwater discharge is determined to be a significant source of pollutants, the City will take appropriate enforcement measures and prohibit the discharge category from entering the MS4 or implement BMPs. See Appendix B for a list of the City's minimum BMPs and for the Enforcement Response Plan which details enforcement measures.

3.2.1 Prohibited Discharges

Consistent with the Municipal Permit, irrigation runoff that enters the City's MS4 is now considered a prohibited discharge. Under the previous permit, irrigation runoff was allowed unless it was shown to be a source of pollutants. Irrigation runoff includes intended or unintended overspray and excessive application of irrigation water from sprinklers or hosing activities.

The following discharges will be addressed as illegal unless covered by NPDES Permit No. CAG919002 RWQCB Order No. R9-2008-002 [1] or subsequent order, NPDES Permit No. CAG679001 RWQCB Order No. R9-2010-0003[2] or subsequent order, or other NPDES permit as appropriate:

- Uncontaminated pumped ground water
- Water from crawl space pumps
- Non-stormwater from water line flushing and water main breaks

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[1] *General Waste Discharge Requirements for Discharges From Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay*

[2] *General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region*

- Discharges from foundation drains and footing drains, if the system is designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.
- Discharges from recycled or reclaimed water lines

Section E.2.d.(3)(e) of the Municipal Permit requires that if the City is unable to identify and document the source of a recurring non-stormwater discharge to or from the MS4, then the City must address the discharge as an illegal discharge and update its JRMP as needed to address the common and suspected sources of the non-stormwater discharge within its jurisdiction.

3.2.2 Conditionally Allowed Discharges

The following discharges are allowable discharges unless the City or the RWQCB identifies the discharge as a source of pollutants to receiving waters:

- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration to MS4s
- Springs
- Flows from riparian habitats and wetlands
- Discharges from potable water sources[3]
- Discharges from foundation or footing drains if the system is designed to be located above the groundwater table at all times of the year and the system is only expected to discharge non-stormwater under unusual circumstances.
- Discharges of non-stormwater to the MS4 from the following categories will be controlled by the requirements listed in the City's BMP Manual (Appendix B); otherwise, they will be addressed as illegal discharges.
    - Air conditioning condensation
    - Individual residential vehicle washing (this does not include car washing for fundraisers or charity events)
    - Dechlorinated swimming pool discharges

Table 3-1 at the end of this section summarizes appropriate disposal methods for commonly prohibited and conditionally allowed discharges.

[3] Note that irrigation runoff discharges, even if irrigation is done with potable water, are prohibited per Lemon Grove Municipal Code Chapter 8.48

Discharges determined by any authorized enforcement official or staff to be necessary to protect public health and safety are exempt from discharge prohibitions discussed in above, provided that any conditions set for such discharges imposed by the authorized enforcement official or staff are satisfied. In emergency circumstances, the determination of an authorized enforcement official or staff that a discharge is necessary may initially be oral but must be promptly confirmed in writing. In non-emergency situations, a prior written determination is required to exempt a discharge.

3.2.3 Firefighting Discharges

In accordance with Section E.2.a.(5) of the Municipal Permit, non-stormwater discharged to the MS4 as a result of firefighting activities, both emergency and non-emergency activities, is considered an illegal discharge if the City or the RWQCB identifies the discharge as a significant source of pollutants to receiving waters.

Non-emergency firefighting discharges (i.e., discharges from controlled or practice blazes, firefighting training, and maintenance activities not associated with building fire suppression systems) are subject to the municipal BMPs described in Appendix B of this JRMP document to reduce or eliminate pollutants in such discharges from entering the MS4.

During emergency situations, priority of efforts is directed toward life, property, and the environment (in descending order). The BMPs listed in Appendix B should be implemented, but should not interfere with immediate emergency response operations or impact public health and safety.

3.3 Preventing, Detecting, and Responding to Illegal Connections and Illegal Discharges

In support of the City's illegal discharge detection and elimination efforts, multiple stormwater program activities contribute to the detection of IC/IDs. Examples of these activities include:

- Dry Weather Major MS4 Outfall Discharge Monitoring Program (MS4 Outfall Monitoring Program). See Appendix G for monitoring program procedures.
- Existing development inspections (see Section 6 for information on industrial and commercial inspections, Sections 7 and 8 for information on Municipal facility inspections, and Section 9 for information on residential inspections).

3.3.1 Reporting of Illegal Connections and Illegal Discharges

To facilitate the process of reporting and investigating, the City encourages the public, City staff, and contract staff to report IC/IDs. Water quality or stormwater-related questions and complaints will be responded to by appropriate City staff:

City of Lemon Grove Stormwater Hotline
(619) 825-3820
promero@lemongrove.ca.gov

The public can also notify any City employee who will promptly notify the appropriate staff in the Lemon Grove Stormwater Division or Public Works Department. The Public Works Department accepts calls at (619) 825-3810 for sewage related discharges. In cases of incidents occurring after working hours, reports may be made to (619) 441-1621. A regional public reporting hotline is also provided by the County of San Diego at (888) 846-0800. The hotline is answered Monday through Friday, 8:00 a.m. – 5:00 p.m. and provides a voicemail message for 24-hour public access in both English and Spanish.

3.3.2 Response to Stormwater-Related Complaints

When a stormwater-related complaint is received (e.g. hotline, email, or in person), it is logged into an Excel spreadsheet or other electronic database and tracked. Complaint response may be assigned to staff from Public Works, Stormwater, or Code Enforcement, depending on the nature of the report received. The Fire Department also typically assists with responding to discharges involving hazardous materials. Investigations are initiated for all complaints suggesting an actual or potential discharge to the MS4 or receiving waters. If investigators find evidence of a violation with the potential to release pollutants or an actual IC/ID, every effort is made to find the responsible party and inform them of the complaint or issue a Notice of Violation. Parties found to be responsible for a violation or IC/ID are required to immediately cease and abate the discharge. Additional corrective actions or escalated enforcement actions (e.g. Administrative Citation) may also be issued, depending on case-specific circumstances and consistent with the Enforcement Response Plan (included in Appendix B).

If determined to pose a serious threat to human health or the environment, the complaint is reported to the RWQCB in accordance with Section 1.l.(6) of Attachment B of the Permit. The criteria listed below are used to determine the human or environmental health threats of a violation, where applicable:

- Estimated pollutant load discharged from site.
- Estimated volume of discharge.
- Types of pollutants discharged, including if toxic materials were discharged.
- Sensitivity of the receiving water body, including if it is Clean Water Act section 303(d) water body segment listed for any of the pollutants in the discharge.
- Proximity of site to sensitive habitat/endangered species.
- Proximity of site to public water supply (well head, monitoring wells).

- How much, if any of the discharge reached the receiving water body.
- Beneficial uses for affected water bodies.

3.4 Spill Response and Reporting

The City coordinates spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies so that maximum water quality protection is achieved at all times. Spills are prevented and mitigated through the implementation and enforcement of minimum BMPs (Appendix B), which include the proper disposal of wash water, maintaining a spill cleanup kit, and employee training regarding spill cleanup and other related BMPs.

Spills from the City's sanitary sewer system entering the storm drain system may be discovered during routine maintenance activities of the sewer system or observed and reported to the City by the public or City Public Works staff. The City has developed and adopted a Sewer System Management Plan (SSMP) in accordance with State Water Resources Control Board (SWRCB) Order No. 2006-003-DWQ and RWQCB Order R9-2007-0005, applicable to the sewer collections system operated by the City. Details regarding the City's SSMP and preventative maintenance of the sewer system can be found in Section 8 (Municipal Infrastructure). The County Department of Environment Health (DEH) responds to sewage spills reaching a receiving water body.

The regional Hazardous Materials Incident Response Team (HIRT) handles all after normal business hour complaints for the County DEH and other designated agencies within San Diego County including SSOs to receiving waters. The City contributes to the funding of the HIRT, which was founded in 1981 by the Unified Disaster Council and is funded by a Joint Powers Agreement and services all unincorporated San Diego County areas, 18 municipalities, two military bases, and five Indian Reservations.

If a spill from a private sewer lateral is not contained and no action is being taken by the responsible party to repair the lateral, Public Works staff will take necessary action. Due to the public health risk and safety, parties responsible for private sewer lateral spills are typically issued a Notice of Violation with conditions to immediately cease and clean up the spill. In addition, the private sewer lateral owner may be required to inspect and repair the private sewer lateral in accordance with Lemon Grove Municipal Code.

Spills that result in an illegal discharge to the City's storm drain system are reported annually in the City's JRMP Annual Report, which includes the number of discharges reported, detected, investigated, identified, and eliminated, and the number of associated enforcement actions. As required by the MS4 Permit, the City will provide verbal notification to the RWQCB of all instances of noncompliance within its jurisdiction that may pose a threat to human or

environmental health within 24 hours from when the City is made aware of the situation. The specific information that must be reported within 24 hours of the incidence of noncompliance can be found in Section 1.l.(6) of Attachment B of the MS4 Permit.

3.5 IC/ID Investigation and Elimination

3.5.1 Dry Weather Major MS4 Outfall Discharge Monitoring

In 2013, the City of Lemon Grove began routine visual monitoring of discharges from major MS4 outfalls during dry weather to detect non-stormwater and IC/IDs from its storm drain system. A "major outfall" is defined as an outfall that is 36 inches in diameter or an outfall that drains an industrial area and is at least 12 inches in diameter. These efforts contribute to detecting IC/IDs and non-stormwater discharges from the storm drain system.

Under the 2007 Municipal Permit, the City conducted field screening at all monitoring sites and tested any water present at the sites for various common stormwater pollutants. The 2013 Municipal Permit emphasizes the identification and elimination of dry weather discharges from the City's outfalls. By working towards eliminating or reducing dry weather flows, the City of Lemon Grove is able to concentrate on reducing and eliminating a wide range of pollutants that may be transported to receiving waters.

The City has implemented procedures to investigate and inspect segments of its MS4 that have a reasonable potential of receiving, containing, or discharging pollutants due to IC/IDs or other non-stormwater sources. All IC/IDs found during field work will be investigated immediately by Stormwater Division or contract staff and appropriate follow-up and/or enforcement actions are taken as necessary. Detailed procedures for dry weather major MS4 outfall monitoring, IC/ID investigations and prioritization of investigations are included in Appendix G.

Note that other monitoring requirements specified in the Municipal Permit include wet weather MS4 outfall and receiving water monitoring. Those activities are completed by contractors through watershed level programs for which cost is shared among the responsible parties in the watershed. For that reason, the details of those programs are not discussed in this section.

3.5.2 MS4 Map

The City maintains a GIS data file of its storm drain system. Storm drain structures are updated as needed, such as with completion of new projects or field corrections. The storm drain system map can provide staff with useful information while investigating and responding to IC/IDs. Appendix G includes a map illustrating the storm drain system, along with the following features required by the MS4 Permit:

- All MS4 segments owned, operated, and maintained by the City, and that includes MS4 outfall monitoring locations and drainage basins.

- All known locations of inlets that discharge and/or collect runoff into the City's MS4.
- All known locations of connections with other MS4s not owned or operated by the City (e.g. Caltrans MS4s).
- All known locations of MS4 outfalls and private outfalls that discharge runoff collected from areas within the City's jurisdiction.
- All segments of receiving waters within the City's jurisdiction that receive and convey runoff discharged from the City's MS4 outfalls.
- Locations of the inventoried major MS4 outfalls within the City's jurisdiction, pursuant to Section D.2.a.(1) of the Permit.
- Locations of the non-stormwater persistent flow MS4 outfall monitoring stations, identified pursuant to Section D.2.a.(1) of the Permit.

The status of major MS4 outfalls as having persistent flow, transient flow, or being dry may change in the future as the City collects more data from outfall monitoring and as sources of flow are eliminated. For similar reasons, the sites at which persistent flow analytical monitoring is completed will likely change over time. Updates will be provided through the WQIP annual reporting process.

In accordance with Section E.2 of the Municipal Permit, each watershed within the City's jurisdiction contains at least one monitoring station. If field staff note inaccuracies in the map during field screening, the inaccuracies will be reported to the appropriate City staff so that updates can be made. The need for updates to the map will be assessed at least annually, and at that time updates will be made where necessary. The GIS files used in developing the City's MS4 map will be made available to RWQCB staff upon request.

3.5.3 Investigating Illegal Connections and Illegal Discharges

In addition to the investigation procedures described in the MS4 outfall monitoring procedures (Appendix G), the City may also employ the following methods to identify the source of an IC/ID:

Review of Plans

As-built drawings for the area of concern may be obtained to verify connections. However, an illegal connection is most likely to have occurred after the as-built drawings were finished, so additional techniques should also be used.

Dye Testing

Dye testing is useful to confirm hydraulic connections between the potential source and the location downstream. Fluorescent dye is discharged at the source of the potential IC/ID and is monitored downstream. This method is used only when necessary because the public and

appropriate regulatory agencies in the surrounding area need to be informed of the cause of the water discoloration.

Smoke Testing

Smoke testing can be used only on underground stormwater conveyance facilities, to determine potential hydraulic connections between the source and downstream location. Again, the public and appropriate agencies need to be informed of the cause for smoke coming from the storm drain system.

Video Monitoring

Mobile video cameras may be used to record observations in an underground stormwater conveyance facility. The public and regulatory agencies generally do not need to be informed prior to initiating this kind of investigation.

Confined Space Entry

In some cases, underground conveyances are large enough that a crew trained in confined space entry may investigate the section of pipe or culvert in question instead of using video monitoring. All applicable health and safety regulations must be followed. The public and regulatory agencies, however, generally do not need to be informed prior to initiating a confined space entry.

Potential Sewage IC/IDs

Further testing of suspected sewage-related flows is conducted when visual and odor observations do not adequately confirm the presence of sewage.

- Ammonia - Sewage frequently contains ammonia levels of 30 mg/L or greater. Typically, this can be measured with an inexpensive field screening kit.
- Bacteria - Sewage generally has high levels of total and fecal coliforms and Enterococci. Sewage treatment plants and many laboratories routinely conduct these indicator analyses.

3.5.4 Eliminating Illegal Connections and Illegal Discharges

Action is taken to eliminate IC/IDs and their sources as soon as possible after detection. IC/IDs that pose a serious threat to public health or the environment are eliminated immediately. IC/IDs that are not deemed to pose serious threats to public health or the environment are eliminated through an escalating series of enforcement actions, which are described in the Enforcement Response Plan (included in Appendix B).

When a discharge originates from a source outside the City's jurisdiction, the City does not have legal authority to require that the discharge be eliminated. The City will notify the responsible agency with jurisdiction over the source of the discharge so that that agency can take action to eliminate the discharge. In the event that the responsible agency is not responsive

or otherwise does not eliminate the discharge in a timely manner, the City will notify the RWQCB as well.

If a responsible party has been identified during an illegal discharge investigation, the responsible party is required to take appropriate action to eliminate the illegal discharge and to perform any necessary clean-up or remediation in accordance with the City's minimum BMPs (Appendix B). Enforcement actions are taken as necessary to bring about compliance. If a responsible party does not perform the necessary corrective action, the City may directly remedy the violation and bill the responsible party for abatement costs. See the Enforcement Response Plan in Appendix B of this JRMP document for additional information about enforcement procedures.

Appropriate remedial actions that may be taken to eliminate illegal discharges may include the following:

- Redirect non-hazardous discharges to the sanitary sewer, collection container, or onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the MS4 or any adjacent property.
- Redirect hazardous discharges to a collection container for reuse or disposal via a licensed hazardous waste disposal service.

The City takes appropriate action to ensure the disconnection, blockage, or diversion of a pipe, facility, or other device connected to the storm drain system or receiving waters that has not been authorized by the City and is contributing an illegal discharge to the storm drain system. Examples of appropriate actions may include the following:

- Plug sinks and drains that are discharging illegal materials to the storm drain system.
- Divert illegal discharges to the sanitary sewer if approved by the City, or treat on-site.

Illegal connections often require coordination between multiple City divisions, including Public Works Sewer, Stormwater, Building, and Planning. Note that in some cases special permits from the local Wastewater Authority are needed before material can be discharged to the sanitary sewer system in addition to the City's approval.

3.5.5 Record Keeping

The City will maintain records of the following information for IC/ID investigations using an Excel spreadsheet or other electronic database:

- Location of incident, including hydrologic subarea, portion of MS4 receiving the non-stormwater or illegal discharge, and point of discharge or potential discharge from MS4 to receiving water.

- Source of information initiating the investigation (e.g., public reports, staff or contractor reports and notifications, field screening, etc.).
- Date the information used to initiate the investigation was received.
- Date the investigation was initiated.
- Dates of follow-up investigations.
- Identified or suspected source of the illegal discharge or connection, if determined.
- Known or suspected related incidents, if any.
- Result of the investigation.
- If a source cannot be identified and the investigation is not continued, document the response pursuant to the requirements of Municipal Permit Section E.2.d.(3).

3.6 Enforcement

The City will take action in accordance with its Enforcement Response Plan, which is a component of the BMP Manual (Appendix B), to eliminate IC/IDs. If the source of the non-stormwater discharge to the MS4 is natural (i.e. non-anthropogenic), then the City will document the data and evidence necessary to demonstrate to the RWQCB that the discharge arises from a natural source and does not require enforcement or further investigation.

The Municipal Permit requires that violations are corrected within no more than 30 days, where feasible. When compliance has not been achieved within 30 days of discovering the violation, Stormwater Division staff will document why the violation has not been corrected within the appropriate timeframe.

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Table 3-1. Methods for Addressing Common Types of Non-Stormwater Discharges

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Uncontaminated pumped ground water		X[1]	X	X		X		
Water from crawl space pumps		X[1]	X	X		X		
Discharges from foundation drains and footing drains[2]		X[1]	X	X		X		
Discharges from foundation drains and footing drains[3]								X
Water line flushing and water main breaks						X		
Discharges from recycled or reclaimed water lines						X		
Diverted stream flows								X
Rising ground waters								X
Uncontaminated ground water infiltration to MS4								X
Springs								X
Flows from riparian habitats and wetlands								X
Discharges from potable water sources								X
Air conditioning condensate		X[1]	X	X			X	
Residential vehicle washing			X		X		X	
Dechlorinated swimming pool water		X[1]	X				X	
Saline swimming pool water	X	X[1]	X					
Building fire suppression system maintenance discharges	X[5]	X[1]					X[4]	

Table 3-1. Typical Methods for Addressing Common Types of Non-Stormwater Discharges (continued)

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Non-emergency firefighting discharges	X	X[1]	X				X	
Emergency firefighting discharges							X[5]	
Irrigation runoff			X	X	X			
Non-residential vehicle washing	X	X[1]	X[6,7]	X				
Cleaning water not containing added chemicals (e.g., from power washing, hosing, etc.)	X	X[1]	X	X				
Cleaning water containing added standard cleaning products (e.g., mop water)	X	X						
Release of stored stormwater from construction sites							X	

Notes:

"X" indicates an acceptable discharge method.

1. Discharge to the sanitary sewer system requires prior approval from the Lemon Grove Sanitation District.
2. If designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.
3. If designed to be located above the groundwater table at all times of the year and only expected to discharge non-stormwater under unusual circumstances.
4. Discharges that include anticorrosion additives, antifreeze, or other sources of pollutants may not be discharged to the MS4, even if BMPs are implemented.
5. During emergency situations, priority of efforts should be directed toward life, property, and the environment (in descending order). BMPs should not interfere with immediate emergency response operations or impact public health and safety.
6. Only applies to discharges that do not include any additives that may contain pollutants.
7. Non-residential vehicle washing that occurs on an occasional basis may be discharged to landscaping. Designated vehicle wash areas and other facilities or activities that regularly wash higher volumes of vehicles may not discharge wash water to landscaping as the method of preventing discharge to the MS4.

4 Development Planning

4.1 Introduction

Development projects can result in increased runoff volumes and increased levels of pollutants in runoff relative to pre-development conditions. The addition of impervious surfaces, such as pavement or rooftops, during development can be a key contributor toward flow runoff volume increases. Increased runoff volumes may increase stream flow rates and durations, which in turn can lead to increased erosion in and transport of other pollutants into local rivers and streams. This process is referred to as hydromodification.

To address these conditions, the City of Lemon Grove (City) has established design standards for new development and redevelopment projects that require the use of permanent stormwater control measures, including Low Impact Development (LID) measures and other structural post-construction best management practices (BMPs), to reduce the potential for pollutants to impact stormwater quality and to control stormwater discharges (both flow and duration).

With limited land available for new development, most of the development projects within the City are redevelopment projects. Redevelopment projects provide the City with an opportunity to improve the site design of already developed areas and potentially reduce the amount of runoff from urban areas and improve the quality of the City's receiving waterbodies.

The City addresses storm water management and discharge control through implementation of its Storm Water Ordinance (Lemon Grove Municipal Code Chapter 8.48) and Standard Urban Storm Water Mitigation Plan (SUSMP) Ordinance (Chapter 8.52). The Countywide Model SUSMP is incorporated by reference into the City SUSMP Ordinance and made part of the chapter's requirements. The City's existing SUSMP will be replaced by the BMP Design Manual in December 2015. Once it is adopted, the BMP Design Manual will list the specific post-construction BMP requirements developed by the City for development projects. Overall, the City requires these post-construction BMPs through its development review process, and later verifies BMP installation at the completion of construction. The City then continues to track and enforce structural post-construction BMPs (hereinafter, "structural BMPs") following project completion.

4.2 Development Project Requirements

Development projects are defined by San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001, (Municipal Permit) as new development or redevelopment with land disturbing activities, structural development including construction or installation of a building or structure, the creation of impervious surfaces, public agency projects, and land subdivision. Through the implementation of the

development planning process the City will reduce the discharge of pollutants from development projects to the Maximum Extent Practicable (MEP), protect receiving water bodies, and manage increases in runoff from development projects that have the potential to increase erosion in streams or rivers.

The City's Storm Water Ordinance (Chapter 8.48) and SUSMP Ordinance (Chapter 8.52) require development projects within the City of Lemon Grove to incorporate structural post-construction BMPs into their designs. The County Model SUSMP and the Hydromodification Plan (HMP) were both developed through a regional effort including the City and the 20 other municipal agencies in San Diego County (collectively, "Copermittees").

The Copermittees are currently developing a revised set of post-construction BMP requirements, the BMP Design Manual, to address the requirements in the Municipal Permit. The new BMP Design Manual is expected to replace the existing SUSMP post-construction BMP requirements by December 2015. Until then, the existing requirements in the SUSMP remain in effect.

Any development project that does not obtain prior lawful approval before the new requirements go into effect must update its design to comply with the new requirements. The current County Model SUSMP defines prior lawful approval as having obtained an approval from the City (such as a development agreement, vested tentative map, building permit, or grading permit) and having started construction before the date that the new requirements will go into effect. Each case is analyzed for compliance with this provision on a case by case basis. The City will continue to apply this definition of prior lawful approval unless the RWQCB issues additional clarification on the definition of prior lawful approval, in which case the City will update its definition based on the most recent direction from the RWQCB.

4.2.1 Types of Development

The City works closely with project proponents to assess what level of post-construction storm water requirements apply. Projects are classified as Priority Development Projects, standard development projects, or projects that are not considered "development projects" under the Municipal Permit. Not all site improvements are considered development projects since not all improvement work involves activities that have the potential to come in contact with storm water. For example, work that occurs only on the interior of a building is not considered a development project for storm water purposes.

Projects with an elevated potential impact on storm water quality are considered Priority Development Projects. This determination is based on the criteria in the City's SUSMP, which includes factors such as the project size, the amount of impervious area created or replaced, and the proposed land use. The City uses a standard applicability checklist form, included in

Appendix F, to assess whether projects are Priority Development Projects. The City's Storm Water and SUSMP Ordinances provide more detailed information on how projects are classified.

4.2.2 BMP Requirements for Development Projects

The City has established a set of minimum post-construction BMP requirements that apply to all development projects. Both Priority Development Projects and standard development projects are required to incorporate site design LID BMPs and source control BMPs. Because Priority Development Projects are larger or include activities that have a higher potential to generate pollutants, they are also required to install LID or other structural BMPs that meet numeric sizing standards. Numeric sizing incorporates design for water quality treatment and, where applicable, peak flow and flow duration control for hydromodification. If numeric sizing standards can be satisfied by LID features only, additional non-LID structural BMPs are not required. The same requirements apply to both private projects and the City's Capital Improvement Projects (CIP). More detailed information about BMP requirements is currently provided in the City's SUSMP Ordinance and County Model SUSMP.

During the process of replacing the SUSMP with the new BMP Design Manual requirements, the City will develop standards for Priority Development Projects designed to prevent them from having a negative net impact on critical coarse sediment discharges to receiving waters, as required by the Municipal Permit. The regional Watershed Management Area Analysis (WMAA) has identified critical coarse sediment areas and developed a geodatabase that shows their locations. The WMAA report and geodatabase have been provided to the City. Complete guidelines for hydromodification management BMPs are also provided in the SUSMP.

It should be noted that in accordance with the WQIP strategies for development planning, the City is focusing on select site design and source control BMPs during project planning. For example, the City will require all new development and redevelopment projects to meet trash area standards, where feasible, including a full four-sided enclosure, siting away from storm drains, and with structural overhead cover. In addition, the City is requiring downspout disconnection and/or other runoff reduction measures, where feasible, for standard development projects. These BMP requirements will be verified during the permitting approval process.

4.2.3 Alternative Compliance

As noted earlier, the existing SUSMP will continue to apply until the new BMP Design Manual, which incorporates the requirements of the 2013 Municipal Permit, goes into effect. Under the 2013 Municipal Permit requirements, each Copermittee, including the City of Lemon Grove, has the option to develop an alternative compliance program. An alternative compliance program would allow project proponents that cannot meet the requirements solely through onsite BMPs

to satisfy the requirements by implementing additional BMPs offsite. All Copermittees, including the City of Lemon Grove, are currently funding a study to collect technical information on approaches to evaluate water quality equivalency among multiple BMPs. Additional work to develop a crediting system based on the water quality equivalency study results is also expected to be necessary to support the creation of an alternative compliance program.

Once the studies of water quality equivalency and crediting approaches have been finalized, the City will evaluate the feasibility of establishing an alternative compliance program. In the meantime, the City will reserve the right to consider proposals to satisfy post-construction BMP requirements through an alternative to the standard onsite compliance approach. Private project developers and current or future land owners will be responsible for all expenses for preparing documentation and analyses to show how the proposed approach meets Municipal Permit requirements and for all expenses related to BMP construction and long-term operation and maintenance. The City will also require the project proponent to obtain approval from the RWQCB for the proposed design before the City will approve it.

4.3 Project Review and Approval

The City has an established multi-departmental review and verification process for all new development and redevelopment projects, which includes both private and public projects. Through the implementation of development project requirements in the current SUSMP and application of the procedures detailed below, the City will mitigate the negative impacts of urban runoff from development projects to the Maximum Extent Practicable (MEP).

During the planning phase, development project proponents may request a pre-application meeting with City staff to discuss requirements, prior to submitting a project application. Development Services staff work with applicants during the initial permit application stage to determine which post-construction storm water requirements may apply. Standard development projects are required to show site design and source control BMPs, such as downspout disconnections and other BMPs listed in Section 4.2.2, on their plans but are not required to submit a separate post-construction BMP plan. Each Priority Development Project is required to prepare a post-construction BMP plan (WQTR or SWQMP). Operation and Maintenance (O&M) Plans are also required for all Priority Development Projects as part of the post-construction BMP plan.

Engineering reviews the submitted post-construction BMP plan and provides plan check comments to the applicant as necessary. The post-construction BMP plan is required to be revised and resubmitted until it meets the City's requirements. Grading permit approval is not granted until the post-construction BMP plan has been approved and the structural BMPs proposed in the post-construction BMP plan have been included on the grading plan.

Once the plan check process is complete and the project plans are approved for all of the applicable permits, the permits are issued, and construction may begin. Any changes made to a development project's proposed BMPs during project construction must be approved by the City before implementation. This includes providing a revised post-construction BMP plan to Engineering with the proposed changes. City construction inspectors also check that structural BMPs have been installed per plan, as described in Section 4.4 below.

All private Priority Development Projects are also required to submit a completed Storm Water Facilities Maintenance Agreement (SWFMA) to assure ongoing long-term maintenance of all structural BMPs. After BMP installation has been verified, but before final occupancy has been granted, the SWFMA for each project is required to be recorded with the County Recorder. The SWFMA runs with the land, which means maintenance responsibility is transferred with sale of the property.

4.4 Verification of Structural Post-Construction BMPs

The City's Engineering Department staff inspect the final completion of structural post-construction BMPs that are associated with engineering permits (grading permits and public improvement permits) and CIPs. Engineering staff also inspect the construction and installation of structural BMPs that are associated with private development that requires a demolition or building permit. During the inspection, staff compare the project as constructed to the approved plans to verify the structural post-construction BMPs have been constructed per the plans.

Prior to certifying a project ready for occupancy or returning the applicant's bonds, Engineering staff verify that post-construction BMPs have been constructed consistent with approved development plans. The Certificate of Occupancy will not be issued to private projects unless the proposed structural post-construction BMPs have been inspected and signed off as being constructed properly. In the case of CIPs and other public projects, the City will not release final payment to its contractor until structural post-construction BMPs have been installed per plans.

If any BMP is noted to be missing or incorrectly installed by any of the City's inspectors during or upon completion of construction, appropriate enforcement measures as described in Section 4.6 and in the City's Enforcement Response Plan (Appendix C) will be taken to require the proper installation of all approved BMPs.

4.5 Structural Post-Construction BMP Tracking and Maintenance Verification

Following construction and approval of structural post-construction BMPs, the City takes measures to verify that they are being maintained as designed. The program activities described below apply to structural post-construction BMPs on both privately-owned and City-owned Priority Development Project sites.

4.5.1 Inventory and Prioritization

After the City verifies proper installation of structural BMPs at a Priority Development Project, that project is added to the City's structural BMP inventory. The City maintains this inventory in an Excel spreadsheet or other electronic database. The database is regularly updated as Priority Development Projects with structural BMPs are completed and as site details change. Ownership or other contact information is first filled in when a new project is added to the inventory, and it is updated as needed based on the results of the annual maintenance verification process and site inspections. This database includes the following information:

- Project address and hydrologic subarea (HSA)
- Structural BMP type(s)
- Structural BMP location(s)
- Approximate project size
- Date of construction (fiscal year completed)
- Contact information for responsible parties of BMP maintenance
- Inspection results, enforcement actions, and resolutions

Project plans and WQTR exhibits, which show the locations of structural BMPs, are also kept on file as a reference for inspectors.

The City prioritizes its inventory of Priority Development Projects by designating the projects that are high priority for inspections. A project is classified as high priority or standard priority when it is first added to the inventory. Inventory priority may change as a compliance history is established through the inspection program. The City aims to focus inspection resources on the projects and BMPs likely to make the largest impact on water quality improvement.

Table 4-1 summarizes the criteria that were incorporated into the prioritization procedure and how they satisfy the Municipal Permit requirements. The City may also consider additional site-specific information beyond those included in Figure 4-1 and Table 4-1 when assigning priorities where applicable.

Table 4-1. Structural BMP Prioritization Factors

Flow Chart Prioritization Factor	Corresponding Municipal Permit Prioritization Criteria	Rationale/Notes
Project size (> 5 acres or > 2 acres)	• Number and size of structural BMPs • Likelihood of operational and maintenance issues associated with BMP(s)	Larger sites with more BMPs and BMPs with larger drainage areas have a larger potential positive impact on water quality if properly maintained.
Industrial/commercial land use or streets land use	• Land use and expected pollutants generated	Businesses are considered potential sources of bacteria and metals. Streets and roads are considered potential sources of metals.
Located within the Chollas Creek Watershed	• Highest priority water quality conditions identified in Water Quality Improvement Plans • Receiving water quality	Highest priority water quality conditions and corresponding numeric goals have been established for the Chollas Creek watershed.
Site-specific factors (also see footnote in Figure 4-1)	• Compliance record • Likelihood of operational and maintenance issues associated with BMP(s) • Recommended maintenance frequency of the BMP(s)	City staff may adjust priorities based on results from inspections and review of submitted maintenance verification information.

4.5.2 Maintenance Verification and Inspections

4.5.2.1 Annual Maintenance Verification

An operation and maintenance plan is required with a project's post-construction BMP plan and can be used by responsible parties to guide maintenance activities. In addition, the City will implement an annual certification program to verify that structural post-construction BMPs associated with Priority Development Project sites are, in fact, being maintained as designed. Each year responsible parties for Priority Development Project sites will be required to submit a certification form to the City, documenting dates of inspection/maintenance for each BMP on site. Maintenance verification forms must be completed and signed by the responsible party and submitted to the City. Evidence that maintenance activities were properly conducted must be provided and may come in the form of photographs, invoices, and/or other detailed descriptions of materials removed and disposed of properly. An example maintenance verification form is provided in Appendix F.

4.5.2.2 Maintenance Inspections

Structural post-construction BMPs installed at development projects will be subject to inspection by City inspectors to ensure the BMPs are being maintained and operating as designed. Each year, all high priority project sites will be inspected prior to the start of the

rainy season (i.e., prior to October 1). In addition to inspecting all high priority sites before the start of the rainy season, any projects that do not provide sufficient documentation to verify that appropriate maintenance work has been performed through the annual maintenance verification program described above will also be inspected before the end of the fiscal year. Additional standard priority sites may also be inspected based on site compliance history and City staff professional judgment.

Inspections will include examination of all structural BMPs at the site to verify that each structural BMP is being maintained in accordance with the operation and maintenance plan agreement and is in compliance with all applicable City ordinances and permits. Inspection findings will be documented by the inspector using the inspection form in Appendix F. If any deficiencies in structural BMP operation and maintenance are noted during the inspection, the responsible party will be notified, and follow-up action (including enforcement if necessary) will be taken as described in the following section.

Inspection findings and follow-up actions for structural BMP inspections will be included in the structural BMP database.

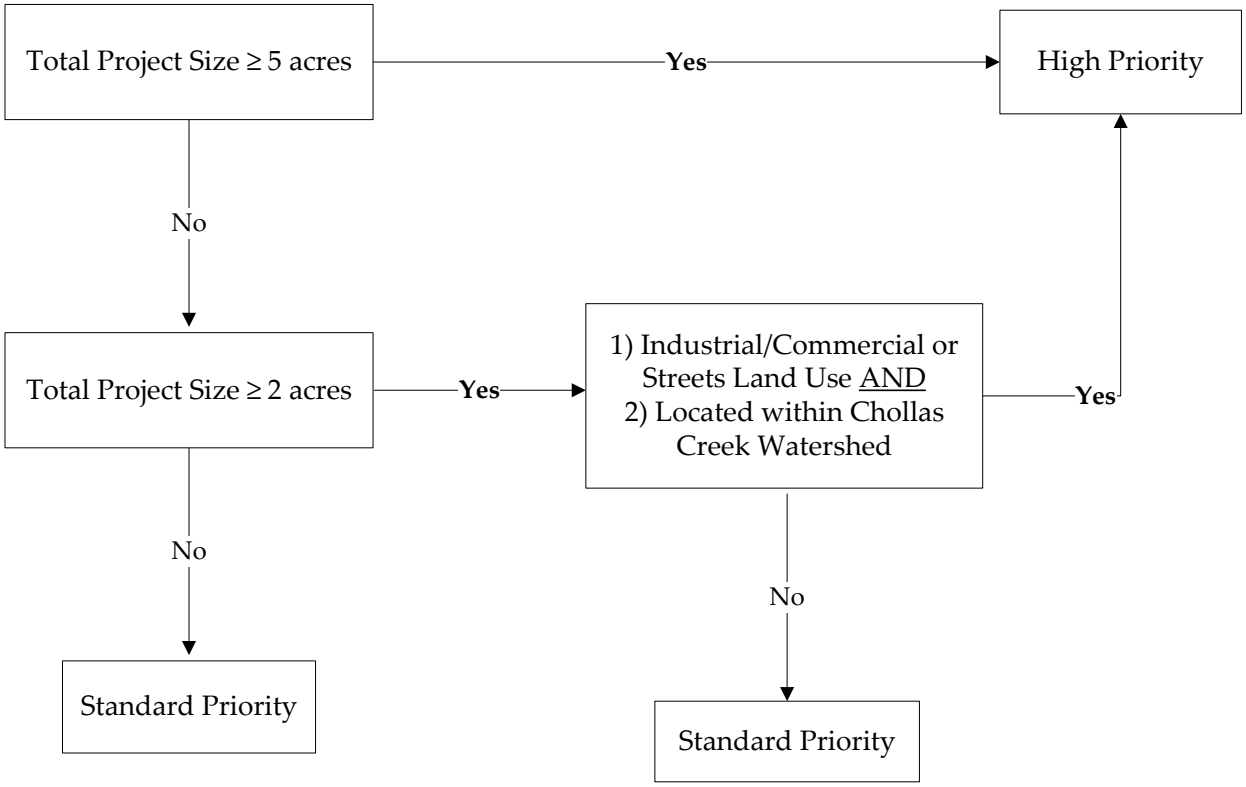
4.6 Enforcement

City staff will use a range of enforcement methods to ensure all structural post-construction BMPs on its inventory are properly maintained. Generally, written warnings will be issued to initiate corrective actions. Escalated enforcement, through use of Notice of Violations or administrative citations, may also be used. The City's Enforcement Response Plan (Appendix B) provides details on the process for initiating enforcement actions due to post-construction BMP maintenance deficiencies. As required by the MS4 Permit, a rationale will be recorded whenever compliance cannot be achieved within 30 days. Note that enforcement measures related to ensuring structural post-construction BMPs are built per the plans, prior to the completion of project construction, are discussed in Section 4.4 above.

4.7 Existing Development Retrofit and Rehabilitation

As required by the MS4 Permit, the City has developed an approach to identifying potential retrofit and stream, channel, or habitat projects for existing development. Appendix E describes the City's approach to identifying and implementing potential projects.

Figure 4-1. Prioritization Process for Projects with Structural BMPs



Notes:

- Industrial/Commercial Land Use – any project for which any of the following Priority Development Project categories applies: Industrial Development, Heavy Industry, Commercial Development, Automotive Repair, Restaurant, or Retail Gasoline Station.
- Streets Land Use – any project for which the Streets, roads, highways, or freeways Priority Development Project category applies.
- Projects in the Chollas Creek Watershed are assigned higher priorities because Chollas Creek is subject to TMDLs and corresponding numeric goals have been established in the WQIP.
- The City may adjust assigned priorities based additional site-specific conditions or factors, such as maintenance history or inspection compliance history.

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5 Construction Management

5.1 Introduction

Construction activities include clearing, grubbing, grading, stockpiling, excavation, building, landscaping, utility installation, and street improvements. All of the pollutants, such as sediment and trash, potentially generated by these and other construction-related activities can impact local storm sewer systems, as well as the receiving waters and watersheds to which they drain. The City of Lemon Grove's (City) Construction Management Program identifies the pollutants that may exist at active construction sites and presents a range of best management practices (BMP) and supporting administrative processes designed to eliminate or reduce them. Although many of these BMPs and strategies are enumerated in the San Diego Bay Water Quality Improvement Plan (WQIP), specific construction program activities are discussed here in the full context of the City's construction management program.

The cooperation of various responsible parties, such as construction site owners and developers, is key to the success of the City's construction program in complying with California Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (Municipal Permit). To secure their cooperation, the City has reviewed and/or updated its local ordinances and guidance documents as an authorized form of legal enforcement. The following sections detail how the City of Lemon Grove will meet the minimum requirements outlined in Section E.4 of the Municipal Permit to eliminate or reduce the release of pollutants into the storm drain system and adjacent water bodies to the maximum extent practicable (MEP).

5.2 Best Management Practice Requirements

5.2.1 Minimum BMP Requirements

Construction sites within the City's jurisdiction are required to implement and maintain BMPs in the following categories, where applicable, as required by the Municipal Permit:

- Project Planning
- Erosion Control
- Sediment Control
- Run-on and Runoff Control
- Good Site Management ("Housekeeping"), including Waste Management
- Non-Stormwater Management

- Active/passive sediment treatment systems

The City uses the California Stormwater Quality Association (CASQA) BMP fact sheets as its standards. The City's BMP Manual (Appendix B) provides more detail on the BMP requirements, including identifying how the CASQA BMPs align with the Municipal Permit BMP categories listed above. Projects are required to implement BMPs applicable to the three major phases of construction, as defined below:

Grading: Demolition, ROW work, site preparation and earthmoving, earthwork, construction or relocation of above ground and below ground utilities, construction or relocation of below ground structures, work associated with construction of above ground structures more than five feet from the structures, dewatering, and hydrostatic testing of utilities and fire systems

Vertical: Construction of above ground structures in the area within five feet from structures, stucco, framing, mechanical, roofing, painting, drain flushing, and fire system testing (hydrants, sprinklers)

Finish: Roadways, slurry seal, asphalt, concrete, walkways, parking lots, landscaping, painting, striping, traffic and lighting facilities, architectural

The City requires a complete set of BMPs at all sites, with an emphasis on an effective combination of both erosion control BMPs and sediment control BMPs to reduce discharges of sediment. The City emphasizes erosion control BMPs as the primary approach to reducing pollution in discharges from construction sites. Sediment control BMPs alone are not considered acceptable. All implemented BMPs must be properly maintained until they are removed. The BMPs selected for each project must be appropriate to the types of work proposed, including the different phases of construction. City inspectors also have the authority to require additional or different BMPs than what were originally shown on plans based on the inspectors' assessment of conditions in the field during their inspections.

Construction projects may also be subject to the requirements of the statewide Construction General Permit, State Water Resources Control Board Order No. 2009-0009-DWQ, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (CGP). The City may require additional BMPs to be implemented at construction sites as necessary to prevent pollutants from discharging from construction sites to the City's MEP standard. This may include active treatment systems, as described in the BMP Manual (Appendix B).

5.3 Project Approval Process

All land development projects applying for a grading permit are required to develop an Erosion Control Plan. The Engineering Division of the Development Services Department reviews the Erosion Control Plan submittals for consistency with the minimum BMP requirements listed in

the BMP Manual (Appendix B). The City uses a standard checklist to guide its reviews of erosion control plans (Appendix F).The Erosion Control Plan is included as part of the grading plan submittal to Engineering, and a grading permit is not issued until the entire grading plan submittal, including the Erosion Control Plan, is approved. The City has the authority to require different plan sheets for different phases of construction for more complex projects if deemed necessary.

The City also requires projects subject to the CGP to provide proof of coverage before construction work may begin. Note that the CGP requires projects to complete Storm Water Pollution Prevention Plans (SWPPP), which include components similar to the Erosion Control Plan plus additional content required by the CGP. The City typically does not review SWPPPs for private projects, but the City does review SWPPPs for Capital Improvement Projects (CIP) since the City is the legally responsible party under the CGP. Aside from this difference, both CIP projects and private projects go through the same review and approval steps. The City also focuses its review on the Erosion Control Plan because the required grading bond is based on the Erosion Control Plan. The grading bond creates a maintenance funding mechanism that assures funds will be available to repair or construct BMPs in the event of default by the responsible party.

Projects too small to require grading permits generally disturb minimal soil and are short in duration. These projects are notified of their obligation to implement BMPs during the permitting process. These projects are not tracked in the construction inventory.

5.4 Construction Site Inventory

The City of Lemon Grove maintains a watershed-based inventory of active construction sites within its jurisdiction. The inventory includes details on each construction site, including project name, location, and construction site priority as determined by the process described in Section 5.5. Construction sites are added to the City's construction inventory when grading permits are approved. Larger building permit only projects (e.g. select PDPs) may be included on the inventory as well.

Capital Improvement Projects (CIP) are also added to the construction inventory when a project begins construction with excavation occurring. Completed projects are removed from the inventory upon finalization, as reported by City inspectors. In other words, the project must be deemed complete by the City inspector. While the City's construction inventory is updated on an ongoing basis, the City will review the inventory on a quarterly basis, at least, to ensure that the inventory is current and accurate.

The City uses an Excel spreadsheet to maintain its inventory. See an example spreadsheet in Appendix F, which includes the following components required by the Municipal Permit:

- Contact information for each site (e.g., name, address, phone, and email for the owner and contractor).
- Basic site information including location (address and hydrologic subarea), Waste Discharge Identification (WDID) number (if applicable), size of the site, and approximate area of disturbance.
- Threat to water quality (TTWQ) priority (see Section 5.5).
- Project start and completion dates as defined by inspector reports.
- Required inspection frequency.
- Date of acceptance or approval of the Erosion Control Plan or other construction BMP plan. Because the Erosion Control Plan is part of the grading plan, the approval date on the grading plan is also the approval date for the Erosion Control Plan.
- Any enforcement actions administered to the site.

5.4.1 Construction Site Prioritization

All construction sites within the City's jurisdiction are assigned priorities based on the criteria in Table 5-1, which incorporates the prioritization factors from Municipal Permit sections E.4.b.(2) and E.4.d. Priorities are initially assigned when a project is added to the inventory. During the quarterly review of the City's construction inventory, re-prioritization of TTWQ designations for active construction sites will be performed as needed.

Table 5-1. Construction Project Threat to Water Quality Prioritzation Criteria

CGP Category	Site Priority
Risk Level 2 or 3 or LUP Type 2 or 3	High
Risk Level 1 or LUP Type 1	Medium
All other projects	Low

Notes
CGP – State Construction General Permit
LUP – Linear Underground/Overhead Project

Other factors besides those discussed above that can influence a construction site's TTWQ. The City maintains the right to re-prioritize a construction site's assigned TTWQ during the course of construction based on compliance history or if any of the prioritization factors change. Note that proximity to environmentally sensitive areas is not included in the above process because no environmentally sensitive areas have been identified in the City of Lemon Grove.

5.5 Inspection of Construction Sites

The City has an established inspection program to evaluate proper BMP implementation at construction sites within the City's jurisdiction. The inspection program is designed to confirm sites reduce the discharge of pollutants in stormwater to the MEP and effectively prohibit non-stormwater discharges. Once construction starts, Engineering Division inspection staff are tasked with performing regularly scheduled site inspections to ensure BMPs are implemented consistent with the Erosion Control Plan and the City's minimum BMP requirements during each stage of construction.

Pre-construction meetings may be held with the contractor before work begins. During these meetings, City staff discuss BMP requirements, including how they are likely to apply over the life of the construction project as it progress from one phase to another. Contractors are also informed that City inspectors have the authority to require implementation of all BMPs the inspector deems necessary to reduce pollutant discharges to the MEP, even if those BMPs are not explicitly shown on the project's Erosion Control Plan.

Site inspections performed by the City inspection staff evaluate compliance with minimum BMP requirements, as required through applicable ordinances and permits. Inspection findings are documented on the City's construction inspection form (Appendix F), tracked in an Excel spreadsheet and kept in each construction site's file. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in City's Enforcement Response Plan, will be taken. Details of the City's inspection procedures are described in the following subsections.

5.5.1 Initial Site Inspections

Initial inspections typically include an in-depth discussion of proposed BMPs and site management with the project's onsite responsible party. Once construction starts, a City inspector will visit the site and perform the following:

- Where applicable, a check for proof of coverage under the General Construction Permit (NOI and/or WDID number).

The inspector will also complete the following for all high and medium TTWQ sites:

- A review of the SWPPP (where applicable) or Erosion Control Plan with the project's responsible person to ensure the site is being managed in accordance with the plans and that the plans are appropriate to the current construction conditions.
- A review of the maintenance schedule and procedures for each BMP.
- A check for proper implementation of the BMPs outlined in the project's plans, and confirmation that the site is in compliance with the City's stormwater requirements.

All medium and high TTWQ construction sites in the City's construction site inventory receive initial site inspections. If any required documents or BMPs are found to be missing or deficient, the City may issue a stop work notice until the deficiencies are corrected.

5.5.2 Routine and Follow-Up Inspections

After an initial site inspection, additional routine inspections are performed per the frequency in Table 5-2. The frequency depends on the site's assigned TTWQ, as determined through the prioritization process described in Section 5.4.

The following table presents the different TTWQ categories and their corresponding inspection frequencies for the wet (October 1 through April 30) and dry (May 1 through September 30) seasons.

Table 5-2. Construction Site Inspection Frequency

Construction Site TTWQ	Wet Season Inspection Frequency[1]	Dry Season Inspection Frequency[1]
High	Twice per Month	As Needed
Medium	Monthly	As Needed
Low	As Needed[2]	As Needed

Note

1. Inactive construction sites are inspected as needed.
2. Low priority projects are generally inspected at least once over the life of the project. Since many low priority projects are very small projects, the construction duration may be too short for a stormwater inspection to occur.

The City may reevaluate a construction site's TTWQ and subsequent inspection frequency, particularly when grading activities are being conducted during the wet season. The City maintains the right to inspect a site more often than the frequencies listed in Table 5-2 if necessary. The need for additional inspections can vary depending on site conditions, previous violations, history of developer or contractor past performance, and/or weather patterns.

At a minimum, routine inspections will include the following components:

- Assessment of the implementation of all required minimum BMPs and any additional BMPs required by the City, whether required through ordinances or permits. This assessment includes evaluating the adequacy and effectiveness of implemented BMPs, including how they are maintained.
- Assessment of whether project proponents are making appropriate adjustments when BMP inefficiencies are found as a result of self- or City-conducted inspections.

- Visual observations of actual or potential discharges of sediment or construction related materials from the site.
- Visual observations to evaluate presence of non-stormwater discharges.
- Visual observations of actual or potential illicit connections
- . Education of project proponents on stormwater pollution prevention as needed.

When an inspection finds a site is noncompliant, the City will follow-up with the site until compliance is confirmed. Enforcement actions will be taken as necessary to bring about compliance, as discussed in Section 5.7 and the City's Enforcement Response Plan (included in Appendix B).

5.5.3 Inspection Tracking

The number of inspections performed at each construction site will be tracked both in an Excel spreadsheet and in the City's construction project files to ensure all sites in the City's inventory are being inspected at the appropriate frequency. All inspection records and related documentation for each inspection at inventoried construction sites will be documented as well. These documents will be made available to RWQCB staff upon request. Inspection records will include the following information, at a minimum:

- Site name, location (address and HSA), and WDID number (if applicable).
- Inspection date.
- Approximate amount of rainfall since last inspection.
- Description of problems observed with BMPs and indication of need for BMP addition/repair/replacement and any scheduled re-inspection, and date of re-inspection.
- Descriptions of any other specific inspection comments which must, at a minimum, include rationales for longer compliance time.
- Description of enforcement actions issued in accordance with the City's Enforcement Response Plan.
- Resolution of problems noted and date problems were fixed.

5.6 Enforcement

The City enforces its construction BMP requirements at all construction sites in its jurisdiction. When violations are observed and documented during a site inspection, the City will implement appropriate enforcement measures discussed in the City's Enforcement Response Plan (included in Appendix B).

City inspectors will typically seek to resolve incidents of observed noncompliance within 72 hours. Additional enforcement actions will be taken as necessary to bring about compliance when the required corrections are not made within the initial 72 hour timeline. In cases where the violation cannot be resolved within 30 days, the reason additional time was needed for case resolution will be documented and kept in the project's file. Enforcement actions are based on the severity of the violation and can range from written warnings to more severe enforcement such as stop work notices. The RWQCB will be notified within five days whenever a stop work order or other escalated enforcement action is issued to a construction site that poses a significant threat to water quality as a result of violations or other non-compliance with the City's stormwater requirements. When a site is subject to the CGP, City staff may also collaborate with RWQCB staff on enforcement actions. Sites that are subject to the CGP but are found not to have obtained coverage under the CGP will be reported to the RWQCB within five days of the City becoming aware that the project lacks appropriate coverage. Notice will typically be provided via email to RB9_Nonfilers@waterboards.ca.gov

See the Enforcement Response Plan (included in Appendix B) for additional details on the City's enforcement process for construction projects.

6 Industrial and Commercial Facilities

6.1 Introduction

Industrial and commercial facilities are concentrated mainly toward the northern side of the City along Federal Boulevard, Broadway, and Lemon Grove Avenue, as shown in Figure 1-1. The City requires industrial and commercial facilities or areas to implement pollution prevention methods, also known as BMPs, to reduce discharges of pollutants to the MS4. The required BMP are listed in the City's BMP Manual (Appendix B) and have been developed based on the requirements of the Municipal Permit.[1] The City inventories businesses subject to these requirements and facilitates BMP implementation through education, inspections, and enforcement. The City has also incorporated strategies to reduce discharges of bacteria and heavy metals, the HPWQCs identified in the WQIP for the San Diego Bay WMA.

6.2 Industrial and Commercial Source Inventory

6.2.1 Background

A watershed-based inventory of known industrial and commercial businesses (collectively, "facilities") and areas within the City's jurisdiction has been developed and will be updated annually. The types of facilities included on the inventory are listed in Section 6.2.3. These types of facilities are believed to have the potential to discharge pollutants into the MS4 and impact local water quality.

6.2.2 Data Sources

The City regularly maintains and updated a watershed-based inventory of the industrial and commercial facilities within its jurisdiction. The primary data sources for the inventory are listed below:

- Historical inspection results
- City of Lemon Grove business license listings
- The State's list of facilities covered under the NPDES Industrial General Permit, Order No. 2014-0057-DWQ (Industrial General Permit)

[1] San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001

6.2.3 Inventoried Facilities

The Municipal Permit states that the City must maintain "a watershed-based inventory of existing development within its jurisdiction that may discharge a pollutant load to and from the MS4." All industrial and commercial facilities with outdoor activities and/or storage are considered to be facilities that may discharge pollutants to the City's MS4 and are therefore included on the inventory.

Mobile facilities known to operate within the City's jurisdiction are also included on the City's industrial and commercial inventory. Unlicensed mobile businesses are identified and added to the inventory based on incidents reported to the Stormwater Hotline and violations directly observed by City or contract staff. Examples of mobile businesses include the following:

- Mobile vehicle washing
- Power washing services

6.2.4 Inventory Data Management

The City maintains its industrial and commercial inventory in accordance with Permit Section E.5.a. The inventory is maintained in an Excel spreadsheet or other electronic database. At a minimum, the inventory includes, where applicable, the following information for industrial and commercial facilities within its jurisdiction:

1. Name and location (HSA and address).
2. Classification as industrial or commercial.
3. Status of facility or area as active or inactive.
4. Identification if a business is a mobile business.
5. Standard Industrial Classification (SIC) codes.
6. Industrial General Permit NOI and/or WDID number.
7. Identification of pollutants generated and potentially generated by the facility or area.
8. Whether the facility or area is tributary to and within the same HSA as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired. The process for determining which pollutants a business is likely to be a source of is described in Section 6.2.5. The pollutants associated with 303(d) listings in each HSA are listed in JRMP Section 1.

Note that the Municipal Permit requires the inventory to indicate whether facilities are adjacent to environmentally sensitive areas (ESA). Because no ESAs have been identified within Lemon Grove, no inventoried facilities are considered adjacent to ESAs.

The City has begun recording GPS coordinates or Assessor's Parcel Numbers (APN) for inventoried businesses, which allows them to be mapped directly. Businesses for which this information has not yet been obtained may be mapped by street address. The City therefore has the ability to map the location of inventoried existing development, along with watershed boundaries and water bodies, as required by the Municipal Permit.

6.2.5 Inventory Prioritization

Section E.5.c.(1)(a) of the Municipal Permit requires that inspections are performed at an appropriate frequency to confirm that BMPs are implemented to reduce the discharge of pollutants to the MS4 to the maximum extent practicable and are effective in reducing non-stormwater discharges. The inspection frequencies are required to take into consideration the potential for a facility or area to discharge non-stormwater and pollutants and reflect the priorities set forth in the WQIPs.

To ensure industrial and commercial facilities are inspected at an appropriate frequency in accordance with the Municipal Permit, facilities are prioritized as either "high" or "standard" priority for inspection. Facilities with either of the following characteristics are considered high priority, as illustrated in Figure 6-1:

1. History of non-compliance
2. Identified as a source of pollutants associated with a HPWQC

Each of the above characteristics is described in more detail below.

History of non-compliance

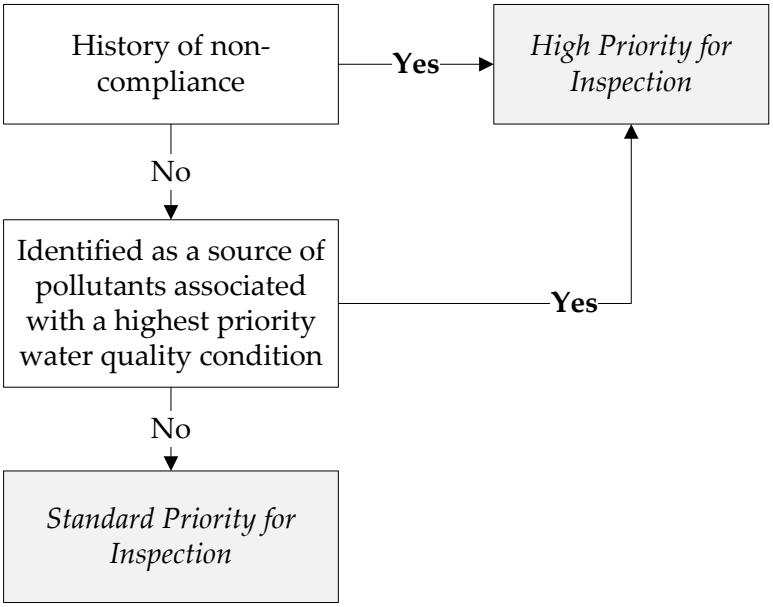
Facilities that are known to have a history of poor compliance are classified as high priority. Compliance is based on the result of the facility's most recent inspection, and poor compliance means one or more significant BMP deficiencies or illegal discharges were identified during the inspection and required the City to take follow-up action to resolve the deficiencies. Complaints made to the Stormwater Hotline will also be used to assess compliance and determine a facility's priority. Additionally, results from dry weather field screening at the City's major MS4 outfalls may aid in identifying facilities that contribute illegal discharges to the MS4. Once facilities develop a satisfactory pattern of compliance, a standard priority may be assigned. Typically this criterion is satisfied by demonstrating the original deficiency was resolved and then demonstrating continued compliance during the next routine inspection.

Identified as a source of pollutants associated with a HPWQC

Bacteria and heavy metals (copper, lead, and zinc) have been identified as HPWQCs for the Chollas Creek Watershed within the San Diego Bay WMA. Facilities that are located in the Chollas Creek Watershed and have been determined to be significant sources of bacteria or heavy metals are assigned a high priority for inspection. When facilities are originally listed on

the inventory, they are assigned a category based on their SIC code and then assigned a pollutant discharge potential using Table 6-2, based on the category. Businesses are considered sources of a given pollutant if the pollutant discharge potential in Table 6-2 is marked as "Likely." As businesses are inspected, site-specific findings are used to update the pollutant discharge potential listed on the City's industrial/commercial inventory.

Figure 6-1. Industrial and Commercial Inspection Prioritization Process



6.3 Best Management Practice Requirements

Pollution prevention methods are used as an initial mechanism for reducing discharges of pollutants into the City's MS4. Often, the most cost effective and simple solution to reducing pollution is to implement BMPs at the source. The City has updated its minimum BMPs specific to industrial and commercial facilities, which are discussed below and included in this JRMP document as Appendix B. The City's Stormwater Ordinance also gives authorized enforcement staff the authority to require additional BMPs beyond the minimum BMPs where necessary to reduce discharges of pollutants to the maximum extent practicable. Businesses can also be required to develop and implement site-specific BMP plans.

Consistent with WQIP strategies to reduce discharges of bacteria (see Appendix C), the minimum required BMPs prohibit irrigation runoff, which can transport bacteria, and require sediment and erosion control to reduce potential for mobilization of soil particles and bacteria associated with sediment.

6.4 Best Management Practice Implementation

The City inspects inventoried industrial and commercial facilities to require compliance with the established minimum BMPs and the Stormwater Ordinance. The City also provides education and outreach to businesses to make them aware of and encourage compliance with the requirements, as described in Section 10.

6.4.1 Inspection Frequency

The frequency of inspections is based on the facility's inspection priority established through the prioritization process described in Section 6.2.5. The City's inspection program is designed to meet the following Municipal Permit objectives:

- Inspect all inventoried industrial and commercial facilities or areas at least once every five years. These inspections may be either onsite inspections or drive-by inspections.
- Annually complete a number of onsite inspections equal to 20 percent of the total number of inventoried facilities. If multiple onsite inspections are completed at a facility in a given year, including follow-up inspections or inspections in response to a hotline call, those inspections may be counted toward the 20 percent requirement. Drive-by inspections, as defined in Section 6.4.3.2, are not counted toward the 20 percent requirement.

It is expected that high priority facilities will be inspected more than once every five years; high priority sites are generally inspected annually. Standard priority facilities are inspected at least once every five years.

Based upon inspection findings, the City will implement all follow-up actions (i.e., education and outreach, follow-up inspections, enforcement) necessary to require and confirm a facility's compliance with the minimum BMP requirements. Enforcement actions are discussed in Section 6.6 and in the Enforcement Response Plan component of the BMP Manual (Appendix B).

6.4.2 Inspection Data Management

City inspectors track all inspections and re-inspections at all inventoried industrial and commercial facilities and retain all inspection records in an Excel spreadsheet or other electronic database. Information from the database will be made available to RWQCB staff upon request.

Inspection records include, at a minimum:

- Name and location of facility or area (address and HSA) consistent with the inventory name and location
- Inspection and re-inspection date(s)

- Inspection method(s) (i.e. onsite, drive-by)
- Observations and findings from the inspection(s)

Records of onsite inspections (see Section 6.4.3.1) also include the following:

- Description of any problems or violations found during the inspection(s)
- Description of enforcement actions issued in accordance with the Enforcement Response Plan
- The date BMP deficiencies or violations were resolved

6.4.3 Inspection Methods Overview

Inspections include either a drive-by or onsite inspection, and are tracked using the City's electronic database. Inspectors will utilize a Stormwater Quality Inspection for Industrial/Commercial Facilities Form, included in Appendix F.

An inspection is typically initiated as a result of one of the following:

- An inspection is necessary to meet the inspection frequency requirements of the Permit, as described in Section 6.4.1.
- To investigate a potential illegal discharge as reported through the Stormwater Hotline or based on MS4 outfall monitoring.
- As a follow-up to a previous inspection during which a violation was noted.

If any problems or violations are found during the inspection, inspectors will take and document appropriate actions in accordance with the Enforcement Response Plan, as described in Section 6.6.

6.4.3.1 Onsite Inspections

Onsite inspections include the following components:

- Visual inspection for the presence of non-stormwater discharges, actual or potential discharges of pollutants, and actual or potential illegal connections.
- Determining whether description of the facility or area in the inventory has changed, and making corresponding updates if necessary.
- Assessment of the implementation of the minimum BMPs, including preventing non-stormwater discharges as required by the Stormwater Ordinance.
- Verification of coverage under the Industrial General Permit, when applicable.

In some cases the inspector will need to obtain information from the facility representative or other responsible individual while on site to complete the inspection. If the information

requested is not available at the time of the inspection, the inspector will verify the information via telephone or email after the inspection where possible.

During the site visit, areas in which pollutant sources and pollutant-generating activities are exposed to direct precipitation, stormwater run-on, or non-stormwater discharges will be assessed. Inspectors will evaluate the effectiveness of the business' actions to determine if they comply with the City's BMP requirements. Inspectors also look for evidence of illegal discharges, such as ongoing leaks or recent spills, or discharges/connections not authorized under an NPDES permit. Inspection findings are documented on the City's industrial and commercial inspection form (Appendix F). After the inspection, the facility representative will be provided with a list of required corrective actions, where applicable.

6.4.3.2 Drive-by Inspections

Drive-by inspections include the following components:

- Visual inspection for the presence of non-stormwater discharges, actual or potential discharges of pollutants, and actual or potential illegal connections.
- Determining whether description of the facility or area in the inventory has changed, and making corresponding updates if necessary.

Drive-by inspections are generally faster than onsite inspections. Their use can allow the City to oversee a large area in a comparatively short amount of time. They can also be used at lower priority businesses to satisfy the Municipal Permit requirement that all businesses are inspected at least once every five years.

The main focus for drive-by inspections is inspecting the discharge points of a facility for evidence of non-stormwater discharges by driving through the area. The results of a drive-by inspection will typically be documented by completing the discharge-related questions on the industrial and commercial inspection form (Appendix F). Identified non-stormwater discharges are further investigated to determine if they are illegal discharges. If an inspector determines more extensive investigation is needed, an onsite inspection may be completed. Whenever an illegal discharge is identified, the responsible party is contacted, and the discharge is required to be eliminated.

6.4.3.3 Mobile Business Oversight

Mobile businesses are subject to the same prohibitions and enforcement mechanisms as stationary industrial and commercial facilities. Mobile businesses are inspected by the City on as needed basis, typically in response to reported incidents and direct visual observations by City staff or members of the public.

6.5 Industrial and Commercial WQIP Strategies

The San Diego Bay WQIP has identified bacteria and heavy metals as the HPWQCs for the Chollas Creek Watershed, to which part of the City of Lemon Grove drains. Many of the standard industrial and commercial program activities the City implements help reduce discharges of bacteria and heavy metals to Chollas Creek. For example, the City assigns a high inspection priority to facilities that drain to Chollas Creek and have been identified as significant sources of bacteria or metals, as described in Section 6.2. The City has also developed additional strategies to target bacteria and heavy metals specifically, as described below. A full list of all the City's WQIP strategies is provided in Appendix C.

Grease bins, which are used to store used cooking oil at food service establishments, can be a source of bacteria when stored in exposed outdoor areas. The City has updated its minimum BMPs (Appendix B) to require grease bins to be stored in covered areas. The City will work with grease rendering companies to provide education about indoor grease containers to commercial facilities where feasible. Inspections will also record whether grease bins as stored in covered areas to track progress toward the WQIP performance-based goal.

While most of Lemon Grove's major MS4 outfalls do not have persistent flow, the City does continue to implement a variety of programs to address non-stormwater discharges, as described in Section 3. Reducing non-stormwater discharges is expected to help meet the dry weather bacteria targets for Chollas Creek as specified in the bacteria TMDL and in the San Diego Bay WQIP. In light of this goal and the present drought, the City has collected information on businesses with large landscaped areas during previous inspections and will continue to collect this information during future industrial and commercial inspections. The City also identifies businesses or properties with irrigation runoff through reports to its Stormwater Hotline, the MS4 outfall monitoring program, inspections, and collaboration with Helix Water District. The City will collaborate with Helix Water District on water conservation efforts. This is expected to include outreach about efficient landscape irrigation techniques and about incentive programs available through sources like Helix Water District and the San Diego County Water Authority. The City may also use the enforcement tools specified in the Enforcement Response Plan component of the BMP Manual (Appendix B) where necessary to bring about compliance with its prohibition of irrigation runoff.

Since parking lots may be sources of heavy metals, the City has identified the largest parking lots in Lemon Grove (Table 6-1). Property owners or managers responsible for maintaining these parking lots will be contacted to identify the current sweeping frequencies and to discuss the importance of regular sweeping in light of the City's commitment to meeting the heavy metals goal for Chollas Creek. City staff will compare the reported sweeping frequencies to the frequencies the City itself follows for publicly-maintained streets and parking lots. If private

parking lots are swept less frequently than the City's standard for its own sites, the City may reach out to those businesses to consider increasing their sweeping frequencies.

Table 6-1. Largest Parking Lots in Lemon Grove

Facility	Address
EDCO	6775-6813 Federal Blvd
Toyota Dealership	6828 Federal Blvd
County Social Services/Shopping Center	6971 Broadway
Albertsons shopping center	7090 Broadway
Boll Weevil shopping center	6934 Federal
The Home Depot	7530 Broadway
DCH Honda	3611 Lemon Grove Ave
Food for Less	7420 Broadway
99 Cent Store/Sprouts	3275 Lemon Grove Ave

6.6 Enforcement

The City enforces its legal authority for all its inventoried existing development, as necessary, to achieve compliance in accordance with the Municipal Permit and the Enforcement Response Plan included in Appendix B of this JRMP document. If any stormwater violations are observed during an inspection, the procedure described in the Enforcement Response Plan shall be followed to ensure compliance with BMP requirements and other Permit requirements. Note that the City maintains the authority to require facilities to prepare SWPPPs or to conduct sampling and analysis where deemed necessary by the City.

Observed violations must be corrected in a timely manner; City inspectors communicate with the responsible facility representative to make them aware of deadlines to make corrections. The specific timeline for making corrections depends on the nature of the violation, whether rain is predicted in the near future, and other applicable factors. While violations may often be resolved sooner than 30 days from the date they are discovered, the City seeks to resolve violations within no more than 30 calendar days after the violations are discovered, or prior to the next rain event, whichever is sooner. Resolution and time to resolution is tracked in an Excel spreadsheet or other electronic database. When a violation cannot be resolved within 30 days, City staff document in the reason why the violation took additional time to resolve, as required by the Municipal Permit.

6.6.1 Identification of Industrial Non-filers

When an inspector finds that a facility that is potentially subject to the Industrial General Permit has not filed the appropriate documentation with the State Water Resources Control Board, City staff notify the RWQCB within five calendar days. Such "non-filers" may be identified based on comparing the City's list of industrial facilities, as identified by SIC codes listed in the

Industrial General Permit, with the facilities listed on the State's SMARTS website (https://smarts.waterboards.ca.gov) as having filed for coverage or exemption. Non-filers also may be identified in the field based on inspection results. Written notification will be provided to the RWQCB by email to RB9_Nonfilers@waterboards.ca.gov unless otherwise directed by the RWQCB.

Table 6-2. Potential Pollutants at Industrial and Commercial Facilities[1]

Category	Heavy Metals[2]	Organics	Oil & Grease[2]	Sediment	Pesticides	Nutrients	Oxygen Demanding Substances	Bacteria/ Viruses	Trash
Aggregates	PO	UL	UL	L	UL	UL	PO	UL	UL
Air Transit	PO	PO	PO	PO	UL	UL	UL	UL	UL
Airfields	L	PO	L	PO	UL	UL	PO	UL	PO
Airplane Repair	L	L	L	PO	UL	UL	PO	UL	PO
Animal Facilities	UL	UL	UL	PO	UL	L	L	L	PO
Auto Paint/Body	L	L	PO	PO	UL	UL	PO	UL	PO
Auto Repair	L	L	L	PO	UL	UL	PO	UL	PO
Boat Repair	L	L	L	PO	UL	UL	PO	UL	PO
Botanical/Zoological Exhibits	UL	PO	UL	PO	L	L	PO	L	PO
Building Materials	PO	UL	PO	L	PO	PO	PO	UL	L
Carpet/Furniture Cleaning	UL	PO	UL	PO	UL	UL	PO	UL	PO
Cement Mixing/Cutting	UL	UL	PO	L	UL	UL	PO	UL	PO
Cemeteries	UL	UL	UL	PO	L	L	PO	PO	PO
Eating/Drinking Establishments	UL	UL	L	PO	UL	UL	L	L	L
Equipment Repair	L	L	L	PO	UL	UL	PO	UL	PO
Fueling	L	L	L	PO	UL	UL	PO	UL	PO
Golf Courses/Parks	UL	UL	UL	L	L	L	PO	PO	PO
Ground Transportation	L	PO	L	PO	UL	UL	PO	UL	PO
Landfills	PO	PO	PO	L	PO	PO	L	L	L
Landscaping	UL	PO	UL	PO	L	L	PO	UL	PO
Manufacturing, Biotech/Pharmaceutical	UL	PO	UL	PO	UL	UL	PO	UL	PO
Manufacturing, Chemicals	UL	PO	PO	PO	PO	UL	PO	UL	PO
Manufacturing, Concrete	PO	UL	PO	L	UL	UL	PO	UL	PO

Table 6-2. Potential Pollutants at Industrial and Commercial Facilities (continued)[1]

Category	Heavy Metals[2]	Organics	Oil & Grease[2]	Sediment	Pesticides	Nutrients	Oxygen Demanding Substances	Bacteria/ Viruses	Trash
Manufacturing, Electronics	PO	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Equipment	PO	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Fabric/Clothes	UL	UL	UL	PO	UL	UL	PO	PO	PO
Manufacturing, Fabricated Metal	L	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Food/Drink	UL	UL	PO	PO	UL	UL	PO	L	PO
Manufacturing, Misc.	PO	PO	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Paper	UL	UL	UL	PO	UL	UL	PO	PO	PO
Manufacturing, Plastic/Rubber	UL	PO	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Primary Metal	L	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Stone/Glass	UL	UL	UL	L	UL	UL	PO	UL	PO
Manufacturing, Structural Steel	L	UL	UL	PO	UL	UL	PO	UL	PO
Manufacturing, Wood/Furniture	UL	UL	UL	PO	UL	UL	PO	PO	PO
Marinas	L	PO	L	PO	UL	UL	PO	PO	PO
Masonry	UL	UL	PO	L	UL	UL	PO	UL	PO
Nurseries/Greenhouses	UL	PO	UL	L	L	L	PO	PO	PO
Other Contractor	PO	PO	PO	PO	UL	UL	PO	UL	PO
Other Recreation	UL	UL	UL	UL	UL	UL	PO	PO	L
Painting/Coating	PO	PO	PO	PO	UL	UL	PO	UL	PO
Pest Control	PO	PO	UL	PO	L	UL	PO	UL	PO
Pool/Fountain Cleaning	UL	UL	UL	PO	UL	UL	UL	UL	UL
Portable Sanitation	UL	PO	PO	PO	UL	L	PO	L	PO
Publically Owned Treatment Works	PO	UL	UL	PO	UL	PO	L	UL	PO
Power Generation	PO	PO	PO	L	UL	UL	UL	UL	UL

Table 6-2. Potential Pollutants at Industrial and Commercial Facilities (continued)[1]

Category	Heavy Metals[2]	Organics	Oil & Grease[2]	Sediment	Pesticides	Nutrients	Oxygen Demanding Substances	Bacteria/ Viruses	Trash
Power Washing	PO	PO	PO	PO	UL	UL	UL	UL	UL
Printing	PO	PO	UL	PO	UL	UL	PO	PO	PO
Recycling	L	PO	PO	L	PO	PO	PO	UL	PO
Sewage Sludge	PO	PO	PO	PO	PO	L	L	L	PO
Vehicle Parking/Storage	L	L	L	L	UL	UL	PO	UL	PO
Vehicle Washing	PO	L	PO	PO	UL	UL	PO	UL	PO
Vehicle/Equipment Rental	L	UL	L	PO	UL	UL	PO	UL	PO
Waste Management	PO	PO	PO	L	UL	PO	L	L	L
Water Transit	PO	L	PO	PO	UL	PO	PO	PO	PO
Wholesale Food	UL	UL	PO	PO	UL	UL	L	PO	PO
Wholesale/Storage/Warehousing	UL	UL	PO	PO	UL	UL	PO	PO	PO

Notes:

L - Likely, PO - Possible, UL- Unlikely

1. This table is used to assign initial pollutant discharge potential prior to inspections. The table is based on tables in the Copermittees' Baseline Long-Term Effectiveness Assessment (County of San Diego, 2011) and on the field experience of D-Max Engineering, Inc. D-Max has conducted more than 24,000 industrial and commercial facility inspections during which pollutant discharge potentials were assessed.
2. Discharge of heavy metals and oil and grease is possible if the facility has onsite parking.

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7 Municipal Facilities

7.1 Introduction

The City maintains several City-owned and operated facilities, including parks, an operations yard, recreation center, administration buildings, fire station, sewage pump station, and other City facilities. This section discusses stormwater BMPs and programs associated with these fixed facilities. An inventory of the facilities is included in Appendix D. The City also conducts municipal activities and operations, including street and sidewalk repair, street striping, MS4 maintenance, and sanitary sewer maintenance. Stormwater BMPs and programs associated with these activities and operations are described in Section 8.

7.2 Municipal Inventory

The City maintains and updates, at least annually, a watershed-based inventory of the municipal facilities within its jurisdiction that have the potential to contribute pollutants and non-stormwater discharges to the City's MS4. Where applicable, the municipal inventory includes the following information in Appendix D:

1. Name and location, including hydrologic subarea (HSA) and address.
2. Status of facility or area as active or inactive.
3. SIC code(s).
4. Industrial General Permit NOI and/or WDID number.
5. Identification of pollutants generated and potentially generated by the facility or area.
6. Whether the facility or area is tributary to and within the same HSA as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired.
7. An annually updated map showing the location of inventoried existing development, watershed boundaries, and water bodies.

Note that the Municipal Permit[1] requires the inventory to indicate whether facilities are adjacent to environmentally sensitive areas (ESA). Because no ESAs have been identified within Lemon Grove, no inventoried facilities are considered adjacent to ESAs. Additional information regarding fixed municipal facilities is included in the following sections.

[1] San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001

7.2.1 Fixed Facilities

Parks and Recreational Facilities

The City maintains parks, landscaped areas, and other recreational facilities for use by the general public. Recreational facilities are defined as those facilities that are used for outdoor activities, such as sports fields. Municipal staff are typically responsible for park maintenance activities, including landscaping, waste control and removal, as well as the maintenance of any fixed facilities on the grounds, such as restrooms or playground equipment.

Public Works Facility

The City has one Public Works Operations Yard located at 2873 Skyline Drive. Equipment used by the Public Work Department is maintained at this facility. This includes mowers, chain saws, and other small equipment. The City maintains a small fleet of large vehicles including several pick-up trucks, a dump truck, a paver, a video camera truck, a gap vac truck, and a Vactor truck. All large vehicle service is performed off site under a private contract at a non-City facility. The Public Works Yard does not contain a fueling station.

Fire Station Facility

The City has one fire station located at 7853 Central Avenue. The fire station typically has three engines and one ambulance response vehicle on site. All servicing on these vehicles is done off site under contract at a non-City owned facility. Minimal equipment maintenance is performed onsite, like cleaning and maintaining of fire hoses and chainsaws. Fire fighting personnel are trained on how to implement BMPs during fire fighting activities.

Other Fixed Facilities

The City maintains several administrative buildings, a community center, recreation center, and a senior center. The City implements BMPs to reduce or eliminate the pollutants generated at these facilities.

7.2.2 Special Events

The City hosts a number of special events in the City. The City issues Special Events Permits to private organizations that want to use the City's parks, streets, and civic center for various events. Special events typically have a high density use of people per acre, raising the potential for pollutants from special events. Some potential pollutants associated with special events include:

- Trash from booth operation
- Bacteria and oxygen demanding substances from food preparation and consumption
- Oil and grease from hydraulic rides
- Chemicals and bacteria from portable restrooms

7.2.3 Inventory Prioritization

Unlike the 2007 Municipal Permit, the new Municipal Permit does not specifically require the prioritization of municipal facilities. However, Section E.5.c.(1)(a) of the Municipal Permit requires that inspections are performed at an appropriate frequency to confirm that BMPs are implemented. Inspections should evaluate that BMPs are designed to reduce the discharge of pollutants to the MS4 to the maximum extent practicable and are effective in reducing non-stormwater discharges to the stormwater conveyance system. The inspection frequencies are required to take into consideration the potential for a facility or area to produce a non-stormwater discharge and should reflect the priorities outlined in the San Diego Bay WQIP. In order to ensure municipal facilities are inspected at an appropriate frequency in accordance with the Municipal Permit, the City will prioritize municipal facilities for inspections as either "high" or "standard" priority. The priority assigned to each facility considers the factors listed below.

Municipal facilities that are found to be, or are likely to be, a significant source of a pollutant associated with a HPWQC for the San Diego Bay WMA (metals (copper, lead, zinc), bacteria, or diazinon) will receive a "high" priority, while all others will be "standard" priority. Currently, the City only has one high priority facility on its municipal inventory, the Public Works Yard. The specific frequencies at which facilities are inspected are discussed in Section 7.4.1.

7.3 Best Management Practice Requirements

7.3.1 Minimum Best Management Practices

The implementation, operation, and maintenance of BMPs by municipal facilities are required by the City in order to prevent pollutants from entering its MS4. The City has designated a list of minimum BMP requirements for all municipal facilities and activities. Collectively, the BMPs are listed in the City's BMP Manual found in Appendix C of this document, which also applies to special events. These BMPs have been updated to address the HPWQCs designated in the San Diego Bay WQIP.

If a facility is found to be a significant source of pollutants and the City's minimum BMPs are not adequate in preventing the discharge of pollutants to the MS4, the City will require the implementation of additional BMPs, as feasible, so that discharges of pollutants are reduced to the maximum extent practicable. The City may also elect to prepare a specific written BMP plan for the facility.

In addition to the minimum BMPs, the City has developed programs to identify, prioritize, and implement potential projects to retrofit areas of existing development, including municipal areas, and to rehabilitate streams, channels, and habitat. Appendix E of this document describes theses two programs in further detail.

7.3.2 Additional Best Management Practice Requirements for Special Events

In addition to implementing the City's minimum BMPs (Appendix C), event organizers and sponsors train event staff and notify vendors of their stormwater pollution prevention responsibilities and ensure compliance with all applicable regulations outlined in the Lemon Grove Municipal Code. The following BMPs are additional requirements for special events, where applicable:

- Proper management of trash and litter, including temporary trash receptacles.
- Post-event clean-up activities, such as catch basin cleaning and general litter pick-up, when necessary.
- Post-event street sweeping, when necessary.
- Other BMPs when considered necessary by City staff.

7.4 Best Management Practice Implementation

The City conducts inspections of its inventoried municipal facilities to ensure compliance with the established minimum BMPs and applicable local ordinances and permits and to reduce the discharge of pollutants in stormwater.

7.4.1 Inspection Frequency

The City inspects all high priority municipal facilities annually, and standard priority facilities are inspected as needed. All inventoried municipal facilities are inspected at least once within the Permit term, which is expected to be a five-year period. These inspections may be either onsite or drive-by inspections. At a minimum, 20 percent of inventoried facilities receive onsite inspections every year. Drive-by inspections may be conducted for standard priority facilities where appropriate. An overview of inspection procedures is included in the following section.

Based upon inspection findings, the City will implement all follow-up actions (i.e. education and outreach, re-inspection, enforcement) necessary to require and confirm compliance with the applicable BMPs, local ordinances, and permits, and in accordance with the City's Enforcement Response Plan (Appendix C). While routine inspections are one mechanism for ensuring BMPs are implemented at municipal facilities, it is not the only mechanism. If BMP deficiencies are observed outside of an inspection, City staff are trained to address and correct any observed issues, or to report the issue to the appropriate person for correction.

7.4.2 Inspection Methods

Inspections of municipal facilities are conducted by City personnel or contract staff with inspection and enforcement authority. Inspections may be conducted onsite or performed as a drive-by inspection. Facility inspections are the primary mechanism used to verify

implementation of the designated BMPs at municipal facilities. Inspectors utilize a "Storm Water Quality Inspection for Municipal Activities/Facilities" inspection form, included in Appendix F.

All routine inspections of facilities will include, at minimum, visual inspections for the presence of non-stormwater discharges, actual or potential discharges of pollutants, actual or potential illegal connections, and verification that the description of the facility or area in the inventory has not changed. Additionally, onsite inspections will include, at a minimum:

- Verification of any applicable SIC code(s) and coverage under the IGP, when applicable.
- Assessment of the implementation of the City's minimum BMPs and any other required additional BMPs.
- Assessment of compliance with applicable local ordinances (Lemon Grove Municipal Code Chapter 8.48) and permits related to non-stormwater and stormwater discharges and runoff.

If BMP deficiencies are noted during an inspection, municipal staff are typically provided an opportunity to implement corrective actions during the inspection. Corrective action(s) will be reported both verbally, if a facility representative is present, and in writing for any observed deficiencies in BMP implementation. Corrective actions and the resolution status of the necessary corrections are tracked electronically. If any violations are found during the inspection, inspectors will take appropriate actions and document them in accordance with the Enforcement Response Plan, which is included in Appendix B. See Section 7.5 for more information.

7.4.3 Inspection Data Management

City inspectors track inspections and re-inspections at inventoried municipal facilities and retain all inspection records in in an Excel spreadsheet or other electronic database. Information from the database will be made available to RWQCB staff upon request.

Inspection records will include, at a minimum:

- Name and location of facility or area (address and hydrologic subarea) consistent with the inventory name and location.
- Inspection and re-inspection date(s).
- Inspection method(s) (i.e. onsite, drive-by).
- Observations and findings from the inspection(s).

For onsite inspections of municipal facilities, the records will also include, as applicable:

- Description of any BMP deficiencies or violations found during the inspection(s).

- Description of enforcement actions issued in accordance with the Enforcement Response Plan (Appendix C).
- The date BMP deficiencies or violations were resolved.

7.4.4 Special Event Inspections

The City allows individuals/private organizations to use City property for special events. When applicable, hosts and patrons of the event are responsible for implementing the BMPs listed in Section 7.3.2 and in the BMP Manual in Appendix C. City staff are available for the duration of the special event for immediate trash removal and to ensure the event does not contribute illegal discharges to the City's storm water conveyance system. City staff verify that the area has been appropriately cleaned-up following an event.

7.5 Enforcement

The City enforces its legal authority for all its municipal facilities, as necessary, to achieve compliance in accordance with the Municipal Permit and the Enforcement Response Plan (Appendix C). If any stormwater violations are observed during an inspection, the procedure described in the Enforcement Response Plan will be followed to ensure compliance with established BMP requirements and other Permit requirements.

Observed violations must be corrected in a timely manner; City inspectors communicate with the responsible facility representative to make them aware of deadlines to make corrections. Overall, the City seeks to resolve violations within no more than 30 calendar days after the violations are discovered, or prior to the next rain event, whichever is sooner. When a violation cannot be resolved within the acceptable timeframe, City staff document in an electronic database the reason why the violation took additional time to resolve and track the progress of the violation resolution(s).

8 Municipal Infrastructure

8.1 Introduction

The City implements pollution prevention measures to reduce or potentially eliminate the discharge of pollutants to or from its MS4 from municipal areas and activities. BMPs are implemented for those activities with the direct potential to introduce pollutants to stormwater, such as street and sidewalk repair, painting, and graffiti removal. The City also conducts other operations and maintenance activities on its infrastructure such as street sweeping, inspections of municipal facilities, MS4 maintenance, and regular upkeep of the sanitary sewer system in order to prevent any non-stormwater discharges. In accordance with Section E.5.b.(1)(c) of the Municipal Permit, the City has developed a comprehensive program designed to reduce the amount of pollutants that are transported by runoff from municipal activities. Stormwater pollution prevention activities for existing municipal facilities were discussed in Section 7. This section describes municipal infrastructure-related pollution prevention activities in accordance with Section E.5.b.(1)(c) of the Permit.

8.2 Roads, Streets, and Parking Facilities

8.2.1 Background

Roads and streets can collect a variety of pollutants from routine vehicle use and have a tendency to collect litter and debris from surrounding areas. They also act as part of the City's MS4, because roadside ditches or curb and gutter can transport storm water runoff throughout the City. Regular maintenance is necessary to reduce and control the level of pollutants commonly associated with roads and streets, such as sediment, metals, litter, and debris.

Related City activities include building new roads and streets as well as resurfacing existing roads and streets. All construction projects conducted by the City are completed in accordance with the City's BMP Manual (Appendix B) and with Section 5 of this document. Public roads and streets, within the City's jurisdiction, as one complete entity, are included in the municipal inventory in Appendix D and are inventoried using GIS. The City performs extensive routine street sweeping to remove heavy metals and debris from entering the MS4. As discussed in the section below, roads, streets, and parking facilities have been assigned a standard priority on the municipal inventory.

8.2.2 Best Management Practices

The City implements the minimum BMPs (Appendix B) when conducting maintenance of roads, streets, and parking facilities within the City's jurisdiction. Street sweeping and cleaning

continues to be the most important BMP that is implemented for these facilities, which is discussed in the next section.

Additionally, the City maintains unpaved roads and implements BMPs to prevent the transportation of sediment into the MS4. Unpaved roads are stabilized with vegetation, gravel, structural containment such as curbs, or other equivalent measures. In the event that any pervious areas are disturbed or otherwise become destabilized, temporary erosion control measures will be installed. Erosion control BMPs will be maintained until the area can be permanently stabilized. If negative impacts to receiving waters associated with runoff from roads and streets are noted, the City will take the measures necessary to mitigate those impacts.

8.2.2.1 Street Sweeping

The City maintains a street sweeping schedule to reduce the pollutant load for roads, streets, and parking facilities in the City to the MEP. The street sweeping program and schedule has been adjusted to coordinate street sweeping with trash and recycling pick-up schedules and to meet target sweeping frequencies for commercial and residential areas within the City. Table 8-1, below, summarizes the sweeping frequencies for public commercial and residential roads and streets in accordance with the City's WQIP jurisdictional strategies (Appendix I).

Table 8-1. Sweeping Frequencies for Roads and Streets

Area	Sweeping Frequency
Downtown commercial areas and medians	Weekly
Main arterials/other commercial areas and medians	Biweekly (Every 2 weeks)
Residential areas	Once every 4 weeks

Additionally, in accordance with the City's jurisdictional strategies listed in the San Diego Bay WQIP, the City plans to collect information about current sweeping frequencies for larger commercial parking lots and private roads within HOAs by working with property managers. The City will use this information to develop and conduct an outreach program that encourages larger commercial properties and HOAs within the Chollas Creek drainage area to sweep private roads and parking areas in targeted locations.

8.3 MS4

8.3.1 Background

The primary function of the MS4 is to collect and transport surface runoff to receiving waters during storms in order to prevent flooding. In order to reduce the transportation of pollutants into receiving water bodies, the City regularly maintains its MS4 to ensure that it remains both

fully functional and free of pollutants to the MEP. The City's MS4 consists of streets, curbs, catch basins, inlets, pipes of varying material, natural creeks and streams, concrete channels, and culverts. The City also maintains a number of treatment control BMPs, such as filter inserts and curb inlet protection, which are included in the regular maintenance of the MS4. The City's MS4, as one complete entity, is included on the municipal inventory (Appendix D).

The City's MS4 management program includes responding to complaints received by the City's Stormwater Hotline, detecting and eliminating IC/IDs, inspecting and maintaining the MS4 by cleaning, removing sediment, debris, and excessive vegetation, by repairing and/or replacing damaged or failing MS4 structures, and by providing signage on storm drain inlets warning of effects of illegal dumping. The City trains field staff on BMP implementation, equipment inspection, and the action plan for regular maintenance and emergency maintenance, and/or discharge control.

8.3.2 Maintenance

The City maintains a comprehensive MS4 maintenance schedule and continually assesses the MS4 maintenance schedule and procedures to ensure proper function and pollutant reduction. The City utilizes a Vactor truck during MS4 maintenance to collect both dry and liquid debris from catch basins and inlets. Maintenance is done on a variety of MS4 facilities, including 190 catch basins and inlets, approximately 75 miles of piping, and approximately 2.5 miles of open channel.

Catch basins and inlets are inspected at least annually and cleaned if accumulated debris is found. Open channels are also inspected, and trash is removed from open channels where necessary. Scour ponds (local depressions formed by erosion, typically by outlets) may also be repaired when noted. Work is typically performed during dry conditions to prevent the transport of pollutants. The City also responds to reports by citizens or municipal staff regarding MS4 facilities that require inspection/cleaning that is beyond regular maintenance activities. Emergency repairs, maintenance, and construction of MS4 facilities are completed as needed.

Municipal staff transport materials and waste removed during maintenance activities in a manner that will not release the material to the MS4 in accordance with the City's BMP Manual (Appendix B). The City documents all MS4 maintenance activities and inspections. Data collected include the following:

- Dates of inspections
- Items inspected
- Locations of facilities inspected or cleaned
- Overall amount of material removed (estimated in either volume or dry weight)
- Disposal site
- Problems noted
- IC/IDs detected
- Corrective action required
- Date corrective action was taken

Additional details may include field notes, timed and dated photographs, videotapes, drawings, and maps. All records are retained for at least one year after the expiration of the Permit.

8.3.3 Best Management Practices

Municipal staff performing MS4 maintenance implement the City's established minimum BMPs (Appendix B) and inspect equipment in order to reduce or eliminate illegal discharges and the transportation of pollutants into the MS4. Temporary structural BMPs are used as necessary during routine and emergency MS4 maintenance, when feasible. The City uses a Vactor truck to collect both dry and liquid debris from catch basins and inlets, along with a vacuum capture system to prevent the transport of material within the MS4.

Additionally, filter inserts and screens have been installed in curb inlets along several streets within the City's jurisdiction. These treatment devices prevent trash, debris, and sediment from entering the MS4. The curb inlet screens keep the debris in the curb line and easily accessible to the street sweepers.

8.4 Sanitary Sewer System

8.4.1 Background

Spills and/or leaks caused by a malfunction or component failure of the City's sanitary sewer system have the potential to introduce untreated sewage into receiving water bodies. Untreated sewage can contain high concentrations of bacteria, viruses, and parasites, all of which have the potential to negatively impact the environment and pose a significant threat to human health.

The Public Works Department conducts routine inspections and maintenance of the sanitary sewer system to ensure that the system is functioning properly. Routine inspections and maintenance of the sanitary sewer system reduce the potential for an sanitary sewer overflow (SSO) and help prevent and eliminate sewage from entering the MS4. The City's sanitary sewer system, as one complete entity, is included in the municipal inventory in Appendix D and is inventoried using GIS.

8.4.2 Maintenance

The City conducts regular maintenance of the sanitary sewer system to prevent SSOs and other leaks that may occur due to system breakdown. The City has identified critical maintenance areas, which will continue to be cleaned according to an established schedule to prevent possible problems. These areas and their associated maintenance frequencies are identified in the Sewer System Management Plan (SSMP). The City's Sanitary Sewer Overflow Emergency Response Plan, which is a component of the SSMP, describes the City's activities and personnel organization when responding to an SSO.

The City seeks to reduce and eliminate sewage from the sanitary sewer system from entering the MS4 through routine preventative maintenance of both systems which includes the following activities:

- Routine inspection.
- Conduct flow inspections, or metering, in the City's sanitary sewer system to monitor potential capacity concerns.
- Use video cameras in sewer main lines to check pipe conditions if there is a potential problem.

8.4.3 Best Management Practices

The City's SSMP includes procedures for responding to overflows and spills identifying spills and leaks, containing and controlling spilled materials, repairing damaged and leaking sewer lines, remediating existing sewer lines and proper disposal of hazardous waste. City staff implement the SSMP and the City's minimum BMPs (Appendix B) for municipal areas and activities, including sanitary sewer maintenance. Similar to the MS4 maintenance program, the City trains field staff on implementing BMPs, equipment inspection, and the action plan that is followed for regular maintenance and emergency maintenance and/or discharge control. Temporary structural BMPs will be used during routine and emergency maintenance, where applicable.

8.5 Landscape Maintenance

8.5.1 Background

Due to their widespread outdoor use, pesticides, herbicides, and fertilizers can be discharged to MS4s. Transport of these pollutants is often a result of one or more of the following: (1) runoff from excessive irrigation after application; (2) application of chemicals during or prior to storm events; (3) overspray from chemical applications that may eventually enter the MS4. In addition to introducing pollutants to the MS4, improper pesticide and herbicide use can cause harm to non-target flora and fauna.

The City has developed and continues to implement a program aimed at preventing or reducing pesticides, herbicides, and fertilizers from entering the MS4. The City implements a variety of BMPs to reduce or eliminate the amount of landscape pollutants entering the MS4 from municipal parks and recreation facilities, as listed below.

8.5.2 Best Management Practices

The City regularly checks landscape irrigation systems and maintains them as needed. Runoff is reduced by irrigation programming, including using shorter irrigation cycle times at a higher frequency instead of single long cycles. Sprinklers are also adjusted to eliminate overspray.

Seven Calsense smart irrigation control systems have been installed throughout the City, which closely monitor water use. The City also continues to make the transition from area sprinklers to drip irrigation along its street medians to prevent irrigation runoff and to conserve water. The current locations of the control systems and drip systems are Berry Street Park, Lemon Grove Park, Civic Center Park, City Hall, Kunkel Park, Lemon Grove Avenue median (near Mt. Vernon), and Lemon Grove Avenue median (near Broadway).

The federal Pesticide, Fungicide and Rodenticide Act and California Title 3, Division 6, Pesticides and Pest Control Operations place strict controls over pesticide application and handling. This Act specifies training, annual refresher, and testing requirements. The regulations include a list of approved pesticides and selected uses, updated regularly; general application information; equipment use and maintenance procedures and record keeping. The California Department of Pesticide Regulations and the County Agricultural Commission coordinate and maintain the licensing and certification programs. In addition to the minimum BMPs listed in the BMP Manual (Appendix B), the following BMPs are implemented to reduce pollutants from pesticides, herbicides, and fertilizers:

- City personnel who participate in the application of pesticides are trained and licensed (Qualified Applicator License) and follow guidelines set by the California Department of Pesticide Regulations and the County Agricultural Commission.

- Agricultural pest control businesses working for the City are supervised by a Qualified Applicator Licensee who has a current Qualified Applicator Certificate.
- City staff record the applications of all chemical agents by noting the locations, type, and quantity of chemicals used. Monthly reports of pesticide usage are prepared and submitted to the Department of Agriculture.
- The Qualified Applicator Certificate holder conducts monthly inspections to monitor storage, handling, and disposal of the pesticides.
- Written recommendations prepared by a State Pesticide Advisor should be followed during the pesticide application.
- Personnel who participate in the application of herbicides for the City are trained and follow guidelines set by the County Agricultural Commission.
- Employees are trained to follow pesticide, herbicide and fertilizer labels, and the material safety data sheet(s).
- All federal, state and local regulations are followed in the use of pesticides, herbicides and fertilizers.
- Pesticides, herbicides and fertilizers are not applied during or directly prior to storm events or irrigation, unless the fertilizer is pre-emergence and needs irrigation to enter the top layer of soil. If pre-emergence fertilizer is used, a controlled amount of irrigation is used to ensure no fertilizer runs off.
- Only pesticides that are quickly absorbed into the soil or plants are used.
- Whenever practicable, integrated pest management techniques are implemented.
- Whenever practicable, native vegetation is used.
- Alternative products to control insects, fungi, and weeds are considered for use to minimize the use of pesticides/herbicides.
- Pesticides are not to be sprayed when there is a high possibility of the spray drifting into non-target areas or onto non-target vegetation.
- Unused portions of chemicals are disposed of in accordance with the pesticide and fertilizer labels and applicable regulations.

8.6 Mobile Maintenance Activities

8.6.1 Background

The City conducts other routine maintenance activities that are not designated to one fixed location. Because such activities are not confined to a fixed facility, where BMPs may be permanently implemented, BMPs are actively implemented during all mobile municipal activities. Routine mobile maintenance activities include the following:

- Power washing
- Street and sidewalk repair
- Street striping
- Waste removal
- Traffic light maintenance
- Painting
- Parking meter maintenance
- Landscape/right-of-way maintenance
- Graffiti removal

8.6.2 Best Management Practices

City field crews are routinely trained to implement the City's minimum BMPs (Appendix B) during all mobile activities. City personnel involved in mobile maintenance activities are trained to identify and eliminate IC/IDs and to immediately report them to the appropriate person.

As discussed in Section 8.5 of this document, the City uses fertilizers on many landscaped areas. Since nutrients are a component of fertilizers, the City implements several BMPs in order to mitigate potential discharges of nutrients. The City continually monitors the use of landscaping chemicals and if existing BMPs are found to be deficient, staff adjust BMPs to achieve a higher level of pollutant reduction when possible. If the City determines that mobile activities may be significant sources of pollutants to the MS4, then City staff will make further improvements to BMPs as needed.

9 Residential Areas

9.1 Introduction

The City of Lemon Grove has developed a program to reduce pollutant runoff from residential areas and activities to the maximum extent practicable (MEP). Approximately 60 percent of the City has a residential land use designation, which includes single-family residences, multi-family residences, and a small portion of other residential areas. Since residential land use comprises such a large area of the City, residential activities can have a considerable effect on the quality of receiving waters in and around the City. As a result, the City will implement a number of activities to reduce stormwater pollutants from residential areas.

9.2 Residential Inventory

In accordance with the Municipal Permit,[1] the City has identified designated residential management areas (RMA) as part of the existing development inventory. Inventoried residential areas are managed and tracked through the use of spreadsheet. The residential inventory (Table 9-1) includes the following information, as required by the Municipal Permit:

Inventoried residential areas are managed and tracked through a spreadsheet. At a minimum, the residential inventory includes the following information:

1. Name and location, including hydrologic subarea (HSA) and address.
2. Status of area as active or inactive.
3. Whether the area is or includes a Common Interest Area (CIA), Homeowners Association (HOA), or mobile home park.
4. Pollutants generated and potentially generated by the area.
5. Whether the area is tributary to and within the same HSA as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired.

Note that the Municipal Permit requires the inventory to indicate whether RMAs are adjacent to environmentally sensitive areas (ESA). Because no ESAs have been identified within Lemon Grove, no inventoried RMAs are considered adjacent to ESAs.

[1] San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001

The City maintains an map showing the location of inventoried residential areas, which is included in Figure 9-1 at the end of this section. As required by the Municipal Permit, the City reviews this map annually and makes updates if needed. Because RMAs are fixed geographic areas and Lemon Grove is built out, it is unlikely that updates will be needed over the term of the Municipal Permit. The City's RMAs have been organized first by neighborhood and then by HSA, as displayed in the RMA map. Since the City's jurisdictional area is almost entirely developed, the RMA boundaries are not expected to change over the life of the Municipal Permit; if boundaries do change, the map will be updated to reflect them. The potential pollutants listed in the residential inventory are based on the Copermittees' 2011 Long Term Effectiveness Assessment (County of San Diego), which is an extensive analysis of existing pollutant sources, program activities, and water quality monitoring results. Potential pollutants associated with each RMA may be adjusted based on data collected during field evaluations. The presence or absence of CIA, HOA, or mobile businesses will also be updated as needed.

9.3 Best Management Practice Requirements

The City has updated the minimum BMPs required for residents, in order to eliminate or to reduce a number of different types of non-stormwater discharges and to take other actions. For example, these actions may include the proper use of pesticides and fertilizers to reduce discharges of pollution. Notably, consistent with the Municipal Permit, irrigation runoff, which was previously an allowable discharge under the 2007 Municipal Permit, is now considered an illegal discharge. The full list of required residential BMPs is included in the BMP Manual (Appendix C).

9.4 Program Implementation

The City's residential program will help address the highest priority water quality conditions (HPWQC) in the San Diego Bay WMA, as established within the WQIP. The main focus of the City's residential program will be reducing non-stormwater discharges, because this strategy is expected to reduce discharges of bacteria and metals from the City's MS4 to downstream water bodies. It is also consistent with the 2013 Municipal Permit's increased emphasis on eliminating non-stormwater discharges, including irrigation runoff, and with water conservation efforts being taken in response to the State's ongoing drought.

The City's newly developed residential-focused efforts were initiated to meet 2013 Municipal Permit requirements. As this program matures and as regulatory drivers change, the program itself also may change through an adaptive management process. Inspection, monitoring, hotline call, and enforcement data collected will be used to evaluate the effectiveness of the City's residential oversight program in reducing non-stormwater discharges to the City's MS4. To ensure the required inspection frequencies are being met, Stormwater Division staff

routinely evaluate collected data. Regular evaluation will also assist in identifying potential gaps in the City's residential oversight program, which will allow the City to focus or adjust efforts and resources as needed.

9.4.1 Residential Education

Education and outreach is a key mechanism used to increase residents' awareness and behaviors toward implementation of stormwater BMPs. In addition to its own education and outreach efforts, the City contributes to regional education programs run collectively by all municipal agencies in San Diego County. This coordination helps provide consistent and cost-effective messaging across the region. As with the overall residential program emphasis described above, the City's residential outreach efforts will focus on reducing non-stormwater discharges, such as irrigation runoff. Other topics, such as stabilizing slopes on residential properties to prevent erosion, using fertilizers and pesticides appropriately, pet waste management, and eliminating yard waste from entering the MS4, may also be covered. Section 10 of the JRMP, "Education and Public Participation", provides more detail on outreach efforts.

As identified in the San Diego Bay WQIP, the City will collaborate with the Helix Water District to publicize incentives for rain barrel installation and turf conversion and/or sprinkler system upgrades (e.g. rain shutoff systems) in residential areas, including multi-family residential areas. The City will also work with the Helix Water District to publicize and market any existing outreach and training programs that Helix provides for property managers responsible for HOAs to reduce irrigation runoff. Such measures may include adjusting property landscaping, maintaining irrigation systems, and converting landscaped areas to drought-tolerant plants.

9.4.2 Oversight Programs and Procedures

The primary methods of assessing BMP implementation within RMAs will be through MS4 outfall monitoring and drive-by inspections or patrols, as further described in subsections 9.4.2.1 and 9.4.2.2 below. These methods will be used to meet the Municipal Permit requirement of inspecting each RMA at least once within a five-year period, evaluating compliance with BMP requirements. Table 9-1, at the end of this section, identifies which oversight method(s) will be used for each of the City's RMAs. Several additional residential oversight mechanisms will be used to supplement these two primary approaches, as described in subsection 9.4.2.3.

Results from oversight programs will be used to help refine educational efforts, as described in Section 9.4.1, where appropriate. Illegal discharges discovered will be addressed through the City's enforcement process, as described in Section 9.5.

9.4.2.1 Dry Weather Drainage System Observations

Routine MS4 outfall monitoring and identification of non-stormwater discharges is a primary mechanism for overseeing RMAs. When non-stormwater flow is observed at an outfall during routine monitoring for the Dry Weather MS4 Outfall Monitoring Program, monitoring staff will investigate upstream areas to see if a flow source can be identified. During these investigations residential areas are likely to be visited and assessed for the presence of non-stormwate discharges. If an illegal discharge is discovered, it will be addressed through the enforcement process described in Section 9.5. Outfalls will be monitored according to the frequency noted in JRMP Section 3. Outfalls with persistent non-stormwater flow will be monitored most frequently, and samples will be collected for laboratory analyses at selected outfalls with persistent flow (see Appendix G). In turn, a larger share of upstream investigation resources will be directed toward identifying and reducing sources of non-stormwater flow in areas upstream of these outfalls, including residential areas. Outfalls that are not discharging flow infer a lack of upstream non-stormwater discharges, and the corresponding RMA is considered inspected. More information about outfall monitoring procedures is included in Section 3 and in Appendix G.

The City will also complete visual observations for flow at two additional locations in the drainage system that are not major MS4 outfalls. Those two locations are Table 9-1 and Figure 9-1. Observations will be documented using the same data sheet used for Dry Weather MS4 Outfall Monitoring, but only the site location, flow rate, and flow source sections of the form will be completed. At least one visit to each of these locations will be completed over a five-year period to assess the upstream RMAs, as required by the Municipal Permit.

9.4.2.2 Drive-by Inspections

Drive-by inspections consist of making observations for non-stormwater discharges, actual or potential illegal discharges, and illegal connections while driving through neighborhoods or residential complexes. Such inspections will be completed for RMAs that do not have major outfall monitoring locations associated with them. Observed illegal connections or illegal discharges (IC/ID) and other violations of the City's Stormwater Ordinance will be recorded in the spreadsheet used to record complaints to the Stormwater Hotline. Where possible, staff will engage residents while in the field, explaining applicable requirements and alternative methods that are acceptable under the City's requirements, thereby directly working with residents to eliminate IC/IDs. When the responsible party may be a property manager or an HOA, staff will reach out to the responsible party. Illegal discharges that may pose a threat to human or environmental health will be addressed immediately.

As required by the Municipal Permit, at least once per five-year period Stormwater Division staff will complete drive-by inspections or patrols in all RMAs not assessed through MS4 outfall

monitoring. City staff may elect to complete additional inspections for particular residential areas if they exhibit a history of repeated noncompliance. Onsite inspections, or assessments, may also be conducted at multi-family residential complexes. In addition to assessing for the presence of IC/IDs, onsite assessments include a full evaluation of the implementation of the City's designated residential minimum BMPs (Appendix C).

9.4.2.3 Other Oversight Mechanisms

The City's Stormwater Hotline, described in Section 3, is another mechanism for overseeing RMAs and for reporting residential-based violations of the City's Stormwater Ordinance. The hotline number and email address are advertised through various media as part of the City's stormwater education program. Reports to the hotline may be received from residents; other City staff, such as Public Works field crews; or other agencies, such as Helix Water District. City staff (Stormwater, Public Works, or Code Enforcement) respond to complaints received through the hotline and document the investigation of the complaint.

If a potential residential stormwater violation is reported to the City or observed by City or contract staff, City staff will typically visit the area where the violation was reportedly observed, depending on the nature of the complaint. Normally, evaluation will only be performed in response to validated complaints. More information on the Stormwater Hotline and procedures for responding to reports of illegal discharges are provided in Section 3.

9.4.2.4 Data Management

The City's residential inventory is presented in Table 9-1 and Figure 9-1. Edits to RMA boundaries will be made if necessary, but because the City is built out, adjustments are unlikely to be necessary. Evaluations of each RMA will be tracked in a spreadsheet that has one row per RMA, a column recording the date of assessment, a column recording the assessment type, and a column noting whether IC/IDs were observed. This will allow the City to track progress toward assessing all RMAs at least once over a five-year period. Whenever IC/IDs are observed, the details, including resolution status and enforcement actions, will be tracked through the City's spreadsheet of complaints (also used for the Stormwater Hotline).

9.5 Enforcement

When non-compliance with stormwater requirements are sourced to residential areas, the procedure described in the City's Enforcement Response Plan (Appendix C) will be followed to attain compliance. Where possible, voluntary compliance will be achieved through engaging and educating residents. Particularly in cases when residents are unaware of new requirements, the City will initially take an educational approach to build an effective partnership toward resolving the violation(s). When education is not sufficient to attain compliance, escalated enforcement actions, such as written warnings or citations, may be initiated.

The City will typically seek to resolve violations within 30 calendar days of their first observed occurrence, or prior to the next rain event, whichever is sooner. Illegal discharges that may present an immediate threat to human or environmental health do not have 30 days to attain compliance and must be eliminated as soon as possible, as described in Section 3. Violations, their date of resolution, and enforcement actions taken are documented in the City's electronic database. Whenever a violation cannot be resolved within 30 days, the rationale for why a longer period was needed to attain compliance will also be recorded, as required by the Municipal Permit.

Table 9-1. City of Lemon Grove Residential Management Areas and Evaluation Methods

Residential Management Area	HSA	CIA, HOA, or Mobile Home[1]	Adjacent to ESA	Pollutants Potentially Generated[2]							Evaluation Method	
				Metals	Oil & Grease	Sediment	Nutrients	Bacteria	Dissolved Minerals	Organics	Drainage Conveyance Observation	Drive Through Patrolling
CH-1	908.22		No	L	L	L	L	L	L	L	Major Outfall 69[3]	
CH-2	908.22		No	L	L	L	L	L	L	L	Madera St. Inlet[4]	
CH-3	908.22		No	L	L	L	L	L	L	L	Major Outfalls 65, 68[3]	
CH-4	908.22										Channel at City Boundary[5]	
CH-5	908.22		No	L	L	L	L	L	L	L		X
CH-6	908.22		No	L	L	L	L	L	L	L		X
SW-1	909.12											X
SW-2	909.12											X
SW-3	909.12											X

Notes:

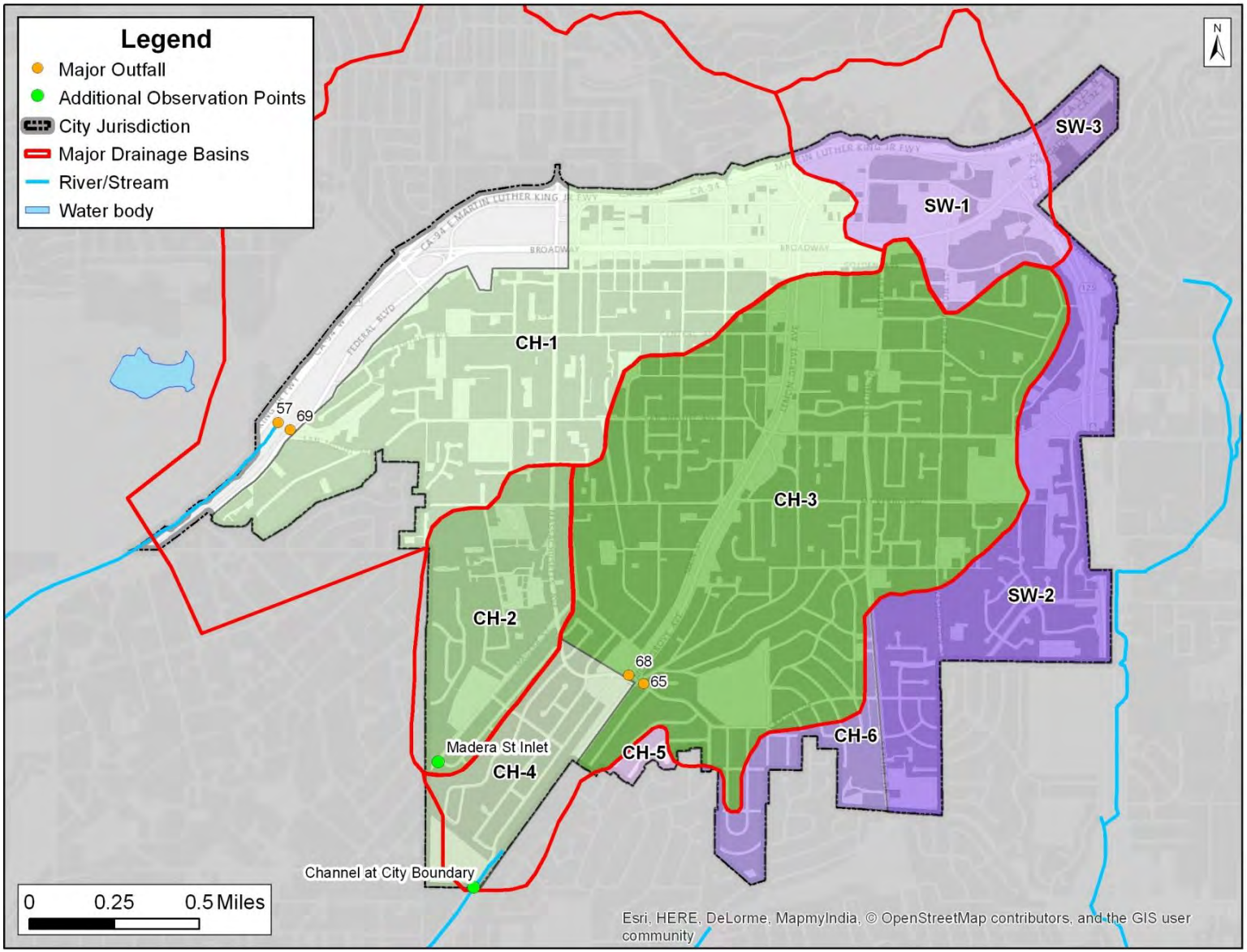
-All RMAs are considered active and are within the San Diego Bay Watershed Management Area.

-All RMAs are considered to be tributary to downstream water bodies listed as impaired on the 303(d) list and generating pollutants for which the water body segment is impaired.

-RMAs beginning with "CH" are in the Chollas Creek Watershed. RMAs beginning with "SW" are in the Sweetwater River Watershed.

1. Presence of any CIAs, HOAs, and mobile home parks within each RMA will be determined in the future as RMA evaluations progress.
2. Based on the 2011 Long Term Effectiveness Assessment (County of San Diego).
3. Assessed through the City's Dry Weather MS4 Outfall Monitoring Program.
4. Dry weather visual observations for flow will be completed at an inlet at the southeast corner of the Primera Street and Madera Street intersection (32.72054, -117.04865).
5. Dry weather visual observations for flow will be completed in the Lemon Grove Avenue Channel at the City's jurisdictional boundary, adjacent to northern terminus of Akins Ave, south of Valencia development (32.71503, -117.04693)

Figure 9-1. City of Lemon Grove Residential Management Areas



Green shaded areas: RMAs assessed through dry weather MS4 outfall monitoring; **Purple** shaded areas: RMAs assessed through drive-by assessments; White areas: non-residential land use

Data sources: City of Lemon Grove, SanGIS

10 Education and Public Participation

10.1 Introduction

Routine daily activities can potentially contribute pollution to urban runoff and consequently affect the quality of the receiving waters. While some individual activities may not have a significant effect on water quality, collectively these activities may contribute a significant amount of pollutants to receiving waters. Receiving water quality is a concern to all, not only because water degradation can have a negative effect on public health and safety, but it also can negatively affect the aquatic environment, riparian habitat, tourist and beach oriented economies, property values, and the aesthetic value of the area surrounding the water body.

Education is an important step in working towards improving receiving water quality both locally and regionally. By increasing public awareness and encouraging a change in both the attitude and the behavior of the public and the regulated community, the City may reduce or eliminate stormwater pollution caused by common daily activities.

Public participation also plays an important role in achieving the goals of the Jurisdictional Runoff Management Program (JRMP). Involving the public and school children in the stormwater program helps improve stormwater awareness among individuals, and may lead to improved water quality. Collaboration between the City and the community may help foster a sense of shared responsibility in protecting water quality both locally and regionally. The City encourages public participation through the programs discussed in this section. Educational programs and activities are tailored to meet the needs of the following target audiences:

- Municipal departments and personnel
- Construction site operators
- Industrial and commercial owners and operators
- Residential community, general public, and school children
- Other targeted audiences/activities, where applicable

10.2 Municipal Staff Training

The City educates and trains City employees and contractors on applicable stormwater regulations to assure that proper stormwater management practices are applied to all municipal projects and activities. It is important for all City staff and contractors to be aware of stormwater regulations so that their knowledge can be shared with citizens throughout the community. All municipal staff are encouraged to report non-stormwater discharges. The City

continues to update its educational program to include information regarding plan review practices and current best management practice (BMP) technologies. Educational opportunities may include, on an as-needed basis, on the job training, staff meetings, and emails and newsletters. Municipal personnel are also made aware of any stormwater related workshops or additional training seminars that are available. The following sections summarize key municipal staff training and education on stormwater-related issues.

10.2.1 Municipal Development Planning & Construction Activities

The City will continue to offer an education program for planning and development review personnel, construction and maintenance crews, building department, code enforcement, grading review personnel, inspectors, and other responsible construction personnel. Training may cover the following, where appropriate:

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to development projects
  - Construction General Permit
  - Municipal Permit[1]
  - San Diego Regional Water Quality Control Board (RWQCB) General NPDES Permit for Ground Water Dewatering
  - RWQCB 401 Water Quality Certification Program
  - Statewide General NPDES Utility Vault Permit
  - Requirements of the City's BMP Design Manual including treatment options, low impact development (LID) BMPs, source control, and applicable tracking mechanisms
- General stormwater concepts
  - Detecting, reporting, and eliminating illegal connections and illegal discharges (IC/ID)
  - Short- and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development)

[1] San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001

    - Integration of LID BMP requirements into the local regulatory program(s) and requirements
    - Inspection, plan review, and enforcement policies and procedures
    - Distinction between the municipal separate storm sewer system (MS4) and the sanitary sewer system
- Best management practices
    - BMP types: facility or activity specific, source control, and treatment control
    - Pollution prevention and recycling
    - Good housekeeping and proper waste disposal
    - Spill response, containment, and recovery
    - Non-stormwater disposal alternatives
    - Non-stormwater discharge prohibitions
    - BMP maintenance and implementation
    - Methods of minimizing impacts to receiving water quality resulting from development, including the following:
        - Stormwater management plan development and review
        - Methods to control downstream erosion impacts
        - Identification of pollutants of concern
        - LID BMP techniques
        - Source control BMPs
        - Selection of the most effective treatment control BMPs for the pollutants of concern
- Other topics
    - Public reporting mechanisms
    - Water conservation
    - Enforcement procedures

10.2.2 Municipal Industrial/Commercial Activities

The City will provide training for its municipal personnel responsible for conducting stormwater compliance inspections and enforcement of industrial and commercial facilities.

Training sessions are held as needed. Training and educational programs may include the following topics, where applicable:

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to industrial and commercial sites
  - Industrial General Permit
  - Municipal Permit
- General stormwater concepts
  - Inspection, Stormwater Pollution Prevention Plan and monitoring results review, and enforcement policies and procedures
  - Distinction between the MS4 and the sanitary sewer system
- Best management practices
  - BMP types: facility or activity specific, source control, and treatment control
  - Detecting, reporting, and eliminating IC/IDs
  - Non-stormwater discharge prohibitions
  - Pollution prevention and recycling
  - Good housekeeping and proper waste disposal
  - Spill response, containment, and recovery
  - Non-stormwater disposal alternatives
  - BMP maintenance and implementation
- Other topics
  - Public reporting mechanisms
  - Enforcement procedures
  - Water conservation

10.2.3 Other Municipal Activities

The City provides training to City departments and contractors that may perform activities within the City where pollutants might be generated, as needed. Training sessions and workshops may cover the following topics, where applicable:

- Laws, regulations, permits, and requirements

- General stormwater concepts
- Best management practices
- Other topics

10.3 Educational Outreach

In accordance with Section E.7 of the Municipal Permit and the strategies described in the San Diego Bay Water Quality Improvement Plan (WQIP), the City provides a comprehensive stormwater education program that promotes and encourages behaviors that reduce stormwater pollution. The City employs the efforts discussed in this section in an effort to develop sustainable behavior changes in the audiences and activities that may contribute watershed pollutants of concern. The general stormwater education for all target audiences, including previously mentioned municipal personnel, may cover the following topics, where appropriate:

- Laws, regulations, permits, and requirements
    - Federal, state, and local water quality laws and regulations
- General stormwater concepts
    - Impacts of urban runoff on receiving waters
    - Distinction between the MS4 and the sanitary sewer system
    - Non-stormwater discharge prohibitions
- Best management practices
    - Detecting, reporting, and eliminating IC/IDs
    - Pollution prevention
    - Reduction of pollutants associated with pesticides, herbicides, and fertilizers
    - Good housekeeping practices
    - Proper waste disposal
    - Non-stormwater disposal alternatives
    - Non-stormwater discharge prohibitions
- Other topics
    - Public reporting mechanisms
    - Integrated Pest Management (IPM) techniques
    - Water conservation

10.3.1 Development Project Proponents and Design Engineers

Development may increase impervious area and, as a result, runoff volumes, runoff flow rates, and pollutant discharges. Changes in activities as a result of development also may result in additional pollutant discharges. Incorporating LID concepts and other BMPs can mitigate these potential negative impacts of development. The City plans to develop fact sheets or similar material, which will be available at the Building counter, encouraging disconnection of downspouts for residential projects. The City's educational outreach to development project proponents and design engineers may cover topics listed in Section 10.2.1, as applicable.

10.3.2 Construction Site Operators

Construction site operators can alter the landscape and natural flow of stormwater runoff and increase erosion. During such activities, construction site owners, developers, constractors, and subcontractors could potentially discharge a number of different types of pollutants to receiving waters. It is important that this sector be educated to ensure that BMPs are incorporated during the site design stage, throughout the construction process, and during the post-construction phase to reduce impacts from construction.

Activities that may be a high threat to receiving water quality include the following:

- Land clearing or alteration, resulting in higher erosion rate
- Exposed soil and material storage stockpiles
- Earthwork, demolition, and generation of dust from construction traffic
- Other pollutants (e.g., waste and materials)

Potential impacts of activities are listed below:

- Alteration of natural drainage patterns
- Sedimentation of stormwater runoff
- Pollutant transport
- Water degradation in receiving waters
- Degradation of aquatic and riparian ecosystems

The City will educate construction site owners and developers through the distribution of factsheets, and by hosting workshops, as needed. Topics included in training sessions and distributed information may include the following, where applicable:

- Federal, state, and local water quality laws and regulations
- General stormwater concepts

    - Detecting, reporting, and eliminating IC/IDs
    - Distinction between the MS4 and the sanitary sewer system
- Best management practices
    - Pollution prevention and recycling
    - Good housekeeping and proper waste disposal
    - Spill response, containment, and recovery
    - Non-stormwater disposal alternatives
    - Non-stormwater discharge prohibitions
    - BMP maintenance and implementation
    - Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities
- Other topics
    - Public reporting mechanisms
    - Water conservation

10.3.3 Industrial/Commercial Facility Owners and Operators

Many activities from industrial and commercial owners and operators may be sources of pollutants (e.g., manufacturing facilities, restaurants, automotive repair shops, etc.). Pollutants may be generated from day to day operations, and have the potential to enter stormwater runoff if business activities are not conducted properly or without the use of BMPs.

The City will provide an educational program for industrial owners and operators through the use of print media and printed materials. The program may include the following topics, where appropriate:

- Laws, regulations, permits, and requirements
    - Federal, state, and local water quality laws and regulations
    - Industrial General Permit
    - Short- and long-term water quality impacts associated with urbanization
- General stormwater concepts
    - Detecting, reporting, and eliminating IC/IDs
    - Distinction between the MS4 and the sanitary sewer system

- Best management practices
    - BMP types: facility or activity specific, source control, and treatment control
    - Pollution prevention and recycling
    - Good housekeeping and proper waste disposal
    - Spill response, containment, and recovery
    - Non-stormwater disposal alternatives
    - Non-stormwater discharge prohibitions
    - BMP maintenance and implementation
- Other topics
    - Public reporting mechanisms
    - IPM techniques
    - Water conservation

The City may include educational material to industrial businesses upon issuance and/or re-issuance of a business license, and distribute educational material during inspections and/or complaint investigations. Municipal stormwater personnel keep educational material in their City vehicles and distribute as necessary to industrial facilities.

10.3.4 Residential Community, General Public, and School Children

Residential areas make up a large portion of the land use in the City, and therefore even small pollutant discharges can be magnified significantly and have the potential to affect the quality of the receiving waters. Activities such as residential car washing and over-irrigation have the potential to contribute pollutants to the storm drain sytem and to receiving water bodies. Providing residents with appropriate educational materials may help to increase overall awareness, and encourage residents to change harmful behaviors and subsequently reduce the potential for pollutants to enter the MS4 and reach receiving water bodies. The following methods will be used to educate and inform residents, general public, and school children about stormwater related issues.

The following topics may be covered in outreach to the general public, residents, or school children, where appropriate:

- Laws, regulations, permits, and requirements
- General stormwater concepts
    - Detecting, reporting, and eliminating IC/IDs

    - Distinction between the MS4 and the sanitary sewer system
- Best management practices
    - Pollution prevention and recycling
    - Good housekeeping and proper waste disposal
    - Spill response, containment, and recovery
    - Non-stormwater disposal alternatives
    - Non-stormwater discharge prohibitions
    - BMP maintenance and implementation
    - Methods to reduce irrigation runoff of landscapes
    - Proper use of fertilizer and pesticides
    - Use of drought tolerant plants
    - Proper pet waste disposal
    - Methods to reduce the impact of residential car-washing
- Other topics
    - Pool dechlorination techniques
    - Proper disposal of household hazardous waste (HHW)
    - Community outreach events and activities
    - Public reporting mechanisms
    - IPM techniques
    - Water conservation

Community Events and Outreach

Community events and outreach, such as flyers, brochures, website postings, advertisements, and other educational materials are an important part of disseminating stormwater information. Community events and outreach programs raise awareness of stormwater issues that exist in the City and encourage the public to improve local water quality by making a few simple changes to regular routines.

Education distributed to residents and the general public may include the following information, where applicable:

- Laws, Regulations, Permits, & Requirements
- General Urban Runoff Concepts

- Best Management Practices
    - Methods to reduce irrigation runoff of landscapes
    - Proper use of fertilizer and pesticides
    - Use of drought tolerant plants
    - Proper pet waste disposal
    - Methods to reduce the impact of residential car-washing
- Other Topics
    - Dechlorination techniques
    - Proper disposal of HHW
    - Community outreach events and activities

School Education

Educating the City's youngest residents is important in two ways: ideally, the good habits/behaviors learned will be carried into adulthood, and secondly, children may educate their families and friends around them with the information they have learned. Children are impressionable at a young age, and are therefore more likely to act upon the knowledge given to them now and throughout their life.

The City will educate school children by collaborating with other organizations to offer a variety of education programs for school children. Potential stormwater-related topics may include the following, where appropriate:

- Water cycle
- Impact of urbanization
- Difference between the sanitary sewer and the MS4
- Pollutant types entering receiving waters
- Proper trash disposal and recycling
- Proper use of fertilizers and pesticides
- BMPs for residential car washing
- General pollution prevention techniques
- Water bodies in and around the City of Lemon Grove

10.3.5 Targeted Education

The City may target education and outreach at specific communities or audiences or for specific topics across multiple audiences. This type of outreach may be undertaken if necessary to provide additional support in meeting numeric goals in the WQIP. Additional targeted outreach in the Chollas Creek drainage area may focus on activities generating non-stormwater flows or activities believed to generate metals or bacteria in stormwater runoff. For example, the City collaborates with Helix Water District to publicize incentive programs for retrofitting landscaped areas to conserve water and reduce irrigation runoff.

10.4 Public Participation Programs

Community involvement plays an important role in achieving the goals of the JRMP. The participation of the general public and school children in implementing stormwater programs helps improve stormwater awareness among individuals and may lead to improved water quality. Collaboration between the City and the community helps foster a sense of shared responsibility in protecting water quality both locally and regionally. Some programs, such as cleanup events, have direct water quality benefits. When the public has the opportunity to become more involved, there are several positive outcomes. First, those involved become more knowledgeable about stormwater issues. Second, they become educators and stewards for the watershed. Finally, they provide important feedback to the City regarding the concerns of the public and issues that may be overlooked. Ultimately, public participation helps make the education process more effective. The City encourages public participation though the programs discussed in this section.

Public Outreach Events

The City participates in several annual outreach events, including the Creek to Bay Cleanup and the San Diego County Fair. As part of its jurisdictional WQIP strategies, the City collaborates with "I Love a Clean San Diego", a local environmental organization, to facilitate local trash cleanups.

Public Reporting

The City encourages citizens to report any observed IC/IDs or any other activity that contributes pollutants to the City's storm water conveyance system to the City's Stormwater Hotline. More information about the Stormwater Hotline, including contact information, is provided in Section 3.3.1.

Household Hazardous Waste Collection and Used Oil Recycling

The City facilitates the proper disposal of used oil, toxic materials, and other HHW through education, providing public information, and co-sponsoring several HHW and electronic waste events. The City collaborates with the City of La Mesa for HHW events. During these events,

residents can drop off HHW waste free of charge to the EDCO La Mesa Station (6700 Federal Blvd), by appointment only. Free electronic waste recycling is also available without appointment during regular business hours at EDCO for most items, except appliances, which require a $27 fee for disposal. In addition to dropping off HHW at EDCO, senior and disabled residents are also eligible to participate in the HHW/Electronic Waste Home Pickup Program, which offers free HHW home pickup service. There are also three used oil collection points in the City:

- AutoZone - 7582 Broadway
- Kragen Auto Parts - 6925 Federal Blvd
- EDCO Disposal - 6670 Federal Blvd

Encourage Responsible Cleanup

Residents are encouraged to protect local water bodies by cleaning up after themselves and their pets. To make this easier, pet waste dispensers can be found at all the City parks and in the vicinity of City Hall, all areas where people frequently walk their dogs. Trash cans are also readily available in all of these areas. Both the trash cans and bag dispensers are maintained by the City's Grounds Division.

Media

The following is a summary of venues and media outlets utilized within the defined reporting period of this report to provide education and training to various residential and public audiences:

- City newsletter containing an environmental section with water quality and environmental information
- Various brochures available at City Hall
- The Stormwater Hotline
- Informational booths at events
- Participation and collaboration in watershed-based efforts such as Creek to Bay Clean-up and watershed based school presentations.

Public participation in the updating, development, and implementation of the JRMP

The City has encouraged public input on its stormwater program through WQIP public workshops, consultation panel meetings, and public comment periods for submitted WQIP reports. The City's updated ordinances and BMP Manual, including enforcement procedures, were presented to the City Council as part of the ordinance adoption process in May 2015. The City will notify the public of future opportunities to provide recommendations on and to participate in making updates to City's JRMP or to the highest priority water quality conditions,

numeric goals, and water quality improvement strategies and their effectiveness set forth in the WQIPs.

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11 Fiscal Analysis

11.1 Introduction

The Municipal Permit requires the City to secure the resources necessary to implement its JRMP. This includes the actions the City has committed to in the WQIP for the San Diego Bay WMA. Those actions, referred to as "strategies" in the WQIP, are summarized in Appendix I of this document. The City is also responsible for reporting a stormwater program fiscal analysis, including information about expenditures and funding sources, to the RWQCB each year. To satisfy this requirement, each department or division involved in the stormwater program compiles financial information and provides it to the stormwater staff within the Development Services Department, which analyzes the fiscal information and reports the findings to the RWQCB.

11.2 Municipal Permit Compliance Funding Needs and Sources

Each budget cycle estimated costs for implementing the stormwater program are prepared as part of the budget process. The specific amounts allocated and their corresponding funding sources are set in each year's final adopted budget.

11.2.1 Funding Needs

The stormwater program funding needs are primarily driven by the following regulations:

- The Municipal Permit, including the JRMP requirements of Section E and the WQIP requirements of Section B.
- The Chollas Creek TMDL for bacteria, diazinon, copper, lead, and zinc, which is incorporated into the Municipal Permit and which the San Diego Bay WQIP has been prepared to address.

The activities necessary to comply with these regulations are described in the JRMP. Examples of these activities include street sweeping, storm drain cleaning, maintaining structural treatment devices, water quality monitoring, and inspecting construction sites and businesses to verify they are implementing appropriate measures to protect water quality. The City's jurisdictional WQIP strategies are listed in Appendix I.

11.2.2 Funding Sources

Through the budgeting process the City identifies sources of funding to comply with stormwater requirements. Specific funding sources are set during each budget process and are

subject to change over time. The main sources of funding in the past, which are also anticipated to be the main funding sources in future years, are discussed below.

There are multiple sources for program funding which include grants, stormwater fees paid by both residents and businesses, fines, and funds from the City's General Fund. The City has created a stormwater fee for businesses and residents through developmental plan check fees, for businesses charged through the business license and solid waste services to residential users. The fees collected fund approximately one third of the total stormwater program costs. The City has integrated water quality compliance into its Code Enforcement program, which includes potential fines for continued non-compliance. However, the City does not foresee this as a steady revenue source for program funding, as compliance is the primary and desired outcome. The City's General Fund is expected to continue to be the main funding source for the City's Stormwater program. The City will continue to pursue opportunities for grant funding in the future.

11.3 Fiscal Analysis Reporting

As part of the required annual reporting process each year, the City will prepare a summary of expenditures from the reporting period and a list of funding sources for both the current and upcoming fiscal years. An example tabular format for reporting these numbers is provided in Appendix F. The discussion that will be prepared to accompany the data tables will also identify legal restrictions that apply to proposed funding sources where applicable.

Information necessary to complete the fiscal analysis each year will be collected from each responsible department or division. In accordance with Municipal Permit Provision E.8 (Fiscal Analysis), the City will report stormwater expenditures for capital projects, operation and maintenance, and staffing. Staffing and operation and maintenance costs mainly relate to day to day program activities, such as storm drain cleaning, reviewing plan submittals for development projects, and enforcing compliance with the stormwater requirements in the Municipal Code. Capital project expenditures commonly include the cost of installing LID features or other structural water treatment devices.

To allow sufficient time to complete the annual report, each department or division will summarize its stormwater program activities and expenses in an internal reporting form and submit it to the Stormwater group by the City's established internal data collection deadline. This internal deadline will be determined by Stormwater staff each year upon commencement of JRMP annual reporting coordination.

The City will report its fiscal analysis information in its JRMP annual reports until the RWQCB approves the WQIP. The deadline for JRMP annual report submittal during the transitional period is October 31 following the end of the fiscal year. For example, FY 2015 ends on July 1,

2015, and the FY 2015 JRMP annual report is due to the RWQCB on October 31, 2015. After the WQIP is approved, the JRMP annual report forms and fiscal analysis data will not be provided directly to the RWQCB on their own. Instead, they will be included as part of the WQIP annual report. The City's fiscal analysis data will be included in the WQIP annual report for the San Diego Bay WMA WQIP to which the City is a party. The WQIP annual reports for each reporting period are due January 31 of the following year. For example, the FY 2018 WQIP annual reports will be due on January 31, 2019. It is anticipated that the WQIP will be approved during FY 2016 and that the first WQIP annual reports will be due in January 2017.

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12 Reporting

12.1 JRMP Annual Reports

Section F.3.b.(1) of the Municipal Permit[1] requires that the City documents compliance with the Municipal Permit through annual reporting which assists with communicating to the San Diego Regional Water Quality Control Board (RWQCB) and to the public the implementation status of the City's Jurisdictional Runoff Management Program (JRMP). At the end of each reporting period (i.e., July 1 to June 30), the City will submit a JRMP annual report form to the RWQCB by October 31. The annual report form, included as Appendix J of this document, requires the City to report the information discussed within this section.

During the period before the Water Quality Improvement Plan (WQIP) for the San Diego Bay Watershed Management Area (WMA) is approved, referred to as the "transitional period" in the Municipal Permit, the City will submit its JRMP annual reports directly to the RWQCB. Once the WQIP is approved, JRMP annual reports will be submitted to the RWQCB through the WQIP annual reporting process. It is anticipated that the WQIP will be approved during the 2015-2016 fiscal year and that the first WQIP annual report will be due in January 2017.

Although stormwater staff facilitate and monitor the overall program throughout the year, several key departments and divisions are responsible for implementing significant portions of the City's stormwater program. The JRMP and annual reporting process involves a range of staff from different departments, such as Public Works and Development Services, who are responsible for implementing and collecting data for stormwater activities for which they are responsible. Discussion for each of the subsections that follow is in order of sections on the JRMP annual report form.

12.1.1 Legal Authority

In each annual report the City must confirm that adequate legal authority has been established and is being maintained within its jurisdiction to control pollutant discharges into and from its MS4. As part of the first WQIP annual report, the City will submit a formal certification of legal authority, as required by Municipal Permit Section E.1.b. That certification statement must be signed by a Principal Executive Officer, Ranking Elected Official, or Duly Authorized Representative.

[1] San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001

12.1.2 JRMP Document Update

It will be reported in the JRMP annual report if any updates to the JRMP document were required or recommended by the RWQCB during the reporting period. The City must confirm that the JRMP document was in fact updated accordingly and made available, within the reporting period, on the Regional Clearinghouse, a website used for the collection and distribution of information developed and maintained by the Copermittees. If an update was required or recommended, and was not made available on the Regional Clearinghouse within the reporting period, the City will attach a schedule for the completion of the update and/or posting of the updated document on the Regional Clearinghouse with the JRMP annual report.

12.1.3 Illegal Discharge Detection and Elimination Program

The total number of non-stormwater discharges and that were reported by the public, detected by the City or contract staff, investigated, and/or eliminated in each of the City's WMAs within the reporting period will be recorded on the annual report form. Additionally, the total number of identified sources of non-stormwater discharges and illegal discharges, the number of IC/IDs identified and/or eliminated, and the number of associated enforcement and escalated enforcement actions taken will be reported.

All non-stormwater discharges are considered illegal discharges unless the source is identified as one of the categories of non-stormwater discharges discussed in Section 3 of this document. If a non-stormwater discharge is identified but not included in one of the categories of non-stormwater discharges listed in Section 3, then the discharge is both a non-stormwater discharge and an illegal discharge.

12.1.4 Development Planning Program

The City is also required to report in the annual report whether or not an update to its BMP Design Manual was required or recommended by the RWQCB during the reporting period. If an update was required or recommended, the City must confirm whether or not the update was completed and made available on the Regional Clearinghouse within the reporting period. If no update was required or recommended, an answer is not required. If the required or recommended update was not completed and/or made available on the Regional Clearinghouse, the City must attach a schedule for the completion of the update and/or posting of the updated document on the Regional Clearinghouse.

In addition, several items related to the program shall be reported, such as, for the development and redevelopment projects that are reviewed, the total number projects submitted for review during the reporting period must be reported. Of these projects, the number that are Priority Development Projects (PDP), as defined under Section E.3.b.(1) of the Municipal Permit, and the number of PDPs that were approved and/or granted occupancy during the reporting year,

regardless of when the project was originally submitted for review. Any projects that were approved during the fiscal year and granted any exemptions from the BMP Design Manual requirements and/or allowed to implement alternative compliance options in accordance with Municipal Permit Section E.3.c.(3) must also be reported.

A count of completed PDPs in the City's inventory, high priority PDPs structural BMP inspections, PDPs structural BMP violations, and associated enforcement and escalated enforcement actions, shall also be included in the City's JRMP annual report form.

12.1.5 Construction Management Program

The number of construction sites in the City's inventory, active and inactive sites in inventory, construction sites closed/completed during the reporting period, construction site inspections and violations, and the number of enforcement and escalated enforcement actions issued are reported on the annual report form.

12.1.6 Existing Development Program

The City must also report on several items related to its oversight in areas of existing development within its jurisdiction. The information that must be separated into four categories of existing development: municipal, commercial, industrial, and residential. For each category, totals will be included for the number of facilities or areas in inventory, routine and follow-up inspections, violations, and enforcement and escalated enforcement actions.

12.1.7 Fiscal Analysis and Supplemental Data

Each year the City prepares a fiscal analysis summary, as described in JRMP Section 11, and submits it along with the JRMP annual report form. Once the WQIP annual reporting process begins, additional supplemental descriptions of the City's progress in implementing WQIP strategies will also likely need to be prepared and submitted.

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13 Conclusions and Recommendations

The City has updated its Jurisdictional Runoff Management Program (JRMP) based on priorities, goals, and schedules identified in the San Diego Bay Watershed Management Area (WMA) Water Quality Improvement Plan (WQIP) and based on experience gained through implementing programs as required by the previous Municipal Permit. The updates include adjusting existing programs and developing new programs to target WQIP priorities and to meet Municipal Permit requirements.

The City anticipates continuing to assess and refine its activities through adaptive management as the JRMP is implemented. This approach is expected to reduce discharges of pollutants and non-storm water flow rates in the City's storm drain system, which should ultimately benefit local water bodies. The City will continue to work with the other agencies in San Diego County and in the San Diego Bay WMA to develop methods to foster long-term success in regional water quality improvement.

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14 References

California Regional Water Quality Control Board, San Diego Region (RWQCB), 1994. *Water Quality Control Plan for the San Diego Basin.* Originally published in 1994, with amendments on or before April 4, 2011.

California Regional Water Quality Control Board, San Diego Region (RWQCB), 2007. Order No. R9-2007-0001; NPDES No. CAS0108758. *Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority.*

California Regional Water Quality Control Board, San Diego Region (RWQCB), 2013. Order No. R9-2013-0001, as amended by Order No. R9-2015-0001; NPDES No. CAS0109266. *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) draining the Watersheds within the San Diego Region.*

California Stormwater Quality Association, 2009. *California Storm Water BMP Handbook – Construction.*

California Stormwater Quality Association, 2014. *California Storm Water BMP Handbook – Industrial & Commercial.*

California Stormwater Quality Association, 2003. *California Storm Water BMP Handbook – Municipal.*

City of Lemon Grove. *Lemon Grove General Plan*, 1996.

County of San Diego, *Long-Term Effectiveness Assessment San Diego Stormwater Copermittees Urban Runoff Management Programs Final Report,* June 2011. Submitted on behalf of the Copermittees of RWQCB Order No. R9-2007-0001.

State Water Resources Control Board, 2009. Water Quality Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ; NPDES Order No. CAS000002. *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.*

State Water Resources Control Board, 2014. Water Quality Order No. 2014-0057-DWQ; NPDES Order No. CAS000001. *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities.*

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Appendix A

Updates to Lemon Grove Municipal Code Chapters 8.48 (Stormwater Management and Discharge Control) and 18.08 (Excavation and Grading)

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ORDINANCE NO. 428

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LEMON GROVE, CALIFORNIA AMENDING CHAPTER 8.48 (STORMWATER MANAGEMENT AND DISCHARGE CONTROL) AND CHAPTER 18.08 (EXCAVATION AND GRADING) OF THE LEMON GROVE MUNICIPAL CODE WITH REFERENCE TO THE LEMON GROVE BEST MANAGEMENT PRACTICES (BMP) MANUAL

WHEREAS, the Regional Water Quality Control Board for the San Diego region (RWQCB) has approved Order No. R9-2013-0001 and later amended as R9-2015-0001, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0109266 (Permit); and

WHEREAS, the Permit requires certain changes be made to the Stormwater Management and Discharge Control Ordinance (Chapter 8.48 of the Lemon Grove Municipal Code) and the Excavation and Grading Ordinance (Chapter 18.08) with reference to the Lemon Grove Best Management Practices (BMP) Manual; and

WHEREAS, the purpose of this Ordinance is to update the Stormwater Management and Discharge Control Ordinance and the Excavation and Grading Ordinance with Reference to the Lemon Grove Best Management Practices (BMP) Manual to comply with the Permit.

NOW THEREFORE, the City Council of the City of Lemon Grove, California hereby modifies Chapter 8.48 (City of Lemon Grove Stormwater Management and Discharge Control Ordinance) and Chapter 18.08 (Excavation and Grading Ordinance) as set out in Exhibit 1 and approves the Lemon Grove Best Management Practices (BMP) Manual which is attached hereto and incorporated herein by reference (Exhibit 2).

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This ordinance was introduced on May 5, 2015.

PASSED AND ADOPTED this 19th day of May 2015, by the following vote, to wit:

COUNCILMEMBERS	AYES	NOES	ABSTAIN	ABSENT
Mary Teresa Sessom	xx			
Howard Cook	xx			
George Gastil	xx			
Jerry Jones	xx			
Racquel Vasquez	xx			

Mary Teresa Sessom, Mayor

This Ordinance shall become effective thirty days following its passage and adoption.

ATTEST AND CERTIFICATION

I hereby certify that this is a true and correct copy of Ordinance No. 428, which has been published pursuant to law.

Susan Garcia
City Clerk

APPROVED AS TO FORM

James P. Lough
City Attorney

Exhibit 1

Chapter 8.48 STORMWATER MANAGEMENT AND DISCHARGE CONTROL

8.48.010 Title, purpose and intent.

This chapter shall be known as the "Lemon Grove Stormwater Management and Discharge Control Ordinance." The purposes of this chapter are as follows:

A. To establish requirements for discharges into the municipal separate storm sewer system (MS4), receiving waters, and the environment;

B. To protect, to the maximum extent practicable (MEP), life, property, receiving waters, aquatic life, and the environment from loss, injury, degradation, or damage by discharges from within the City's jurisdiction;

C. To protect the MS4 from damage; and

D. To meet the requirements of state and federal law and the California Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, NPDES Permit No. CAS0109266, as may be amended (MS4 Permit).

8.48.020 Definitions.

The following definitions shall be applicable when the following words or phrases are used hereafter in this chapter (including use in the city of Lemon Grove's Best Management Practices Manual), whether or not these words or phrases are capitalized.

"Authorized enforcement official" means the city manager of the city of Lemon Grove or any designee of the city manager of the city of Lemon Grove who is responsible for enforcing the provisions of this chapter, including but not limited to, the directors, their management staff and designees.

"Basin plan" means the comprehensive water quality control plan for the San Diego Basin, adopted by the Regional Water Quality Control Board for the San Diego Region in July 1975, and all subsequent amendments.

"Best management practices" (BMPs) mean schedules of activities, pollution treatment practices or devices, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures and other management practices or devices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters or the MS4. Best management practices also include, but are not limited to, treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal or drainage from raw materials storage. Best management practices may include any type of pollution prevention and pollution control measure, approved by the City and consistent with the MS4 Permit, that can help to achieve compliance with this chapter.

"BMP Manual" or "Manual" means the City's BMP Manual adopted by resolution and amended from time to time by the City Council. The applicable version of the BMP Manual for a development shall be the version in effect at the time of final approval of the permit or other entitlement applicable to the improvement.

"Channel" means a natural or improved watercourse with a definite bed and banks that conveys continuously or intermittently flowing water.

"City" means the city of Lemon Grove.

"Contamination", as defined in the Porter-Cologne Water Quality Control Act, is "an impairment of the quality of waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. 'Contamination' includes any equivalent effect resulting from the disposal of waste whether or not waters of the State are affected."

"County" means the County of San Diego.

"Developer" means a person who seeks or receives permits for or who undertakes land development activity.

"Directors" means the directors of the City's Development Services Department and the Public Works Department.

"Discharge" when used as a verb, means to allow pollutants to directly or indirectly enter stormwater, or to allow stormwater or non-stormwater to directly or indirectly enter the MS4 or receiving waters, from an activity or operations which one owns or operates. When used as a noun, "discharge" means the pollutants, stormwater and/or non-stormwater that is discharged.

"Discharger" means any person or entity engaged in activities or operations or owning facilities, which will or may result in pollutants entering stormwater, the MS4, or receiving waters; and the owners of real property on which such activities, operations or facilities are located; provided however, that a local government or public authority is not a discharger as to activities conducted by others in public rights-of-way.

"Erosion" refers to any process in which land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via stormwater runoff. Erosion occurs naturally but can be intensified by land clearing activities such as development, farming, road building, and timber harvesting.

"Groundwater" means subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated.

"Illegal connection" means a pipe, facility, or other device connected to the MS4 or receiving waters, which has not been reviewed and authorized by the city; or a permitted/authorized pipe, facility, or other device, which conveys illegal discharges.

"Illegal discharge" means any discharge to the MS4 or receiving waters that is prohibited by this chapter. This includes, but is not limited to, discharges of non-stormwater that are not exempt discharges listed 8.48.050, discharges of irrigation runoff to the MS4, any discharge from an illegal connection and any discharge that contains additional pollutants due to the absence of a required BMP or the failure of a BMP. Discharges that require a RWQCB permit that has not been issued or has not been acknowledged by the discharger to be applicable are illegal discharges. Discharges regulated under an applicable NPDES permit are illegal discharges for purposes of this chapter unless compliance with all applicable permit and Storm Water Pollution Prevention Plan (SWPPP) conditions is maintained.

"Infiltration" means the process of percolating stormwater or non-stormwater into the soil.

"Infiltration BMPs" means any structural treatment BMP designed primarily to percolate water into the subsurface, such as an infiltration trench or infiltration basin. An infiltration BMP may include filtering prior to or during infiltration. BMPs that infiltrate some water but which are

designed primarily to retain water or to treat water, such as retention basins, constructed wetlands, or filtering swales are not infiltration facilities.

"Land development activity" means construction, rehabilitation, redevelopment, or reconstruction of any public or private projects..

"Land disturbance activity" means any activity, requiring a grading permit that moves fifty cubic yards of soils or substantially alters the pre-existing vegetated or man-made cover of any land. This includes, but is not limited to, grading, digging, cutting, scraping, stockpiling or excavating of soil; placement of fill materials; paving, pavement removal, exterior construction; substantial removal of vegetation where soils are disturbed including, but not limited to, removal by clearing or grubbing; or any activity which bares soil or rock or involves streambed alterations or the diversion or piping of any watercourse. Land disturbance activity does not include routine maintenance to maintain original line and grade, hydraulic capacity, or the original purpose of the facility, nor does it include emergency construction activities (i.e., land disturbances) required to protect public health and safety.

"Land owner" means the holder of legal title to the land, and other persons or entities who exercise control over a land development project pursuant to rights granted in a purchase agreement, joint venture agreement, development agreement, or long-term lease.

"Low impact development," or "LID," means a stormwater management and land use development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions.

"Maintenance of a BMP" means periodic action taken to maintain the as-designed performance of a BMP, and includes, but is not limited to, repairs to the BMP as necessary, and replacement of the BMP by an equally effective or more effective BMP at the end of its useful life.

"Maximum extent practicable" (MEP) means the technology-based standard established by Congress in the Clean Water Act 402(p)(3)(B)(iii) that municipal dischargers of urban runoff must meet. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional lines of defense).MEP is an acceptability standard for BMPs. When BMPs are required to meet this standard, the BMPs must be the most effective set of BMPs that is still practicable. A BMP is effective if it prevents, reduces or removes the pollutants that would otherwise be present in runoff due to human activity. A BMP is practicable if it complies with other regulations as well as stormwater regulations; is compatible with the area's land use, character, facilities and activities; is technically feasible (considering area soil, geography, water resources and other resources available); is economically feasible; and provides benefits that are reasonable in relation to costs.

"Municipal separate storm sewer system" (MS4) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization,

or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

"MS4 Permit" refers to RWQCB Order No. R9-2013-0001, NPDES Permit No. CAS0109266, as may be amended.

"Natural drainage" means a natural swale or topographic depression, which gathers and/or conveys runoff to a permanent or intermittent watercourse or water body.

"New development" means land disturbing activities; structural development, including construction or installation of a building or structure, the creation of impervious surfaces; and land subdivision.

"Non-stormwater discharge" means any discharge to the MS4 that is not entirely composed of stormwater.

"NPDES permit" means a National Pollutant Discharge Elimination System (NPDES) permit issued by the U.S. Environmental Protection Agency, the SWRCB, or the RWQCB.

"Nuisance" shall have the same meaning as set forth in Lemon Grove Municipal Code (LGMC) 17.08.030 and/or applicable state law. .

"Pollutants" shall mean any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

"Pollution" as defined in the Porter-Cologne Water Quality Control Act, is "the alteration of the quality of the waters of the State by waste, to a degree which unreasonably affects either of the following: 1) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses." Pollution may include contamination.

"Post-Construction Stormwater Management Plan" is a report that documents how a Priority Development Project complies with applicable BMP requirements for land development and redevelopment activities listed in the BMP Manual and Chapter 8.52 of the Municipal Code. Post-Construction Stormwater Management Plans are commonly referred to by titles such as Water Quality Technical Report (WQTR) and Storm Water Quality Management Plan (SWQMP).

"Premises" means any building, lot parcel, land or portion of water whether improved or unimproved.

"Priority Development Project" refers to new development and redevelopment project categories as more fully set forth in the BMP Manual and Chapter 8.52 of the Municipal Code.

"Receiving waters" means all waters that are "Waters of the United States".

"Redevelopment" means any construction, alteration or improvement at an already developed site. Redevelopment can include, but is not limited to, the expansion of building footprints, the addition or replacement of a structure, exterior construction and remodeling, replacement of existing impervious surfaces that are not part of a routine maintenance activity, and other activities that create additional impervious surface.

"Runoff" means all flows in a MS4 including stormwater (wet weather flows) and non-stormwater (dry weather flows).

"RWQCB" means the Regional Water Quality Control Board for the San Diego Region.

"Sediment" means soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms' survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

"Source control BMP (both structural and non-structural)" means land use or site planning practices, or structures that aim to prevent urban runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and urban runoff. Examples include roof structures over trash or material storage areas, and berms around fuel dispensing areas.

"State general construction stormwater permit" means NPDES Permit No. CAS000002, and any amendments thereto.

"State general industrial stormwater permit" means NPDES Permit No. CAS000001, and any amendments thereto.

"Stop Work Order" means an order issued which requires that specifically identified activity or all activity on a site be stopped.

"Stormwater" means surface runoff and drainage associated with storm events.

"Stormwater management" means the use of structural or non-structural BMPs that are designed to reduce urban run-off pollutant loads, discharge volumes, and/or peak discharge flow rates or velocities. When applied to the city or another municipality, stormwater management also includes planning and programmatic measures.

"Stormwater management plan" means a plan, submitted on a city form or in a city-specific format in connection with an application for a city permit or other city approval, identifying the measures that will be used for stormwater and non-stormwater management during the permitted activity.

"Structural BMP" means a BMP that relies on either a physical condition, other than an entirely natural and undisturbed condition, or on a constructed or installed device to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. Constructed or enhanced BMPs that depend on natural materials and processes (e.g., constructed drainage swales or buffers, or constructed wetlands), and that require period maintenance to function as designed, are structural BMPs.

"Structural post-construction BMP" means a structural BMP, other than a temporary construction-related BMP, put in place in connection with a land development or redevelopment project to prevent or reduce pollution of stormwater or receiving waters, or to prevent or reduce erosion downstream from the project. All treatment control BMPs are structural post-construction BMPs.

"SWRCB" means the State Water Resources Control Board.

"Watercourse" means a permanent or intermittent stream, creek, or other body of water, either natural or improved, which gathers or carries surface water.

"Water quality standards" are defined as the beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.) of water and the water quality standards adopted by the state or the United States Environmental Protection Agency to protect those uses.

"Waters of the State" means any water, surface or underground, including saline waters within the boundaries of the State (State Water Code Section 10350(e)). The definition of the "Waters of the State" is broader than that for the "Waters of the United States" in that all water in the State is considered to be "Waters of the State" regardless of circumstances or condition.

"Waters of the United States" means water subject to the regulatory jurisdiction of the United States under the Federal Clean Water Act and applicable case law. In general, this includes "navigable" waters, waters tributary to "navigable" waters, and adjacent wetlands.

8.48.030 General provisions.

A. Responsibility for Administration. This chapter shall be administered for the city of Lemon Grove by its authorized enforcement officials.

B. Effective Date. This chapter shall take effect on June 27, 2015.

C. Construction and Application. Interpretation of this chapter shall assure consistency with the purpose and intent of this chapter and shall implement the requirements of the MS4 Permit. This chapter is not intended to interfere with, abrogate or annul any other chapter, rule or regulation, statute, or other provision of law. The requirements of this chapter should be considered minimum requirements, and where any provision of this chapter imposes restrictions different from those imposed by any other chapter, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall take precedence. Stormwater and non-stormwater discharges regulated under a valid facility-specific NPDES permit or facility-specific RWQCB Waste Discharge Requirements Permit are not subject to this chapter, but shall instead be regulated exclusively by the RWQCB.

D. BMP Manual. The City may establish and adopt a written description of the runoff management measures and programs, including minimum BMPs, that the City will implement, or require to be implemented, to ensure compliance with this chapter. These documents shall be known collectively as the BMP Manual. Amendments to the BMP Manual shall be approved by resolution of the City Council.

E. Severability and Validity. If any section of this chapter is declared invalid by a court of law, the remaining sections shall remain valid. The City Council hereby declares that it would have passed this chapter, and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases had been declared invalid or unconstitutional, and if for any reason this chapter should be declared invalid or unconstitutional, then the original ordinance or ordinances shall be in full force and effect.

8.48.040 Discharge prohibitions.

A. Illegal Discharges. The discharge of pollutants, directly or indirectly, into the MS4 or receiving waters is prohibited, except as exempted in Section 8.48.050 of this chapter. The discharge of pollutants to stormwater, directly or indirectly into the MS4 or receiving waters, is prohibited, unless the applicable requirements of this chapter have been met.

B. Illegal Connection. The establishment of illegal connections is prohibited. The use of illegal connections is prohibited, even if the connection was established pursuant to a valid city permit and was legal at the time it was constructed.

C. Prevention of Illegal Discharges. Throwing, depositing, leaving, abandoning, maintaining or keeping materials or wastes on public or private lands in a manner and place where they may result in an illegal discharge is prohibited.

D. Violations of the MS4 Permit. It is unlawful for any person to cause, or threaten to cause, either individually or jointly any discharge into or from the MS4 that results in or contributes to a violation of the MS4 Permit.

8.48.050 Exceptions to discharge prohibitions.

A. Permitted Discharges. Any discharge to the MS4 that is regulated under a NPDES permit issued to the discharger and administered by the State pursuant to Division 7 of the California Water Code is allowed, provided that the discharger is in compliance with all requirements of the NPDES permit and other applicable laws and regulations.

B. Groundwater Discharges Typically Requiring Permits. Non-stormwater discharges to the MS4 from the following categories are allowed if: (i) the discharger obtains coverage under NPDES Permit No. CAG919002 (RWQCB Order No. R9-2008-0002, or subsequent order) for discharges to surface waters other than San Diego Bay, and the discharger is in compliance with all requirements of the applicable NPDES permit and all other applicable laws and regulations; or (ii) the RWQCB determines in writing that coverage under NPDES Permit No. CAG919002 (or subsequent permit) is not required. Otherwise, non-stormwater discharges from the following categories are illegal discharges:

1. Discharges from uncontaminated pumped groundwater;

2. Discharges from foundation drains when the system is designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year;

3. Discharges from water from crawl space pumps;

4. Discharges from water from footing drains when the system is designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.

C. Discharges from Water Lines. Non-stormwater discharges to the MS4 from water line flushing and water main breaks are allowed if the discharges have coverage under NPDES Permit No. CAG679001 (RWQCB Order No. R9-2010-0003, or subsequent order), and the discharger is in compliance with all requirements of that NPDES permit and other applicable laws and regulations. This category includes water line flushing and water main break discharges from water purveyors issued a water supply permit by the California Department of Public Health or federal military installations. Discharges from recycled or reclaimed water lines to the MS4 are allowed if the discharges have coverage under an NPDES permit, and the discharger is in compliance with the applicable NPDES permit and other applicable laws and regulations. Otherwise, discharges from water lines are illegal discharges.

D. Allowable Discharges. Non-stormwater discharges to the MS4 from the following categories are allowed, unless an authorized enforcement official or the RWQCB identifies the discharge as a source of pollutants to receiving waters, in which case the discharge is considered an illegal discharge:

1. Discharges from diverted stream flows;

2. Discharges from flows from riparian habitats and wetlands;

3. Discharges from foundation drains when the system is designed to be located above the groundwater table at all times of the year, and the system is only expected to produce non-stormwater discharges under unusual circumstances;

4. Discharges from footing drains when the system is ~~designed to be located~~ above the groundwater table at all times of the year, and the system is only expected to produce non-storm water discharges under unusual circumstances;

5. Discharges from rising groundwater;

6. Discharges from uncontaminated groundwater infiltration to the MS4;

7. Discharges from springs; and

8. Discharges from potable water sources, except as set forth in Section 8.48.050.C; and except that irrigation runoff discharges are considered illegal discharges and are not allowed.

E. Conditionally Allowed Discharges. Non-stormwater discharges from the following categories are allowed if they are addressed as follows. Otherwise, non-stormwater discharges from the following categories are illegal discharges:

1. Air conditioning condensation. Air conditioning condensation discharges shall comply with applicable BMPs identified in the BMP Manual.

2. Individual residential vehicle washing. Wash water from individual residential vehicle washing must be directed to landscaped areas or other pervious surfaces, where feasible. Where discharges cannot be feasibly prevented, BMPs must be implemented in accordance with the BMP Manual. Non-commercial car washes, such as fundraisers and other similar activities, are not considered individual residential vehicle washing. Discharges from such activities are therefore considered illegal discharges.

3. Water from swimming pools.

a. Chlorinated swimming pool water. Chlorine, algaecide, filter backwash, and other pollutants shall be eliminated prior to discharging swimming pool water to the MS4.

b. Saline swimming pool water. Saline swimming pool water must be directed to the sanitary sewer, according to requirements for such discharges as required by the City Engineer, or otherwise disposed of in a manner that does not result in a discharge to the City's MS4.

F. Firefighting Activities. Non-stormwater discharges to the MS4 from firefighting activities are allowed if they are addressed as follows:

1. Non-emergency firefighting discharges. Non-emergency firefighting discharges, including building fire suppression system maintenance discharges (e.g. sprinkler line flushing),

controlled or practice blazes, training, and maintenance activities shall be addressed by BMPs to prevent the discharge of pollutants to the MS4.

2. Emergency firefighting discharges. BMPs are encouraged to prevent pollutants from entering the MS4. During emergencies, priority of efforts should be directed toward life, property, and the environment (in descending order). BMPs shall not interfere with emergency response operations or impact public health and safety.

G. Exemptions not Absolute. Notwithstanding the categories of non-stormwater discharges conditionally allowed by Section 8.48.050.A through F, if the RWQCB or the authorized enforcement official determines that any of these categories of otherwise conditionally allowed non-stormwater discharges are a source of pollutants to receiving waters, are a danger to public health or safety, or are causing a public nuisance, such discharges shall be prohibited from entering the MS4.

8.48.060 Best management practice requirements for all dischargers.

A. Best Management Practices. Any person engaged in activities which may result in discharges to the MS4 shall, to the MEP, undertake all measures to reduce the risk of non-stormwater discharges and pollutant discharges. The following requirements shall apply:

1. Every person undertaking any activity or use of premises that may cause or contribute to stormwater pollution or contamination, illegal discharges, or non-stormwater discharges to the MS4 shall comply with BMP guidelines or pollution control requirements, as may be established by the authorized enforcement official. BMPs shall be maintained routinely throughout the life of the activity. Such BMPs include the minimum BMPs set forth in the BMP Manual.

2. An authorized enforcement official may require any business or operations that are engaged in activities which may result in pollutant discharges to the MS4 to develop and implement a Storm Water Pollution Prevention Plan, which must include an employee training program and the applicable minimum BMPs from the BMP Manual.

3. Each discharger that is subject to any NPDES permit shall comply with all requirements of all such permits. The discharger must also make reports submitted to the RWQCB or other permitting agency, including monitoring data, available to the City upon request.

4. Parties undertaking land disturbance activities shall comply with all applicable requirements of this chapter, the BMP Manual, and Chapter 18.08.

5. Parties undertaking land development and redevelopment activities shall comply with all applicable requirements of this chapter, the BMP Manual, and and Chapter 8.52.

B. Guidance Documents. Any authorized enforcement official under the supervision of the City Engineer may prepare, disseminate and maintain guidance documents addressing the use of BMPs for specific activities or facilities, illegal connections, and illegal discharges. These guidance documents may set out additional compliance alternatives that, in specified circumstances, can provide the same environmental protection that is afforded by the BMPs required by this chapter or specified in the BMP Manual.

C. Significant Sources of Pollutants. Where an authorized enforcement official identifies a discharge that is in violation of Sections 8.48.040 and 8.48.050, an authorized enforcement official may order the discharger to install, implement, and maintain additional BMPs to prevent or reduce contamination in stormwater and non-stormwater to the MEP. Any such order shall specify a reasonable date by which those BMPs must be put in place. The failure to install, implement, or maintain additional BMPs as required by any such order is a violation of this chapter.

D. Collection and Use of Stormwater. An authorized enforcement official may modify any requirement imposed by this chapter to allow the on-site collection and use of stormwater, or the collection of stormwater for delivery to and use at City-designated sites, provided the modified requirements are enforceable and provide equivalent environmental protection.

8.48.070 Additional requirements for land disturbance activity.

A. Permit Issuance. No land owner or development project proponent shall receive any city grading, clearing, building or other land development permit or equivalent approval required for land disturbance activity without first meeting the requirements of this chapter, the BMP Manual, and Chapter 18.08 with respect to the portion of the development project and the land disturbance activity to which the permit at issue would apply.

B. Owners and Operators Both Responsible and Liable. Persons or entities performing land disturbance activity (including but not limited to construction activities) in the city, and the owners of land on which land disturbance activity is performed, are dischargers for purposes of this chapter; provided, however, that a local government or public authority is not a discharger as to activities conducted by others in public rights-of-way.

C. Stormwater Management Plan. All applications to the city for a permit or approval associated with a land disturbance activity must be accompanied by a stormwater management plan, on a form or in a format specified by the city. The stormwater management plan shall specify the manner in which the discharger/applicant will implement the BMPs required by this chapter, the BMP Manual, and Chapter 18.08 for the activity at issue.

D. Agricultural Grading and Clearing. The BMP requirements imposed by Section 8.48.070 for land disturbance activities apply to agricultural grading and clearing, whether or not a City-issued grading and clearing permit is required for that activity. Tilling or cultivating land exclusively for the purpose of growing plants or animals is not considered to be grading or clearing, provided all disturbed material remains on the same site, the tilling or cultivating will not block or divert any natural drainage way, and the land to be tilled or cultivated has been in agricultural production for at least one of the preceding five years.

8.48.080 Additional requirements for all land development and redevelopment projects.

A. Application to Development and Redevelopment Projects. No land owner or development project proponent in the city shall receive any city grading, clearing, building or other land development permit required for land development activity or redevelopment activity unless the project meets or will meet the requirements of this chapter and the applicable requirements defined in the City's BMP Manual and Chapter 8.52. For Priority Development

Projects, the project's Post-Construction Stormwater Management Plan must be approved prior to the issuance of such permits.

B. Owners and Developers Responsible and Liable. Developers, development project proponents, and land owners for land on which land development activity is performed, are dischargers for purposes of this chapter; provided however that a local government or public authority is not a discharger as to activities conducted by others in public rights-of-way.

C. Post-construction Best Management Practices Required. Land development and redevelopment projects with the potential to add pollutants to stormwater or to affect the flow rate or velocity of stormwater runoff after construction is completed, shall be designed to include and shall implement post-construction BMPs to ensure that pollutants and runoff from the development will be reduced to the MEP, will not significantly degrade receiving water quality, and will not cause or contribute to an exceedance of receiving water quality standards in accordance with the requirements defined in the BMP Manual and Chapter 8.52.

D. Land Development Associated with Agricultural Operations. The requirements imposed by Section 8.48.080 of this chapter for land development activities apply to such activities when they are associated with agricultural operations.

E. Post-Construction Stormwater Management Plan. All applications to the city for a permit or approval associated with a land development or redevelopment activity must be accompanied by a post-construction stormwater management plan on a form or in a format specified by the city. The plan shall specify the manner in which the discharger/applicant will implement the post-construction BMPs required by this chapter. The plan must address those aspects of the project that, at the time a complete application is submitted, are subject to further environmental review pursuant to Section 15162 of the California Environmental Quality Act. Post-construction BMPs for other aspects of the project need not be addressed in this plan.

F. Stormwater Management Plan Review Fee and Deposit. Fees for stormwater management plan review and deposit thereof may be adopted by resolution of the city council.

G. Control to the Maximum Extent Practicable. All dischargers engaged in land development and significant redevelopment activities shall install, implement and maintain post-construction BMPs as needed to prevent or reduce pollutant discharges in stormwater from land disturbance to the MEP.

8.48.090 Maintenance of BMPs.

A. Existing Development. Dischargers shall maintain the BMPs they rely upon to achieve and maintain compliance with this chapter.

B. Structural post-construction BMPs. The owners and occupants of lands on which structural post-construction BMPs have been installed to meet the requirements of this chapter shall ensure the maintenance of those BMPs, and shall themselves maintain those BMPs if other persons or entities who are also obliged to maintain those BMPs (by contract or covenant, or pursuant to this chapter) fail to do so.

C. Maintenance Obligations Assumed by Contract or Other Agreement. Primary responsibility to maintain a BMP may be transferred through a contract or other agreement. If that contract provides that it will be submitted to the city pursuant to this chapter as part of a

development permit application, and if that contract is so submitted, the person or entity accepting a maintenance obligation in such a contract or agreement will also be legally obligated to maintain that BMP pursuant to this chapter.

D. Obligation to Maintain BMPs Not Avoided by Contracts or Other Agreements. For purposes of city enforcement, no contract or other agreement imposing an obligation to maintain a BMP can relieve a person or entity of any obligation to maintain a BMP imposed by this chapter.

E. Disclosure of Maintenance Obligations. Any developer who transfers ownership of land on which a BMP is located or will be located, or who otherwise transfers ownership of a BMP or responsibility for the maintenance of a BMP to another person or entity, shall provide clear written notice of the maintenance obligations associated with that BMP to the new or additional responsible party prior to that transfer.

F. Maintenance Plans for Land Development Projects. The proponents of any land development project or significant redevelopment project that requires a installation of structural post-construction BMPs shall provide to the city for review and approval prior to issuance of such permit, a plan for maintenance of all post-construction structural BMPs associated with the project. The plan shall specify the persons or entities responsible for maintenance activity, the persons or entities responsible for funding, schedules and procedures for inspection and maintenance of the BMPs, worker training requirements, and any other activities necessary to ensure BMP maintenance. The plan shall provide for servicing of all post-construction structural BMPs at least annually, and for the retention of inspection and maintenance records for at least three years.

G. Access for Maintenance. Structural post-construction BMPs shall be provided adequate access for long-term inspection and maintenance purposes.

H. Assurance of Maintenance for Land Development Projects. The proponents of any land development activity or redevelopment activity that requires a City permit shall provide to the City, prior to issuance of permits for the project, proof of a mechanism acceptable to the City which will ensure ongoing long-term maintenance of all structural post-construction BMPs associated with the proposed project. The proponents shall be responsible for maintenance of BMPs unless, and until, an alternative mechanism for ensuring maintenance is accepted by the City and becomes effective.

I. Security for Maintenance for Land Development Projects. If it is determined by the authorized enforcement official that the public interest requires the posting of a bond or other security to assure the maintenance of a BMP, such bond or security may be required by the authorized enforcement official.

8.48.100 Inspection and sampling.

A. Regulatory Inspections. The authorized enforcement official may establish inspection or certification programs to evaluate and enforce compliance with the requirements of this chapter. If entry for a regulatory inspection is refused by the facility owner or operator, or by the occupant of a residence, an inspection warrant shall be obtained prior to inspection.

B. Inspections of New Construction . When any new storm drain system or structural BMP is installed on private property as part of a project that requires a city permit, in order to comply

with this chapter, the property owner shall grant the City permission to access the property at reasonable times and in a reasonable manner to ensure that the BMP is working properly. This includes the right to enter the property without prior notice for routine inspections, to enter as needed for additional inspections when the city has a reasonable basis to believe that the BMP is not working properly, to enter for any needed follow-up inspections, and to enter when necessary for abatement of a nuisance or correction of a violation of this chapter.

C. Scope of Inspections. Inspections may include all actions necessary to determine whether any illegal discharges or illegal connections exist, whether the BMPs installed and implemented are adequate to comply with this chapter, whether those BMPs are being properly maintained, and whether the facility or activity complies with the other requirements of this chapter.

8.48.110 Enforcement.

Authorized enforcement officials may enforce this chapter and abate public nuisances as follows:

A. Administrative Authorities.

1. Administrative Penalties. Administrative penalties may be imposed in accordance with the provisions for administrative penalties set forth in this chapter. Administrative penalties may include the recovery of fines assessed against the city of Lemon Grove by the RWQCB. Any later-enacted administrative penalty provision in the LGMC shall also be applicable to this chapter, unless otherwise provided therein.

2. Cease and Desist Orders. Written and/or verbal orders may be issued to stop illegal discharges and/or remove illegal connections. If it is determined by an authorized enforcement official that the public interest requires the posting of bond or other security to assure the violation is corrected, such bond or security may be required by the authorized enforcement official.

3. Notice and Order to Clean, Test or Abate. Written and/or verbal orders may be issued to perform activities to comply with the BMP Manual, this chapter, or as directed by an authorized enforcement official where conditions warrant.

4. Public Nuisance Abatement. Violations of this chapter are deemed a threat to public health, safety, and welfare; and constitute a public nuisance. If actions ordered under subsections (A)(2) and (A)(3) of this section are not performed, the authorized enforcement official may abate any public nuisance pursuant to the LGMC Chapter 1.14. City costs for pollution detection and abatement, if not paid in full by the discharger in addition to any other penalties, may be made a lien against the property in accordance with the abatement procedure.

5. Stop Work Orders. Whenever any work is being done contrary to the provisions of this chapter, or other laws implemented through enforcement of this chapter, an authorized enforcement official may order the work stopped by notice in writing served on any person engaged in the doing or causing such work to be done, and any such person shall immediately stop such work until authorized by the authorized enforcement official to proceed with the work.

6. Permit Suspension or Revocation. Violations of this chapter may be grounds for permit and/or other city license suspension or revocation in accordance with applicable sections of the LGMC.

B. Judicial Authorities.

1. Civil Penalties and Remedies. The city attorney is hereby authorized to file criminal and civil actions to enforce this chapter and to seek civil penalties and/or other remedies as provided in this section and in Section 8.48.120 of this chapter. There is no requirement that administrative enforcement procedures be pursued before such actions are filed.

2. Injunctive Relief. The city may enforce compliance with this chapter by judicial action for injunctive relief.

3. Arrest or Issue Citations. The assistance of a peace officer may be enlisted to arrest violators as provided in California Penal Code, and/or a citation and notice to appear as prescribed in the Penal Code, including Section 853.6 may be issued. There is no requirement that administrative enforcement remedies be used before such actions are taken. The immunities prescribed in Section 836.5 of the Penal Code are applicable to authorized enforcement officials acting in the course and scope of their employment pursuant to this chapter.

8.48.120 Other acts and omissions that are violations.

In addition to failing to comply with any of the other requirements, the following acts and omissions are violations of this chapter, whether committed by a discharger or by another person or entity:

A. Causing, Permitting, Aiding or Abetting Noncompliance. Causing, permitting, aiding, or abetting noncompliance with any part of this chapter constitutes a violation of this chapter.

B. Concealment, Misrepresentation and False Statements. Any falsification or misrepresentation made to the city concerning compliance with this chapter, including any misrepresentation in a voluntary disclosure, any submission of a report that omits required material facts without disclosing such omission, and any withholding of information required to be submitted by or pursuant to this chapter in order to delay city enforcement action, is a violation of this chapter. Concealing a violation of this chapter is a violation of this chapter.

C. Failure to Promptly Correct Non-compliance. Violations of this chapter must be corrected with the time period specified by an authorized enforcement official. Each day (or part thereof) in excess of that period during which action necessary to correct a violation is not initiated and diligently pursued is a separate violation of this chapter. Notwithstanding the granting of any period of time to the discharger to correct the damage, the discharger shall remain liable for some or all of any fines or penalties imposed pursuant to this chapter, or by the RWQCB.

D. City Permits and Plans. Any failure to conform to an applicable city-required plan prepared pursuant to this chapter; any failure to comply with stormwater-related provisions of a city-issued grading permit or grading plan prepared to secure such a permit; and any failure to comply with stormwater-related provisions in any other city permit or approval, is also a violation of this chapter. For purposes of this chapter a permit provision or condition of approval is

"stormwater-related" if compliance with the provision or condition would have the effect of preventing or reducing contamination of stormwater or of moderating run-off flows rates or velocities, whether or not the provision or condition was initially imposed to promote those outcomes.

8.48.130 Remedies not exclusive.

Remedies under this chapter are in addition to and do not supersede or limit any other remedies, civil or criminal. The remedies provided for herein shall be cumulative and not exclusive.

Chapter 18.08 EXCAVATION AND GRADING

Article I. General Provisions

18.08.010 Title.

This chapter shall be known as the "Grading Ordinance of the city of Lemon Grove."

18.08.020 Purpose.

This chapter establishes minimum requirements for grading, excavation and filling of land. It also provides for the issuance of permits, and provides for the enforcement of the chapter provisions. These provisions are supplementary and additional to the subdivision and zoning regulations of the city and shall be read and construed as an integral part of such regulations and the land development patterns and controls established thereby.

18.08.030 Intent.

The intent of this chapter is to protect life and property, promote the general welfare, enhance and improve the physical environment of the community, and preserve and protect the natural scenic character of the city. In administering these provisions, the following goals should be respected:

A. Ensure that future development of lands occurs in the manner most compatible with surrounding natural areas to have the least adverse effect upon other persons, land, or the general public;

B. Ensure that soil will not be stripped and removed from lands leaving barren, unsightly, unproductive land subject to erosion, subsidence and faulty drainage;

C. Encourage design and development of building sites to provide the maximum in safety and human enjoyment, while adapting development to and taking advantage of the natural terrain; and minimizing adverse visual impacts caused by major land form modifications;

D. Encourage and direct special attention toward retaining natural plantings and maximum number of existing trees;

E. Ensure that the objectives and policies of the adopted general plan for the city are met;

F. Meet the requirements of San Diego Regional Water Quality Control Board Order Number R9-2013-0001, as may be amended.

18.08.040 Provisions separate from other requirements.

A. Nothing in this chapter shall preclude the inclusion in any zoning permit, subdivision approval, waiver, review or other approval issued or approved pursuant to city ordinances of any condition, provision or requirement concerning the grading of land. Nothing in this chapter shall preclude the requirement for the property owner or applicant to obtain any other permit or approval required by the City Engineer or by law from any public or private party or agency.

B. This chapter shall not affect the requirements of any other provision of this code requiring permits, fees or other charges, or affect any provision concerning the granting of franchises by any other person, body or agency.

C. This chapter is intended to implement the provisions of Chapters 8.48 and 8.52 of this code related to stormwater regulatory requirements including compliance with all implementing regulations of the city related to pollution control related to stormwater discharges, such as the Lemon Grove jurisdictional runoff management program ("JRMP").

18.08.050 Definitions.

The following words and phrases, when used in this chapter shall be construed as defined in this section:

"Application package" means a set of materials, i.e., the application form accompanied by maps, studies, etc. as required by the checklist established by the Development Services Director, filed by an applicant to officially request a permit subject to this title, or other titles as may be appropriate.

"Approval" means a written professional opinion by the responsible principal of record concerning the satisfactory progress and completion of the work under his or her purview unless it specifically refers to the City Engineer.

"Approved plans" means the most current grading plans which bear the signature or stamp of approval of the City Engineer.

"Approved testing agency" means a testing agency approved by the City Engineer.

"Archaeologist" means a person who does scientific study of material remains of past human life and activity.

"As-graded" means the surface and subsurface conditions and configuration upon completion of grading. "Bedrock" means in-place solid rock.

"Bench" means a relatively level step excavated into earth material on which fill is to be placed.

"Best management practices" (BMPs) shall have the same meaning as set forth in Lemon Grove Municipal Code 8.48.020. Erosion control measures are BMPs.

"BMP Manual" or "Manual" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Borrow" means earth material acquired from an off-site location for use in grading on a site.

"Borrow pit" means premises from which soil, sand, gravel, decomposed granite or rock are removed for any purpose.

"Building pad" means that portion of the land contained within an area bounded by a line five feet outside the foundation footing for a building being cleared and level.

"Building site" means that portion of the land containing the building pad(s) and lying within an area bounded by the top of slopes and/or toe of slopes within the lot or parcel.

"CEQA" means the California Environmental Quality Act and its associated legislation, findings, determinations and requirements.

"Certify" or "certification" means a signed written statement that the specific inspections and tests required have been performed and that the works comply with the applicable requirements of this chapter, the plans and the permit.

"City" means the city of Lemon Grove.

"City Engineer" means the City Engineer or the director of public works for the city or his or her duly authorized representative.

"Civil engineer" means a professional engineer registered in the state of California to practice in the field of civil engineering.

"Civil engineering" means the application of the knowledge of the forces of nature, principles of mechanics, and the properties of materials for evaluation, design and construction of civil works for the beneficial uses of the population.

"Clearing" and/or "brushing" means the removal of vegetation (grass, brush, trees and similar plant types) above the natural surface of the ground.

"Development Services Director" means the director of Development Services or duly authorized representative.

"Compaction" means densification of a soil or rock fill by mechanical or other acceptable procedures.

"Contour grading" means grading which creates, or results in, land surfaces which reflect the pre-graded natural terrain or that simulates natural terrain, i.e., rounded nonplanary surfaces and rounded, nonangular intersections between surfaces.

"Contractor" means a contractor licensed by the state to do work under this chapter. A contractor may be authorized to act for a property owner in doing such work.

"County" means the County of San Diego.

"Discharge" shall have the same meaning as set forth in 8.48.020.

"Discharger" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Earth material" means any rock, natural soil, or fill and/or any combination thereof.

"Embankment" or "fill" means any act by which earth, land, gravel, rock, or any other material is deposited, placed, pushed, dumped, pulled, transported or moved to a new location and the conditions resulting therefrom.

"Engineering geologist" means a certified engineering geologist, registered by the state to practice engineering geology.

"Engineering geology" means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil work.

"Environmental initial study" is an initial study required under the National Environmental Policy Act and the California Environmental Quality Act which assesses the possible environmental impacts of a proposed project and potential alternatives to mitigate impacts of the proposed project.

"Environmentally sensitive areas" are defined by Regional Water Quality Control Board for the San Diego region (RWQCB), Order No. R9-2013-0001, National Pollutant Discharge

Elimination System (NPDES) Permit No. CAS0109266, as areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board (SWRCB) and the RWQCB; State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the SWRCB and RWQCB; areas designated as preserves or their equivalent under the Multi Species Conservation Program within the Cities and County of San Diego; and any other equivalent environmentally sensitive areas which have been identified by the City.

"Erosion" shall have the same meaning as set forth in Lemon Grove Municipal Code Section8.48.020.

"Erosion control system" means any combination of erosion control measures, as defined in this chapter. Erosion control systems shall meet the requirements of this chapter, Chapter 8.48, and the BMP Manual and shall be designed to protect adjacent private property, watercourses, public facilities and receiving waters from the deposition of sediment or dust.

"Erosion control measure" means erosion control, sediment control, waste management, discharge prevention, or other BMPs required by this chapter, Chapter 8.48, or the BMP Manual.

"Expansive soil" means any soil with an expansion index greater than twenty, as determined by the Expansive Soil Index Tests (UBC Std. 29-32).

"Excavation" or "cut" means any earth, sand, gravel, rock or other similar material which is cut into, dug, quarried, uncovered, removed, displaced, relocated, or bulldozed by people and the conditions resulting therefrom.

"Fault" means a fracture in the earth's crust along which movement has occurred. An active fault is one that exhibits separation in historic time or along which separation of Holocene deposits can be demonstrated. If Holocene deposits are not offset, but numerous epicenters have been recorded on or in close proximity to the fault, a classification of active may be used.

Fill, Nonstructural. "Nonstructural fill" means any embankment on which no soil testing was performed or no compaction reports or other soil reports were prepared or submitted.

"Geologic hazard" means any geologic feature capable of producing structural damage or physical injury. Geologic hazards include:

a. Landslides and potential slope instabilities resulting from bedding faults, weak clay stone beds, and over steepened slopes;

b. Deposits potentially subject to liquefaction, seismically induced settlement, severe ground shaking, surface rupture, debris flows, or rock falls resulting from fault activity;

c. Deposits subject to seepage conditions or high groundwater table.

"Geotechnical report" means a report which contains all appropriate soil engineering, geologic, geohydrologic, and seismic information, evaluation, recommendations and findings. This type of report combines both engineering geology and soil engineering reports.

"Grade" means the elevation and cross-sections established for the finished surface. All grades shall be based upon the official datum of the city.

"Grading" means any excavating or filling or combination thereof.

"Grading permit" means a permit issued pursuant to this chapter.

Grading, Rough. “Rough grading” means the condition where ground surface approximately conforms to the design grade, generally within one-tenth of a foot, and all compaction of fills and embankments have been performed to the specifications required by the soil engineer.

“Groundwater” shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

“Grubbing” means the removal of roots and stumps.

“Key” means a designed compaction fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

“Land development” means the making of excavations and embankments on private property and the construction of slopes, drainage structures, fences and other facilities incidental thereto.

“Land disturbance activity” shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

“Landscape architect” means a landscape architect, registered by the state of California, who performs professional work in physical land planning and integrated land development, including the design of landscape planting programs.

“Landscape documentation package” means those supplemental landscape-specific attachments required by Section 18.44.040 to be submitted as part of an application package, as required elsewhere in the Municipal Code.

“Landslide” means the downward and outward movement of soil, sand, gravel, rock or fill or a combination thereof.

“Maximum extent practicable” (MEP) shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

“MS4” shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

“Natural terrain” means the lay of the land prior to any grading.

“Nuisance” shall have the same meaning as set forth in Lemon Grove Municipal Code Section 17.08.030.

“Owner” means any person, agency, firm or corporation having a legal, possessory or equitable interest in a given piece of real property.

“Paleontologist” means a person who holds an advanced degree, who is affiliated with a recognized institution such as a museum or university and who is actively engaged in the research of prehistoric life through the study of plant and animal fossils.

“Permittee” means any person to whom a permit is issued pursuant to this chapter.

“Person” means any individual, firm, association, corporation, organization or partnership, or any City, county district or the state or any department or agency thereof.

“Pollutants” shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

“Pollution” shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Preliminary soil engineering report" means a report prepared under the responsible supervision of a soil engineer which includes preliminary information concerning engineering properties of soil and rock on a site prior to grading, describing locations of these materials and providing recommendations for preparation of the site for its intended use.

"Premises" means contiguous property in the same ownership for the purposes of this chapter.

"Property owner" means the owner, subdivider or developer of real property which will be benefited by the proposed land development work.

Property, Public. "Public property" mans property owned in fee by the city, or dedicated for public use.

"Public interest slope" means any manufactured slope which meets any one of the following criteria:

a. A vertical height in excess of fifteen feet;

b. A vertical height in excess of five feet located on the exterior of a subdivision and exposed to view from any point outside the subdivision;

c. A vertical height in excess of five feet which will be visible after completion of the buildings to be placed on the subject graded area from any circulation element road, from any existing or proposed public buildings, public facility, or publicly used property, from any private property two streets or more away from the slope in question or from any private homes existing at the time of creation of the slope.

"Public rights-of-way" means public easements or dedications for streets, alleys, drainage ways and/or other uses.

"Publicly used property" means property that is used frequently by persons other than the residents and/or owners.

"Receiving waters" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Relative compaction" means the in-place dry density (determined by ASTM D1556, or other City Engineer approved equal) expressed as a percentage of the maximum dry density (determined by ASTM D1557, or other City Engineer approved equal).

"Retaining wall" means wall designed to resist the lateral displacement of soil or other materials.

"Runoff" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Sediment" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Slope" means the inclined exposed surface of a fill, excavation or natural terrain.

"Soil" means earth material of whatever origin, overlying bedrock and may include the decomposed zone of bedrock which can be readily excavated by mechanical equipment.

"Soil engineer" means a registered civil engineer who holds a valid authorization to use the title "soil engineer" as provided in Section 6736.1 of the California Business and Professions

Code. The terms "geotechnical engineer," "soils engineer" and "soil and foundation engineer" are deemed to be synonymous with the term "soil engineer."

"Soil engineering" means the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and testing of the construction thereof.

"Source control BMP (both structural and non-structural" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"State general construction stormwater permit" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Stockpile" means a temporary, uncompacted fill or embankment placed by artificial means, which is designated or intended to be moved, or relocated at a later date.

"Stop Work Order" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Stormwater" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Structural post-construction BMP" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020.

"Subdivider" means a person, firm, corporation, partnership or association who causes land to be divided into one or more lots or parcels for him or herself or others as defined by those sections of the Government Code known as the Subdivision Map Act.

"Substantial conformance" means grading that conforms to Section 18.08.480 of this chapter.

"Terrace" means a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

"Unsuitable materials" means any soil or earth material having properties or characteristics, which, under the criteria of this chapter or under the criteria contained in any approved geotechnical report, make it unsuitable for use as fill or for any other intended use. These properties or characteristics include, but are not limited to, organic content of the material exceeding three percent, rock diameters exceeding eight inches, the presence of concrete or asphalt, or the presence of expansive soils within three feet of finish grade of any area intended or designed as a location for a building.

"Watercourse" shall have the same meaning as set forth in Lemon Grove Municipal Code Section 8.48.020. For the purposes of this chapter, a "private watercourse" is a watercourse that collects runoff from private property and transports water to the public right-of-way and a "public watercourse" is a watercourse that collects runoff from the public right-of-way or water collected in a private watercourse that has reached the public right-of-way.

Article II. Permits and Fees

18.08.060 Land development work—Permit required.

A. Except as exempted in Section 18.08.070, no person shall do any grading nor shall an owner allow any grading on their property unless the person or owner has a valid grading permit issued by the City Engineer authorizing such grading.

B. An owner is presumed to have allowed grading which has been done on property occupied by him or her or is under his or her dominion and control. This presumption is a presumption affecting the burden of producing evidence.

C. A separate grading permit shall be required for each legal parcel, noncontiguous site, development, or each separate subdivision final map for which grading is to be performed. (

18.08.070 Designated exceptions.

The following described grading is exempt from the requirement to obtain a grading permit under the provisions of this chapter:

A. Depositing materials in any disposal area operated by or licensed by the city or San Diego County.

B. Grading which meets all of the following limitations:

1. Grading is on a single legal lot or contiguous ownership;

2. Involves the cumulative movement of not more than fifty cubic yards of earth;

3. The cut in the cut area and/or the fill in the fill area, at their deepest points, do not exceed a depth of three feet in vertical depth measured from the original ground;

4. The fill is not intended to support structures;

5. The finished cut and/or fill slopes are not steeper than two horizontal to one vertical (2:1);

6. The finished grading does not alter the drainage patterns either upstream or downstream from the grading;

7. None of the fill is placed on existing ground having a slope steeper than five horizontal to one vertical (5:1), which is a twenty percent slope;

8. None of the grading is closer than five feet to the adjacent ownership;

9. The finished slopes are protected from erosion and the downstream properties are protected from siltation resulting from the grading.

C. Excavation below finish grade for basements, for footings or foundations for buildings, manufactured homes, retaining walls or other structures or facilities, all if authorized by a valid building permit approved and issued by the Development Services Director. Any embankment constructed with the excess material from the excavation exempted by this section must either be disposed of under an approved grading permit, or be disposed on-site without creating embankments more than three feet in unsupported height;

D. Exploratory excavations under the direction of a soil engineer, archaeologist, paleontologist or engineering geologist. Such excavations must be properly backfilled and compacted or otherwise restored.

E. When approved by the City Engineer, excavation for the sole purpose of recompaction as specified or recommended by an approved soils report.

F. Grading for which inspection is provided by the city and which is done by a developer or contractor pursuant to city-approved improvement plans within public rights-of-way and adjacent slope rights areas independent of adjacent land development work, or grading done pursuant to a permit for excavation in public streets.

G. Clearing and brushing when directed by the fire chief to mitigate a fire hazard, with the concurrence of the Development Services Director that such clearing and brushing will not cause significant damage to any rare, endangered or protected species of plant or wildlife or cause any significant damage to any habitat of any rare, endangered or protected species of wildlife.

Note: The above listed exemptions do not apply to clearing, grubbing, brushing or grading when:

1. Grading will occur in or physically impact designated or dedicated open space or environmentally sensitive areas designated in the CEQA, the general plan or shown on any approved specific plan;

2. Grading will occur in any waterway or wetland, stream, river, channel, pond, lake, marsh, bog, lagoon, vernal pool or riparian habitat;

3. Grading will occur in any floodway or floodplain as shown on the San Diego county flood plain maps or on city-revised maps;

4. Grading will occur in any officially mapped area in high geologic risk zone;

5. Grading will occur in any other sensitive areas such as archaeological sites, historical sites or burial grounds.

18.08.080 Permit applications

A. Any person desiring to perform land development grading not exempted by Section 18.08.070 shall submit a grading permit application in a form approved by the City Engineer.

B. A separate application with plans, specifications and other supplemental data as specified in this chapter and determined to be necessary by the City Engineer, shall be required for each grading permit. The application form shall be signed by the owner or authorized agent of the property to be graded.

C. A complete grading permit application shall be submitted for city review and approval with the following items, completed and signed by the applicant or authorized agent, to the satisfaction of the City Engineer, or this chapter:

1. Grading plan;

2. Separate plot plan;

3. Preliminary soil engineering report;

4. Landscape and irrigation plans consistent with requirements of Chapter 18.44;

5. Drainage study;

6. Haul route, including source of borrow or disposal;

7. Erosion control plan;

8. Post-Construction Stormwater Management Plan, where required pursuant to Chapter 8.48;

9. Grading plan check fee;

10. Soil engineering report review fee;

11. Deposit for independent third party review of soil report;

12. Inspection fees (may be paid at any time prior to issuance of permit);

13. Proof of legal lot (may be waived by City Engineer if grading is pursuant to an approved tentative map or zoning permit).

D. The City Engineer may, upon his or her determination and discretion, require additional data or information, eliminate, or modify any of the above requirements determined to appropriate, including those items in Section 18.08.090.

E. The plans, application requirements and necessary fees may be altered or changed at any time between application submittal and permit issuance under the following conditions:

1. A change of policy or direction by the city council;

2. A change in the grading ordinance or fee schedule approved by the city council;

3. Discovery that the plans, application or fees violate or do not meet existing ordinances or policies or conform to the requirements of other permits or approvals, such as zoning permits or subdivision maps;

4. Discovery of any design defect, soil or geologic hazard, or any other fact or item which if left unchanged could cause damage, harm or hazard to public or private properties, or to life, limb or the general public's safety or welfare.

If such discoveries are made as described in subsections 3 and 4 of this subsection, and changes are so directed, the applicant shall be granted an extension of the application expiration date for thirty days, or for such other period as the City Engineer may grant to the applicant, to allow for all required changes to reasonably be made and accomplished.

F. The time limits set out in Sections 18.08.260 and 18.08.300 shall apply to all grading plans and applications.

18.08.090 Additional information.

Other items which may be required by the City Engineer in order to complete the grading permit application include:

A. Special erosion control plans, including landscape and irrigation plans;

B. Hydrology and hydraulic reports;

C. Application for environmental initial study (AEIS);

D. Geotechnical reports on seismicity and geology;

E. Letters of permission from adjacent owners or easement holders to grade off-site or on easements;

F. Right of entry;

G. Waiver and release to divert or concentrate drainage affecting downstream off-site property;

H. Easement and flowage rights documents;

I. Other information as determined by the City Engineer to be necessary to protect the public interest and fulfill the purposes of this chapter.

Recommendations included in such reports and approved by the City Engineer shall be incorporated in the grading plan, landscape and irrigation plan and the land development specifications.

18.08.100 Grading plan requirements.

A. Grading plans shall be prepared and submitted with the grading permit application in accordance with the City Engineering standards and the requirements of the City Engineer.

B. All grading plans shall be signed by a registered civil engineer and by the soil engineer. The City Engineer may waive this requirement when the proposed grading is on a single lot or parcel not proposed for further subdivision and in the opinion of the City Engineer, the proposed grading entails no hazard to any adjacent property, does not necessitate construction of extensive drainage structures or erosion control facilities, and does not interfere in any way with existing natural or improved drainage courses or channels.

C. The City Engineer may stop work and require amendment or change of approved grading, erosion control or landscape and irrigation plans for any of the following reasons:

1. Extension or renewal of the grading permits;

2. Changes have been made in the actual work which are not reflected on the approved plans;

3. The scope or quantity of grading has been changed;

4. Construction, traffic, drainage, soil, geologic, public safety or environmental problems not considered, known or evident at the time of permit issuance or plan approval become evident.

18.08.110 Plot plans.

A separate plot plan showing the location of the land development boundaries, lot lines, public and private rights-of-way lines, and precise grading information in accordance with specifications set forth in this chapter and as required by the City Engineer shall also be submitted. A print of the approved tentative subdivision map or tentative parcel map showing the required information may be submitted in lieu of a plot plan.

18.08.120 Preliminary soil engineering and geology reports

A. Three copies of a preliminary soils engineering report shall be submitted with the application for a grading permit. Each report shall be prepared by a soil engineer and contain all information applicable to the project in accordance with generally accepted geotechnical engineering practice. The preliminary soil engineering report shall include, but not be limited to, the following:

1. Information and date regarding the nature, distribution, and the physical and chemical properties of existing soils;

2. Location of faults as defined by a registered geologist or certified engineering geologist;

3. Conclusions as to the adequacy of the site for the proposed grading;

4. Recommendations for general and corrective grading procedures;

5. Foundation design criteria;

6. Slope gradient, height and benching, or terracing recommendations;

7. The potential for groundwater and seepage conditions and procedures for mitigation of the groundwater-related problems;

8. Other recommendations, as necessary, commensurate with the project grading and development.

B. The soil engineer and engineering geologist should refer to the geologic conditions element of the Lemon Grove general plan in preparing the reports required by this section.

C. Recommendations contained in the approved reports shall be incorporated into the grading plans and specifications and shall become conditions of the grading permit.

D. Preliminary geologic investigations and reports shall be required for all land development projects where known or reasonably inferred instability may adversely affect the property. The preliminary geological investigation report shall include, but not be limited to, the following:

1. A comprehensive description of the site topography and geology including, where necessary, a geology map;

2. A statement as to the adequacy of the proposed development from an engineering geologic standpoint;

3. A statement as to the extent that known or reasonably inferred stability on adjacent properties may adversely affect the project;

4. A description of the field investigation and findings;

5. Conclusions regarding the effects geologic conditions will have on the proposed development;

6. Specific recommendations for plan modification, corrective grading and/or special techniques and systems to facilitate a safe and stable development;

7. Provide other recommendations, as necessary, commensurate with the project grading development.

E. The preliminary geological investigation report may be combined with the preliminary soils engineering report.

18.08.130 Landscape and irrigation plans.

A. Except for agricultural grading plans, all slopes to be constructed, but only final slopes of any borrow pit, shall be provided with an irrigation system which shall be used by the permittee to promote the growth of plants to protect the slopes against erosion. A landscape documentation package, if required by Chapter 18.44, shall accompany grading plan submitted for grading permits.

B. The grading on the project shall be designed for the efficient use of water by minimizing soil erosion, runoff and water waste, resulting from precipitation and irrigation.

C. The plans shall include specifications for the preparation of the existing soils or for the application of topsoil amendments to the slopes to encourage vigorous growth. The permittee shall be responsible for full compliance with the standards and procedures established by the

city in this chapter or other applicable ordinances, standards or manuals. Landscape and irrigation plans and specifications shall maximize the use of drought resistant plants and shall provide for water conservation measures throughout the planting irrigation and maintenance plans and specifications. The plan shall show the finished configuration and elevations of each landscaped area including the height of graded slopes, the drainage pattern, pad elevations, finish grade and any stormwater retention improvements.

D. The landscape documentation package shall be prepared by a licensed landscape architect, licensed civil engineer, licensed architect, or other landscape professional appropriately licensed by the state and shall contain all of the elements required by Section 18.44.070.

E. The permittee shall be responsible for installation and maintenance of the irrigation system until the City Engineer determines that the system has been properly installed and meets the minimum requirements of this section and the requirements of Chapter 18.44.

18.08.140 Minimum BMPs for land disturbance activities.

All dischargers engaged in land disturbance activities shall implement BMPs as detailed in the city's BMP Manual, this chapter, and Chapter 8.48, as applicable to the project.

18.08.150 Erosion prevention.

A. Project proponents shall implement erosion control measures described in the BMP Manual, this chapter, and Chapter 8.48 to minimize the project's erosion potential.

18.08.160 Erosion control plan requirements.

As applicable, all applications for permits related to construction activities, regardless of the date of submittal and including but not limited to projects that require an approved grading plan or permit, shall include an erosion control plan designed to limit erosion of all disturbed portions of the property and to eliminate the transport of soil onto adjacent properties or into streets, storm drains, or drainage ways.

18.08.170 Erosion control required.

A. Plans for an erosion control system shall be prepared and submitted for the review and approval of the City Engineer as a part of any application for a construction permit. The erosion control system shall comply with the requirements of the latest State general construction stormwater permit (NPDES Permit No. CAS000002) and any amendments thereto, the MS4 Permit, Lemon Grove Municipal Code Chapter 8.48, and this chapter to satisfy the requirements for erosion control and to eliminate the discharge of sediment and pollutants. The erosion control plan shall include, but not be limited to, the following information:

1. Name, address, and a twenty-four hour phone number of the owner or responsible party, and the person or contractor responsible for installing and maintaining the erosion control system and performing emergency erosion control work;

2. The name, address and signature of the civil engineer or person who prepared the plan;

3. All desilting basins, debris basins, silt traps, and other desilting, velocity retarding and protection facilities necessary to adequately protect the site and downstream properties from erosion and its effects, preserve natural hydrologic features, and preserve riparian buffers and corridors;

4. The streets, easements, drains, and other improvements;

5. The location and placement of gravel bags, diverters, check dams, temporary erosion control measures such as mulches or soil binders, slope planting, drains, and other erosion controlling devices and measures as required by the BMP Manual;

6. Access routes to all such erosion control facilities and how access shall be maintained during inclement weather.

B. Erosion control system standards shall be as follows:

1. Erosion control measures shall be implemented as required by the City's BMP Manual, this chapter, and Chapter 8.48.

2. The permittee or owner shall be responsible for control of erosion on all areas of grading until acceptance of the completed grading by the City Council. This responsibility extends to completed and occupied lots.

3. No earth or organic material shall be deposited or placed where it may be directly carried into a stream or body of standing water.

4. Equipment and workers for emergency work shall be made available at all times. All necessary materials shall be available on site, stockpiled at convenient locations, and present in sufficient quantities to facilitate rapid construction of temporary devices at all times. Failure to maintain sufficient materials onsite to prevent and control discharges of sediment and other pollutants in accordance with the requirements of this Chapter and the City's BMP Manual is a violation of this Chapter.

5. All removable protective devices shown shall be in place at the end of each working day when there is a fifty percent chance of rain within a forty-eight hour period. If the developer does not provide the required installation or maintenance of erosion control structures within two hours of notification at the twenty-four hour number on the plans, the City Engineer may order city crews to do the work or may issue contracts for such work and charge the cost of this work along with reasonable overhead charges to the cash deposits or other instruments implemented for this work without further notification to the owner. No additional work on the project except erosion control work may be performed until the full amount drawn from the deposit is restored by the developer.

6. At any time of year, an inactive site, or inactive portions of an active site, shall be fully protected from erosion and discharges of sediment. A site or portion of a site is considered inactive if construction activities have ceased for a period of 14 or more consecutive days. If construction activites have ceased for 14 or more consecutive days on only a portion of the site, only that portion of the site is considered inactive.

C. No grading work shall be allowed between October 1st and the following April 30th on any site when the City Engineer determines that erosion, mudflow or sediment of silt discharge may adversely affect downstream properties, drainage courses, storm drains, streets, easements, or public or private facilities or improvements unless an approved erosion control system has been implemented on the site. If the city determines that it is necessary for the city

to cause erosion control measures to be installed or cleanup to be done, the developer shall pay all of the city's direct and indirect costs including extra inspection, supervision, and reasonable overhead charges.

18.08.180 BMP maintenance.

All BMPs for erosion prevention and sediment control shall be functional at all time. Prior to the rainy season and after each major storm, all BMPs shall be inspected to assure the functionality. BMP maintenance shall be conducted throughout the life of the project.

18.08.190 Grading and grading for building construction.

An owner of land desiring to perform land development work incidental to and in connection with the construction of a building or structure shall present an application and obtain a grading permit. The City Engineer may require a field inspection of the completed grade with representatives of the Public Works Department, the Development Services Department, the permittee, the civil engineer, and the soil engineer prior to commencement of work authorized under a building permit. The permittee shall request the inspection of the work, if required, two working days prior to the inspection. The grading phase of the land development work shall be completed and a soils report, including, but not limited to, relative compaction of the pads and verification of pad elevations shall be submitted prior to commencement of work authorized under the associated building permit. The Development Services Director may direct the building official to suspend or revoke any building permit in accordance with Section 303 of the Uniform Administrative Code where it is found that land development is being done or has been done illegally without a grading permit, or is in violation of a permit, until a grading permit is issued pursuant to the provision of this chapter. The Development Services Directorwill not certify to the completion of the building where land development work has been done until a grading permit is issued and certified as complete.

18.08.200 Early subdivision grading.

Grading of the subdivision will not be permitted prior to approval of the final map or parcel map unless specifically approved as a condition of the tentative subdivision or tentative parcel map. If early subdivision grading is approved, the subdivider may make application to do so under a standard grading permit. This application shall be accompanied by detailed plans and specifications based upon the approved tentative map in conformity with the provisions of Sections 18.08.080 through 18.08140 of this chapter. A grading schedule and cost estimate based upon plans and specifications shall accompany the application.

18.08.210 Environmental review.

A. Prior to the issuance of any grading permit, the City Engineer shall refer the application for such permit to the Development Services Director for environmental review pursuant to CEQA.

B. The Development Services Director shall review each application referred to him/her to determine whether the grading, if carried out as proposed, could have a significant impact on the environment. If the Development Services Director determines that the grading may have a significant impact on the environment, he or she shall return the application to the City Engineer with appropriate scoping guidance to be furnished to the applicant for preparation of necessary environmental studies, or for the preparation of an application for environmental initial study.

18.08.220 Right of entry—Indemnification of city.

As a prerequisite of issuance of any grading permit, the owner of the site to be graded, and the contractor, if any, shall grant to the city permission, a right of entry into the site for inspection and/or correction of grading not performed in compliance with the terms and conditions of the permit. The owner and the contractor shall agree to indemnify the city for any claims or damages which may result from the city's entry onto the property including any corrective action taken pursuant to such right of entry. The right of entry and indemnification agreement form shall be approved by the city attorney.

18.08.230 Restriction on permit issuance—Excessive grades.

Except for the movement of earth for small projects such as custom lots, individual building foundations, and driveways as approved by the Development Services Director, or for local roads or trenches to mitigate a geologic hazard to adjacent property, or as required for the construction of necessary access or fire roads, as approved by the City Engineer, no person shall grade upon nor shall any permit be issued for grading upon natural grades or slopes which exceed twenty-five percent gradient through a vertical rise of more than twenty-five feet, unless specifically approved by the city council or planning commission.

18.08.240 Nonstructural fills.

A. Nonstructural (uncompacted) fills are prohibited, except for temporary stockpiles, unless specifically authorized by the City Engineer .

B. Applications for grading permits involving nonstructural fills shall be accompanied by an agreement signed by the property owner. The agreement for development of nonstructural fills shall be prepared by the City Engineer and shall contain the following provisions and such other provisions as may, in the opinion of the city attorney and of the City Engineer, to afford protection to the property owner and the city:

1. The development work shall be designated as nonstructural fill and shall be constructed in accordance with grading plans approved by the City Engineer;

2. The owner acknowledges that as a nonstructural fill, the site is not eligible for a building permit until, subject to the review and approval of the City Engineer, a soils investigation report, additional geotechnical reports in accordance with Section 18.08.120, and any other pertinent information as deemed necessary by the City Engineer, have been submitted and approved by the city;

3. The land development work shall be done and maintained in a safe, sanitary and non-nuisance condition at the sole cost, risk and responsibility of the owner and his or her successors in interest, who shall hold the city harmless with respect thereto;

4. The agreement for nonstructural fills shall be presented to the city council for approval, and if approved, shall be recorded in the office of the San Diego County recorder. The notice shall remain in effect until release of the agreement is filed by the City Engineer.

18.08.250 Drainage easement required.

A. For all public watercourses, the applicant may be required to grant or cause to be granted to the city, a drainage easement in accordance with the specifications set forth by the City Engineer prior to the issuance of the grading permit.

B. For all private watercourses where the continuous functioning of the drainageway is essential to the protection and use of multiple properties, the applicant may be required to record a covenant, a maintenance agreement and/or deed restriction placing the responsibility for the maintenance of the drainageway(s) on the owners of record of each respective lot affected. Permanent off-site drainage easements, as required by the City Engineer, shall be acquired by the applicant. Such easements shall be subject to approval by the City Engineer and recorded prior to issuance of the grading permit.

C. For all watercourses where no public or private improvements are to be installed, but which must, in the opinion of the City Engineer, be kept open and clear for natural stormwater runoff, the applicant may be required, prior to the issuance of a grading permit, to grant a flowage easement to the city. Flowage easements shall be granted on a form approved by the city attorney.

18.08.260 Permit applications—Expiration and extension.

Any grading permit application for which a valid grading permit has not been issued, whether or not the grading plans have been approved and signed by the City Engineer, shall expire, automatically, one hundred eighty days after receipt of the application by the city, after which time the application and plans shall be deemed as expired and invalid.

18.08.270 Issuance of permits.

The City Engineer shall issue grading permits for land development work upon approval of applications and plans; receipt of prescribed studies, reports and other required documents, receipt of fees, and securities, receipt of the required originals, sepias and prints of the approved grading plans signed by the City Engineer, the soil engineer, the landscape architect, the engineer geologist and others as required by the City Engineer, who have been retained by the permittee to perform the work. The permit shall include, or refer to, the conditions, plans and specifications which shall govern the work authorized.

18.08.280 Denial of permits.

A. Hazardous Grading. The City Engineer shall not issue a grading permit in any case where he/she finds or where it may reasonably be inferred that the work as proposed by the applicant will:

1. Damage any private or public property; or

2. Expose any property to landslide or geologic hazard; or

3. Adversely interfere with existing drainage courses or patterns; or

4. Cause erosion which could result in the depositing of mud, silt, or debris on any public or private street or way or in the City's MS4; or

5. Create any hazard to person or property.

B. Geological Hazard. If, in the opinion of the City Engineer, the land area for which grading is proposed is subject to geological hazard to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to person or property, the grading permit shall be denied.

C. Flood Hazard. If, in the opinion of the City Engineer, the proposed grading would adversely affect the flow of runoff or would alter runoff to the detriment of upstream, downstream or adjacent properties, the grading permit shall be denied.

D. Subdivision or Zoning Permits. Under either of the following circumstances, a grading permit shall not be issued unless and until a subdivision map or a zoning permit has been approved or conditionally approved, and it has been determined by the City Engineer and the Development Services Director that the subdivision map or zoning permit is not threatened with expiration:

1. If the purpose of the proposed grading, as stated in the application is to prepare the land for subdivision or for some use for which a zoning permit is required; or

2. Notwithstanding the purpose of the proposed grading as stated in the application, if the City Engineer and Development Services Director find that the purpose of the proposed grading is to prepare the land for subdivision or other purpose for which a zoning permit is required.

E. Other Reasons. The City Engineer shall deny issuance of a grading permit if so directed by the city council; or if prohibited therefrom by a duly enacted moratorium, court order, injunction, or other legal order; or if the applicant or owner has failed to comply with the provisions of this code; or if the work proposed is not consistent with the city general plan, or any element thereof, or any specific plan, land use ordinance or regulation, zoning ordinance regulation or permit, or subdivision map. The City Engineer shall deny applications which are not in the interest of the public health, safety, or general welfare, or do not constitute a reasonable use of land as indicated by the existing zoning or an approved land use plan.

18.08.290 Appeals.

An applicant may appeal the City Engineer's denial of, or the conditions of approval of, an application for a grading permit to the city planning commission. The applicant or the permittee may appeal a decision of the City Engineer within ten working days after the decision is made. Appeals shall be in writing and shall state the specific nature of the appeal. Appeals shall be filed with the Development Services Director, who shall set a hearing within sixty days, and shall notify the owners of record, interested persons signing the appeal in question, and owners of

adjacent land identified by the City Engineer as being affected by the proposed grading. The decision of the planning commission may be appealed to the city council.

18.08.300 Permit expiration, extension and cancellation.

A. Expiration. Every duly issued grading permit shall be valid for the time period specified on the permit up to a maximum of one year from the date of issuance. All work covered in the permit shall be completed within such a period, except as specified in this section.

B. Every permit issued shall expire by limitation and become null and void if the work authorized by the permit is not commenced and diligently pursued within one hundred eighty days from the date of permit issuance, or stopped, suspended or abandoned for a period of one hundred eighty days.

C. If work is not commenced or diligently pursued, within the extension period specified in this section, then the permit shall thereafter be deemed expired and null and void.

D. For purposes of this section, "diligently pursued" work shall be grading of such magnitude, frequency, or complexity as to require the regular services of the permittee's soil engineer and/or civil engineer or other professionals, and which is inspected at regular intervals by the city.

E. Extensions. Upon written request from the permittee, submitted prior to the expiration of the one hundred eighty-day period in which work was to commence, the City Engineer may extend the period in which the permittee must start work, for one hundred eighty days, provided the permittee demonstrates that circumstances beyond the permittee's control prevented commencement of the approved work.

F. If the work authorized by the grading permit is not completed within the permit period, the City Engineer, upon written request from the permittee, submitted prior to the expiration of the permit, may extend the permit for a period of one year.

G. Cancellation. The City Engineer may cancel a permit or may require the plans to be amended in the interest of public health, safety and welfare or under any of the following conditions upon the request of the permittee.

18.08.310 Revocation of permits.

A. The City Engineer may revoke any permit granted under the provisions of this chapter if the City Engineer determines that the permit was obtained by fraud, or that one or more of the conditions upon which the permit was granted have been violated, or that the permittee failed or refused to correct a deficiency or hazard upon the receipt of written notice and within the time specified in such notices, or that the permittee fails or refuses to perform any of the conditions or standards established for any subdivision, zoning permit or other approval granted by the city, or fails to correct any hazard or condition as referred to in Section 18.08.590.

B. The permittee, owner or other party aggrieved or adversely affected by the revocation of the grading permit may appeal such action to the city council. Any such appeal shall be in writing, accompanied by a filing fee as shown in the master fee schedule and submitted to the city clerk within ten working days after the decision is made by the City Engineer. The appeal shall cite reasons and contain other information as necessary to explain why the City Engineer's

action should be rescinded or modified. Upon receipt of any such written appeal, the city clerk shall set the matter for public hearing.

C. Any interested person may appear at the hearing and present evidence. At the conclusion of deliberations on an appeal of a permit revocation, the city council may deny the appeal, modify existing conditions of, or add new conditions to the permit, or reinstate the permit.

D. If a permit is revoked, no further work shall be done upon that site except to correct hazards and to complete any work required by the permittee's agreement with the City Engineer or city council. Every agreement and every security required by this chapter shall remain in full force and effect notwithstanding any revocation.

18.08.320 Fee schedule—Generally.

A. Fees required by this chapter shall be collected by the finance director. Such fees shall be as presently designed or as may in the future be amended.

B. The City Engineer may require the payment of additional fees for any of the following reasons:

1. Extension or renewal of the grading permit;

2. Enlargement of the scope or quantity of grading or any change which increased the need for inspection or administration of the project;

3. Additional soil or geotechnical review by a third party of any modified grading.

C. No permit shall be issued, and no land development shall be permitted until the fees applicable under this chapter have been received by the finance director.

18.08.330 Plan check and permit fees.

A. Before accepting an application for grading and/or landscape and irrigation plans and specifications for checking, the finance director shall collect a plan-checking fee. The amount of the plan-checking fee for grading and landscape and irrigation plans shall be as determined by the City Engineer and as set forth by council resolution.

B. The plan checking fee for a grading permit authorizing additional work under a valid permit shall be the difference between the plan check fee paid for the original permit and the fee required for the entire project.

18.08.340 Preliminary soils engineering report review fee.

Before accepting a preliminary soils engineering report for review, the finance director shall collect a report review fee. A fee will be charged for each individual report submitted for review. The amount of the review fee shall be as determined by the City Engineer and set forth by council resolution. Additional deposits may be required for independent review of the soil engineering report.

18.08.350 Inspection deposit.

Prior to the issuance of the grading permit, a deposit shall be paid to the finance director to cover the city's expenses, costs, and overhead for field inspection, office engineering, and administration of the work performed, including landscape and irrigation work. This will be based on an estimate of the hours needed for inspection. The amount of the deposit shall be as determined by the City Engineer.

18.08.360 Work commenced before permit issuance—Fee.

In addition to any penalty prescribed for violation of this code or for violation of the provisions of this chapter, and in addition to the fees required in this chapter, a separate fee of one hundred dollars shall be assessed for any work for which a permit is required by this chapter, commenced prior to obtaining such permit. Payment of such fee shall not relieve any person from any liability under the provisions of this code or from fully complying with the requirements of this chapter. The fee prescribed in this section shall not be construed as penalty but is added to defray the expense of the enforcement of the provisions of the chapter and shall be assessed for each violation cited.

18.08.370 Fee exemptions.

Permits for grading when approved and inspected by a city, county, state or federal agency, may be issued without all or part payment of any of the above fees as approved by the City Engineer.

18.08.380 Refunds.

A. No fee collected pursuant to this chapter shall be refunded in whole or in part except as provided in this section:

1. Plan check fees may be refunded, less any city expenses, including overhead incurred, upon the applicant's request, provided no plan checking has commenced. There shall be no refund of any plan check fees after issuance of a permit.

2. Report Review Fees. Prior to review of a report, any fees paid for report review shall be fully refundable, less a handling charge, upon the applicant's request, providing the permit has expired, or is withdrawn, or if the project does not warrant preparation of a soil engineering report.

3. Grading inspection fees may be refunded in full, less a handling charge and city expenses, at any time prior to the start of the work authorized by the permit, upon the applicant's request, provide the grading application has expired or has been withdrawn.

B. No refund shall be made, however, if the applicant or permittee has any outstanding debts owed to the city, or if corrective work remains to be done on the grading work itself.

C. No refund shall be made pursuant to this section if a request for refund is submitted to the city more than one year from the date of payment of the fee as to which a refund is claimed; nor shall any refund be paid if the total refundable amount, after deduction of city costs as provided in this section, is less than twenty-five dollars.

Article III. Design Standards

18.08.390 Design responsibilities.

A. Civil Engineer. It shall be the responsibility of the civil engineer who prepared the grading plans to incorporate the applicable recommendations from the soil engineering and geology reports and to incorporate any City Engineer approved alternative concept grading plan into the grading plan.

B. The civil engineer shall be responsible for establishing line and grade for the grading and drainage improvements and shall act as the coordinating agent in the event the need arises for liaison between the other professionals, the contractor and the City Engineer. The civil engineer shall also be responsible for the preparation of plan revisions, and upon completion of the work, the submission of as graded drawings incorporating all changes and/or additions made during construction. Prior to the release of building permits for any given lot or lots, the civil engineer shall submit a written statement as evidence that rough grading for land development has been completed within standard tolerances in accordance with the approved plans and that all embankments and cut slopes and pad sizes are as shown on the approved plans.

C. Landscape Architect. The designing landscape architect shall incorporate applicable recommendations from the soils engineering reports along with appropriate measures related to soil engineering into the landscape and irrigation plans and conditional approval recommendations. The landscape architect shall also prepare plan revisions, to include securing approval from the City Engineer prior to installation, and shall submit as-graded drawings incorporating all changes and/or additions made during construction. The landscape architect shall, if requested by the City Engineer, prepare alternative concept contour grading plans for review and approval by the City Engineer.

D. All groundcover shall provide one hundred percent coverage within nine months of planting, or additional landscaping shall be required in order to meet this standard.

E. Soil Engineer. The soil engineer is responsible for performing the preliminary soils engineering investigation and preparing the preliminary soils during grading, providing compaction inspection and testing, and preparing the final soils engineering report. The soil engineer is also responsible for reviewing and signing the grading plan insuring and assuring that they comply with the soils and geotechnical recommendations of the preliminary soils engineering report.

18.08.400 Setbacks.

A. Setbacks and other restrictions specified by this section are minimums and may be increased by the City Engineer or by the recommendation of the civil engineer, soil engineer or engineering geologist, if necessary for safety and stability, or to prevent damage to adjacent properties from deposition or erosion, or to provide access for slope maintenance and drainage. Where zoning requirements exceed the minimums in this section, the zoning setbacks shall govern.

B. Retaining wall may be used to reduce the required setbacks when approved by the City Engineer.

C. The tops and toes of slopes shall be set back from the outer boundaries of the permit area, including slope rights areas and easements, as follows:

1. Top of Cut Slope. Top of cut slopes shall not be made nearer to a site boundary line than one fifth of the vertical height of cut with a minimum of two feet and a maximum of ten feet, as measured horizontally.

2. Toe of Fill Slope. The toe of fill slopes shall be made not nearer to the site boundary line than one half the height of the slope with a minimum of two feet and a maximum of twenty feet, as measured horizontally.

D. Setbacks between graded slopes (cut or fill) and structures shall be provided to the satisfaction of the City Engineer.

E. A usable side yard of at least five feet from any building wall shall be provided to the toe and top of a slope, unless waived by the City Engineer.

F. No provision in this section shall be construed to allow less than the required setback for berms and drainage unless an approved drainage device is used to reduce these requirements.

18.08.410 Cuts.

A. Cut slopes shall be no steeper than two horizontal to one vertical (2:1) unless the applicant can demonstrate to the satisfaction of the City Engineer and Development Services Director that the project would be substantially improved with steeper cut slopes.

B. Requests for approval of cut slopes steeper than 2:1 must be accompanied by a geotechnical report that establishes such slopes will be stable, and accompanied by a landscape architect report that establishes such slopes can be adequately landscaped. In no case shall cut slopes steeper than 1-1/2:1 be allowed under any waiver of the 2:1 standard.

C. The City Engineer may require slopes flatter than 2:1 in order to achieve the stated design and landscaping purposes of the city.

D. Unless specifically approved by the city council or planning commission, no cut shall exceed a vertical height of forty feet. In approving cut slopes higher than forty feet, the following shall be considered:

1. The lack of feasible alternative grading designs which result in slopes of forty feet or less; and the furtherance of general plan goals and objectives by the proposed development; or

2. Overriding benefits to the city from the development proposal.

18.08.420 Fills.

A. Fill slopes shall be no steeper than two horizontal to one vertical (2:1), exclusive of benches and terraces. The City Engineer may require slopes flatter than 2:1 in order to achieve the stated design and landscaping purposes of the city. Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the City Engineer deems necessary to protect the adjoining property from damage as a result of such grading.

B. Unless specifically approved by the city council or planning commission, no fill shall exceed a vertical height of forty feet. In approving fill slopes higher than forty feet, the following shall be considered:

1. The lack of feasible alternative grading designs which result in slopes of forty feet or less; and the furtherance of general plan goals and objectives by the proposed development; or

2. Overriding benefits to the city from the development proposal.

C. Slope stability analyses shall accompany soil engineering reports for all fill slopes exceeding forty feet in height, where authorized by the city council or planning commission, regardless of the slope ratio. The soil engineer shall provide a written statement approving the slope stability. In addition, the soil engineer shall recommend alternative methods of construction or compaction requirements necessary for stability.

18.08.430 Terraces.

All slopes thirty feet or more in vertical height shall have drainage terraces at least six feet in width established at not more than thirty foot vertical intervals on all cut or fill slopes to control surface drainage and debris. Where only one terrace is required, it shall be at mid-height. Suitable access shall be provided to permit proper cleaning and maintenance. Such drainage terraces shall be improved with a paved swale or ditch at least one foot deep, with a minimum grade of two percent and wide enough to carry the one-hundred year storm runoff arriving at the terrace.

18.08.440 Berms.

Unless waived by the City Engineer, a compacted earthen berm shall be constructed at the top, or along the line of vertical curvature, of all slopes steeper than 5:1. The berm shall conform to the slope and shall be a minimum of one-half foot high and two feet wide. The City Engineer may require larger berms if necessary to achieve the stated design purposes of the city.

18.08.450 Stormwater runoff.

Stormwater runoff from lots or adjacent properties shall not be carried over cut or fill slopes steeper than 5:1. Such runoff shall be provided to the satisfaction of the City Engineer. Surface runoff shall not be permitted to flow from one residential lot to another.

18.08.460 Subsurface drainage.

A. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability, and as recommended by the soil engineer and/or the engineering geologist.

B. All canyon fills and buttress fills shall be provided with subdrains, unless waived by the City Engineer, based upon the information provided by the engineering geologist and/or the soil engineer indicating that they are not necessary and recommending against them.

18.08.470 Contour grading.

The City Engineer may require public interest slopes to be rounded into existing terrain to produce a contoured and smooth transition from cut or fill faces to natural ground and abutting

cut or fill surfaces. Such slopes shall be contour graded and landscaped pursuant to a landscape plan prepared by a landscape architect and approved by the City Engineer. The contours of the finished slope shall approximate the natural contours to the satisfaction of the City Engineer. The brows or tops of slopes may be straight to match the lot lines and facilitate placement of lot fences.

18.08.480 Grading—Standards for substantial conformance.

A. The grading will be considered in substantial compliance if the pad elevations and slope heights shown on the approved grading plan are within plus or minus one foot of the elevations shown on the tentative map or approved conceptual grading plans.

B. The City Engineer and the Development Services Director have discretion to permit up to a two-foot elevation variation if they determine that the change will not adversely affect views, drainage and unusable yard areas, and the change is needed to create a better design.

Article IV. Performance Security

18.08.490 Required security.

A. No grading permit shall be issued for grading unless the applicant shall first post a security with the city comprised of a cash deposit or a combination of cash deposit and corporate surety bond of a surety authorized to do business in the state. An instrument of credit or other security pledging the performance of the work, may be submitted in lieu of he surety bond to insure installation of required structures, drains, landscaping, irrigation and other improvements shown on the grading plans. Such funds are trust funds for the purposes of satisfying the cost of correcting any deficiency, hazard or injury created by the work or lack of maintenance thereof. An irrevocable standby letter of credit issued by a financial institution subject to regulation by the state or federal government may be posted in lieu of the surety bond, instrument of credit or other security.

B. The estimated cost of the work shall be determined by the City Engineer after reviewing the civil engineer's estimates. If the City Engineer determines that the size, complexity and scope of the work does not justify the full amount of the security, he may waive all or part of the amount to the extent that there is no hazard or danger. If the scope of work increases, or new conditions are discovered after grading commences, the City Engineer may increase the amount of the security.

C. The security shall be in the form approved by the city attorney. The total amount of the security shall be equal to one hundred fifty percent of the estimated cost of the grading work authorized by the permit plus an additional sum equal to one hundred percent of the estimated cost for the construction of drainage structures or facilities, including standard terrace drains, slope planting, irrigation system, erosion control devices, retaining walls and similar facilities authorized by the permit.

18.08.500 Cash deposit requirements—In lieu of bond.

A. The cash deposit shall be equal to twenty percent of the calculated security, as approved by the City Engineer. Interest shall not be paid on cash deposits.

B. In no instance shall the cash deposit be less than one thousand dollars or more than twenty thousand dollars. In instances where twenty percent of the appraised calculated security exceeds twenty thousand dollars, that remaining portion of the security in excess of twenty thousand dollars shall be combined with the remaining eighty percent of the approved security in the form of a corporate surety bond, or other security authorized by Section 18.08.490.

C. The cash deposit shall be used to satisfy the cost of correcting any deficiency, hazard or injury created by the work in violation of the terms and conditions of the grading permit and in violation of the provisions of this chapter or any other applicable law or ordinance; or for maintenance, cleanup or repair of any public or private street or easement, or for the maintenance, upkeep or installation of debris basins, erosion control devices, etc. Use of the cash deposit or a portion thereof shall in no way limit or release the obligation of the permittee or surety to satisfy the cost of correcting any deficiency, hazard or injury created by the work or to maintain the same in safe condition. If the amount of the cash deposit is insufficient to satisfy the cost in full, the surety shall be liable to satisfy the remainder of the cost in excess of the cash deposit to the extent that the remainder does not exceed the full penalty amount of the bond. In addition, if suit is brought upon the surety by the city and judgment is recovered, the surety shall pay all costs incurred by the city in such suit, including a reasonable attorney's fee to be fixed by the court.

18.08.510 Erosion control security requirements.

When the City Engineer determines, pursuant to Section 18.08.150 of this chapter, that plans for erosion control system be prepared as part of the grading permit, the applicant shall furnish the city a cash deposit in connection with an agreement to perform erosion control work. The amount of deposit shall be one hundred percent of the cost estimate for the work shown on the erosion control plan, subject to the approval of the City Engineer. Section 18.08.490 shall be applicable regarding types of securities acceptable by the city. In addition to the required security for erosion control work, a cash deposit in the amount of five thousand dollars shall be required for emergency erosion control work and/or for emergency cleanup.

18.08.520 Required terms and conditions of securities.

A. Every surety bond and instrument of credit shall include and every cash deposit and letter of credit shall be made on the conditions that the permittee shall:

1. Comply with all provisions of this chapter, applicable laws and ordinances;

2. Comply with all the terms and conditions of the grading permit to the satisfaction of the City Engineer;

3. Complete all of the work contemplated under the grading permit within the time limit specified in the grading permit, or if no time limit is so specified, the time limit specified in this chapter. The City Engineer may, for sufficient cause, extend the time specified in the permit, but no such extension shall release the owner or the surety on the bond or person issuing the instrument of credit;

4. Each security shall remain in effect until the completion of the work to the satisfaction of the City Engineer.

18.08.530 Use of securities for work done by city.

In the event of failure to complete the work or failure to comply with all conditions and terms of the grading permit, the City Engineer may order such work that in his or her opinion is necessary to correct any deficiencies or eliminate any dangerous condition and leave the site in safe, stable and nuisance-free condition to his or her satisfaction. The permittee and the surety executing such bond or person issuing the instrument of credit, letter of credit or making the cash deposit shall continue to be firmly bound under a continuing obligation for the payment of all necessary costs and expenses that may be incurred or expended by the city in causing any and all such work to be done.

18.08.540 Release of securities.

A. Cash deposits, bonds, or other security shall be released upon request in writing by the developer when work is complete and approved by the City Engineer.

B. No security under the provisions of this chapter shall be required from the state, or any of its political subdivisions or any governmental agency. However, a contractor working for the state or any of its political subdivisions or any governmental agency shall present a security for performance unless proof is submitted that the work is covered by a separate and similar security inuring to the benefit of the state or agency.

Article V. Grading Operations

18.08.550 Work authorized by permit.

The issuance of a grading permit shall constitute an authorization to do only that work which is described or illustrated on the application for the permit, or in the plans and specifications approved by the City Engineer. The work shall be done in accordance with any conditions imposed by the City Engineer and in accordance with the requirements of this article. Conditions imposed by the City Engineer shall be shown on the grading plans under the heading "General Notes."

18.08.560 Responsibility of permittee.

It shall be the responsibility of the permittee to know the conditions and/or restrictions placed on the grading permit and as outlined in applicable sections of this chapter, and as continued on the approved report(s) and to insure that all contractors, subcontractors, employees, agents and consultants are also knowledgeable of the same, and insure that they carry out the proposed work in accordance with the approved plans and specifications and with the requirements of the permit and this chapter. The permittee shall also be responsible to maintain in an obvious and accessible location on the site, a copy of the permit and grading plans bearing the approval of the City Engineer.

18.08.570 Contractor qualifications.

A. Every person doing land development shall meet such qualifications as may be determined by the City Engineer to be necessary to protect the public interest. The City Engineer may require an application for qualification which shall contain all information necessary to determine the person's qualifications to do the land development.

B. All land development work shall be performed by a contractor licensed by the state to perform the types of work required by permit.

18.08.580 Time of grading operations.

A. All grading operations, including the warming up, repair, arrival, departure or running of trucks, earth moving equipment, construction equipment and any other associated grading equipment shall be limited to the period between seven a.m. to six p.m. each day, Monday through Friday. No earth moving or grading operations shall be conducted on Saturdays, Sundays or holidays recognized by the city without written permission of the City Engineer.

B. No grading shall be allowed between October 15th and the following April 15th on any site when the City Engineer determines that erosion, mud flow or sediment discharge from grading may adversely affect downstream properties, drainage courses, storm drains, streets, easements, or public or private facilities or improvements unless an erosion control system approved by the City Engineer has been implemented on the site to the satisfaction of the City Engineer.

18.08.590 Temporary suspension of permit.

A. The City Engineer has the authority to temporarily suspend all work on a grading project and suspend the permit by issuing a written stop work order if he or she determines that field conditions present an immediate hazard or danger to life or property; if the work being done is contrary to the approved plans or conditions thereof; if the work being done under a grading permit issued for a subdivision or zoning permit is contrary or conflicting with any approved changes and/or modifications made to the originally approved or conditionally approved tentative map or zoning permit subsequent to the issuance of the grading permit; if there is lack of supervision of the grading operation, lack of engineering control, lack of soil engineering control or lack of dust or air pollution control; if archaeological or paleontological artifacts or resources are discovered; or for any other reason which in the City Engineer's opinion, presents a threat to the public safety or welfare immediately, or in the future, or which may cause unstable earth conditions. This temporary suspension shall continue in effect until the hazard or condition is corrected to the satisfaction of the City Engineer.

B. It shall be the responsibility of the owner to furnish any additional information, investigations and reports necessary to resolve the stop work order conditions. The owner shall pay for all work associated with furnishing these items, as well as any additional staff time in resolving the stop work order conditions.

18.08.600 Transfer of responsibilities.

A. If the civil engineer, soil engineer, engineering geologist, landscape architect, the testing agency, or the grading contractor of record are changed during the course of the work, the work shall be stopped until:

1. The owner submits a letter of notification verifying the change of the responsible professional; and

2. The new responsible professional submits in writing that he or she has reviewed all prior reports and/or plans (specified by date and title) and work performed by the prior responsible professional, and that the responsible professional concurs with the findings, conclusions and recommendations and is satisfied with the work performed. The responsible

professional must state that he or she assumes all responsibility within his or her purview as of a specified date.

B. All exceptions to subsections A(1) and (2) of this section must be approved by the City Engineer.

C. Where clearly indicated that the firm, not the individual professional, is the contracting party, the designated engineer, architect or geologist may be reassigned and another individual of comparable professional accreditation within the firm may assume responsibility, without complying with the requirements of subsection A(1) and (2) of this section.

18.08.610 Construction of fills.

A. Preparation of Ground. The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials, and by scarifying to a depth of one foot to provide a bond with the new fill. Where existing slopes exceed five feet in height and/or are steeper than 5:1, the ground shall be prepared by benching into sound bedrock or other competent material as determined by the soil engineer and approved by the City Engineer. The lowermost bench beneath the toe of a fill slope on natural ground shall be a minimum ten feet in width and at least one foot into dense formational materials. The ground surface below the toe of the fill shall be prepared for sheet flow runoff, or a paved drain shall be provided.

B. Where fill is to be placed over an existing cut slope, the bench under the toe of the new fill shall be at least fifteen feet wide and shall meet the approval of the soil engineer and/or engineering geologist as a suitable foundation for fill.

C. Expansive Soils. Whenever expansive soils are encountered within three feet of the finish grade of any area intended or designed as a location for a building, the permittee shall cause expansive soil to be removed to a minimum depth of three feet below finish grade and replace with properly compacted, nonexpansive soil.

D. Fill Material. Any organic material shall not be permitted in fills.

E. Except as outlined in subsection F of this section, no rock or similar irreducible materials with a maximum dimension greater than eight inches shall be buried or placed in fills.

F. Unless the engineer properly devises a method of placement, continuously inspects placement and approves the soil stability and competency, the following conditions shall also apply:

1. Prior to issuance of the grading permit, potential rock disposal area(s) shall be delineated on the grading plan;

2. Rock sizes greater than eight inches in maximum dimension shall be at least six feet or more below grade, measured vertically, and ten feet measured horizontally from slope faces, and shall be two feet or more below the bottom of any utility pipeline;

3. When the design of the development or covenants and restrictions provide assurance that no structure or utilities will be placed on a precisely definable area, these dimensions may be reduced with the approval of the City Engineer;

4. Rocks greater than eight inches shall be placed so as to be completely surrounded by soils; nesting of rocks will not be permitted.

G. All fill slopes shall be overfilled to a distance from finished slope face that will allow compaction equipment to operate freely within the zone of the finished slope, and then cut back to the finish grade to expose the compacted core. Alternate methods may be employed by the grading contractor subject to approval by the soil engineer and City Engineer. In such instances, the grading contractor shall provide detailed specifications for the method of placement and compaction of the soil within a distance of an equipment width from the slope face.

H. Buttress/Stabilization Fills. Recommendations for buttress fills or stabilization fills by the soil engineer shall be accompanied by a report by the soils engineer or certified engineering geologist setting forth the soil or geologic factors necessitating the buttress/stabilization fill, stability calculations based on both static and pseudostatic conditions (pseudostatic loads need not normally be analyzed when bedding planes are flatter than twelve degrees from the horizontal), laboratory test data upon which the calculations are based, the buttress/stabilization fill, a scaled section of the buttress/stabilization fill and recommendations with details of subdrain requirements.

I. Utility Line Backfill. Backfills for on-site utility line trenches, such as water, sewer, gas and electrical services shall be compacted and tested in accordance with Section 18.08.780(D) of this chapter. Alternate materials and methods may be used for utility line backfills provided that the material specification and method of placement are recommended by the soil engineer and approved by the City Engineer prior to backfilling.

J. The final utility line backfill report shall include a statement of compliance by the soil engineer that the tested backfill is suitable for the intended use.

18.08.620 Lot grading—Safety precautions.

A. At any stage of grading work, whether an approved grading plan, or a grading permit is required, if the City Engineer determines that authorized grading is likely to endanger any public or private property or result in the deposition of debris on any public way or interfere with any existing drainage course, the City Engineer may specify and require reasonable safety precautions to avoid the danger. The permittee may be responsible for removing excess soil and debris deposited upon adjacent and downstream public or private property resulting from his/her grading operations. Soil and debris shall be removed and damage to adjacent and downstream property repaired as directed by the City Engineer. Erosion and siltation control shall require temporary or permanent siltation basins, energy dissipaters, or other measures as field conditions warrant, whether or not such measures are a part of approved plans. Cost associated with any work outlined in this section shall be incurred by the permittee.

B. No off-site work will be required when, in the opinion of the City Engineer, the permittee has properly implemented and maintained erosion control measures in accordance with the City's BMP Manual and the deposition of soil and debris or erosion on adjacent properties is the direct or indirect result of actions of the downstream property owner.

18.08.630 Public protection from hazards.

During grading operations, the contractor and property owner shall take all necessary measures to eliminate any hazard resulting from the work to the public in its normal use of public property or right-of-way. Any fences or barricades installed shall be approved by the City

Engineer and shall be properly constructed and maintained. They shall separate the public from the hazard as long as the hazard exists.

18.08.640 Public facilities within public rights-of-way.

The following provisions of this section shall apply unless provision is made by a secured agreement pursuant to land development work done in conjunction with the authorized subdivision of property.

A. A property owner shall pay the city for all costs of placing, repairing, replacing or maintaining a city-owned facility within a public right-of-way when the city facility has been damaged or has failed as a result of the construction or existence of the owner's land development work during the progress of such work;

B. The costs of placing, replacing or maintaining the city-owned facility shall include the cost of obtaining an alternate easement if necessary;

C. The City Engineer shall notify the property owner of such damage or failure as set forth in the provisions of this section. The city may withhold certification of the completion of a building or other permitted work where a notice has been issued.

18.08.650 Protection of adjacent property.

A. Notwithstanding the minimum standards set forth in this chapter, the permittee shall be responsible for the prevention of damage to adjacent property and no person shall excavate on land so close to the property line as to endanger any adjoining public street, sidewalk, alley or other public or private property without supporting and protecting such property from settling, cracking or other damage which might result.

B. In addition, each adjacent property owner is entitled to the lateral and adjacent support which his or her land receives from the adjoining land, subject to the right of the property owner of the adjoining land to make proper and usual excavations on the same for purposes of construction or improvement, under the following conditions:

1. Any owner of land or his or her lessee intending to permit or to make an excavation greater than ten feet in depth within ten feet of his/her property lines shall give reasonable notice to the owner or owners of land abutting the property lines affected by such excavation, stating the depth for which such excavation is intended to be made and when the excavation will begin;

2. In making any excavation, reasonable care and skill shall be used and reasonable precautions taken to ensure that the soil of adjoining property will not cave in or settle to the detriment of any building or other structure which may be thereon;

3. No land development work shall be approved which physically prevents the use of existing legal or physical and usable (in the opinion of the City Engineer) access to any parcel.

18.08.660 Maintenance of protective devices.

The owner of any property on which a fill or excavation has been made pursuant to a grading permit granted under the provisions of this chapter, or any other person or agent in control of such property shall maintain in good condition and repair all retaining walls, cribbing, drainage structures or means, temporary or permanent BMPs, and other protective devices pursuant to

Chapter 8.48 or the BMP Manual, or as determined by the City Engineer, and planting shown in the approved plans and specifications or in the as-graded drawings or as required by the grading permit. Facilities dedicated for use by the public and accepted for such use by a public agency are excepted.

18.08.670 Protection of utilities.

A. During grading operations the permittee shall be responsible for the prevention of damage to any public utilities or services.

B. The responsibility applies within the limits of grading and along any routes of travel of equipment.

C. Before starting any excavation work the permittee shall be responsible to contact Underground Service Alert, Incorporated and coordinate the proposed excavation with all interested utility companies, districts and agencies.

18.08.680 Debris on public streets.

The California Vehicle Code and this chapter forbid the placing, dumping or depositing of soil and rocks on the public streets or any portion of the public right-of-way. All vehicles engaged in hauling materials under the permit provisions of this chapter shall refrain from depositing soil or debris on the public streets by any means, including, but not limited to, spillage from the bed of a truck or other vehicle and debris collected on the wheels of the haul vehicle. The City Engineer may require a cash deposit to insure the cleanup of public streets.

18.08.690 Dust control.

The contractor/permittee conducting any earth moving operation under this chapter shall be responsible for controlling dust created by its grading operations or activities at all times.

18.08.700 Cleanup.

The permittee conducting any earth-moving operation under this chapter which requires vehicles to haul earth materials on any public street shall be responsible for the complete removal of such materials (soil, mud or other material) from the street, if spilled, dumped or deposited on a public street. If the permittee fails to completely remove such spillage, the City Engineer may order the necessary removal work. The permittee and the surety shall be firmly bound under a continuing obligation for payment of all costs incurred or expended by the city pursuant to Sections 18.08.500 and 18.08.530.

18.08.710 Preservation of existing monuments.

All existing survey monuments shall be shown on the grading plan. Evidence indicating that arrangements have been made for the preservation and/or relocation of existing monuments shall be submitted to the City Engineer prior to issuance of a grading permit.

18.08.720 Archaeological or paleontological resources.

If any archaeological or paleontological resources are discovered during grading operations, such operations shall cease immediately and the permittee shall notify the City Engineer of the discovery. Grading operations shall not recommence until the permittee has received written authority from the City Engineer to do so.

Article VI. Supervision, Testing Inspection and Enforcement

18.08.730 City Engineer—Responsibilities.

A. The city engineer shall enforce the provisions of this chapter, except as otherwise provided in this section.

B. The city engineer may establish and implement special inspection requirements and augment his/her resources or expertise as he/she deems necessary to properly inspect a particular grading project. The cost of these special requirements or augmentations shall be paid for by the benefiting permittee.

C. Prior to the approval of any land development work requiring grading plans and specifications, the City Engineer may inspect the site to determine that the plans and specifications are current and reflect existing conditions.

D. After grading permit issuance, but prior to any land development work involving grading, brushing or clearing, there shall be a pre-grading meeting. Prior to pouring curbs and gutters or placement of base materials, there shall be a pre-paving meeting held on the site. The permittee, or his or her agent, shall notify the City Engineer at least two working days prior to the meetings and shall be responsible for notifying all principals responsible for grading and paving related operations.

E. The City Engineer or his or her designee shall inspect the land development project at various stages of work requiring approval and at any more frequent intervals necessary to determine that adequate inspection and testing is being exercised.

F. The City Engineer shall require inspection of work done in connection with land development to insure compliance with the provisions of this chapter and shall release the security when such work is properly completed.

G. The City Engineer shall cause land development being done without a permit to be stopped until a permit has been obtained. The City Engineer may require that such work done without a permit be removed or corrected at the expense of the responsible person. Where land development work involves an embankment improperly constructed or constructed without adequate testing, he or she shall cause such embankment to be reconstructed or, in lieu thereof, order the work stopped and corrected as set forth in Sections 18.08.590 and 18.08.820(D) of this chapter.

18.08.740 Liability of city.

A. Neither the issuance of a permit under the provisions of this chapter, nor the compliance with the provisions of this chapter or with any conditions imposed by any city official under this chapter, shall relieve any person from any responsibility for damage to persons or property otherwise imposed by law, nor impose any liability upon the city for damage to persons or property.

B. The City Engineer or an employee duly authorized with the enforcement of this chapter, acting in good faith and without malice for the city in the discharge of these duties, shall not render himself or herself liable personally and is relieved from all personal liability for any

damage that may accrue to persons or property as a result of any act required or by reason of any act or omission in the discharge of his or her duties. Any suit brought against the City Engineer or employee, because of such act or omission performed by him or her in the enforcement of any provision of this chapter, shall be defended by the legal department of the city until final determination of the proceedings.

18.08.750 Supervised or regular grading—Observation required.

A. All grading, except grading for a borrow pit, in excess of two thousand five hundred cubic yards shall be performed under the general observation of and coordination of the civil engineer who signed the grading plans and shall be designated as "supervised grading."

B. Grading not supervised in accordance with this section shall be designated as "regular grading."

C. For grading of two thousand five hundred cubic yards or less, the permittee may elect to have the grading performed as either supervised grading or regular grading.

18.08.760 Regular grading requirements.

A. The City Engineer shall cause regular grading work to be inspected to the extent he/she deems necessary and shall require inspection of excavations and fills and compaction control by a soil engineer. The grading plan shall be a part of the building permit plan set.

B. The City Engineer shall require sufficient inspection by the soil engineer to assure that the soil engineer has adequately considered all geologic conditions.

C. The soil engineer shall file a report with the City Engineer assuring the compaction and acceptability of all fills. Where potentially expansive soils are present at either cut or fill grade, the soil engineer shall provide written recommendation regarding treatment given or to be given to such soils.

18.08.770 Supervised grading requirements.

A. For supervised grading it shall be the responsibility of the civil engineer supervising the grading to supervise and coordinate all field surveys, setting of grade stakes in conformance with the plans, and site inspection during grading operations to assure that the site is graded in accordance with the permit.

B. Soils reports shall be required and geology reports may also be required as specified in Sections 18.08.780, 18.08.790 and 18.08.830. In addition to the copies filed with the City Engineer, copies of such reports shall be sent by the permittee to the civil engineer supervising the grading.

C. The soil engineer shall make such tests and inspections as necessary to assure that the recommendations given in the preliminary soils engineering report and incorporated in the grading plan, specifications or the permit have been followed, and comply with the requirements of Section 18.08.780.

18.08.780 Soil engineer—Observation and testing responsibilities.

A. General. The soil engineer's area of responsibility shall include, but not be limited to, the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes, design of buttress fills where required and incorporating data supplies by the engineering geologist.

B. Preliminary and final soils reports shall be required as specified in this chapter. During grading all necessary analyses, compaction data, soil engineering and engineering geology recommendations and reports shall be submitted to the client for distribution as required, and a copy of all such documents shall be provided to the City Engineer.

C. When preliminary soils engineering reports are not required, the City Engineer may yet require inspection and approval by the soil engineer. The soil engineer's responsibility shall include, but not be limited to, approval of cleared areas and benches to receive fill, the compaction and testing of fills and their inspection and approval. The soil engineer will submit a statement that all embankments under his or her direction have been compacted to a minimum of ninety percent relative compaction percentage approved by the City Engineer. Prior to the release of building permits for any given lot or lots, the soil engineer shall submit a compaction report to the satisfaction of the City Engineer as evidence that rough grading has been compacted in accordance with the approved preliminary soils engineering report.

D. Density Testing. All fills shall be compacted to a minimum of ninety percent relative compaction unless a lesser density has been specifically approved by the City Engineer. Field den-

sity tests shall be performed in accordance with ASTM D1556, or as revised (sand cone test), or equivalent, as approved by the City Engineer. Atleast twenty-five percent of the total tests shall be by ASTM D1556 to verify the accuracy of the equivalent method. All such tests shall be reasonably and uniformly distributed within the fill or fill slope surface so that representative results are obtained.

E. At least twenty percent of the field density tests taken shall be located within three feet of the final slope location and at least one density test shall be taken within the outer twelve inches of finished slope face for every five thousand square feet of slope area.

F. Locations of field density tests shall be determined by the soil engineer or approved testing agency, but shall be sufficient in both horizontal and vertical placement to provide representative testing of all fill placed.

G. Field density tests shall be performed on the basis of at least one test for one thousand cubic yards of compacted fill and at least one test for each two feet of fill thickness.

H. Testing in areas of critical nature or special emphasis shall be in addition to a network of representative sampling. Where lower density and very high potential expansion characteristics exist, as determined by the soil engineer, lesser compaction may be granted by the City Engineer upon justification and recommendation by the soil engineer.

I. Testing for expansive soil sufficient for each building pad shall be performed on soil within three feet of the finish grade of any land development intended or designed as a location for a building.

18.08.790 Engineering geologist—Responsibilities.

The engineering geologist's area of responsibility shall include, but not be limited to, professional inspection and approval of the stability of cut slopes with respect to geological matters, and the need for subdrains or other groundwater drainage devices. The engineering geologist shall report his/her findings to the soil engineer for engineering analysis.

18.08.800 Required inspections.

The following inspections by the city shall be required of the items of work listed, at the stage or time indicated. The permittee shall notify the City Engineer at least one working day ahead of the time the work will be ready.

A. Excavation and Fill.

1. Canyon cleanout: after all brush and unsuitable material have been removed and an acceptable base has been exposed, but before any fill is placed;

2. Toe bench and key: after the natural ground or bedrock is exposed and prepared to receive fill, but before fill is placed;

3. Over-excavation: after the area has been excavated but before fill is placed;

4. Excavation: after the excavation is started, but before the vertical depth of the excavation;

5. Fill: after the fill has started, but before the vertical height of the fill exceeds ten feet and every ten-foot interval thereafter.

B. Concrete or Gunite Drainage Devices.

1. Cross gutter:

a. Subgrade: after the subgrade is prepared and required reinforcement placed,

b. Concrete during concrete placement;

2. Curb and gutter (private property):

a. Subgrade: after subgrade is made, forms in place, with required reinforcement,

b. Concrete: during concrete placement;

3. Terrace drains, down drains, brow ditches and all over-paved drainage devices:

a. Subgrade: after grade is made but prior to placement of welded wire mesh or reinforcing steel,

b. Reinforcement: after thickness control wire and reinforcing steel or welded wire are in place,

c. Concrete: during concrete or gunite placement.

C. Drainage Devices other than Concrete or Gunite.

1. Subdrains:

a. After excavation but prior to placement of filter material and pipe. The subdrain pipe and filter material shall be on-site for inspection,

b. After filter material and subdrain have been placed but prior to covering with backfill;

2. Storm drains and inlets:

a. After placement of storm drains, but prior to covering with backfill;

b. After placement of inlet forms but prior to pouring concrete;

3. Earth swales: prior to rough grading approval.

D. Rough Grading. An inspection will be made when all rough grading has been completed. This inspection may be called for at the completion of rough grading after the City Engineer has reviewed and approved the required reports and the civil engineer has submitted the written report required by Section 18.08.830(A)(1)(c) indicating substantial conformance to line and grade.

A building permit will not be issued until rough grading has been approved and receipt of the final soils report required by Section 18.08.830(A)(2)(a) and the report required by Section 18.08.830(A)(2)(d).

E. Irrigation.

1. Pipe Lines and Control Valves. During installation of main and lateral lines, inspections shall be made to assure continuous support of all pipe, properly assembled fittings and valve installation, as well as proper backfill procedures.

2. Coverage Test. When the irrigation system is completed, a coverage test shall be performed in the presence of the City Engineer or appointed inspector.

F. Planting.

1. General Soil Preparation. After the finish grade has been established and appropriate drainage is accomplished, incorporation of amendments shall be inspected. Amendment material shall be approved prior to import. Material invoices and/or licensed weighmaster's certificates may be required.

2. Plant Pit Preparation. During the preparation of all plant pits, inspections shall confirm standard procedures are followed to maximize the promotion of healthy root development. Material invoices may be required.

3. Staking and/or Guying Procedures. Upon completion of planting, all nursery stakes directed to be removed, and proper staking and/or guying practices shall be accomplished. Inspection of procedures will confirm compliance.

G. Erosion Control Measures.

1. After excavation of desilting basins but prior to fill placement, prefabricated devices are to be available on-site for inspection;

2. After fill placement for desilting basins but prior to placement of concrete or other non-erosive materials;

3. After completion of an erosion control system in accordance with an approved erosion control plan and the requirements of the City Engineer.

H. Final Inspection. A final inspection by the city shall be made when all work including installation of all drainage structures, irrigation, slope planting and other protective devices, has been completed and all written professional approvals, certifications and the required reports and as-graded drawings have been submitted.

18.08.810 Notification of noncompliance.

If, in the course of fulfilling responsibility under this chapter, the City Engineer, the soil engineer, the engineering geologist, or the testing agency finds that the land development work is not being performed in accordance with approved plans, specifications or this chapter, the discrepancies shall be reported immediately in writing to the grading contractor, the property owner, and the City Engineer. Recommendations for corrective measures shall be submitted for approval by the City Engineer.

18.08.820 Stopping and correction of work.

A. Whenever the City Engineer determines that any work does not comply with the terms of a permit, or this chapter, or that the soil or other conditions are not as stated on the permit, or that work is being improperly, or in a hazardous manner, he or she may order the work stopped by notice in writing served on any persons engaged in doing or causing of such work to be done, and any such persons shall forthwith stop such work until authorized by the City Engineer to proceed with the work. See also Section 18.08.600 of this chapter for related provisions.

B. Whenever any work on which city inspections are required is covered or concealed by additional work without first having been inspected, the City Engineer may require, by written notice, that such work be exposed for examination. The work of exposing and recovering shall not entail or be subject to expense by the city.

C. If the City Engineer finds the soil or other conditions not as stated in the approved plans and geotechnical reports or in additional information which was required for issuance of the grading permit, he or she may issue a stop work order until approval is obtained for a revised grading plan which will conform to the conditions existing at the site.

D. Work may be resumed and the stop order shall be rescinded upon the City Engineer's determination that conditions have changed, corrections have been made, or the cause or actions which required a stop order have been acceptably remedied or alleviated to his or her satisfaction.

18.08.830 Completion of work.

A. Final Reports. Upon completion of the rough grading work or at the final completion of the land development work under the grading permit, but prior to approval of the grading securities or issuance of a notice of completion or certificate of use and occupancy:

1. The responsible civil engineer shall submit to the City Engineer:

a. A certification letter stating that the grading was done per the approved plan or an as-graded version of the grading plan (as-graded drawings) prepared, signed and dated by the responsible civil engineer which shall include original and "as-graded" ground surface elevations, pad elevations, slope ratios, and elevations and locations of all surface and subsurface drainage facilities, location and scaled sections of all buttress/stabilization and fills, subdrains and general location and depth of all areas of removal of unsuitable soil.

b. The as-graded drawings submitted by civil engineer shall include the landscape and irrigation sheets of grading plan showing the as-built landscape and irrigation works. The civil engineer shall work directly with the landscape architect to complete these as-built drawings.

c. Prior to issuance of a building permit, a written statement (rough grading report) signed by the civil engineer reporting that the site is rough graded in conformance with the approved

grading plan, as modified or amended by any construction changes approved by the City Engineer, and which specifically states the following items were performed under his or her supervision, and are shown correctly on the as-graded drawings:

i. Staking of line and grade for all engineered drainage devices and retaining walls (rough and final grading);

ii. Staking of property corners for proper building and slope location (rough grading);

iii. Location of permanent walls or structure on property corners or property lines;

iv. Location and slope ratio of all manufactured slopes;

v. Construction of earthen berms and positive building pad drainage.

2. The soil engineer shall submit to the City Engineer:

a. A final soils engineering report prepared by the soil engineer, including type of field testing performed, compaction reports, suitability of utility trench and retaining wall backfill, summaries of field and laboratory tests and other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the preliminary soils engineering report. Each field density test shall be identified, located on a plan or map, the elevation of the test, and the test method of obtaining the in-place density described; either ASTM D1556-78 or the approved equal shall be so noted; daily reports from the soils tech should be included;

b. Written approval as to the adequacy of the site for the intended use as affected by geologic factors, a statement of compliance to finish slope heights and gradients, and when required by the City Engineer, shall submit an as-graded geologic map;

c. The utility line backfill report required by Section 18.08.610(J);

d. A final geological report or certification by a certified engineering geologist indicating that all geologic problems identified in the engineering geological report have been addressed.

B. Notification of Completion and Certificate of Completion. The permit holder or agent shall notify the City Engineer when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, required irrigation system installed protective devices, required planting, and all erosion control measures have been completed in accordance with the final approved grading plan and the as-graded drawings, required reports and statements of compliance consistent with this section and Chapter 18.44 have been submitted.

18.08.840 Violation—Misdemeanor.

Any person, firm or corporation violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor. Each such person, firm or corporation shall be deemed guilty of a separate offense for every day during any portion of which any violations of any provisions of this chapter are permitted, continued or committed by such person, firm or corporation and shall be punishable therefor as provided in Chapter 1.12 of this code.

18.08.850 Violations—Public nuisance.

Notwithstanding the provisions of this chapter, any grading done contrary to the provisions of the chapter is also a public nuisance. Upon order of the city council, the city attorney is authorized to commence necessary proceedings provided by local or state law to abate, remove

and/or enjoin such public nuisance. Any grading done without graders first having obtained a grading permit thereof, regardless of whether such failure is due to neglect or refusal, shall be prima facie evidence that a public nuisance has been committed. To implement this section, the city attorney may proceed as in a civil or criminal penalty procedure. The civil remedy may be before a court within the local jurisdiction of the city or may be an adjudicatory hearing before the city council.

18.08.860 Denial of further permits.

Notwithstanding the provisions of Sections 18.08.830 and 18.08.840, any grading done contrary to the provisions of this chapter shall result in denying issuance of any further permits involving development and use of the property up to a maximum of three years. In addition, depending on the time required to resolve the grading violation, the city may record with the court recorder, notice of grading violation and denial of issuance of any further permits.

18.08.870 Lot grading—Responsibility of permittee—Protection of adjacent property.

A. For all public watercourses, the applicant shall grant or cause to be granted to the city, at the City Engineer's discretion, a drainage easement (riparian buffers and corridors) in accordance with the requirements of the City Engineer prior to the issuance of a grading permit, or prior to the approval of a grading plan.

B. For all private watercourses, including brow ditches, where the continuous functioning of the drainage way is essential to the protection and use of multiple properties, a covenant, a maintenance agreement and/or deed restriction shall be recorded by the applicant, placing the responsibility for the maintenance of the drainage way(s) on the property owners of record of each respective lot affected. Permanent off-site drainage or flowage easements, as required by the City Engineer, shall be acquired by the applicant. Such easements shall be subject to approval by the City Engineer and recorded prior to approval of the grading plan, or issuance of a grading permit.

C. No man-made dams, ponds, diversions, flow decelerators or excessive vegetation shall be placed, allowed to be placed, or allowed to grow within the property subject to an approved grading plan, or a grading permit, without suitable provisions, as approved by the City Engineer, for maintenance. Erosion or siltation as a result of these features shall be the sole responsibility of the property owner.

D. The permittee has the right to the proper discharge of natural drainage, within the provisions of this division, into natural drainage courses. The quantity of peak runoff shall be limited to the quantity of peak runoff of predevelopment conditions. This includes the right to discharge, within natural basins, runoff due to decrease of permeability of the property from grading operations, landscaping, and the construction of improvements and to discharge a reasonable silt load in this runoff comparable to the historic, predevelopment condition.

18.08.880 Establishment of permanent vegetation.

A. The face of all cut and fill slopes, in excess of three feet in vertical height, but only final slopes of any borrow pit, shall be planted and maintained with a ground cover or other planting to protect the slopes against erosion and instability. Planting shall commence as soon as slopes are completed on any portion of the site and shall be established upon all slopes prior to the

final approval of the grading. In order to minimize the period during which a cut or filled surface remains exposed, such planting shall provide for rapid short-term coverage of the slope as well as long-term permanent coverage. Planting materials and procedures shall conform to regulations adopted by the City Engineer. Other plant materials as specified by a landscape architect may be approved by the City Engineer. The permittee shall maintain such planting until it is well established as determined by the City Engineer.

B. Minimum Requirements. In addition to planting with ground cover, slopes in excess of fifteen feet in vertical height shall be planted with shrubs in two and one-quarter inch pots or trees having a one gallon minimum size at ten feet on center in both directions on the slope. The plant and planting pattern, but not the quantity, may be varied upon the recommendation of landscape architect and approval by the City Engineer.

C. Where cut slopes are not subject to erosion due to their rocky character or where the slopes are protected with pneumatically applied concrete mortar or otherwise treated to protect against erosion and instability to the satisfaction of the City Engineer, the requirement of this section may be waived by the City Engineer.

18.08.890 Preservation of natural hydrologic features, riparian buffers and corridors.

All natural hydrologic features and riparian buffer zones and corridors must be preserved to eliminate or minimize runoff from construction sites. Polluted runoff generated in construction sites should be treated to maximum extent practicable prior to discharge into the said features.

18.08.900 General construction permit requirements.

A. Dischargers required to comply with the State construction general stormwater permit shall maintain on site and make available for inspection on request by the city any state-issued waste discharge identification number ("WDID") for the site, and a copy of the notice of intent ("NOI") filed with the State Water Resources Control Board pursuant to that permit.

B. Dischargers required to prepare a SWPPP under the State general construction storm water permit must prepare the SWPPP, implement the SWPPP and maintain it at the site, readily available for review. Failure to comply with an applicable state-required SWPPP is a violation of this chapter.

C. Dischargers required to conduct monitoring under the State construction general storm water permit must conduct such monitoring in conformance with requirements specified by the state, retain records of such monitoring on site, and make such records available for inspection by an authorized enforcement official or authorized enforcement staff.

18.08.910 Penalties.

A. Administrative Penalties. Administrative penalties may be imposed pursuant to the Lemon Grove Municipal Code. Any later-enacted administrative penalty provision in the code shall also be applicable to violations of this chapter, unless otherwise provided therein.

B. Misdemeanor Penalties. Non-compliance with any part of this chapter may be charged as a misdemeanor and may be enforced and punished as prescribed in the Penal Code and Government Code of the state of California, and the Lemon Grove Municipal Code.

C. Penalties for Infractions. Any violation of this chapter may be charged as an infraction at the discretion of the prosecutor. Infractions may be abated as a nuisance or enforced and punished as prescribed in this code, Penal Code and Government Code of the state of California.

D. For Civil Actions. In addition to other penalties and remedies permitted in this chapter, a violation of this chapter may result in the filing of a civil action by the city. Except where a maximum monetary amount is specified, the following may also be awarded without monetary limitations in any civil action:

1. Injunctive relief;

2. Costs to investigate, inspect, monitor, survey, or litigate;

3. Costs to place or remove soils or erosion control materials, costs to correct any violation, and costs to restore environmental damage or to end any other adverse effects of a violation;

4. Compensatory damages for losses to the city or any other plaintiff caused by violations; and/or restitution to third parties for losses caused by violations;

5. Civil penalties;

6. Reasonable attorney fees; and

7. Fines assessed against the city by the RWQCB.

As part of a civil action filed by the city to enforce provisions of this chapter, a court may assess a maximum civil penalty in accordance with the general penalty clause as set forth in Section 1.12.010 of this code, or any other penalty adopted by the city, but in any case to be assessed per violation of this chapter for each day during which any violation of any provision of this chapter is committed, continued, permitted or maintained by such person(s).

In determining the amount of any civil liability to be imposed pursuant to this chapter, the court shall take into consideration the nature, circumstances, extent, and gravity of the violation or violations, whether any discharge caused the violation is susceptible to cleanup or abatement, and, with respect to the violator, the ability to pay, the effect on ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic savings, if any resulting from the violation, and such other matters as justice may require.

E. Penalties and Remedies Not Exclusive. Penalties and remedies under this section may be cumulative and in addition to other administrative, civil or criminal remedies.

Exhibit 2

Stormwater Best Management Practices Manual

Please see JRMP Appendix B for the Stormwater Best Management Practices Manual

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Appendix B

Stormwater Best Management Practices Manual

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City of Lemon Grove

Stormwater Best Management Practices Manual

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1 Introduction

1.1 Stormwater Best Management Practices (BMPs) Manual

This Stormwater BMP Manual (Manual) is to be used in conjunction with the City of Lemon Grove (City) Stormwater Management and Discharge Control Ordinance (Stormwater Ordinance), codified as Lemon Grove Municipal Code (LGMC) Chapter 8.48, and the water quality protection provisions of the Excavation and Grading Ordinance, codified as LGMC Chapter 18.08. This Manual is not a stand-alone document, but must be read in conjunction with other parts of the Stormwater Ordinance and the Grading and Excavation Ordinance (collectively, "Ordinances"). In general, this Manual sets out in more detail, by project category, what Dischargers must do to comply with the Ordinances and to receive permits for projects and activities that are subject to the Ordinances. The Manual and the Ordinances have been prepared to provide the City with the legal authority necessary to comply with the requirements of San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 and R9-2015-0100 (Municipal Permit).

1.2 Purposes

The purposes of this Manual are to establish clear minimum stormwater management requirements and controls, and to support the following objectives stated in Section 8.48.010 of the Stormwater Ordinance:

- To establish requirements for discharges into the MS4, receiving waters, and the environment;
- To protect, to the maximum extent practicable (MEP), life, property, receiving waters, aquatic life, and the environment from loss, injury, degradation, or damage by discharges from within the City's jurisdiction;
- To protect the MS4 from damage; and
- To meet the requirements of state and federal law and the MS4 Permit.

1.3 BMP Manual Document Outline

Section 1, Introduction, provides a brief discussion of the intended use and purpose of the Manual, and includes the document outline.

Section 2, BMP Requirements, presents the minimum BMP requirements for construction sites; post-construction sites; industrial, commercial and municipal sites/sources; and residential sites/sources.

Section 3, Enforcement Response Plan, presents enforcement actions performed by the City that address Stormwater Ordinance violations by different types of entities.

2 Minimum BMP Requirements

The City's minimum BMP requirements for construction sites; post-construction sites; industrial, commercial and municipal facilities; and residential properties are described in this section. Wherever BMP requirements reference "where applicable," "where feasible," or similar terms that involve discretion, the final determination shall be made by the Authorized Enforcement Official. Lemon Grove Municipal Code Chapter 8.48 defines "Authorized Enforcement Official" as follows: "the City Manager of the City of Lemon Grove or any designee of the City Manager of the City of Lemon Grove who is responsible for enforcing the provisions of this chapter, including but not limited to, the directors, their management staff and designees." References to "CASQA Factsheets" refer to factsheets in manuals prepared by the California Stormwater Quality Association (CASQA). CASQA materials can be accessed at www.casqa.org. Some materials are available for free, and others require paying for access.

2.1 Construction

Table 1 below presents the minimum BMPs required for construction sites within the City's jurisdiction. Types of BMPs include project planning, erosion control, sediment control, good site management ("housekeeping"), and non-stormwater management. Following Table 1 are additional BMP requirements for sediment and erosion control, maximum disturbed area and advanced treatment methods.

Table 1. Minimum BMPs for Construction Sites[1]

BMP Type	Minimum Required BMPs[2]	CASQA Factsheet
Project Planning	Preservation of existing vegetation	EC-2
	Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction	-
	Minimization of exposure time of disturbed soil areas (with a maximum area of 17 acres or to the alternate maximum area approved by the City in writing)	EC-1
	Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible	EC-1

[1] Construction sites that are subject to the State Water Resources Control Board's (SWRCB) Construction General Permit (Order No. 2012-0006-DWQ) (CGP) must also adhere to the BMP requirements of the CGP. The minimum BMPs listed within this section are required for all construction sites within the City's jurisdiction, unless otherwise stated. Some requirements may only apply to sites required to obtain a City grading permit.

[2] All BMPs in this table must be implemented, where applicable. For categories of BMPs marked as "(select at least one)," the responsible party is not required to implement all BMPs in the category but must implement at least one of the BMPs in the category.

Table 1. Minimum BMPs for Construction Sites (Continued)

BMP Type	Minimum Required BMPs[2]	CASQA Factsheet
Erosion Control	Temporary stabilization and permanent re-vegetation or landscaping as early as feasible	EC-1
	Preservation of existing vegetation	EC-2
	Physical Stabilization (select at least one) • Hydraulic Mulch • Hydroseeding • Soil Binders • Straw Mulch • Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats	 EC-3 EC-4 EC-5 EC-6 EC-7 EC-8
	Site Drainage (select at least one) • Earth Dikes/Drainage Swales • Energy Dissipater/Outlet Protection • Slope Drains	 EC-9 EC-10 EC-11
Sediment Control	Perimeter Protection (select at least one) • Silt Fence • Gravel Bag Berm • Fiber Rolls	 SE-1 SE-6 SE-5
	Sediment Capture (select at least one) • Sediment/Desilting Basin[3] • Storm Drain Inlet Protection • Sediment Trap • Gravel Bag Barrier • Straw Barrier	 SE-2 SE-10 SE-3 SE-8 SE-9
	Sediment Tracking • Stabilized Construction Entrance/Exit • Construction Road Stabilization • Entrance/Exit Tire Wash • Street Sweeping	 TC-1 TC-2 TC-3 SC-7
Good Site Management, "Housekeeping"	Vehicle and Equipment Management • Cleaning • Fueling • Maintenance	 NS-8 NS-9 NS-10
	Materials Management • Material Delivery and Storage • Material Use • Stockpile Management • Spill Prevention and Control	 WM-1 WM-2 WM-3 WM-4

[3] Desilting basins must be designed in accordance with CASQA standards, or other recognized standard approved by the City Engineer. If the project is one acre or greater, the de-silting basin must be designed in accordance with the current CGP.

Table 1. Minimum BMPs for Construction Sites (Continued)

BMP Type	Minimum Required BMPs[2]	CASQA Factsheet
	Waste Management • Solid Waste • Hazardous Waste • Contaminated Soil • Concrete Waste • Sanitary Waste • Liquid Waste	 WM-5 WM-6 WM-7 WM-8 WM-9 WM-10
Non-Stormwater Management	• Water Conservation Practices • Dewatering Operations • Paving and Grinding • Potable Water/Irrigation and Flushing	NS-1 NS-2 NS-3 NS-7

2.1.1 Additional Erosion and Sediment Control Requirements

In addition to the minimum BMPs listed in Table 1, construction projects are also required to comply with the following requirements:

1. The faces of cut-and-fill slopes and the project site shall be prepared and maintained to control against erosion. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted upon approval of the City Engineer.
2. Where necessary, temporary and/or permanent erosion control devices such as desilting basins, check dams, cribbing, riprap, or other devices or methods as approved by the City Engineer, shall be employed to control erosion, prevent discharge of sediment, and provide safety.
3. Temporary desilting basins constructed of compacted earth shall be compacted to a relative compaction of ninety percent of maximum density. A gravel bag or plastic spillway must be installed for overflow, as designed by the engineer of work, to avoid failure of the earthen dam. A soils engineering report prepared by the soils engineer, including the type of field-testing performed, location and results of testing shall be submitted to the City Engineer for approval upon completion of the desilting basins.
4. Desilting facilities shall be provided at drainage outlets from the graded site, and shall be designed to provide a desilting capacity capable of containing the anticipated runoff for a period of time adequate to allow reasonable settlement of suspended particles.
5. Desilting basins shall be constructed around the perimeter of projects, whenever feasible, and shall provide improved maintenance access from paved roads during wet weather. Grading cost estimates must include maintenance and ultimate removal costs for temporary desilting basins.

6. The erosion control provisions shall take into account drainage patterns during the current and future phases of grading.
7. An approved "weather triggered" response plan is mandated for implementation in the event that a predicted storm event has a fifty percent chance of rain. The proponent must have the capacity to deploy the standby BMPs within forty-eight hours of the predicted storm event;
8. All removable protective devices shown shall be in place at the end of each working day when there is a fifty percent chance of rain within a forty-eight hour period. If the developer does not provide the required installation or maintenance of erosion control structures within two hours of notification at the twenty-four hour number on the plans, the City Engineer may order city crews to do the work or may issue contracts for such work and charge the cost of this work along with reasonable overhead charges to the cash deposits or other instruments implemented for this work without further notification to the owner. No additional work on the project except erosion control work may be performed until the full amount drawn from the deposit is restored by the developer.
9. At any time of year, an inactive site shall be fully protected from erosion and discharges of sediment. Flat areas with less than five percent grade shall be fully covered unless sediment control is provided through desiltation basins at all project discharge points. A site is considered inactive if construction activities have ceased for a period of 14 or more consecutive days.

2.1.2 Maximum Disturbed Area for Erosion Controls

Cleared or graded areas left exposed at any given time are limited to the amount of acreage that the discharger can adequately protect prior to a predicted storm event or 17 acres, whichever is smaller, unless the disturbance of a larger area is approved in writing by the City Engineer. In the event that a discharger requests approval to disturb an area greater than 17 acres, the discharger shall first submit to the City Engineer written documentation describing how it ensures that it reduces discharges of pollutants to the maximum extent practicable and prevents discharges of pollutants that would cause or contribute to violations of water quality standards despite the larger disturbed area.

2.1.3 Advanced Treatment Methods

For the majority of the construction sites within the City's jurisdiction, the minimum required BMPs, if correctly installed and maintained, should adequately control sediment discharges from the site. However, if it is determined that a site possesses characteristics that could result in standard construction BMPs being ineffective in the treatment of sediment, thus resulting in an exceptional threat to water quality (TTWQ), advanced treatment will be required. A site is considered to be an exceptional TTWQ if it meets ALL of the following criteria:

- The site, or a portion of the site, is located within or adjacent to (within 200 feet) a receiving water body listed on the Clean Water Act Section 303(d) List of Water Quality Limited Segments as impaired for sedimentation or turbidity;
- Disturbance is greater than five acres, including all phases of the development;
- Disturbed slopes are steeper than 4:1 (horizontal: vertical) and higher than 10 feet that drain toward the 303(d) listed receiving water body;
- Contains a predominance of soils with U.S. Department of Agriculture – Natural Resources Conservation Service Erosion factors *K* greater than or equal to 0.4.

Alternatively, applicants may perform a Revised Universal Soil Loss Equation or Modified Universal Soil Loss Equation analysis to prove to the City Engineer's satisfaction that advanced treatment is not required.

Treatment effluent water quality shall meet or exceed the water quality objectives for turbidity and any other parameter deemed necessary by the City as listed in the *Water Quality Control Plan for the San Diego Basin for Inland Surface Water and Lagoons and Estuaries (2007)* for the appropriate hydrologic unit.

Additionally, the City may require advanced treatment for sites that have a record of noncompliance with the City's construction BMP requirements, regardless of if they meet the above criteria. For projects where advance treatment is required, the applicant must submit the design, operations and maintenance schedule, monitoring plan, and certification of training of staff to the satisfaction of the City.

2.2 Post-Construction

This section includes post-construction minimum BMP requirements. These BMPs include, but are not limited to, site design, source control, and treatment control BMPs.

2.2.1 Notice Regarding Upcoming Changes to Requirements

The City will be adopting updated post-construction BMP requirements for development projects to meet the requirements of the Municipal Permit. Those new requirements are anticipated to go into effect in December 2015. All projects that do not have prior lawful approval at the time the new requirements become effective must be designed to meet the new requirements. Portions of a plan that, at the time a complete application is submitted, is subject to further environmental review pursuant to Section 15162 of the California Environmental Quality Act, are considered not to have prior lawful approval. Please consult with City Engineering staff if you believe your project may be subject to the new requirements.

2.2.2 Current Requirements

The following post-construction minimum BMPs are required for all land development and redevelopment projects. For projects that are Priority Development Projects (PDPs), as defined in LGMC Chapter 8.52, the requirements of Chapter 8.52 must also be met.

Whether a permit or approval is required or not, and whether a post-construction stormwater management plan is required to be submitted or not, all dischargers engaged in land development or significant redevelopment activities in the City shall implement post-construction BMPs in the following areas if applicable to the project:

1. BMPs for permanent control of erosion from slopes. These BMPs can include structures to convey runoff safely from the tops of slopes, vegetation or alternative stabilization of all disturbed slopes, the use of natural drainage systems to the MEP, flow and velocity controls upstream of sites; and stabilization or permanent channel crossings, unless the crossing is not publicly accessible and is not frequently used.

2. BMPs to control flows, velocity and erosion. These BMPs can include but are not limited to the use of energy dissipaters, such as riprap, at the outlets of storm drains, culverts, conduits or lined channels that enter unlined channels to minimize erosion; installation of retention or equalization basins, or other measures. Flow control and downstream erosion protection measures shall prevent any significant increase in downstream erosion as a result of the new development, but shall not prevent flows needed to sustain downstream riparian habitats or wetlands.

3. Pollution prevention and source control BMPs, to minimize the release of pollutants into stormwater.

4. Site design BMPs, such as impervious surface minimization; and appropriate use of buffer areas to protect natural water bodies.

5. Site planning BMPs, such as siting and clustering of development to conserve natural areas to the extent practicable.

6. The installation of storm drain tiles or concrete stamping, and appropriate signage to discourage illegal discharges.

7. BMPs for trash storage and disposal and materials storage areas.

8. Structural BMPs to treat and/or to infiltrate stormwater where a development project would otherwise cause or contribute to a violation of water quality standards in receiving waters. Offsite structural BMPs may be used for treatment and infiltration necessary to meet water quality standards only if the conveyance of runoff to those facilities prior to treatment will not cause or contribute to an exceedance of water quality standards, or deprive wetlands or riparian habitats of needed flows. Offsite facilities shall not substitute for the use of any onsite source control BMPs required by this BMP Manual.

9. When an infiltration BMP is used, related BMPs set out in this BMP Manual (including but not limited to siting constraints), to protect present uses of groundwater, and future uses of that groundwater as currently designated in the applicable RWQCB basin plan.

(Discharges to infiltration BMPs may also require an RWQCB permit, and additional State requirements may also be applicable to these discharges).

10. Other applicable BMPs required by the manual.

11. Natural BMPs, such as constructed wetlands, grassed swales, biofilters, wet ponds, and vegetated filter strips, shall be utilized whenever practicable for post-construction BMPs that are proposed by a discharger.

2.3 Industrial, Commercial and Municipal

Table 2 below presents the minimum required BMPs for industrial, commercial and municipal sites and sources. BMP categories include Discharge Control, Erosion and Sediment Control, Good Housekeeping, Material Storage and Handling, Pesticide and Fertilizer Management, Outdoor Work Areas, Spill Prevention and Response, and Waste Management.

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
		Discharge Control	
1	Eliminate illegal connections to the storm drain system.	Illegal connections are man-made physical connections to the storm drain system that convey an illegal discharge. Find and abate all illegal connections to the storm drain system through properly approved procedures, permits, and protocols.	SC-10, SC-44
2	Eliminate illegal non-stormwater discharges.	Non-stormwater (water other than rain) shall not be discharged to the City of Lemon Grove's (City) storm drain system. To eliminate illegal discharges, do not allow any solid or liquid material except uncontaminated stormwater to enter City storm drains, curb gutters along City streets, or any other part of the City's storm drain system. Non-stormwater discharged to the storm drain system as a result of emergency or non-emergency[4] firefighting activities, both emergency and non-emergency activities, is considered an illegal discharge if the City or the Regional Water Quality Control Board, San Diego region (RWQCB) identifies the discharge as a significant source of pollutants to receiving waters. Other limited exceptions may apply.	SC-10, SC-11, SC-44

[4] During emergency situations, priority of fire fighting efforts is directed toward life, property, and the environment (in descending order). The City's minimum BMPs should be implemented when feasible, but should not interfere with immediate emergency response operations or impact public health and safety.

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
3	Properly dispose of process and wash water.	All process water and wash water shall be contained, captured, and reused, or properly disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces.	SC-10, SC-41[5]
4	Eliminate the discharge of vehicle and equipment wash water.	This BMP is applicable to all industrial, commercial, and municipal facilities and activities, regardless of whether the activity is conducted by the facility owner/operator, lessee, contractor, or other persons. Water associated with washing activities shall not be allowed to enter City storm drains, curbs and gutters, or any other part of the City's storm drain system. When washing is conducted outside permanent designated wash areas, all wash water must be contained, captured, and disposed of appropriately. Designated washing areas may consist of a container, a berm, or a liner to collect and contain liquids and prevent runoff. Use of a control nozzle or similar mechanism is required to maximize control over the quantity of water used. Allowing contained water to evaporate is an acceptable method of disposal only if any remaining residue is removed to prevent future pollutant discharges. Captured wash water may be disposed through the sanitary sewer system with the approval of the Lemon Grove Sanitation District. Contact the Lemon Grove Sanitation District at (619) 825-3810 for approval of any discharges to the sanitary sewer system; businesses are responsible for obtaining necessary permits. Wash water containing oil, paint, or other hazardous waste should be disposed of properly in accordance with applicable regulations. If only biodegradable soaps and uncontaminated water are used, wash water may be directed to onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. This can be accomplished by washing the vehicle on a landscaped area or using a berm to direct wash water to a landscaped area.	SC-10, SC-21

[5] Factsheet SC-41 - Building & Grounds Maintenance, states (in regards to pressure washing), "If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff." Non-stormwater discharges of this nature, even if filtered, are not allowed to enter the storm drain system. Wash water must be contained, collected, and disposed of properly.

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges containing corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer system, not the storm drain system. Fire sprinkler system discharges without corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer, if practicable. When not practicable to discharge to the sanitary sewer system due to the presence of prohibited contaminants, the water shall be collected and disposed of by an appropriately certified party. When not practicable to discharge to the sanitary sewer system for reasons other than the presence of prohibited contaminants, the water shall not be discharged unless adequate precautions have been taken to prevent the transport of pollutants to the storm drain system.	SC-10, SC-41
6	Eliminate irrigation runoff.	Irrigation runoff to the storm drain system shall be eliminated through proper landscape maintenance and watering practices. All irrigation water and associated pollutants from nurseries, garden centers, and similar facilities shall be prevented from reaching City storm drains, curb gutters along City streets, or any other part of the City's storm drain system.	SC-10[6], SC-41
7	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, ponds, and filter backwash.	Swimming pool, spa, fountain, reflective pool, pond, and filter backwash water shall be properly disposed of to prevent pollutants from entering the storm drain system. Discharges from swimming pools and spas to the storm drain system are allowed only if the water is dechlorinated, has a pH level in the 7-8 range, is within ambient temperature, has no algae or suspended solids, and is not saline. Other discharges, such as from filter backwash, fountains, reflective pools, ponds, saline swimming pools, or other sources, are prohibited from entering the storm drain system.	SC-10, BG-63[7]

[6] Factsheet SC-10 – Non-Stormwater Discharges states that "landscape irrigation drainage and landscape watering" may be discharged to the storm drain with conditions; however, in accordance with the Municipal Permit and the City's Stormwater Ordinance, no irrigation runoff may be discharged to the City's storm drain system.

[7] Factsheet BG-63 – Mobile Cleaning – Swimming Pools & Spas states that discharges from swimming pools and spas to the storm drain system are not permitted; however, discharges of this nature are permitted if the conditions described in BMP 7 are met.

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
8	Control air conditioning condensation discharges.	Air conditioning condensation discharges shall be controlled from reaching City storm drains, curb gutters along City streets, or any other part of the City's storm drain system and are prohibited from entering the City's storm drain system unless the following BMPs are followed in order. 1. Air conditioning condensation should be directed to the sanitary sewer if allowed. Contact the Development Services' Building Division at (619) 825-3847 to obtain a building permit to direct the condensation to the sanitary sewer system. 2. Air conditioning condensation discharges should be directed to onsite landscaped or pervious area to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. Directing discharges to landscaping close to a building foundation is not recommended. 3. If the above BMP options are not feasible AND the discharge does not contain pollutants exceeding the California Toxics Rule (CTR), air conditioning condensation may enter the City storm drain system.	SC-10, SC-42
9	Eliminate floor mat cleaning discharges.	Floor mats shall be cleaned in a manner such that there is no discharge to City storm drains, curb gutters along City streets, or any other part of the City's storm drain system. Indoor wash areas, mop sinks, or indoor floor drains may be designated as wash areas for floor mats if these areas drain to the sanitary sewer system.	SC-10, SC-21
10	Eliminate pumped groundwater, foundation, and footing drain discharges.	Pumped groundwater, including water from crawl space pumps is prohibited unless a separate National Pollutant Discharge Elimination System (NPDES) permit has been obtained to cover the discharge, or the RWQCB has determined in writing that no permit is needed. Discharges from foundation and footing drains that are at or below the groundwater table are also prohibited, unless covered by an NPDES permit, or the RWQCB has determined in writing that no permit is needed.	SC-10
11	Regularly clean and maintain structural BMPs, including LID installations, to ensure proper performance.	BMPs implemented, including Low Impact Development (LID) and other structural BMPs, must be inspected as often as necessary to ensure they perform as intended and properly operated and maintained. All installed LID or structural BMPs shall be inspected at a minimum of once annually for proper function and maintained to confirm the BMP is serving the purpose for which it was intended. BMPs must also be maintained in accordance with recorded maintenance agreements where applicable.	SC-44

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
Erosion and Sediment Control			
12	Protect unpaved areas, including landscaping, from erosion using vegetative or physical stabilization.	Exposed soils that are actively eroding or prone to erosion due to disturbance shall be protected from erosion. Significant accumulations of eroded soil shall be removed or contained to prevent sediment transport in runoff to the storm drain system.	SC-40, SC-42
Good Housekeeping			
13	Regularly clean parking areas.	Paved parking lots, roads, and driveways located on the property shall be cleaned as needed to prevent pollutants from entering the City's storm drain system, including the curb and gutter. Sweeping is the preferred method of cleaning. Wet cleaning methods, such as mopping or power washing, may be substituted for sweeping if all wash water is contained, captured, and disposed of appropriately.	SC-41, SC-43, BG-62[8]
14	Implement good housekeeping to keep site free of trash and debris.	Outdoor areas shall be cleaned as needed to keep them free of accumulations of trash, sediment, litter, and other debris.	SC-41
15	Keep storm drain inlets free of sediment, trash, and debris.	Accumulated materials shall be removed from on-site storm drains at least once per year.	SC-44

[8] Factsheet BG-62 – Mobile Cleaning – Surface Cleaning, states (in regards to pressure washing) that screened, or filtered, wash water can be discharged to a gutter, street, or storm drain. Non-stormwater discharges of this nature, even if filtered, are not allowed to enter the storm drain system, which includes the streets and gutters. Wash water must be contained, collected, and disposed of properly.

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
		Material Storage and Handling	
16	Provide and maintain secondary containment to catch spills if storing potential liquid pollutants in outdoor areas.	Drums and other containers shall be kept in good condition and securely closed when not in use. Effective secondary containment shall be provided and maintained for all containers of liquid with the potential to leak or to spill onto outdoor areas to prevent leaks or spills from discharging pollutants to the storm drain system. Secondary containment shall also be provided for all liquids during transport to prevent spills due to leaks or punctures. A variety of methods are available, including but not limited to: containers, curbs, and vendor products. To maintain the effectiveness of secondary containment, regularly remove and appropriately dispose of spills, precipitation, or other liquids that accumulate in the secondary containment. Provide liquid storage containers with covers to prevent precipitation from accumulating in or causing overflows from the secondary containment. If evidence of spills due to inadequate containment is observed, the City enforcement official may specify a minimum required containment capacity. Other applicable regulations may apply to the use of secondary containment, especially for hazardous materials, which are regulated by the County of San Diego Department of Environmental Health.	SC-20, SC-31
17	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in stormwater or non-stormwater.	Materials stored outdoors shall be covered, contained, and/or elevated to prevent stormwater and non-stormwater from contacting and/or transporting materials and pollutants to the storm drain system. Some examples of cover are roofs, awnings, and tarps. Where coverage is not feasible or is cost prohibitive, alternative approaches such as installing berms around the stored materials, directing runoff to pervious areas, or installing treatment devices may be allowed. Note that installing structural coverage will usually require obtaining permits from the City prior to installation. To determine applicable regulations and whether a permit would be required, contact the Development Services' Building Division at (619) 825-3847.	SC-20, SC-33
18	Properly store and dispose of hazardous materials.	Hazardous materials and wastes shall be stored, managed, and disposed in accordance with federal, state, and local laws and regulations. Hazardous materials and wastes and their primary storage containers shall also be stored such that they will not come into contact with stormwater, even if leaks or spills occur. Hazardous materials and wastes generated by business activities are additionally regulated by the County of San Diego Department of Environmental Health. Disposal of hazardous wastes using an authorized hazardous waste collection service is required. Store hazardous materials and wastes, and their primary storage containers, with sufficient cover and/or containment to prevent contact with stormwater. See BMPs 18 and 19 for additional details regarding storage.	SC-20, SC-31, SC-33

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
		Pesticide and Fertilizer Management	
19	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be applied in strict accordance with manufacturer's label, as authorized by U.S. Environmental Protection Agency. Chemicals shall be stored safely in covered and contained areas. See BMPs 18 and 19 for additional details regarding storage. Waste products shall be disposed of in accordance with the manufacturer's label and applicable hazardous waste regulations. The use of integrated pest management (IPM) principles is encouraged to reduce or eliminate use of chemicals. For more information about integrated pest management, see the University of California Statewide IPM Program at http://www.ipm.ucdavis.edu.	SC-35, SC-41, BG-40
		Outdoor Work Areas	
20	Implement controls to minimize pollution from exposed outdoor work areas.	Activities that may generate pollutants shall be conducted in covered, contained areas, or equivalent measures taken to prevent the discharge of associated pollutants. In order to avoid contaminating stormwater runoff, the following precautions shall be taken as appropriate: (1) move activities indoors;(2) cover areas where outdoor activities are performed, including building canopies; (3) protect areas where outdoor activities are performed from runoff from upstream areas, including building berms; (4) prevent spills or by-products from escaping contained areas; (5) do not conduct outdoor activities that may generate pollutants when it is raining; (6) protect storm drain inlets and ensure adequate spill response materials are readily available; and, (7) thoroughly clean outdoor work areas at least daily to remove accumulated sediment, debris, oil and grease, particulate matter, and other pollutants. Structural treatment devices shall also be installed to remove pollutants from contaminated runoff if source control BMPs are not effective.	SC-20, SC-30, SC-32, SC-34, SC-42
		Spill Prevention and Response	
21	Prevent or capture liquid leaks from vehicles or equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks of oil and other fluids from vehicles awaiting maintenance and during maintenance activities. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-11, SC-22
22	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the storm drain system. Dry cleaning methods such as the use of rags and absorbents are preferred cleaning methods. Spills that enter a storm drain and cannot be fully recovered shall be reported promptly to the City's Stormwater Hotline at (619) 825-3820.	SC-11

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
23	Maintain a readily accessible spill cleanup kit that is appropriate for the type of materials stored onsite.	Materials and equipment appropriate for the type and quantity of potential spills shall be kept onsite and with any mobile activities as a spill cleanup kit. Keep cleanup materials in close proximity to locations where spills may occur, with instructions for use clearly displayed.	SC-11, SC-22
24	Drain fluids from inoperable vehicles and store or dispose of appropriately.	Oil, antifreeze, and other fluids shall be drained from inoperable vehicles intended for recycling or long-term storage that are stored outside. Drained fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-22
25	Temporarily protect storm drains from non-stormwater discharges while conducting activities that have the potential to result in a discharge.	If activities conducted cannot be fully contained or minor failures in containment would potentially result in discharges of non-stormwater to the storm drain system, temporary measures shall be used to protect storm drains. Any activity-related materials that enter the storm drain system shall be removed promptly and disposed of appropriately (in accordance with other minimum BMPs).	SC-10, SC-44
		Waste Management	
26	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	Stored waste shall be protected from contact with stormwater and non-stormwater. Disposal areas for trash and other wastes shall be cleaned as frequently as necessary to keep these areas free of loose trash, litter, debris, liquids, powders, and sediment. Liquid waste, hazardous waste, medical waste, universal waste, and other items prohibited by current regulations shall not be placed in solid waste dumpsters. Dry cleaning methods such as sweeping are preferred. If wet cleaning methods are used, all wash water must be contained, captured, and disposed of appropriately. See BMP 3 for information on appropriate wet cleaning practices.	SC-34, SC-41
27	Protect waste storage areas from contact with stormwater and non-stormwater flows onto the property.	Stored trash and other wastes shall be protected from contact with stormwater and non-stormwater flows. Trash and other wastes shall be contained to prevent transport of trash off site, and to keep surrounding areas and on site storm drains free of trash and other wastes.	SC-34

Table 2. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
28	Cooking oil waste shall be managed to prevent illegal discharges.	Waste containers for oils, grease, fats, or tallow shall be kept indoors where feasible. Where not feasible, the waste containers shall be kept in a covered, contained area to prevent waste transport in runoff.	SC-34, BG-30
29	Properly store and dispose of green waste.	Green waste shall be properly stored and disposed of such that it will not be transported to the storm drain system by stormwater or non-stormwater runoff.	SC-34, BG-40
30	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	Animals and animal waste shall be managed and stored in a manner that prevents animal waste and wash water from entering the storm drain system. Collect and dispose of animal waste to the trash or the sanitary sewer, as appropriate.	SC-34, BG-10

2.4 Residential

Table 3 below presents the minimum required BMPs for residential sites and sources. BMP categories include Discharge Control, Erosion and Sediment Control, Good Housekeeping, Material Storage and Handling, Pesticide and Fertilizer Management, Spill Prevention and Response, and Waste Management.

Table 3. Minimum BMPs for Residential Sites/Sources[9]

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]
		Discharge Control	
1	Eliminate illegal connections to the storm drain system.	Illegal connections are man-made physical connections to the storm drain system that convey an illegal discharge. Find and abate all illegal connections to the storm drain system through properly approved procedures, permits, and protocols.	SC-10, SC-44
2	Eliminate illegal non-stormwater discharges.	Non-stormwater (water other than rain) shall not be discharged to the City's storm drain system. To eliminate illegal discharges, do not allow any solid or liquid material except uncontaminated stormwater to enter City storm drains, curb gutters along city streets, or any other part of the City of Lemon Grove's (City) storm drain system.	SC-10, SC-11, SC-44
3	Properly dispose of wash water.	All process water and wash water shall be contained, captured, and reused, or properly disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces.	SC-10, SC-41[11]

[9] To the extent practicable, the City's established minimum BMPs for industrial, commercial, municipal sites/sources shall also be implemented for any industrial/commercial type of activities conducted at a residence where appropriate.

[10] BMP factsheet references are for the CASQA industrial and commercial handbook, which is the newest CASQA handbook covering these types of BMPs as of this writing.

[11] Factsheet SC-41 - Building & Grounds Maintenance, states (in regards to pressure washing), "If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff." Non-stormwater discharges of this nature, even if filtered, are not allowed to enter the storm drain system. Wash water must be contained, collected, and disposed of properly.

Table 3. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]
4	Properly dispose of vehicle and equipment wash water.	Wash water from individual residential vehicle washing shall be directed to landscaped areas or other pervious surfaces, where feasible. Minimizing use of water, detergents, and other vehicle wash products is encouraged. Non-commercial car washes, such as fundraisers and other similar activities, are not considered individual residential vehicle washing. Discharges to the storm drain system from these activities are prohibited.	SC-10, SC-21
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges containing corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer system, not the storm drain system. Fire sprinkler system discharges without corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer, if practicable. When not practicable to discharge to the sanitary sewer system due to the presence of prohibited contaminants, the water shall be collected and disposed of by an appropriately certified party. When not practicable to discharge to the sanitary sewer system for reasons other than the presence of prohibited contaminants, the water shall not be discharged unless adequate precautions have been taken to prevent the transport of pollutants to the storm drain system.	SC-10, SC-41
6	Eliminate irrigation runoff.	Irrigation runoff to the storm drain system shall be eliminated through proper landscape maintenance and watering practices. All irrigation water and associated pollutants from nurseries, garden centers, and similar facilities shall be prevented from reaching City storm drains, curb gutters along City streets, or any other part of the City's storm drain system.	SC-10[12], SC-41
7	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, and filter backwash.	Swimming pool, spa, fountain, reflective pool, pond, and filter backwash water shall be properly disposed of to prevent pollutants from entering the storm drain system. Discharges from swimming pools and spas to the storm drain system are allowed only if the water is dechlorinated, has a pH level in the 7-8 range, is within ambient temperature, has no algae or suspended solids, and is not saline. Other discharges, such as from filter backwash, fountains, reflective pools, ponds, saline swimming pools, or other sources, are prohibited from entering the storm drain system.	SC-10
8	Control air conditioning condensation discharges.	Air conditioning condensation shall be directed to landscaped areas or other pervious surfaces, or to the sanitary sewer, where feasible.	SC-10, SC-42

[12] Factsheet SC-10 – Non-Stormwater Discharges states that "landscape irrigation drainage and landscape watering" may be discharged to the storm drain with conditions; however, in accordance with the Municipal Permit and the City's Stormwater Ordinance, no irrigation runoff may be discharged to the City's storm drain system.

Table 3. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]
9	Eliminate pumped groundwater, foundation, and footing drain discharges.	Pumped groundwater, including water from crawl space pumps is prohibited unless a separate National Pollutant Discharge Elimination System (NPDES) permit has been obtained to cover the discharge, or the Regional Water Quality Control Board, San Diego region (RWQCB) has determined in writing that no permit is needed. Discharges from foundation and footing drains that are at or below the groundwater table are also prohibited, unless covered by an NPDES permit, or the RWQCB has determined in writing that no permit is needed.	SC-10
10	Regularly clean and maintain structural BMPs, including LID installations, to ensure proper performance.	BMPs implemented, including Low Impact Development (LID) and other structural BMPs, must be inspected as often as necessary to ensure they perform as intended and properly operated and maintained. All installed LID or structural BMPs shall be inspected at a minimum of once annually for proper function and maintained to confirm the BMP is serving the purpose for which it was intended. BMPs must also be maintained in accordance with recorded maintenance agreements where applicable.	SC-44
Erosion and Sediment Control			
11	Protect unpaved areas, including landscaping, from erosion using vegetative or physical stabilization.	Exposed soils that are actively eroding or prone to erosion due to disturbance shall be protected from erosion. Significant accumulations of eroded soil shall be removed or contained to prevent sediment transport in runoff to the storm drain system.	SC-40, SC-42
Good Housekeeping			
12	Regularly clean parking areas.	Paved parking lots, private roads, and driveways located on the property shall be cleaned as needed to prevent pollutants from entering the City's storm drain system, including the curb and gutter. Sweeping is the preferred method of cleaning. Wet cleaning methods, such as mopping or power washing, may be substituted for sweeping if all wash water is contained, captured, and disposed of appropriately.	SC-41, SC-43
13	Implement good housekeeping to keep site free of trash and debris.	Outdoor areas shall be cleaned as needed to keep them free of accumulations of trash, sediment, litter, and other debris.	SC-41

Table 3. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]
14	Keep storm drain inlets free of sediment, trash, and debris.	Accumulated materials shall be removed from on-site storm drains as needed to keep them free of trash, sediment, litter, and other debris.	SC-44
Material Storage and Handling			
Pesticide and Fertilizer Management			
15	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be applied in strict accordance with manufacturer's label, as authorized by U.S. Environmental Protection Agency. Chemicals shall be stored safely in covered and contained areas. Waste products shall be disposed of in accordance with the manufacturer's label and applicable hazardous waste regulations. The use of integrated pest management (IPM) principles is encouraged to reduce or eliminate use of chemicals. For more information about integrated pest management, see the University of California Statewide IPM Program at http://www.ipm.ucdavis.edu.	SC-35, SC-41
Spill Prevention and Response			
16	Prevent or capture liquid leaks from vehicles or equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks of oil and other fluids from vehicles awaiting maintenance and during maintenance activities. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-11, SC-22
17	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the storm drain system. Dry cleaning methods such as the use of rags and absorbents are preferred cleaning methods. Spills that enter a storm drain and cannot be fully recovered shall be reported promptly to the City's Stormwater Hotline at (619) 825-3820.	SC-11
18	Drain fluids from inoperable vehicles and store or dispose of appropriately.	Oil, antifreeze, and other fluids shall be drained from inoperable vehicles intended for recycling or long-term storage that are stored outside. Drained fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-22

Table 3. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]
		Waste Management	
19	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	Stored waste shall be protected from contact with stormwater and non-stormwater. Disposal areas for trash and other wastes shall be cleaned as frequently as necessary to keep these areas free of loose trash, litter, debris, liquids, powders, and sediment. Liquid waste, hazardous waste, medical waste, universal waste, and other items prohibited by current regulations shall not be placed in solid waste dumpsters. Dry cleaning methods such as sweeping are preferred. If wet cleaning methods are used, all wash water must be contained, captured, and disposed of appropriately. See BMP 3 for information on appropriate wet cleaning practices.	SC-34, SC-41
20	Protect waste storage areas from contact with stormwater and non-stormwater flows on to the property.	Stored trash and other wastes shall be protected from contact with stormwater and non-stormwater flows. Trash and other wastes shall be contained to prevent transport of trash off site, and to keep surrounding areas and on site storm drains free of trash and other wastes.	SC-34
21	Properly store and dispose of green waste.	Green waste shall be properly stored and disposed of such that it will not be transported to the storm drain system by stormwater or non-stormwater runoff.	SC-34
22	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	Animals and animal waste shall be managed and stored in a manner that prevents animal waste and wash water from entering the storm drain system. Collect and dispose of animal waste to the trash or the sanitary sewer, as appropriate.	SC-34

3 Enforcement Response Plan

The City of Lemon Grove (City) enforces compliance with the requirements of its Stormwater Ordinance (LGMC Chapter 8.48) and the requirements of its Excavation and Grading Ordinance (LGMC Chapter 18.08), including the BMP requirements in Section 2 of this document. In accordance with Section E.6 of the Municipal Permit, compliance with the City's stormwater requirements will be assessed through a variety of means, including, but not limited to, inspections, responses to hotline calls, and the routine municipal separate storm sewer system (MS4) outfall monitoring. Where violations are observed, the enforcement actions and procedures described in this section will be employed to enforce the requirements.

The City typically employs a tiered, escalating enforcement system. However, the City reserves the right to use whatever tools the enforcement official deems most appropriate for a given situation, as dictated by the specifics of each case.

Enforcement actions, including escalated enforcement actions, are described in the following sections. It should be noted that experience and professional judgment of City staff are important in guiding the appropriate response to a violation. Escalated enforcement actions will continue to increase in severity, as necessary, to compel compliance as soon as possible.

3.1 Administrative Enforcement Actions

The various administrative enforcement measures employed by the City are discussed below.

3.1.1 Written and Verbal Warnings (LGMC §§ 8.48.110.A.2-3)

A written or verbal warning is typically the City's first level of enforcement action when a violation of the City's Stormwater Ordinance is observed. Written warnings can be given using a variety of methods including cease and desist orders, notices of correction, inspection reports, notices of violation (NOV), and orders to clean, test, or abate.

Notice and orders to clean, test, or abate may be issued to perform any act required by the City's Municipal Code. When written warnings are issued, the violation is noted, a time frame to correct the violation is given, and a follow-up date is scheduled. City inspectors follow-up with violations as necessary to determine whether or not compliance has been achieved.

3.1.2 Administrative Citations and Fines (LGMC Chapter 1.24)

The City's authorized enforcement staff may issue administrative citations for violations of the City's Municipal Code. Maximum citation amounts are defined in LMGC § 1.24.030.D and depend on the number of previous violations by the same responsible party that have taken place within the last 18 months, as follows:

- First violation: $100
- Second violation: $200
- Third violation: $500
- Additional violations: $1,000

Per LMGC § 1.24.030.B, every day that a violation of the Municipal Code exists is considered a separate, distinct violation. Therefore, "a separate citation may be issued for each day that a

violation occurs" (LMGC § 1.24.030.B). This means that, for example, a violation left unresolved for three days may be considered three separate, distinct violations, and citation amounts may be escalated accordingly.

To be considered an additional violation beyond the first violation, the infraction needs to relate to the same ordinance, term, or condition and result in citing the same responsible party. Subsequent violations do not, however, have to occur at the same physical location, involve the same personnel, or be for exactly the same reason to be considered additional violations beyond the first violation(LMGC § 1.24.030.E). For example, if a contractor violates erosion control BMP requirements, and then later on violates sediment control BMP requirements, the sediment control BMP requirements violation may be considered a second violation as long as it is within 18 months of the first (erosion control) violation.

When an administrative citation is issued, the responsible party may request a hearing to contest the enforcement official's determination that a violation of the City's stormwater requirements has occurred. Details on the City's hearing and appeals process can be found in LGMC Chapter 1.24.

3.1.3 Public Nuisance Abatement (LGMC § 8.48.110.A.4)

Violations of LGMC Chapter 8.48 are considered a public nuisance. If actions required to resolve noncompliance with LGMC Chapter 8.48 are not taken, the authorized enforcement official may abate the nuisance pursuant to LGMC Chapter 1.14. City costs for pollution detection and abatement, such as BMP implementation, may be recovered from the discharger in addition to any other penalties. City costs for pollution detection and abatement, if not paid in full by the discharger in addition to any other penalties, may be made a lien against the property in accordance with the abatement procedure (LGMC § 8.48.A.4). Costs for pollution detection and abatement may be recovered from the discharger in addition to any other penalties.

3.1.4 Stop Work Order (LGMC § 8.48.110.A.5, LGMC § 18.08.820)

Whenever any work is being done contrary to the City's Municipal Code, or other laws or ordinances, an authorized enforcement official, as defined in LGMC § 8.48.020, may order the work stopped by notice in writing to any person engaged in doing or causing such work to be done. Any person receiving a Stop Work Order is required to immediately stop such work until approved by the authorized enforcement official or authorized enforcement staff to proceed with the work.

For enforcement of required BMPs at construction or industrial/commercial sites, the City can issue a Stop Work Order. Stop Work Orders are typically given if written warnings have been issued and the violation has not been corrected, or if an observed violation poses a significant threat to water quality. Stop Work Orders prohibit further activity until the problem is resolved. The Stop Work Order will describe the infraction and specify what corrective action must be taken. A copy of the Stop Work Order will be given to the owner or contractor and placed in the site's active inspection file. To restart work once a Stop Work Order has been issued, the responsible party must request that a City inspector re-inspect the site to verify that

the deficiencies have been satisfactorily corrected. Once the inspector verifies that the appropriate corrections have been implemented, activities may resume.

3.1.5 Required Bonds or Securities

The authorized enforcement official may require a bond or other security to be posted in the following circumstances:

- When necessary to assure a violation is corrected (LGMC § 8.48.110.A.2)
- When necessary to assure the maintenance of a BMP (LGMC § 8.48.090.I)

The authorized enforcement official determines the amount of the bond or security required.

3.1.6 Permit Suspension or Revocation

Where compliance with the City's stormwater requirements is a condition of a City-issued permit or other license, violations of the stormwater requirements may be grounds for permit and/or other city license suspension or revocation. For instance, in severe cases of noncompliance, or significant discharges relating to development and/or construction activities, the City may revoke the building or grading permits that a contractor is working under for the project or deny future permits on the project. The responsible party will then need to re-apply for permits and meet the requirements the City may have placed on the project before resuming the project.

3.1.7 Enforcement of Contracts

If a contractor is performing work for the City, then the City may use the provisions within the contract for enforcement of noncompliance. Such contract provisions may allow the City to refuse payment, stop work (without time penalties), and/or revoke contracts if contractors performing activities do not comply with all appropriate permits, laws, regulations, and ordinances.

3.2 Judicial Enforcement Actions

In addition to administrative enforcement procedures, the City also may take the judicial enforcement actions described below.

3.2.1 Civil or Criminal Penalties and Remedies (LGMC § 8.48.110.B.1)

The City Attorney is authorized to file criminal and civil actions and to seek civil penalties and/or other remedies to enforce LGMC Chapter 8.48. There is no requirement that administrative enforcement procedures be pursued before such actions are filed.

3.2.2 Injunctive Relief (LGMC § 8.48.110.B.2)

The City may pursue enforcement by judicial action for preliminary or permanent injunctive relief for any violation of LGMC Chapter 8.48.

3.2.3 Arrest or Issue Citations (LGMC § 8.48.110.B.3)

Violators may be arrested, with the assistance of a peace officer, pursuant to the provisions of the California Penal Code. Violators may also be issued a citation and notice to appear as prescribed in the California Penal Code. The City is not required to take administrative enforcement actions before taking either of these steps.

3.3 Enforcement Documentation

During each investigation, all observed noncompliance activity is documented. The following information is recorded for use in administrative and judicial enforcement actions, where applicable:

- Chronology of events
- Case summary
- Time and expense log
- Inspection reports
- Complaints
- Phone conversation records
- Correspondence
- Maps and diagrams
- Photographs
- Witness list
- Explanation of the violations
- Request-to-file form
- Field notes
- Emergency incident reports
- Lab results
- Chain-of-custody for samples
- Permit applications
- Sampling plans
- Other supporting documents
- Reports from regulatory agencies

3.4 Municipal Enforcement

During routine municipal facility inspections, City or contract staff will assess facility areas and activities to ensure all are maintained in accordance with City regulations, ordinances, and BMP requirements. If BMPs are found to be deficient or otherwise ineffective, the responsible party or department will be provided with required corrective actions. If the responsible City staff member or department/division does not perform the necessary corrective actions in response to the inspection findings, escalated enforcement action will be taken by involving higher ranking representatives within the responsible department or division, who may enact internal disciplinary procedures, until the deficiencies are resolved.

If the inspector notes that specific areas of a leased facility require additional BMPs, the City can require the implementation of BMPs in addition to the required minimum for the specific area/activity. If a leased facility continues to be out of compliance, the City may choose to discontinue the lease, which would remove the tenant from that particular site. Discontinuing a lease is considered an escalated enforcement action.

As required by the Municipal Permit, City staff will seek to resolve incidents of observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

3.5 Industrial and Commercial Enforcement

The City ensures that pollution prevention methods and BMPs are implemented by enforcing its ordinance. City inspectors and staff members properly document each observed violation at facilities failing to comply with stormwater requirements, and enforcement action is taken where necessary to bring about compliance.

Depending on the nature and severity of the violation, enforcement may consist of any of the actions listed in Sections 3.1 or 3.2. Typical enforcement actions are listed below; escalated enforcement actions are marked with an asterisk (*):

- Verbal warnings
- Written warnings
- Administrative citations*
- Public nuisance abatement*
- Revocation of permits or licenses*

Inspectors seek to resolve noncompliance promptly and establish appropriate compliance time frames on a case-by-case basis. Escalated enforcement measures are used as needed to ensure compliance. Note that the City maintains the authority to require facilities to prepare Storm Water Pollution Prevention Plans or to conduct sampling and analysis where deemed necessary by the City.

If the City inspector observes a significant and/or immediate threat to water quality, action will be taken to require the facility owner and/or operator to immediately cease and correct the discharge or activity. Conditions that would warrant such action may include observations of runoff from the industrial site that are not reasonably controlled by the protective measures or observation of a failure in BMPs resulting in or potentially resulting in a release of pollutants to a degree that may substantially degrade water quality. Discharges related to noncompliance deemed to pose a threat to health or the environment will be reported to the RWQCB orally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Section 3.4.5 of the City's JRMP document provides more information on reporting requirements.

Events of noncompliance are evaluated according to the following criteria to determine whether the events pose a threat to human or environmental health:

- The event of noncompliance resulted in a spill or discharge of hazardous materials, pollutants, or runoff containing pollutants that had an effect on a receiving water body.

- The quantity and/or concentration of the pollutants in the spill or discharge affecting the receiving water was such that it may cause or contribute to an exceedance in water quality objectives as specified in the San Diego Basin Plan.

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

3.5.1 Mobile Business Enforcement

Most violations associated with mobile businesses are anticipated to be related to illegal discharges. The City's enforcement approach to such discharges will require the discharge to be stopped and the area cleaned of discharged materials when applicable and feasible. Education may also be provided to operators who are not aware of the City's stormwater requirements. Businesses that do not possess the materials necessary to implement the required BMPs will likely be required to demonstrate to the City that they have obtained such materials and can properly use them before the City allows such businesses to resume operations in the City. Mobile businesses that do not have City business licenses will be required to obtain them. Discharges related to noncompliance deemed to pose a threat to health or the environment will be reported to the RWQCB orally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Section 3.4.5 of the City's JRMP document provides more information on reporting requirements.

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

3.6 Residential Enforcement

The following mechanisms will be used by the City to determine areas where enforcement actions may be necessary, where appropriate:

- Public reporting hotline
- Analysis of field screening and analytical monitoring results
- Observations from City personnel

During investigations of incidents reported to the hotline, or discovered during routine MS4 outfall monitoring, that are associated with a residential source, City staff will address issues of stormwater concern where feasible, and provide education where appropriate. Voluntary compliance and escalating enforcement mechanisms are implemented to immediately eliminate an illegal connection and illegal discharge IC/ID once the source has been identified. Violations to the City's Municipal Code will be investigated by City personnel with enforcement authority. Violations are documented and depending on the nature and severity of the violation, enforcement may consist of any of the enforcement measures described in sections 3.1 and 3.2.

There are two methods of discovering residential activities contributing to urban runoff. One is through complaint/referral process. Complaints may be received through direct contact with City or contract staff or through calls to the City's Stormwater hotline. The other route is through observations made by City staff during residential area inspections, during scheduled MS4 outfall monitoring, and during routine City activities such as MS4 maintenance. Additional, focused investigations of areas upstream of outfalls with obvious pollutants present during the Dry Weather MS4 Outfall Monitoring Program and complaint response investigations provide further information about potential problem areas. The City believes that the combination of monitoring, public reporting, direct observations by City staff that are routinely in the field, and targeted additional investigations where necessary provide sufficient oversight of residential areas and activities.

During investigations of incidents reported to the hotline or discovered during monitoring, the City will continue to use the opportunity to address any other issues of concern, and provides educational materials where appropriate. Voluntary compliance and escalating enforcement mechanisms are implemented to immediately eliminate an IC/ID once the source has been identified. Further details of enforcement mechanisms pertaining to IC/IDs can be found in Section 3.9 of this document.

Follow-up inspections conducted as a result of residential BMP deficiencies will be performed. Violations will continue to be investigated by City personnel with enforcement authority within a reasonable timeframe. Depending on the nature and severity of the violation, enforcement may consist of any of the actions listed in Sections 3.1 or 3.2. Typical enforcement actions are listed below; escalated enforcement actions are marked with an asterisk (*):

- Verbal warnings
- Written warnings
- Administrative citations*
- Public nuisance abatement*

Discharges related to noncompliance deemed to pose a threat to health or the environment will be reported to the RWQCB orally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Section 3.4.5 of the City's JRMP document provides more information on reporting requirements.

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

3.7 Development Planning Enforcement

The City will use a variety of enforcement methods to ensure stormwater requirements for all development projects within the City's jurisdiction are implemented. Enforcement measures will escalate with continued violations as necessary. The City's current plan check process includes steps to enforce the implementation of development requirements during construction.

Since all structural BMPs are required to be shown on the project's plans, inspectors check to make sure these BMPs have been correctly installed during their routine inspections. If any mistakes in BMP installation are noted during plan checks, the City requires the project to promptly correct these errors until BMP installation is consistent with the specification on the project's approved plans.

Once a project has been completed, ongoing operation and maintenance is verified through inspections or through review of submitted maintenance verification certifications. If a project is found not to be maintaining BMPs as required, depending on the nature and severity of the violation, enforcement may consist of any of the actions listed in Sections 3.1 or 3.2. Typical enforcement actions are listed below; escalated enforcement actions are marked with an asterisk (*):

- Verbal warnings
- Written warnings
- Administrative citations*
- Public nuisance abatement, which may include placing a lien against the property*

If an inspector finds maintenance deficiencies with any structural BMPs at a completed project, he or she first attempts to explain the deficiencies and necessary corrective actions to the responsible party, if the responsible party is present. If the responsible party performs all necessary corrective actions promptly in response to the verbal explanation from the inspector, the case is closed, and the resolution is documented. Otherwise, a written notice is issued to the responsible party. The notice indicates the type and location of each BMP and describes the deficiencies observed by the inspector as well as the required corrective actions. Responsible parties are required to perform the corrective actions and demonstrate that all necessary maintenance activities were completed through a re-inspection with the City inspector or through providing photographs of corrections. The inspector may also request additional documentation or perform a re-inspection at their discretion.

The maintenance condition of structural BMPs are determined through an annual self-certification program where the City requires reports from authorized parties demonstrating proper maintenance and operation of BMPs. If the responsible party fails to provide the annual report, the City will issue a written notice requiring the responsible party to provide the report within a given timeframe.

If a responsible party fails to sufficiently respond to a notice from the City by the response deadline, the inspector may issue a written warning. If the responsible party still fails to perform the necessary corrective actions, the inspector may issue an administrative citation.

Follow-up inspections conducted as a result of structural or treatment control BMP deficiencies will be performed. All enforcement actions will be documented appropriately in the development project's database file. If a development site receives frequent citations or is not responsive to previously issued enforcement actions, more severe actions, such as court actions, will be used as necessary.

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept in the project's file.

3.8 Construction Management Enforcement

The City is responsible for enforcement of applicable local ordinances and permits at all construction sites in its jurisdiction. When violations are observed and documented during a site inspection, the City will implement appropriate enforcement measures based on the severity of the violation. Enforcement can range from written warnings to more severe enforcement such as Stop Work Orders. Stronger enforcement measures will be used as necessary if proper corrective actions are not implemented during the allotted time frame or if the severity of the violation warrants stricter enforcement.

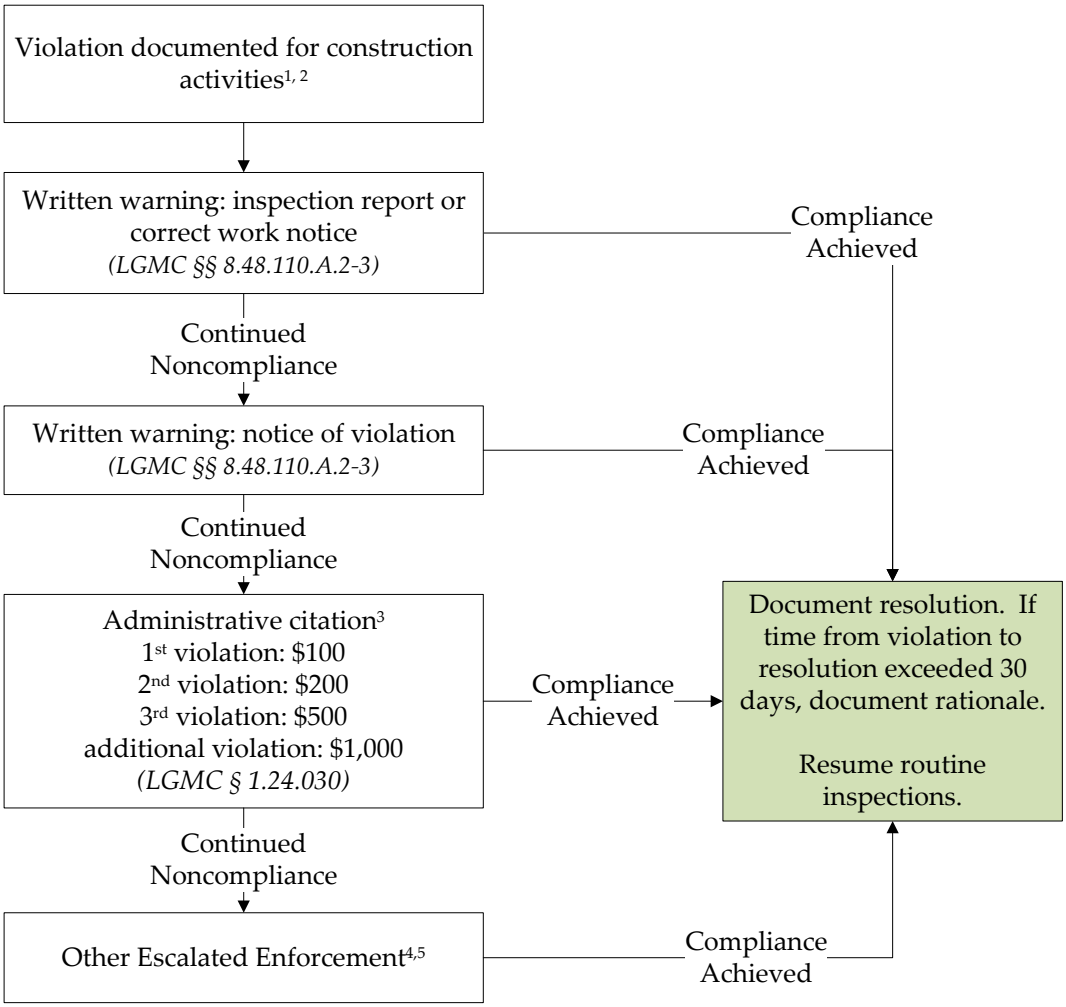
The typical progressive enforcement steps that the City will implement include the following; actions considered escalated enforcement are marked with an asterisk (*):

- Written warnings, including inspection reports, correct work notices, and NOVs
- Enforcement of contracts (City projects)
- First administrative citation ($100)
- Additional administrative citations ($200 to $1000)
- Stop Work Orders*
- BMP implementation by City-hired contractor, with cost reimbursement to the City*
- Revocation of permits*
- Civil and/or criminal court action*

Escalated enforcement actions will be reported to the RWQCB within five (5) days, as required by the Municipal Permit.

The City works closely with development projects prior to the commencement of construction activities. All construction sites are expected to be aware of the City's BMP requirements. Accordingly, a written warning will typically be the first enforcement step, and additional enforcement actions will be taken if that is not sufficient to achieve compliance. Figure 1 illustrates the typical enforcement process for a private project. The City seeks to resolve violations as quickly as possible, including prior to rain events where feasible. In cases of significant or repeated noncompliance, the City may hire an outside contractor to implement required BMPs at a construction site. The City will require cost recovery from the responsible party (private projects) or contractor (City projects) for the costs of BMP implementation in this scenario. In cases where a violation cannot be resolved within 30 days, the reason additional time was needed for case resolution will be documented and kept in the project's file, as required by the Municipal Permit.

Figure 1. Typical Enforcement Process for Private Construction Projects



Notes
1. An administrative citation may be issued directly, without taking other enforcement actions shown in this figure first, for illicit discharges or illicit connections.
2. The City reserves the right to issue higher level enforcement actions without first taking lower level enforcement actions where necessary to reduce the discharge of pollutants to its storm drain system to the maximum extent practicable.
3. All violations within the last 18 months may considered in determining the applicable citation amount. Each day that a violation exists may be considered a separate and distinct violation. (LGMC § 1.24.030).
4. Additional escalated enforcement will be taken if necessary to achieve compliance. One example of escalated enforcement is Stop Work Orders (LGMC § 8.48.110.A.5, LGMC § 18.08.820). An administrative citation may be issued concurrently with a Stop Work Order if deemed necessary by the City.
5. The City may hire a contractor to implement required BMPs. Responsible party required to reimburse City for costs. (LGMC § 8.48.110.A.4).

Revocation of permits and civil or criminal court actions are rarely used tools and therefore are not shown in Figure 1, but the City does reserve the right to use those enforcement tools where necessary. The enforcement process for a City project is similar to the private project enforcement process, except that, in addition to the enforcement measures shown in Figure 1, the City may also use enforcement of for its own projects.

When a site is subject to the Construction General Permit (CGP), City staff may also collaborate with RWQCB staff on enforcement actions. The City will notify the RWQCB in writing within five calendar days of issuing escalated enforcement to a construction site that poses a significant threat to water quality as a result of violations of other noncompliance. Written notification may be provided to the appropriate RWQCB staff member by email. The City will also notify the RWQCB of any construction sites required to obtain coverage under the CGP that, to the City's knowledge, have not filed NOIs, within five calendar days from the time the City became aware of the circumstances. At minimum, the construction project location and name of owner or operator will be provided to the RWQCB. Written notification may be provided electronically by email to RB9_Nonfilers@waterboards.ca.gov.

Any noncompliance that may endanger health or the environmental will be reported to the RWQCB orally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Criteria listed below will be used in addition to the criteria listed in Section 3.4.5 of the City's JRMP to determine the threats to health or the environment associated with a noncompliance event, whether from stormwater or non-stormwater discharges, where applicable:

- Estimated area of erosion caused by discharge
- Total suspended solids concentration and turbidity of discharge
- Other materials discharged that pose a threat (concrete washout, sanitary washes, etc.)

3.9 Illicit Discharge Detection and Elimination Enforcement

The City implements and enforces its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4. If the City identifies the source as a controllable source of non-stormwater or as an IC/ID, the administrative and judicial enforcement measures previously listed will be used, as necessary, to eliminate IC/IDs.

If a complaint is received that indicates an IC/ID, City staff will conduct a field investigation for complaints with details suggesting an actual or potential discharge to the MS4 or receiving water body. If investigators find evidence of a violation with the potential to release pollutants or an actual IC/ID, every effort is made to find the responsible party and inform them of the complaint or issue a written warning. Parties found to be responsible for a violation or IC/ID are required to clean up or remove pollutants to the maximum extent practicable (MEP). Any refusal by the responsible party to perform clean up of a violation or discharge will be handled by Code Enforcement staff and appropriate enforcement actions will be taken.

The nature of the City's enforcement approach is determined on a case-by-case basis and is based on factors such as the severity of the violation, the threat to human or environmental

health, site-specific circumstances, and past compliance history. If the situation is determined to pose an immediate risk to public health or the environment, the City may coordinate with other agencies or teams that are specially trained to assess and mitigate emergency situations as necessary (e.g., those involving hazardous wastes/materials, etc.). The discharge is also reported to the RWQCB as required by the Municipal Permit.

Any noncompliance that may endanger health or the environmental will be reported to the RWQCB orally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Criteria listed below will be used to determine the threats to health or the environment associated with a noncompliance event, whether from stormwater or non-stormwater discharges, where applicable:

- Estimated pollutant load discharged from site
- Estimated volume of discharge
- Types of pollutants discharged, including if toxic materials were discharged
- Sensitivity of the receiving water body, including if it is 303(d) listed for any of the pollutants in the discharge
- Proximity of site to sensitive habitat/endangered species
- Proximity of site to public water supply (well head, monitoring wells)
- Quantity, if any of the discharge reached the receiving water body
- Beneficial uses for affected water bodies

Additionally, water observed at major MS4 outfalls and traced to an anthropogenic source(s) is considered an illegal discharge. If the anthropogenic source(s) is/are found to be from a(n) industrial/commercial site, an inspection of the industrial/commercial facility will be performed in a timely manner to investigate the discharge. The inspection report will include a note describing that the inspection was prompted due to recent IC/ID discovery associated with MS4 outfall monitoring.

If the anthropogenic source is found to be from a residential area, the City's field crew will leave educational materials and/or a written notification informing the responsible party of the illegal discharge and their responsibility to eliminate it. Follow-up inspections will be conducted as necessary to ensure the discharge has been eliminated.

If the anthropogenic source is traced a municipal source, further investigation will be completed to identify actions needed to eliminate the source.

Any IC/ID observed to have potential to immediately impact human health or the environment will be immediately reported to Code Enforcement staff and the Fire Department, if necessary, and all associated enforcement action(s) will be handled by Code Enforcement staff.

As required by the Municipal Permit, City staff will seek to resolve incidents of observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

Appendix C

Summary of City of Lemon Grove Water Quality Improvement Plan Strategies

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Appendix C. Water Quality Improvement Plan Strategies

SD Bay WQIP ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Development Planning									
All Development Projects									
LG-1	For all development projects, administer a program to ensure implementation of source control BMPs to minimize pollutant generation at each project and implement LID BMPs to maintain or restore hydrology of the area, where applicable and feasible.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
LG-2	Amend municipal code and ordinances, including zoning ordinances, to facilitate and encourage LID opportunities.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
LG-3	Develop and distribute brochure to encourage downspout disconnection in residential areas.	Lemon Grove will distribute informational brochures.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	City Manager's Office	10
LG-4	Require downspout connection and/or other runoff reduction measures, where feasible, for non-Priority Projects.	This is required through the building permitting process.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning	4
LG-5	Trash area standards for new development and redevelopment: require full four-sided enclosure, siting away from storm drains, and structural overhead cover.	The City is required to do this through the permitting process for new development and redevelopment.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning	4
LG-6	Train staff on LID regulatory changes and LID Design Manual.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
Priority Development Projects (PDPs)									
LG-7	For PDPs, administer a program requiring implementation of structural BMPs to control pollutants and manage hydromodification. Includes confirmation of design, construction, and maintenance of PDP structural BMPs.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
	1. Administer self-certification program for treatment control BMP compliance.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	4
LG-8	Update BMP Design Manual procedures to determine nature and extent of storm water requirements applicable to development projects and to identify conditions of concern for selecting, designing, and maintaining appropriate structural BMPs.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
	1. Amend BMP Design Manual for trash areas. Require full four-sided enclosure, siting away from storm drains and cover. Consider the retrofit requirement.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4

SD Bay WQIP ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
	2. Amend BMP Design Manual for animal-related facilities, such as such as animal shelters, "doggie day care" facilities, veterinary clinics, breeding, boarding and training facilities, groomers, and pet care stores.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
	3. Amend BMP Design Manual for nurseries and garden centers.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
	4. Amend BMP Design Manual for auto-related uses.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning, Engineering	4
Construction Management									
LG-10	Administer a program to oversee implementation of BMPs during the construction phase of land development. Includes inspections at an appropriate frequency and enforcement of requirements.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering	5
Existing Development									
Commercial, Industrial, Municipal, and Residential Facilities and Areas									
LG-11	Administer a program to require implementation of minimum BMPs for existing development (commercial, industrial, municipal, and residential) that are specific to the facility, area types, and PGAs, as appropriate. Includes inspection of existing development at appropriate frequencies and using appropriate methods.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	6, 7, 9
LG-12	Update minimum BMPs for existing residential, commercial, and industrial development.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	BMP Manual
LG-13	Increase inspection frequency for highest pollutant potential businesses.	Additional, more frequent inspections may be targeted only at certain high-threat areas or activities and/or at entire shopping centers.	Chollas Creek HA	Jurisdictional	FY15	Ongoing	Departmental Budget	Storm Water	6
LG-14	Implement Water Efficient Landscape Ordinance.	Lemon Grove will implement through the permitting process for development projects.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Planning	6, 7, 9, 10
LG-15	Analyze and encourage sweeping of private roads and parking lots in targeted area.	The City will gather more information about existing sweeping frequency for larger commercial parking lots and for private roads within HOAs, and provide outreach to larger commercial properties and HOAs.	Chollas Creek HA	Jurisdictional	FY15	Ongoing	Departmental Budget	City Manager's Office	6, 8, 9, 10
LG-17	Analyze and encourage indoor used cooking oil storage for food service establishments.	Lemon Grove will work with grease rendering services to educate businesses on availability and benefits of indoor grease storage containers.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	City Manager's Office	BMP Manual

Appendix C. Water Quality Improvement Plan Strategies

SD Bay WQIP ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
LG-19	Residential shared outdoor trash storage areas: require full four-sided enclosure, siting away from storm drains, and structural overhead cover when triggered by a building permit application.	Lemon Grove will require retrofit of trash areas at existing facilities when a building permit is applied for at the same property.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning	Retrofit & Rehabilitation Program
LG-20	Industrial and commercial outdoor trash storage areas: require full four-sided enclosure, siting away from storm drains, and structural overhead cover when triggered by a building permit application.	Lemon Grove will require retrofit of trash areas at existing facilities when a building permit is applied for at the same property.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning	Retrofit & Rehabilitation Program
LG-22	Work with Regional Board to ensure industrial businesses subject to the Industrial General Permit obtain coverage and implement BMPs to address discharges of pollutants associated with TMDLs.	The City will share inspection results with Regional Board staff and notify of non-filers or potential non-compliance with other IGP requirements, especially requirements specifically related to discharges of Highest Priority Conditions.	Chollas Creek HA	Jurisdictional	FY15	Ongoing	Departmental Budget	Storm Water	6
LG-23	Pet waste control program.	Lemon Grove will provide pet waste bags via dispensers in City parks.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Public Works	9, 10
LG-24	Promote and encourage implementation of designated BMPs at residential areas.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	9
LG-25	Work with water utility (Helix) to publicize incentives for rain barrel installation and turf conversion and/or sprinkler system upgrades (e.g., rain shutoff systems) in residential areas, including multi-family residential.	Lemon Grove will collaborate with Helix Water District.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Storm Water	9
LG-26	Publicize and market any existing outreach and training programs that the water utility (Helix) provides for property managers responsible for homeowner associations (HOAs) and Maintenance Districts. Main focus would be on irrigation runoff reduction.	Lemon Grove will collaborate with Helix Water District.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Storm Water	9, 10
LG-27	Install smart irrigation controllers at City facilities and convert median landscaping to drip irrigation.	The City has installed 7 Cal-Sense irrigation control systems Citywide and continues to make the transition from area sprinklers to drip irrigation along its medians. The City anticipates installing at least one Cal-Sense system more by 2018. The current locations of the systems are Berry Street Park, Lemon Grove Park, Civic Center Park, City Hall, Kunkel Park, Lemon Grove Avenue median (near Mt. Vernon), and Lemon Grove Avenue median (near Broadway).	Targeted City facilities	Jurisdictional	FY18	Ongoing, subject to availability of funds	Departmental Budget	Public Works	7, 8

Appendix C. Water Quality Improvement Plan Strategies

SD Bay WQIP ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
MS4 Infrastructure									
LG-28	Implement operation and maintenance activities (inspection and cleaning) for MS4 and related structures (catch basins, storm drain inlets, detention basins, etc.) for water quality improvement: perform catch basin cleaning.	Lemon Grove will clean catch basins per regular maintenance schedule.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Public Works	8
	1. Proactively repair and replace MS4 components to provide source control from MS4 infrastructure.	Lemon Grove will repair and replace per standard maintenance schedule.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Public Works	8
	2. Clean open-channels and repair scour ponds (local depressions formed by erosion where water ponds).	The City will clean and repair per standard maintenance procedures.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Public Works	8
LG-29	Implement controls to prevent infiltration of sewage into the MS4 from leaking sanitary sewers: identify sewer leaks and areas for sewer pipe replacement prioritization.	The City will repair and replace per standard maintenance schedule and where leaks are identified.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Public Works	3, 8
Roads, Street, and Parking Lots									
LG-30	Enhance street sweeping through alternating mechanical and vacuum sweepers and route optimization (sweep downtown commercial areas once a week, main arterials and business areas once every two weeks, and residential areas once every four weeks).	Sweeping is completed by City contractor (note that only streets with curb and gutter can be swept in the City).	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Public Works	8
LG-31	Sweep medians in downtown commercial areas, main arterials, and business areas.	Sweeping is completed by City contractor	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Public Works	8
Pesticide, Herbicides, and Fertilizer BMP Program									
LG-32	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties. Includes education, permits, and certifications.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	6, 7, 8, 9, BMP Manual
Retrofit and Rehabilitation in Areas of Existing Development									
LG-33	Develop pilot project to identify and carry out directing runoff from existing parking lots or other hardscape to landscaping.	Lemon Grove will complete field work to identify where existing grades would allow parking lots to be directed to landscaping, and the most suitable site(s) will be selected for retrofit.	Targeted City facilities	Jurisdictional	FY16	As feasible retrofit locations are identified and funds are available.	Departmental Budget	Public Works	Retrofit & Rehabilitation Program
LG-34	Develop pilot project to identify and carry out site downspout disconnections for targeted City facilities.	Lemon Grove will complete field work to identify where downspouts exist and could be directed to landscaping. The most suitable site(s) will be selected for retrofit.	Targeted City facilities	Jurisdictional	FY16	As feasible retrofit locations are identified and funds are available.	Departmental Budget	Public Works	Retrofit & Rehabilitation Program

SD Bay WQIP ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
LG-38	Develop and implement a strategy to identify candidate areas of existing development appropriate for retrofitting projects and facilitate the implementation of such projects.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering, Public Works	Retrofit & Rehabilitation Program
LG-39	Develop and implement a strategy to identify candidate areas of existing development for stream, channel, or habitat rehabilitation projects and facilitate implementation of such projects.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering, Public Works	Retrofit & Rehabilitation Program
Illicit Discharge, Detection, and Elimination (IDDE) Program									
LG-40	Implement Illicit Discharge, Detection, and Elimination (IDDE) Program per the JRMP. Requirements include: maintaining an MS4 map, using municipal personnel and contractors to identify and report illicit discharges, maintaining a hotline for public reporting of illicit discharges, monitoring MS4 outfalls, and investigating and addressing any illicit discharges.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	3
Public Education and Participation									
LG-41	Implement a public education and participation program to promote and encourage development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water prioritized by high-risk behaviors, pollutants of concern, and target audiences.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	10
LG-42	Conduct trash cleanups through community-based organizations involving target audiences.	Lemon Grove collaborates with "I Love a Clean San Diego" on trash cleanups. Refer to JRMP for more information.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	10
LG-43	Collaborate with regional education and outreach efforts.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	10
LG-44	Municipal staff training.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	10
Enforcement Response Plan									
LG-45	Implement escalating enforcement responses to compel compliance with statutes, ordinances, permits, contracts, orders, and other requirements for IDDE, development planning, construction management, and existing development in the Enforcement Response Plan.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	BMP Manual
LG-46	Enforce minimum BMPs for existing residential, commercial, and industrial development.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Storm Water	BMP Manual

Appendix C. Water Quality Improvement Plan Strategies

SD Bay WQIP ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Additional Nonstructural Strategies									
LG-47	Participate in regional bacteria reference study.	Refer to regional bacteria study work plan.	Region-wide	Jurisdictional	FY16	Until study completion	Departmental Budget	Storm Water	N/A

Note: optional strategies are not included in the above table; they will be included in the future if the criteria in the WQIP for implementing them are met.

Appendix D

Municipal Inventory

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Appendix D. Municipal Inventory

#	Name	Location	Category/Description	HSA	High Priority	Pollutant Discharge Potential[1]									
						Metals	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding Substances	Bacteria & Viruses	Trash & Debris	Likely Source[2]
					Properties										
1	Berry Street Park	7101 Mount Vernon Street	Recreational Park with Open Field	908.22		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	X
2	City Hall/Sheriff's Station	3232 Main Street/3240 Main Street	Administration and Public Safety and Jail	908.22		PO[3]	PO	PO[3]	PO	PO	PO	PO	PO	PO	
3	City Hall Annex	7853 Olive Street	Administrative Recreational Facility	908.22		UL	PO	UL	PO	PO	PO	PO	PO	PO	
4	Community Center	3146 School Lane	Public Service	909.12		PO[3]	PO	PO[3]	PO	PO	PO	PO	PO	PO	
5	Civic Center Park	7715 Church Street	Recreation, Museum, and Historic Site	908.22		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	X
6	Fire Fighter's Park/Skate Park	School Lane and Central Avenue	Recreational Park, Skate Park and Open Field	909.12		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	X
7	Kunkel Park	8171 Lemon Grove Way	Recreational Park	909.12		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	
8	Lemon Grove Fire Station	7853 Central Avenue	Fire and Safety	909.12		PO	PO	PO	PO[6]	PO[6]	PO[6]	PO	PO	PO	
9	Lemon Grove Little League Fields	Nichols and Glencoe	Recreational Park	909.12		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	X
10	Lemon Grove Park	Washington and Alton	Recreational Park	909.12		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	X
11	Main Street Promenade	North of Main and Broadway	Linear Park and Plaza	908.22		PO[3]	UL	PO[3]	L	L	L	PO	PO	PO	X
12	Public Works Yard	2873 Skyline Drive	Equipment Storage and Maintenance	909.12	X	PO	PO	PO	PO	PO	PO	PO	PO	PO	
13	Recreation Center	3131 School Lane	Recreational Facility	909.12		PO	UL	PO	L	L	L	PO	PO	PO	X
					Infrastructure										
1	Municipal Separate Storm Sewer System (MS4)	Throughout City	MS4	All		UL	UL	UL	PO[4]	UL	UL	PO[4]	PO[4]	UL	
2	Roads, Streets, and Parking Facilities	Throughout City	Roads, Streets, and Parking Facilities	All		L	L	L	L	UL	UL	PO	PO	L	X
3	Sanitary Sewer System	Throughout City	Sanitary Sewer System, Including Sewage Pump Stations	All		PO[5]	UL	PO[5]	UL	UL	PO[5]	PO[5]	PO[5]	UL	

Notes:

-HSA = Hydrologic subarea, L = Likely, PO = Possible, UL= Unlikely

-All facilities are active and are located within the San Diego Bay Watershed Management Area. No facilities are adjacent to an environmentally sensitive area.

-The SIC (Standard Industrial Classification) and NAICS (North American Industry Classification System) code systems were designed for businesses and are not considered applicable to municipal facilities.

-No municipal facilities are subject to the Industrial General Permit coverage.

1. Based on tables in the Copermittees' Baseline Long-Term Effectiveness Assessment (County of San Diego, 2011) and on the field experience of D-Max Engineering, Inc. D-Max has conducted more than 24,000 industrial and commercial facility inspections during which pollutant discharge potentials were assessed. Additionally, the City has determined whether or not a facility is likely to be, unlikely to be, or possibly a source of a potential pollutant based on site inspection history and observed sources of pollutants.
2. If the facility or area tributary to and within the same HSA as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired then the facility is determined to be a likely source of the pollutant. See JRMP Section 1 for information on pollutant categories associated with 303(d) listings.
3. Discharge of metals and oil and grease is possible if the facility has onsite parking; otherwise, the discharge of these pollutants is unlikely.
4. Sediment and oxygen demanding substances are possible pollutants for earthen or natural conveyances. Bacteria, but generally not viruses and other pathogens, may regrow in the MS4 under certain conditions. While other pollutants may be discharged from the MS4, the MS4 itself is not a direct source of those pollutants.
5. The sanitary sewer system is only a potential source of pollutants in the event of sewer line breaks or SSOs.
6. Discharge of sediment, pesticides, and nutrients is possible if the facility has onsite landscaping or other unpaved areas; otherwise, the discharge of these pollutants is unlikely.

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Appendix E

Retrofit and Rehabilitation Projects

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Appendix E. Retrofit and Rehabilitation Projects

1 Introduction

The California Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001 (Municipal Permit) requires the 18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District, including the City of Lemon Grove (City) (collectively referred to as "Copermittees") to develop a program that will retrofit areas of existing development and a program to rehabilitate streams, channels, and/or habitats in the City's jurisdiction within the San Diego Bay Watershed Management Area (WMA). Addressing the highest priority water quality conditions (HPWQCs) WMA, as established by the Water Quality Improvement Plans (WQIP), is a key goal of this program. As outlined in the San Diego Bay WMA, the City will focus its program on reducing bacteria and metals, the HPWQCs, in Chollas Creek. The City's retrofit and rehabilitation program may be modified through an adaptive management process over the course of the Permit term. The following sections discuss the strategies the City will utilize to identify, prioritize, and implement potential projects that will address the HPWQCs.

2 Program Organization

The City does not maintain one overarching retrofit and rehabilitation program. Rather, the City has several different programs that contribute to retrofits or stream, channel, and/or habitat rehabilitation efforts within areas of existing development, as summarized below:

- Alternative compliance provisions for development projects, which allow offsite retrofit or rehabilitation projects in lieu of meeting the relevant stormwater requirements solely through onsite practices. Because this effort is currently under development, the processes for approving, implementing, maintaining, and reporting on such projects and the associated responsible departments will be identified in the future.
- Obtaining grants for stormwater retrofits or stream, channel, and/or habitat rehabilitation projects.
- Implementing projects, typically green infrastructure or other structural water quality improvement BMPs, as part of the City's efforts to comply with applicable Total Maximum Daily Load (TMDL) requirements.

3 Identifying Candidate Projects

The Municipal Permit requires the City to develop a program to identify candidate retrofit and stream rehabilitation projects. When resources to complete a retrofit or stream restoration

project become available, the list of candidate projects will be used as a resource. Retrofit or rehabilitation projects that are not on the candidate project list may also be implemented; the presence of the candidate As defined by the Municipal Permit, a retrofit is a "storm water management practice put into place after development has occurred in watersheds where the practices previously did not exist or are ineffective." Potential projects can include, for example, disconnecting roof downspouts and impervious surfaces and redirecting them to pervious areas, installing rain catchment systems, or implementing green streets. The City has proposed targeted retrofits of City properties, including disconnecting downspouts and directing runoff from paved areas through landscaping prior to discharge, in the San Diego Bay WQIP.

The Municipal Permit states that rehabilitation methods may include in-stream restoration, off-line storm water management practices installed in the system corridor or upland areas, or a combination of in-stream and out-of-stream techniques. Some of these techniques may include riparian zone restoration, constructed wetlands, channel modifications, and daylighting of drainage systems.

The City will consider the following factors when identifying urban retrofit and stream rehabilitation candidate projects.

- **Directly targets the City's HPWQCs and helps make progress toward WQIP numeric goals.** Projects may help meet WQIP numeric goals by directly targeting the HPWQCs or by targeting conditions contributing to the HPWQC. Because numeric goals apply specifically to the Chollas hydrologic subarea (HSA), projects located in the Chollas HSA are especially desirable.
- **Feasibility of project.** The feasibility of the project is an important consideration that takes into account a project's likelihood of obtaining funding, constructability, ease of implementation and operation, and any potential impediments. The project's viability takes into account the amount of resources City staff are able to commit to the project. Candidates that may place a considerable administrative burden on City staff, or that may require significant City resources to maintain and operate are generally less desirable projects and may be entirely infeasible.
- **Land use.** Land use of the area tributary to a potential retrofit project is an important consideration when selecting retrofit project candidates. Land uses commonly associated with the HPWQCs described above will be considered before other land uses. For example, select industrial and commercial areas are considered likely sources of bacteria based on their business activities. Residential land use may also be a source of bacteria due to improper pet waste management. Additionally, industrial and residential land use may also be potential sources of heavy metals.

- **Multiple benefits of project.** Candidate projects with the potential to contribute to the overall enhancement of the local environment are preferred. Other benefits of retrofit projects can include, but are not limited to, the following:
    - Enhanced walkability or pedestrian safety and access
    - Community beautification, such as streetscape aesthetics or incorporating murals other features with significant artistic value.
    - Improved flood protection
    - Improved access to green spaces or recreational opportunities
    - Environmental justice
- **Land availability.** Land ownership is another factor to consider when identifying areas for potential projects. The best case scenario is when the City owns the property where a project is being considered. If another public agency, like a school district, owns the property, then that is second best, whereas, if the land is privately owned, and especially if there are multiple land owners, the project could become more complicated or infeasible to execute.
- **Amount of impervious area.** Projects that have the potential to treat a large area of impervious surfaces are ideal project candidates. Impervious surfaces are generally recognized as sources of common stormwater pollutants such as oil and grease, heavy metals, and sediment (CASQA, 2003).
- **Cost effectiveness.** Projects that are able to remove the greatest unit of pollution for the lowest cost are preferred. Long term BMP maintenance cost will also be considered.
- **Opportunities for infiltration or retention.** Ideal candidates will incorporate structural BMPs suitable for infiltration or retention. The project's suitability is primarily determined by the soil type for the proposed project area, but also by depth to groundwater and proximity to neighboring buildings and infrastructure. Infiltration is the most effective BMP, since it has close to 100 percent pollutant removal efficiency and also reduces runoff volume, and requires relatively low maintenance (CASQA, 2003). Since there are few areas within San Diego County where infiltration is feasible, if a project is able to incorporate infiltration BMPs, it should be considered.
- **New development or redevelopment projects.** Through the City's permitting approval process, the following retrofits for new development or redevelopment projects may be required, if applicable:
    - Structural roofs for trash enclosures
    - Structural coverage for used cooking oil
    - Water efficient landscaping

4 Program Implementation

Several potential mechanisms may be available to implement identified retrofit and rehabilitation projects, as listed below.

4.1 Grant Funding

Grants, where available, may be used to implement projects.

4.2 Permitting Requirements

The City may require retrofit of trash areas at existing facilities when a building permit is applied for at the same property. The following will be required, when triggered by a building permit application, for residential shared outdoor trash storage areas and industrial and commercial outdoor trash storage areas: full four-sided enclosure, siting away from storm drains, and structural overhead cover.

4.3 Public Outreach

As program budget and staffing allows, the City may implement public outreach programs that promote small-scale retrofit or rehabilitation projects on private properties. For example, the City may collaborate with Helix Water District, as described in the WQIP, to encourage landscape or irrigation system retrofits to conserve water and reduce the potential for irrigation runoff.

4.4 Collaboration with Other Agencies

The City may partner with other neighboring jurisdictions to install regional BMPs where such projects are deemed to provide a greater net benefit to the City than projects implemented only by the City.

4.5 Alternative Compliance

Alternative compliance may also be an avenue to complete retrofit or rehabilitation projects. At this time the City has not established an Alternative Compliance Program. However, the San Diego Bay WQIP includes the optional Watershed Management Area Analysis per provision B.3.b.(4) of the permit, therefore offsite alternative compliance is an option that the City will consider initiating in the future. If an Alternative Compliance Program is formed, it will meet the requirements detailed in provision E.3.c.(3) of the permit.

References

California Regional Water Quality Control Board, San Diego Region, 2013. Order No. R9-2013-0001. *Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority.*

California Storm Water Quality Association, 2003. *California Storm Water BMP Handbook – New Development &Redevelopment.*

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Appendix F

Program Implementation Tools

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Contents

- **IDDE Implementation Tools (JRMP Section 3)**
  - Example Complaint Investigation Form
  - Example Complaint Investigation Tabular Recordkeeping Format
- **Development Planning Implementation Tools (JRMP Section 4)**
  - Stormwater Requirements Applicability Checklist: Is included in the City's BMP Design Manual available at: https://www.lemongrove.ca.gov/
  - Example Structural BMP Inventory Format
  - Example Structural BMP Inspection Form
  - Example Structural BMP Maintenance Verification Letter
- **Construction Management Implementation Tools (JRMP Section 5)**
  - Example Erosion Control Plan Review Checklist
  - Construction Inventory Format
  - Construction Inspection Form
- **Industrial/Commercial Implementation Tools (JRMP Section 6)**
  - Industrial/Commercial Inventory Format
  - Stormwater Quality Inspection for Industrial/Commercial Facilities
- **Municipal Facilities Implementation Tools (JRMP Section 7)**
  - Stormwater Quality Inspection for Municipal Facilities
  - Special Events Inspection Form
- **Fiscal Analysis Implementation Tools (JRMP Section 11)**
  - Example Fiscal Analysis Reporting Tabular Format

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Work Order #_____

CASE CLOSED: ❒ Date ___/___/___

City of Lemon Grove
Stormwater Complaint Response

Source of Complaint: ❒ **Residential Inspection** ❒ **Stormwater Contractor** ❒ **Other Staff** ❒ **Public**

Name of Complainant: _____ Date/Time Complaint Received: _____

Address: _____ Phone Number: _____

❒ **Immediate Response Required** ❒ **Site Visit (within 5 days)** **Next Rain Event**_____

Assigned To: _____ Referred To: _____Date ___/___/___

Reported Violation Site/Location: _____

Location Type: ❒ Commercial ❒ Construction ❒ Residential ❒ Industrial ❒ Municipal ❒ Unknown

Name of Responsible Party: _____ Business Name (If Applicable):_____

Name of Property Owner: _____ Phone _____ HSA ❒ 908.22 ❒ 909.12

Event Description: _____

_____

REACHED STORM DRAIN? ❒ **NO** ❒ **YES** **REACHED WATERWAY?** ❒ **NO** ❒ **YES** _____

Currently flowing? **Flow Frequency:** ❒ Continuous ❒ Intermittent ❒ One time _____

❒ **YES** ❒ **NO** **Evidence of Pollutant:** ❒ Dirt ❒ Trash ❒ Oil ❒ Colored Residue

Violation ❒ **Flow Characteristics:** ❒ Color ❒ Odor ❒ Floatables ❒ Other

❒ **Investigation Details:** **(additional space provided on back of form)** **Photos taken: Yes** ❒ **No** ❒

_____

_____

_____

Enforcement History

Are There Prior Enforcement Actions Documented (Check Cityworks, Construction or Mobile Database, & Other Sources) ❒ YES ❒ NO

Prior Enforcement Action: ❒ Educational ❒ Verbal ❒ Notice of Violation ❒ Citation # of Prior Contacts: _____

Administrative Determination: ❒ **Citation #**_____ ❒ **NOV/STOP WORK**_____

❒ Referral to Other Department: _____ ❒ Request for Information _____

❒ Advisory Letter: _____ ❒ Advisory Call Back _____ ❒ Other _____

Education Distributed: ❒ Construction Brochure ❒ Minimum BMP's ❒ 10 Simple Ways ❒ Business Card ❒ Verbal

❒ Green Wrench Guide ❒ Door Hanger ❒ Pen w/Hotline # ❒ CWP Postcard ❒ Other _____

NOTES:

❒ INVESTIGATED ❒ IDENTIFIED (NON-STORMWATER DISCHARGE) ❒ ELIMINATED

❒ ILLICIT DISCHARGE/CONNECTION ❒ ELIMINATED ❒ ENFORCEMENT ❒ ESCALATED ENFORCEMENT

Example Complaint Investigation Tabular Recordkeeping Format

No.	Date Received	Source of Complaint	Location Type (Construction, Commercial, etc.)	Reported Violation Site/ Location	HSA	Reached Storm Drain?	Reached Receiving Water?	Date Investigation Started	Dates of Additional Follow-Up Visits	Source of Discharge	Related Incidents, if any	IC/ID Identified?	Date IC/ID Eliminated	Enforcement Actions	Escalated Enforcement Actions	>30 Days to Resolve?	Notes

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Example Format for Inventory of Priority Projects with Approved Structural BMPs

No.	Project Name/Address	Contact Information	Development Type	Approx. Size (Acres)	BMPs	Fiscal Yr. Completed	HSA	Inspection Priority	Letter	Self-Cert Form	LG Insp. Form	Corr. Action	Enf. Action	Resolved

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CITY OF LEMON GROVE
3232 Main Street, Lemon Grove, CA 91945

NPDES STORMWATER PROGRAM
POST-CONTRUCTION BMP INSPECTION FORM

PROJECT NAME	TTWQ
STREET ADDRESS	APN
SITE REPRESENTATIVE	PHONE NUMBER
CITY INSPECTOR	DATE/TIME

APPLICABLE PRIORITY PROJECT CATEGORIES:

- ☐ RESIDENTIAL > 10 UNITS
- ☐ COMMERCIAL > 1acre
- ☐ HEAVY INDUSTRY > 1acre
- ☐ AUTOMOTIVE REPAIR
- ☐ RESTAURANT
- ☐ HILLSIDE DEV
- ☐ PARKING LOT > 5000 sf
- ☐ ST/ROAD > 5000 sf
- ☐ RETAIL GASOLINE OUTLET
- ☐ ESA/303d
- ☐ POLLUTANT GENERATING DEVELOPMENT >1acre

TREATMENT CONTROL BMP TYPE: _____

BMP LOCATION(S): _____

IS BMP IN GOOD CONDITION AND PROPERLY IMPLEMENTED? ☐ YES ☐ NO

CORRECTIVE ACTION REQUIRED: _____

ADDITIONAL NOTES: _____

_____

_____

_____

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[Date]

[Project Name]
[Address]
Lemon Grove, CA 91945

Re: Required Treatment Control BMP Maintenance Certification

Dear Property Owner/Manager,

According to City records, you are responsible for the permanent storm water treatment devices, known as treatment control best management practices (BMPs), located at *[Address]*, Lemon Grove, CA. Annual verification of effective operation and maintenance for all treatment control BMPs on this property was a condition of the permit to develop the site. Treatment control BMPs are required to be maintained by the appropriate party as stated in the site's operation and maintenance agreement.

You are required by City of Lemon Grove to perform annual maintenance of the treatment control BMPs and to complete a form certifying this maintenance before the beginning of the rainy season. This notice is being sent as a reminder of the upcoming deadline.

Please ensure that the BMPs have been maintained and are in proper working order. Once the maintenance has been performed, please complete the attached form and return it to the City along with any maintenance records. The completed form must be received no later than September 30, *[Year]*.

If you would like more information regarding this program, please contact me at (619) 825-3800.
Sincerely,

Tamara O'Neal
Associate Civil Engineer
City of Lemon Grove
3232 Main Street
Lemon Grove, CA 91945

Site Address: *[Address]*

BMP Type	Onsite (Y/N)	# Onsite	Date(s) Maintained
[BMP Descriptions]			

I certify under penalty of law that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Responsible Party Date

Printed Name of Responsible Party Title

Daytime Phone Fax

Email

City of Lemon Grove Erosion Control Plan Review

Project Name or Address: _____

Reviewer: _____

Review Date: _____/_____/_____

Phased Erosion Control Plan Required? ☐ Yes ☐ No

Erosion Control Plans Meets City Requirements? ☐ Yes ☐ No

Plan Check Comments (attach checklist if necessary):

Erosion Control Plan Review Checklist

Project Name or Address: _____ **Reviewer:** _____

Review Date: _____/_____/_____

BMP Categories	Required, Where Applicable[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Proposed? (Yes/No/NA; Explain if "NA")	Adequately Shown on Plan? (Yes/No/NA)	Notes
Project Planning	Yes	EC-1	Scheduling			
Erosion Control	Yes, Select Effective Combination as Applicable[2, 3]	EC-3	Hydraulic Mulch[3]			
		EC-6	Straw Mulch[3]			
		EC-8	Wood Mulching[3]			
		EC-4	Hydroseeding			
		EC-2	Preservation of Existing Vegetation[3]			
		EC-7	Geotextiles and Mats[3]			
		EC-14	Compost Blankets[3]			
		EC-5	Soil Binders[3]			
	Yes, Select Effective Combination as Applicable[2]	EC-9	Earth Dikes and Drainage Swales			
		EC-10	Velocity Dissipation Devices			
		EC-11	Slope Drains			
	Yes	EC-12	Stream Bank Stabilization			
	Alternative that May Be Considered[4]	EC-15	Soil Preparation Roughening[3]			
		EC-16	Non-Vegetative Stabilization[3]			

Erosion Control Plan Review Checklist

BMP Categories	Required, Where Applicable[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Proposed? (Yes/No/NA; Explain if "NA")	Adequately Shown on Plan? (Yes/No/NA)	Notes
Sediment Control	Yes, Select Effective Combination as Applicable[2, 5]	SE-1	Silt Fence[6]			
		SE-2	Sediment Basin[7]			
		SE-3	Sediment Traps[7]			
		SE-6	Gravel Bag Berm			
		SE-4	Check Dam			
		SE-5	Fiber Rolls[6]			
	Yes	TC-1	Stabilized Construction Entrance/Exit			
	At Discretion of City[8]	TC-2	Stabilized Construction Roadway			
	At Discretion of City[8]	TC-3	Tire Wash			
	Yes	SE-10	Storm Drain Inlet Protection			
	Alternative that May Be Considered[9]	SE-12	Manufactured Linear Sediment Controls			
		SE-13	Compost Socks and Berms			
		SE-14	Biofilter Bags			
	At Discretion of City[8]	WE-1	Wind Erosion Control			
	At Discretion of City[7, 10]	SE-11	Active Treatment Systems[10]			

Erosion Control Plan Review Checklist

BMP Categories	Required, Where Applicable[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Proposed? (Yes/No/NA; Explain if "NA")	Adequately Shown on Plan? (Yes/No/NA)	Notes
Waste Management and Good Housekeeping	Yes	WM-3	Stockpile Management			
	Yes	WM-8	Concrete Waste Management			
	Yes	NS-8	Vehicle and Equipment Cleaning			
	Yes	NS-10	Vehicle and Equipment Maintenance			
	Yes	WM-5	Solid Waste Management			
	Yes	SE-7	Street Sweeping and Vacuuming			
	Yes	WM-1	Material Delivery & Storage			
	Yes	WM-4	Spill Prevention & Control			
	Yes	WM-6	Hazardous Waste Management			
	Yes	WM-10	Liquid Waste Management			
	Yes	NS-9	Vehicle and Equipment Fueling			
	Yes	WM-9	Sanitary/Septic Waste Management			
	Yes	NS-1	Water Conservation Practices			
	Yes	NS-2	Dewatering Operations			
	Yes	NS-3	Paving and Grinding Operations			
	Yes	NS-4	Temporary Stream Crossing			
	Yes	NS-5	Clear Water Diversion			
	Yes	NS-6	Illicit Connection/Discharge			
	Yes	NS-7	Potable Water/Irrigation[11]			
	Yes	NS-11	Pile Driving Operations			

Erosion Control Plan Review Checklist

BMP Categories	Required, Where Applicable[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Proposed? (Yes/No/NA; Explain if "NA")	Adequately Shown on Plan? (Yes/No/NA)	Notes
Waste Management and Good Housekeeping (Continued)	Yes	NS-12	Concrete Curing			
	Yes	NS-13	Concrete Finishing			
	Yes	NS-14	Material Over Water			
	Yes	NS-15	Demolition Adjacent to Water			
	Yes	NS-16	Temporary Batch Plants			
	Yes	WM-2	Material Use			
	Yes	WM-7	Contaminated Soil Management			

Notes

1. BMPs marked as required do not need to be included in plans or implemented if demonstrated not to be applicable satisfactory to City staff.
2. A combination of the BMPs within these categories that will be effective, as determined by City staff, shall be proposed. Typically not all BMPs within the category will be necessary to provide an effective combination. In some cases only one BMP from the category may be necessary to be effective.
3. The City requires erosion control BMPs to be applied to areas that have been inactive for at least 14 days, in accordance with the CASQA factsheet.
4. These BMPs may be included as part of the overall effective combination of erosion control BMPs if approved by City staff.
5. An effective combination of sediment control BMPs includes both full perimeter protection and sediment control within the boundaries of the site.
6. Silt fence and fiber rolls shall be staked and trenched into the ground as shown in the CASQA factsheet to be effective. Therefore, they may not be used in paved areas or other areas where staking and trenching is not possible; gravel bags (SE-6) or compost socks (SE-13) shall be used instead.
7. Sediment basins and traps shall be sized per CASQA and City standards. Sediment basins and traps shall be maintained after storms in accordance with the CASQA factsheets unless otherwise directed by City staff. Due to site drainage patterns, sediment basins and traps are often located where permanent post-construction BMPs will eventually be installed. All accumulated sediment from the construction phase shall be removed prior to final installation of permanent post-construction BMPs to maintain the as-designed percolation rate.
8. These BMPs are not required to be included in plans or implemented unless specifically directed to be included by City staff to meet the MEP standard.
9. These BMPs may be included as part of the overall effective combination of sediment control BMPs if approved by City staff.
10. Active treatment systems are required for CGP Risk Level 3 sites. They may also be required for other sites at the discretion of City staff.
11. The CASQA factsheet implies some irrigation runoff may be acceptable. However, irrigation runoff discharges are considered illegal discharges and are prohibited per the City's Municipal Code.

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City of Lemon Grove Inventory of Construction Projects

Project Name	Project Address	APN(s)	TTWQ	Inspection Frequency	Hydrologic Subarea (HSA)	WDID # (if applicable)	Site Area	Area of Disturbed Soil	Start Date	Completion Date	Plan Approval Date	Ongoing Enforcement Actions? (Y/N)	Owner Name	Owner Address	Owner Phone	Owner Email	Contractor Name	Contractor Address	Contractor Phone	Contractor Email
			High	2x/month																
			Medium	Monthly																
			Low	As needed																

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CITY OF LEMON GROVE
3232 Main Street, Lemon Grove, CA

NPDES STORMWATER PROGRAM
CONSTRUCTION STORMWATER COMPLIANCE INSPECTION FORM

Inspector Name _____ Date_____ Time_____

Forecast: ≥50% chance of rain within next 48 hours? ☐Yes ☐No

I. GENERAL INFORMATION

Site Priority: ☐ High ☐ Medium ☐ Low

Project Name: _____

Person Present: _____

II. BMP ASSESSMENT (If any BMPs are marked as "Not Adequate," see description on Page 2.)

BMP	No Corrections Required		Corrections Required	Unresolved since Last Insp.
	N/A	Adequate	Not Adequate	
Erosion Prevention and Run-On Control				
1. Sufficient BMPs available onsite to protect disturbed active areas in event of rain.				
2. Stabilize exposed/disturbed areas through which concentrated flows will be directed.				
3. Provide adequate run-on controls.				
4. Prevent erosion from disturbed inactive areas (no activity >14 days).				
Additional Notes:				
Sediment Control				
5. Adequately contain the perimeter of site to prevent sediment transport				
6. Protect inlets on site and on street. Maintain inlet BMPs: keep inlets/curbs/swales/etc. free of accumulated sediment.				
7. Equip entrance/exit with adequate tracking controls.				
Additional Notes:				
Materials, Equipment, and Waste Management				
8. Cover and contain material stockpiles.				
9. Prevent leaks and spills from equipment and vehicles; provide drip pans when necessary.				
10. Provide secondary containment for stored liquids. (Add cover prior to and during rain events).				
11. Provide secondary containment for portable toilets.				
12. Complete all concrete washout activities in properly installed washout area.				
13. Store all other materials and wastes in a manner that minimizes or eliminates the potential to discharge these materials to the storm drain system.				
14. Provide timely service and removal to prevent waste containers and sanitary facilities from overflowing.				
Additional Notes:				
Discharge Management				
		Yes	No	
15. Is site free of illegal connections or illegal discharges?				
Additional Notes:				
Additional Corrective Actions				
		No	Yes	
16. Any other potential storm water pollution issues/concerns?				
Additional Notes:				

III. Required Corrective Actions

BMP # **Description**

IV. Results

☐ No corrections required

☐ **Corrective actions required as noted in Section III above**

Implement corrective actions within _____ consecutive days of the date of this report (Must be no later than 3 days from the date of the report or prior to a rain event, whichever comes first).

Have any corrections from the previous inspection NOT been implemented? ☐ Yes ☐ No ☐ NA

(If Yes, answer the question below)

Has it been more than 30 days since the correction was originally required? ☐ Yes ☐ No

If Yes, explain why more than 30 days are necessary to resolve the deficiency:

V. Permanent BMPs

Permanent structural BMP(s) ready for verification during next inspection: ☐ Yes ☐ No ☐ NA, not a PDP

Industrial and Commercial Inventory Format

Field Name	Field Description		Field Data Type
Number	Business ID for internal tracking)		Number
Facility Name	Name used to identify facility in database		Text
Address Number	Street number of facility, this is the numeric street address		Number
Suite Number	Suite or unit number or letter, if needed. This field could also be used to indicate an intersection if no street number exists. **This field is optional.**		General
Street Name	Name of street facility is located on.		Text
City	City where facility is located		Text
State	This is a default to CA.		Text
Zip Code	Zip code where facility is located		Numeric
Hydrologic Subarea	This field must be populated to two decimal places.		Numeric (To 2 decimal places)
SIC Code(s)	Standard Industrial Classification code. If facility has more than one SIC code, list the primary SIC code first.		SIC Code Numeric (four digit codes)
Existing Development Type	Enter either "Industrial" or "Commercial"		Text
Mobile	Indicate whether the business is considered a mobile business.		Yes/No
Business Description	Description of business type or activities (e.g., "Restaurant").		Text
Potential Pollutants	Bacteria/Viruses	Potential pollutants that may be generated by the facility. A facility can be identified as having more than one pollutant.	Text
	Oxygen Demanding Substances		Text
	Heavy Metals		Text
	Nutrients		Text
	Oil & Grease		Text
	Organics		Text
	Pesticides		Text
	Sediment		Text
	Trash		Text
Tributary to 303(d) Listed and Generated Pollutants Associated with Impairment	Is facility tributary to 303(d) listed receiving water and generating pollutants for which the water body is impaired?		Text
Threat to water quality	Does the facility pose a high threat to water quality?		Text
Industrial Permit WDID No.	Waste Discharge Identification (WDID) number, if applicable.		Text
APN	The following fields are optional. The purpose of these fields are to supply a coordinate system for GIS mapping.	Assessors Parcel Number (APN)	Text
X Coordinate		X-Y Coordinates	Easting Numeric
Y Coordinate			Northings Numeric
Coordinate System		The standard projection for the San Diego region is "NAD_1983_StatePlane_California_VI_FIPS_0406_Feet"	Text

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CITY OF LEMON GROVE
STORMWATER QUALITY INSPECTION FOR INDUSTRIAL/COMMERICAL FACILITIES

Inspection Type	Annual	Follow-Up	Complaint	Other	
Inspection Method	Onsite	Drive By			
Inspector Name				Date:	
Business Name					
Address					
Contact Name/Phone					
Email Address					
Property Mgt Contact/Phone					
Landscape Mgt Company/Phone					
APN					
Hydrologic Subarea	908.22 (Metals, Nutrients, Bact., Trash)			909.12 (Nutrients, Bact.)	
Facility Priority and Type	High	Medium	Low	Industrial	Commercial
SIC Code per Inventory					
Proposed New SIC Code	NA	New:			
Business Description per Inventory					
New Business Description	NA	New:			
Size of Facility (sf)	1-500, 500-750, 750-1000, 1000-5000, >5000				
Size of Outdoor Storage/Work Area (sf)	None, 1-500, 500-750, 750-1000, 1000-5000, >5000				
Size of Landscaped Area (sf)	None, 1-500, 500-750, 750-1000, 1000-5000, >5000				
Storm Drains in Outdoor Storage/Work Area	Yes/No	NA			
Irrigation System Present	Sprinkler	Drip	None		
Irrigation Controller with Sensor	Yes/No	NA			
Xeroscape Is Feasible	Yes/No	NA			
Roof Gutters	Yes/No	NA			
Number of Downspouts					
Downspouts Connected to Unpaved Area	Yes/No	NA			
Rain Barrels Are Feasible	Yes/No	NA			
15 or More Parking Spaces	Yes/No	NA			
Runoff Flows to Unpaved Area	Yes/No	NA			
Runoff Could Flow to Unpaved Area	Yes/No	NA			
Dumpster within Covered Area	Yes/No	NA			
Grease Bin within Covered Area	Indoors	Outside, Covered	Outside, Uncovered	NA	
Dumpster Distance from Storm Drain	0-5, 5-10, 10-15, 15-20, >20	Sheet Flow (no onsite drain)			
Subject to Industrial Permit	Yes/No				
NOI/NEC/NONA Filed	Yes/No	NA			
WDID Number			NA		
Outdoor Materials (Storage or Work Areas)	Chemicals	Food	Metal	Oil	Paint
	Plastic	Soil	Tires	Tools	Vehicles
	Wood	Food Grease	Other		
Potential Pollutant Sources	Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides
	L/PO/UL	L/PO/UL	L/PO/UL	L/PO/UL	L/PO/UL
	Nutrients	Gross Pollutants	Bacteria & Viruses	Trash	Likely Source
	L/PO/UL	L/PO/UL	L/PO/UL	L/PO/UL	Yes/No
A Outdoor Storage/Work Areas Covered	Yes/No	NA			
B Secondary Containment Used	Yes/No	NA			
C Trash and Grease Bins Covered	Yes/No	NA			
D Proper Erosion Control	Yes/No	NA			
E Potential Signs of Irrigation Runoff	Yes/No	NA			
F Spill Kit Present if Applicable	Yes/No	NA			
G Storm Drain Free of Debris	Yes/No	NA			
H Other	Yes/No	NA			
Minor BMP Recommendations	Yes/No	NA			
Corrective Actions, Follow-Up Needed	BMPs	IC/ID	No		
Industrial Permit Non-Filer	Yes/No		If Yes, Date RWQCB Notified:		
Required Corrections	A	B	C	D	E	F	G	H
Education Material Provided	Yes/No							
Knowledge on Stormwater:	Poor	1	2	3	4	5	Good	
Cleanliness/BMP Implementation	Poor	1	2	3	4	5	Good	

Follow-Up Inspector Name		Follow-Up Date	
Corrections Made/Deficiencies Resolved	Yes/No		
Enforcement Actions (LGMC 8.48.110, 1.24.030)	NOV	Citation ($100, $200, $500, $1000)	Date Resolved
If Resolution Took >30 days, list reason			

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CITY OF LEMON GROVE
STORMWATER QUALITY INSPECTION FOR MUNICIPAL FACILITIES

	Inspection Type	Annual	Follow-Up	Complaint	Other
	Inspection Method	Onsite	Drive By		
	Inspector Name				Date:
	Business Name				
	Address				
	Contact Name/Phone				
	Email Address				
	Property Mgt Contact/Phone				
	Landscape Mgt Company/Phone				
	APN				
	Hydrologic Subarea	908.22 (Metals, Nutrients, Bact., Trash)			909.12 (Nutrients, Bact.)
	Facility Priority and Type	High	Medium	Low	
	SIC Code per Inventory				
	Proposed New SIC Code	NA New:			
	Business Description per Inventory				
	New Business Description	NA New:			
	Size of Facility (sf)	1-500, 500-750, 750-1000, 1000-5000, >5000			
	Size of Outdoor Storage/Work Area (sf)	None, 1-500, 500-750, 750-1000, 1000-5000, >5000			
	Size of Landscaped Area (sf)	None, 1-500, 500-750, 750-1000, 1000-5000, >5000			
	Storm Drains in Outdoor Storage/Work Area	Yes/No	NA		
	Irrigation System Present	Sprinkler	Drip	None	
	Irrigation Controller with Sensor	Yes/No	NA		
	Xeroscape Is Feasible	Yes/No	NA		
	Roof Gutters	Yes/No	NA		
	Number of Downspouts				
	Downspouts Connected to Unpaved Area	Yes/No	NA		
	Rain Barrels Are Feasible	Yes/No	NA		
	15 or More Parking Spaces	Yes/No	NA		
	Runoff Flows to Unpaved Area	Yes/No	NA		
	Runoff Could Flow to Unpaved Area	Yes/No	NA		
	Dumpster within Covered Area	Yes/No	NA		
	Grease Bin within Covered Area	Indoors	Outside, Covered	Outside, Uncovered	NA
	Dumpster Distance from Storm Drain	0-5, 5-10, 10-15, 15-20, >20	Sheet Flow (no onsite drain)		
	Subject to Industrial Permit	Yes/No			
	NOI/NEC/NONA Filed	Yes/No	NA		
	WDID Number			NA	
	Outdoor Materials (Storage or Work Areas)	Chemicals	Food	Metal	Oil	Paint
		Plastic	Soil	Tires	Tools	Vehicles
		Wood	Food Grease	Other		
	Potential Pollutant Sources	Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides
		L/PO/UL	L/PO/UL	L/PO/UL	L/PO/UL	L/PO/UL
		Nutrients	Gross Pollutants	Bacteria & Viruses	Trash	Likely Source
		L/PO/UL	L/PO/UL	L/PO/UL	L/PO/UL	Yes/No
A	Outdoor Storage/Work Areas Covered	Yes/No	NA			
B	Secondary Containment Used	Yes/No	NA			
C	Trash and Grease Bins Covered	Yes/No	NA			
D	Proper Erosion Control	Yes/No	NA			
E	Potential Signs of Irrigation Runoff	Yes/No	NA			
F	Spill Kit Present if Applicable	Yes/No	NA			
G	Storm Drain Free of Debris	Yes/No	NA			
H	Other	Yes/No	NA			
	Minor BMP Recommendations	Yes/No	NA			
	Corrective Actions, Follow-Up Needed	BMPs	IC/ID	No		

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CITY OF LEMON GROVE
3232 Main Street, Lemon Grove, CA 91945

NPDES STORMWATER PROGRAM
SPECIAL EVENTS INSPECTION FORM

Inspector_____ Inspection Date_____
Event Name_____ TTWQ_____
Sponsors_____
Location_____
Contact_____ Phone No_____

BMP	Yes	No	N/A	Describe Concerns and Resolution
Site Conditions & Cleanup				
Temporary screens on catch basins and storm drain inlets installed?				
Temporary fencing or other BMPs to prevent windblown trash from entering adjacent water bodies and MS4 channels implemented?				
Proper management of trash and litter including temporary trash receptacles and staff assigned for immediate trash cleanup implemented?				
Catch basin cleaning following special event/prior to anticipated rain event?				
Street sweeping of roads, streets, highways, and parking facilities following the special event implemented?				
Site clean and free of debris?				
Storm drains clear of trash/debris and spills?				
Non-stormwater such as wash water contained (including secondary containment), collected, and disposed of properly?				
Site free of illegal discharge to storm drain/receiving waters (channels/creeks)?				
Nearby water bodies, MS4, and creeks free of event-related trash and debris?				

VIOLATIONS

- ☐ No violations noted at time of inspection/investigation
- ☐ No violations; however, recommended corrective actions and Follow-up Inspection
- ☐ Violation: Illegal Discharge/Illegal Connection/Improper BMPs Implementation

RECOMMENDED CORRECTIVE ACTIONS

_____
_____
_____
_____
_____
_____
_____
_____

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Fiscal Analysis Reporting for FY [Insert Year]

Table 1. Program Implementation Expenditures

Expenditure Type[1]	Day to Day Operations[2]	CIP[3]	Total
Annual Municipal Permit Fee to RWQCB			
Administration			
Development Planning			
Construction			
Municipal			
Industrial and Commercial			
Residential			
IDDE			
Education			
Public Participation			
Special Investigations			
Non-Emergency Firefighting			
Activities Implemented through Cost Share Agreements with Other Agencies			
San Diego Bay Watershed WQIP Cost Share			
Chollas Creek TMDL Cost Share			
Regional Stormwater Program Cost Share			
Total Expenditures			

Notes

CIP - Capital Improvement Project, RWQCB - Regional Water Quality Control Board, IDDE - Illicit Discharge Detection and Elimination, WQIP - Water Quality Improvement Plan, TMDL - Total Maximum Daily Load

1. Expenditures include implementation of WQIP strategies, where applicable.
2. Day to day operations mainly relate to day to day program activities, such as storm drain cleaning, reviewing plan submittals for development projects, and enforcing compliance with the stormwater requirements in the Municipal Code. This category incudes expenditures for staffing, contracts other than CIP contracts, and operation and maintenance.

3. CIP expenditures include the stormwater component of CIPs, including design and construction.

Table 2. Program Funding Summary by Source

Funding Source	Amount
General Fund	
Sanitation	
Commercial Fee	
Building Permit Cost Recovery	
Engineering Permits	
Used Oil Payment Program	
AB 939 Fee	
TransNet	
Total Funding	

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Appendix G

Dry Weather MS4 Outfall Monitoring Procedures and Storm Drain System Map

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Dry Weather Major MS4 Outfall Discharge Monitoring Procedures

1 Introduction

In accordance with the California Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (Municipal Permit), the City of Lemon Grove (City), along with 18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District (collectively referred to as "Copermittees"), is required to monitor discharges from its major municipal separate storm sewer system (MS4) outfalls during dry weather. Weather is considered dry if the preceding 72 hours has been without measurable precipitation (> 0.1 inch).

The Municipal Permit defines a major MS4 outfall as a single pipe with an inside diameter of at least 36 inches or its equivalent (i.e., discharge from a single conveyance other than a circular pipe which is associated with a drainage area of more than 50 acres); or, as any outfall that discharges from a single pipe with an inside diameter of at least 12 inches or its equivalent (i.e., discharge from other than a circular pipe associated with a drainage area of at least 2 acres) that receives runoff from an area zoned for industrial activity (based on comprehensive zoning plans or equivalent).

This procedural document describes field protocols for conducting routine dry weather MS4 outfall monitoring and for investigations to identify sources of water observed during monitoring.

2 Major MS4 Outfall Inventory

The City has identified the major outfalls within its jurisdiction and maintains an inventory of them as required by the Municipal Permit. A map of the City's MS4 and major MS4 outfalls is included as Attachment 1. The major MS4 outfall inventory includes the following information for each monitoring location:

- Latitude and longitude of major MS4 outfall (or the upstream proxy site)
- Watershed Management Area (WMA)
- Hydrologic subarea (HSA)
- Outfall size (inches)
- Accessibility (i.e. safety and without disturbance of critical habitat)
- Approximate drainage area (acres)
- Classification of whether the outfall is known to have persistent, transient, or no dry weather discharges. Persistent flow is defined in the Municipal Permit as the presence of flowing, pooled, or ponded water more than 72 hours after a measureable rainfall

event of 0.1 inch or greater during three consecutive monitoring and/or inspection events. All other flowing, pooled, or ponded water is considered transient.

A map of the City's MS4 and major MS4 outfalls is included as Attachment 1. A table of inventoried MS4 outfalls is included as Attachment 2.

3 Routine Dry Weather Major MS4 Outfall Site Visits

During each site visit, a field datasheet (Attachment 3) is completed. The steps involved in obtaining the information to complete the datasheet are listed in the following sections.

3.1 Site Location and Documentation

The first task in conducting a routine site visit is locating the site. This is achieved by using GPS coordinates and the location description provided by the major outfall monitoring site inventory. A hand-held GPS device is used in the field to verify or update coordinates. Once the site has been located and verified, photos are taken to document the condition of the site. Photos are taken facing upstream and downstream of the site and are taken such that they sufficiently display any water present and notable landmarks when possible.

3.2 Atmospheric Conditions

Weather conditions and rainfall information are recorded on the field datasheet. It is important to record the nature of the tide (i.e., incoming, outgoing, high) and its height if the outfall may be tidally influenced. Since monitoring is only permitted to be conducted during dry weather, it is important to document that the monitoring is being completed during dry weather conditions: >72 hours since the last rain, or <72 hours since the last ran and ≤0.1 inches of precipitation. If neither of those conditions are met, then dry weather monitoring cannot be conducted. The field team should then stop work until dry weather conditions apply again.

3.3 Flow Measurements

At each site, the outfall is assessed for the presence of water. If a site has flowing or ponded water, sampling staff will observe whether the flow reaches the receiving water body. If the sampling site is upstream of the outfall due to accessibility constraints, it is usually not possible to visually observe whether the flow reaches the receiving water body. In these cases, the "Unknown" option is selected on the datasheet.

At sites with flowing water, the flow rate is also measured and recorded on the field datasheet in gallons per minute (gpm). If the site location is within a manhole, width, depth and velocity measurements cannot be precisely determined and the flow rate must be estimated. If an outfall has ponded water, the flow is recorded as zero gpm. If an outfall is dry, the flow rate is recorded as "Dry".

There are several methods that can be used to measure the rate of flow, but the most commonly used is the velocity-area ("leaf float") method. This is done by using a stop watch or equivalent to measure the time it takes for a leaf or similar object to float across a pre-measured distance of flowing water. The flow rate can then be calculated by using width, depth, and velocity measurements.

The three methods used to measure flow rate and a description of each are included below:

Velocity-area method ("leaf float") - The most common method for measuring the discharge of a channel is the velocity-area method. This method requires the physical measurement of the cross-sectional area and the velocity of the flowing water. Discharge is determined as the product of the area times the velocity:

Flow rate (ft^3/sec, or cfs) = Velocity (ft/sec) x Depth (ft) x Width (ft)

The leaf float method involves using a stop watch to measure the time (in seconds) it takes for a leaf or similar object to float across a pre-measured distance (in feet) of the surface of the flowing water. The flow rate can then be calculated by using the equation above. A correction factor between 0.5 and 0.8 should be applied to the flow rate calculation while in the field, based on the width and depth of the flow, as well as the roughness of the conveyance surface material. In general, the rougher the conveyance surface material, the lower the correction factor that must be applied to the flow rate.

Filling a bottle or known volume method - The rate can be determined by measuring the diameter of the outfall and the length of time it takes to fill a 1 liter bottle or any other container with a known volume. Dividing the volume by the time gives a flow rate. Appropriate conversion factors are then applied to convert that flow rate to gpm or cfs if needed. For example, 1 liter per second is equal to 15.85 gpm.

Partially filled pipe method - This method is applicable to discharges from circular pipes. All measurements should be converted to ft before calculation so that the final flow rate is given in cfs. The water depth and inside pipe diameter are measured, then the following approach is applied using the partially filled pipe formula chart in Table 1.

- Calculate D/d
  - D = water depth (ft) and d = inside pipe diameter (ft)
- Find the tabulated (Ta) value on the partially filled pipe formula chart below using the D/d value (e.g., If D/d = 0.26 then Ta =0.1623)
- Find the area using the formula $a = Ta*d^2$
- Calculate flow: Q (flow, cfs) = a (ft^2) x Velocity (ft/sec)
  Convert to gpm as follows: 1 cfs = 448.8 gpm

Table 1. Calculating the Area of the Cross Section of a Circular Pipe Flowing Partially Full

D/d	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0013	0.0037	0.0069	0.0105	0.0147	0.0192	0.0242	0.0294	0.0350
0.1	0.0409	0.0470	0.0534	0.0600	0.0668	0.0739	0.0817	0.0885	0.0951	0.1039
0.2	0.1118	0.1199	0.1281	0.1365	0.1440	0.1535	0.1623	0.1711	0.1800	0.1890
0.3	0.1982	0.2074	0.2187	0.2280	0.2355	0.2450	0.2540	0.2642	0.2780	0.2836
0.4	0.2934	0.3032	0.3130	0.3220	0.3328	0.3428	0.3527	0.3627	0.3727	0.3827
0.5	0.3980	0.4030	0.4130	0.4230	0.4330	0.4430	0.4520	0.4620	0.4720	0.4820
0.6	0.4920	0.5020	0.5120	0.5210	0.5310	0.5400	0.5500	0.5590	0.5690	0.5780
0.7	0.5870	0.5960	0.6050	0.6140	0.6230	0.6320	0.6400	0.6490	0.6570	0.6660
0.8	0.6740	0.6810	0.6890	0.6970	0.7040	0.7120	0.7190	0.7250	0.7320	0.7360
0.9	0.7450	0.7500	0.7560	0.7610	0.7660	0.7710	0.7750	0.7790	0.7820	0.7840
D = Depth of water d = diameter of the pipe			a = area of water in partially filled pipe Ta = Tabulated Value					Then a = Ta*d^2		

Source: County of San Diego, May 2011. *Dry Weather and MS4 Analytical and Field Screening Monitoring Procedures Manual*

3.4 Observations

Observations for odor, color, clarity, and floatables are assessed and recorded on a field datasheet. When the site is dry, the option "na (dry)" is marked, meaning "not analyzed" and/or "dry site".

Odor: Choose any of the following options that is most representative of the site conditions: none, sewage, sulfides, petroleum, manure, other. Note that "sulfides" indicates the distinct rotten egg smell associated with hydrogen sulfide gas. A petroleum odor usually refers to a smell of gasoline/diesel. Any time a sewage or petroleum odors are noted, some additional source investigation should be completed and/or the appropriate authorities (sewer agency or County of San Diego Department of Environmental Health) should be notified.

Color: Choose one of the following options most representative of the water when viewed *in situ*: none, yellow, brown (silty), white (milky), gray, other.

Clarity: If the water has minimal or no turbidity, mark "Clear." For more turbid water, the clarity options "Cloudy" and "Murky" are distinguished as follows:

- If the field team views the water at the site and can see more than 4" below the surface of the water, the clarity field is marked as "Cloudy (> 4" vis)." When visibility is limited to less than 4" below the surface of the water, it is marked as "Murky (<4" vis)."

Floatables: Select one or more of the following: none, trash, bubbles/foam, sheen, algae, biofilms, other. Only materials present on or very close to the surface of the water shall be included for this observation. For example, if trash is observed well below the water

surface or at a dry site, trash should not be marked as a floatable. However, trash would still be recorded in the trash assessment section in these cases.

Observations of deposits, vegetation, and biology noted at the site, and the structural condition of the outfall, are recorded for all sites, even if the site is dry.

Deposits: Select one or more of the following: none, coarse particulate, fine particulate, stains/minerals, oily deposit, other. Coarse particulates include particles such as sand or gravel and fine particulates include any particulates that are smaller than the coarse particulates, such as from the presence of clay sediment. Stains or oily deposits, if observed, may require upstream source investigations if they appear recent. Mineral deposits can result in orange/red deposits and oil deposits are black in color.

Vegetation: Sites within manholes will almost always have no vegetation, so "none" should be marked on the datasheet. If the vegetation is observed as less than what is typical for the site, due to excessive erosion or plant removal for instance, the site is considered to have "Limited" vegetation. Sites with vegetation that is overgrown and is impeding, or may impede, flow from the site, or that may contribute to other water quality issues, are considered to have "Excessive" vegetation. Sites observed with typical vegetation for the site are marked as "Normal".

Biology: Select all applicable options (more than one can be selected). Note that additional categories of organisms can also be notes by writing them in next to the "Other" option.

Structural Condition: "Damaged" means that the outfall structure is cracked, has partially collapsed, or is otherwise in need of repair. "Scour Pond" means an unpaved area just downstream of the outfall has been eroded by outfall discharges such that a depression that allows water to collect and pond has formed. Scour ponds may be sources of bacteria. "Erosion" means there is evidence of erosion at or downstream of an outfall that could either result in a blockage or to water quality issues. "Blockage" means the flow path through the outfall is significantly obstructed. Outfalls to which none of the above apply and that are in good structural condition are marked as "Normal".

3.5 Trash Assessments

Trash assessments are performed for a designated area around each outfall visited for field screening. The area of assessment is determined using the best professional judgment of the field team, and usually includes an area with a length and width of approximately five to fifteen feet. If observed trash, or other observed pollutants, at the site is determined to pose a threat to human health or the environment, the reporting and response procedures described in the

Section 3 of the City's Jurisdictional Runoff Management Program (JRMP) document will be followed. Site trash assessment is conducted utilizing the trash rating system summarized in Table 2, which was adopted by the Copermittees' Regional Monitoring Workgroup in 2013.

Table 2. Trash Assessment Ratings

Copermittee Data Sharing Format Trash Assessment Ratings
None (0 pieces observed)
Low (<50 pieces observed)
Medium (50-400 pieces observed)
High (>400 pieces observed)

4 Discharge Source Investigation

The discharge source is assessed for all sites that have ponded or flowing water. If a site has flowing water, an upstream investigation may be necessary to determine the source of the discharge. The discharge source is traced upstream with the assistance of the City's MS4 map (Attachment 1). While the Municipal Permit requires source investigations for sites with ponded water, sources usually cannot be located since the upstream MS4 line is typically dry at the time of the upstream investigation. Observations and notes are recorded on the field datasheet for evidence of an illegal connection or an illegal discharge, discharge source, basis for source identification, and source elimination.

4.1 Evidence of Obvious Illegal Connections and Illegal Discharges

Evidence of illegal connections and illegal discharges (IC/ID) is documented on the field datasheet by listing physical characteristics of the discharge, such as odor, color, clarity, floatables, deposits, high flow rate, non-standard connection, or anything else that may indicate an IC/ID. For example, murky water may indicate washing activity or discharge from a construction site upstream. Follow up investigations are conducted immediately in cases where obvious IC/IDs are observed.

4.2 Discharge Sources

Potential sources of non-stormwater discharges include groundwater, seepage, irrigation runoff, vehicle washing, wet cleaning or power washing, construction, pool or spa discharge, tidal, water line break, NPDES permitted discharge, other, or unable to determine. Examples of NPDES permitted discharges include line flushing by local water utilities and groundwater dewatering conducted after obtaining a discharge permit from the Regional Water Quality Control Board, San Diego Region (RWQCB). More than one source may be recorded if

observed during the upstream investigation. If the site is dry, then "na" (not applicable) should be checked on the field datasheet.

If the field crew identifies the source as a controllable source of non-stormwater or illegal discharge or connection, the City's Enforcement Response Plan will be implemented to prohibit and eliminate the discharge or connection to the MS4. If the City suspects the source of the non-stormwater discharge as natural in origin (i.e. non-anthropogenically influenced) and in conveyance into the MS4, then the City will document and provide the data and evidence necessary to demonstrate to the RWQCB that it is natural in origin and does not require further investigation.

4.3 Basis for Source Identification

The basis for source identification is noted on the datasheet as an observed discharge, indirect evidence, historical data, or other. A definition of each basis is included below. If the site is dry, or the source is unable to be determined, "na" should be marked on the datasheet.

- Observed Discharge: During the upstream investigation, water is seen discharging to a structure which drains to the site. An example is irrigation runoff from landscaping flowing to a curb inlet upstream from the site.
- Indirect Evidence: An active discharge is not observed, but there is evidence of a recent discharge that may have contributed to water observed at the site. An example is a wet vehicle in a driveway and some ponded water with soap bubbles in a nearby gutter upstream from the site.
- Historical Data: Results of previous monitoring efforts can sometimes be useful in determining the source of the discharge, even when no direct (observed) or indirect evidence of discharge is noted at the time of the present site visit. Other useful historical data may include local groundwater monitoring well data or results from complaint investigations or inspections.

4.4 Discharge Elimination

If the source of the discharge is identified, the source elimination status on the datasheet is recorded as "Yes" if it was eliminated, "No" if it was not eliminated, or "na" if the site was dry. An example of discharge elimination includes discontinued washing activities from a business or resident after speaking with the responsible party. If multiple discharge sources were identified, and some, but not all sources were eliminated, "No" should be marked, and a full explanation of actions taken to eliminate any sources should be described in the comments.

4.5 Discharge Prioritization for Follow-Up Investigation

As part of the field screening, when flowing or ponded water is observed, the field team will review historical data and make observations in the immediate upstream vicinity of the site to see if the primary source or sources of water can be identified. Any identified or suspected specific sources of a discharge will be recorded and placed into one of the categories listed below. These categories differ slightly from the ones described in the County's *San Diego County Permittees Draft Investigation Procedures* manual. The categories listed below may be used to prioritize sources for follow-up and are listed in descending order of priority, with Category I being the highest priority.

1. **Category I**: Observed illegal discharges or illegal connections. Discharges in this category may also pose a threat to human or aquatic health.
2. **Category II**: Discharge type prohibited in 2013 Municipal Permit but allowed in the 2007 Municipal Permit. Examples include irrigation runoff and discharges from foundation or footing drains.
3. **Category III**: Source of discharge is unknown or unable to be determined. For instance, if seepage is observed but it is unknown if the water is from interflow or groundwater.
4. **Category IV**: Conditionally exempt discharges, such as individual residential car washing and air conditioning condensate. Note that if observation data, such as high turbidity or sewage smell, indicates that these discharges are significant sources of pollutants, they are classified under Category I instead.
5. **Category V**: Discharges from natural sources or NPDES permitted discharges, such as groundwater infiltration.

Whenever evidence of a Category I discharge is observed, the City's project manager is contacted immediately for direction about whether additional upstream investigation should be completed. Category V sources do not require any follow-up investigation, although detailed documentation should be collected directly or from past studies to prove that water observed in the MS4 is in fact a Category V discharge. For sources classified as Categories II, III, or IV, the following will also be considered, in order of importance and in combination with staff's best professional judgment, when prioritizing for further investigation:

1. **Flow rate:** Higher flow rates are typically placed at a higher priority.
2. **Flow reaches receiving water:** Discharges observed to reach a receiving water body or highly likely to reach a receiving water body should be higher priority than discharges that do not reach the receiving water body.

3. **Historical data:** Sites with that consistently have flowing water should usually be higher priority than sites that sometimes are flowing but sometimes are dry or ponded.

4.6 Additional Investigation Methods

If a discharge source cannot be identified using the typical investigation methods described above, and there is persistent flow or it is possible an IC/ID may be contributing flow to the site, the field team may use alternate methods for identifying the discharge source. Further details regarding different source constituents and follow-up procedures for each source category can be found in the County of San Diego's *San Diego County Permittees Draft Investigation Procedures* manual. A few of the more common alternate source investigation methods are summarized on the following page.

Review of Plans

As-built drawings for the area of concern may be obtained to verify connections. However, an illegal connection is likely to have occurred after the as-built drawings were created, so additional techniques should also be employed.

Dye Testing

Dye testing is useful to confirm hydraulic connections between the potential source and the location downstream. Fluorescent dye is discharged at the source of the potential IC/ID and is monitored downstream. This method is used only when necessary because the public and appropriate regulatory agencies in the surrounding area need to be informed of the cause of the water discoloration.

Smoke Testing

Smoke testing can be used only on underground stormwater conveyance facilities, to determine potential hydraulic connections between the source and downstream location. Again, the public and appropriate agencies need to be informed of the cause for smoke coming from the MS4.

Video Monitoring

Mobile video cameras may be used to record observations in an underground stormwater conveyance facility. The public and regulatory agencies generally do not need to be informed prior to initiating this kind of investigation.

Confined Space Entry

In some cases, underground conveyances are large enough that a crew trained in confined space entry may investigate the section of pipe or culvert in question instead of using video monitoring. All applicable health and safety regulations must be followed. The public and regulatory agencies, however, generally do not need to be informed prior to initiating a confined space entry.

Potential Sewage IC/IDs

Further testing of suspected sewage-related flows is conducted when visual and odor observations do not adequately confirm the presence of sewage.

- Ammonia - Sewage frequently contains ammonia levels of 30 mg/L or greater. This can be measured with an inexpensive field screening kit.
- Bacteria - Sewage generally has high levels of total and fecal coliforms and *Enterococci*. Sewage treatment plants and many laboratories routinely conduct these indicator analyses.
- When the discharge source is traced to a private property or other public entity, the City may require the responsible party to engage in their own additional investigation and report the findings to the City. Alternatively, the City may choose to perform a joint investigation with the responsible party or other public entities in order to identify the discharge source.

Additional Field or Laboratory Testing

- Measuring the chlorine concentration and conductivity to assess whether a water line break or leak may be contributing to flow at the site.
- Measuring the conductivity at the site. Higher conductivity values may indicate the infiltration of groundwater into the MS4 pipe, and further investigation may be necessary to confirm this conclusion (e.g. analyzing local ground water monitoring well data if available, sending a camera through the MS4 line, etc).

5 Persistent Flow Outfall Monitoring

Pursuant to Section D.2.b.(2) of the Municipal Permit, if during transitional and routine MS4 outfall discharge monitoring, sites are found to have persistent flow, the City will determine which persistent non-stormwater discharges contain pollutant concentrations in excess of the respective non-stormwater action level (NAL) at a minimum of five of these sites within its jurisdiction and within each WMA.

The NALs for non-stormwater discharges are included in Attachment 4 of this document. If there are less than five persistently flowing sites in a WMA, the City will monitor all of its major MS4 outfalls with persistent flows.

The highest priority sites will be monitored during dry weather at least semi-annually until one of the following occurs:

- The non-stormwater discharges have been effectively eliminated (i.e. no flowing, pooled, or ponded water) for three consecutive dry weather monitoring events.

- The source(s) of the persistent flows has been identified as a category of non-stormwater discharges that does not require an NPDES permit and does not have to be addressed as an illegal discharge because it was not identified as a source of pollutants (i.e. constituents in non-stormwater discharge do not exceed NALs), and the persistent flow can be re-prioritized to a lower priority.
- The constituents in the persistent flow non-stormwater discharge do not exceed NALs, and the persistent flow can be re-prioritized to a lower priority.
- The source(s) of the persistent flows has been identified as a non-stormwater discharge authorized by a separate NPDES permit.

If none of the conditions listed on the following page are not met, but threat to water quality has been reduced, the site can be reprioritized as a lower priority. The City records removal or re-prioritization of the highest priority persistently flowing MS4 outfalls in the Water Quality Improvement Plan Annual Report.

5.1 Persistent Flow Outfall Discharge Analytical Monitoring

During each semi-annual monitoring event in which measurable flow is present, each Copermittee must collect and analyze samples from each of the highest priority persistent flow MS4 outfall monitoring stations within its jurisdiction. Analytes that are field measured are not required to be analyzed by a laboratory. Grab or composite samples are analyzed at a qualified laboratory for the following constituents:

- Constituents contributing to the highest priority water quality conditions identified in the Water Quality Improvement Plan.
- Constituents listed as a cause for impairment of receiving waters in the WMA listed on the 303(d) list.
- Constituents for implementation plans or load reduction plans (e.g. Bacteria Load Reduction Plans, Comprehensive Load Reduction Plans, etc.) developed for watersheds where the Copermittees are listed responsible parties under the Total Maximum Daily Loads in Attachment E of the Municipal Permit.
- Applicable NAL constituents.
- Constituents listed in Table D-7 of the Municipal Permit (and included in the bulleted list below). The Copermittees may adjust the list of constituents for the WMA if historical data or supporting information can be provided that demonstrates or justifies the analysis of a constituent is not necessary.

Based on the criteria listed above, the City's non-stormwater persistent flow outfalls will be monitored semi-annually for the constituents listed in the San Diego Bay WMA Water Quality

Improvement Plan Monitoring and Assessment Program. Sampling, analysis and quality assurance/quality control are conducted in accordance with the Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program, adopted by the State Water Resources Control Board. All chemical, bacteriological, and toxicity analyses will be conducted at a laboratory certified for such analyses by the California Department of Public Health or a laboratory approved by the RWQCB.

6 Enforcement

If the source of a discharge is identified as a category of non-exempt non-stormwater discharges, and the discharge is in exceedance of NALs listed in the Water Quality Improvement Plan, then the City will determine if it is an isolated incident or a set of circumstances that will be addressed through its Enforcement Response Plan, or the category of discharge must be addressed and classified as a prohibited discharge.

7 Reporting

All field datasheets, reports, and data associated with the City's MS4 outfall monitoring program will be made available to the RWQCB in a standardized and compatible format. The City's JRMP Annual Report will also include the number of IC/IDs detected, identified, and eliminated within the reporting period. Reporting IC/IDs to other agencies such as the RWQCB and the County of San Diego Department of Environmental Health is discussed in the City's JRMP document.

8 References

California Regional Water Quality Control Board, San Diego Region. May 8, 2013. *Order No. R9-2013-0001, as amended by Order No. R9-2015-0001; NPDES No. CAS0109266. National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) draining the Watersheds within the San Diego Region.*

County of San Diego. May 2011. *Dry Weather and MS4 Analytical and Field Screening Monitoring Procedures Manual.*

County of San Diego. June 2013. *San Diego County Permittees Draft Investigation Procedures.*

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Attachment 1

MS4 and Monitoring Locations Map

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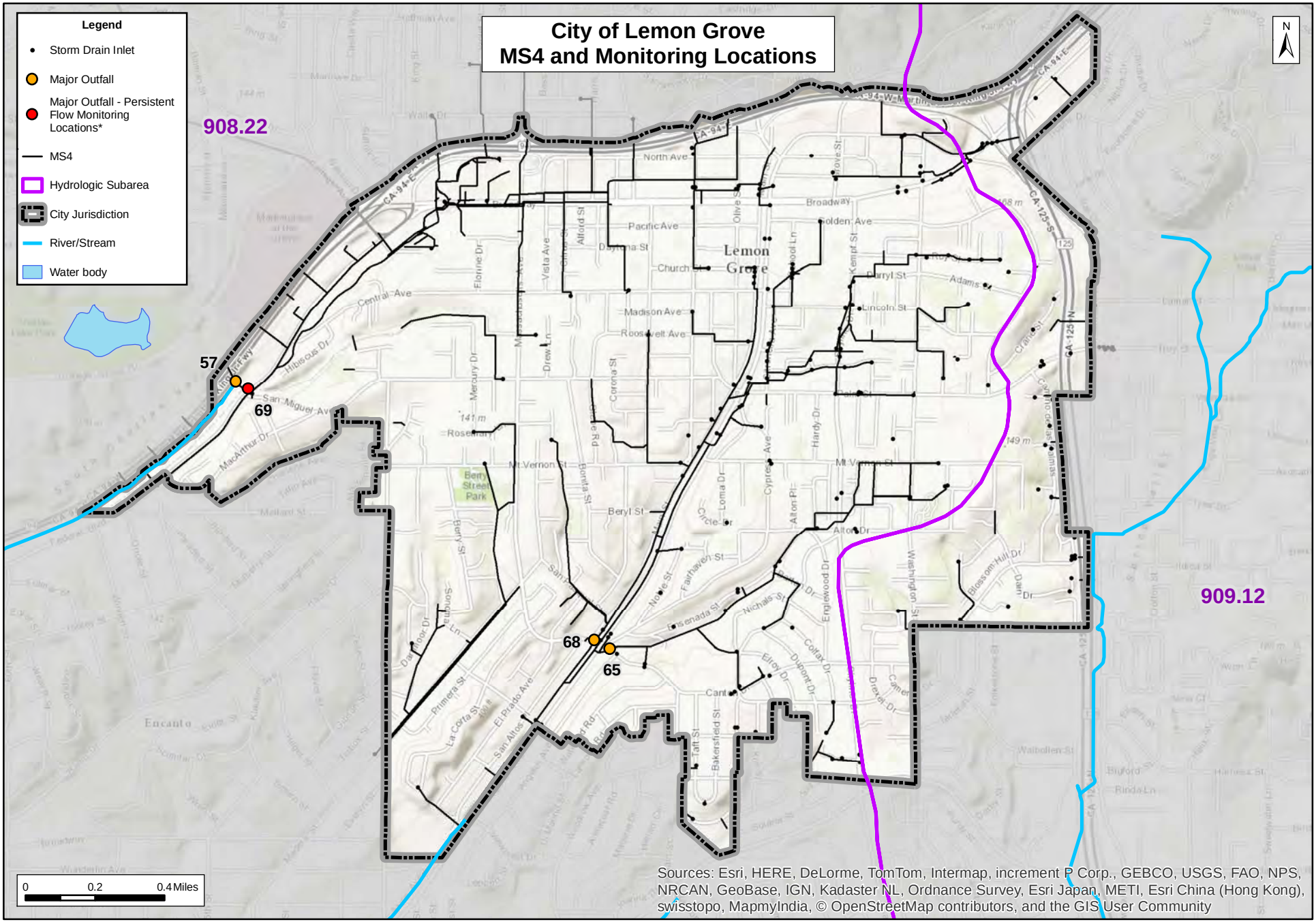

Base Data Sources: City of Lemon Grove and SanGIS

*The status of major MS4 outfalls as having persistent flow, transient flow, or being dry will change in the future as the City collects more data from outfall monitoring and as sources of flow are eliminated. For similar reasons, the sites at which persistent flow analytical monitoring is completed will likely change over time. Updates will be provided through the WQIP annual reporting process.

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Attachment 2

MS4 Outfall Monitoring Station Inventory

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Attachment 1. MS4 Outfall Monitoring Station Inventory

Site	Location	Conveyance Type	Size (inches)	Industrial Land Use	Hydrologic Subarea	Historical Dry Weather Flow	Latitude	Longitude
57	West of Federal Blvd., across from San Miguel Ave., at end of concrete channel, south of 6608 Federal Blvd. Access from behind 6608.	Outfall	36	No	908.22	Dry	32.73501	-117.05688
65	Northeast corner of Lemon Grove Ave. and Canton Dr. intersection.	Earthen Channel**	(2x) 30	No	908.22	Dry	32.72395	-117.03828
68	North side of Massachusetts Ave, west of trolley tracks, channel.	Earthen Channel	--	No	908.22	Unknown	32.72431	-117.03903
69	In front of 6608 Federal Blvd, in concrete channel, south side of bridge.	Concrete Channel	--	Yes	908.22	Persistent	32.73470	-117.05626

Notes: *DBC = Double Box Culvert. SBC = Single Box Culvert.

**Size of conveyance was measured from nearest upstream or downstream concrete structure within channel (e.g., box culvert or pipe).

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Attachment 3

MS4 Outfall Monitoring Field Datasheet

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City of Lemon Grove
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☐ Removed,_____

Site ID:		**Latitude:**	**Outfall Size:**
Location:		**Longitude:**	
		HSA:	
		Observer(s):	
Date:	**Time:**		

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☐ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☐ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: _____ ☐ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☐ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☐ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☐ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☐ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☐ Other	
Structural Condition (select only one)	☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☐ Blockage	☐ Other	

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☐ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☐ Aquatic Health

Comments: _____

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☐ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☐ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☐ Observed Discharge ☐ Indirect Evidence ☐ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☐ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☐ Yes ☐ No **Analytical Lab Samples Collected?** ☐ Yes ☐ No

Water Temp (°C)		NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

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Attachment 4

Non-Stormwater Action Levels (NALs)

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C. ACTION LEVELS

The purpose of this provision is for the Copermittees to incorporate numeric action levels in the Water Quality Improvement Plans. The goal of the action levels is to guide Water Quality Improvement Plan implementation efforts and measure progress towards the protection of water quality and designated beneficial uses of waters of the state from adverse impacts caused or contributed to by MS4 discharges. This goal will be accomplished through monitoring and assessing the quality of the MS4 discharges during the implementation of the Water Quality Improvement Plans.

1. Non-Storm Water Action Levels[7]

The Copermittees must develop and incorporate numeric non-storm water action levels (NALs) into the Water Quality Improvement Plan to: 1) support the development and prioritization of water quality improvement strategies for effectively prohibiting non-storm water discharges to the MS4s, 2) assess the effectiveness of the water quality improvement strategies toward addressing MS4 non-storm water discharges, required pursuant to Provision D.4.b.(1), and 3) support the detection and elimination of non-storm water and illicit discharges to the MS4, required pursuant to Provision E.2.[8]

a. The following NALs must be incorporated:

(1) Non-Storm Water Discharges from MS4s to Ocean Surf Zone

Table C-1. Non-Storm Water Action Levels for Discharges from MS4s to Ocean Surf Zone

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Total Coliform	MPN/100 ml	1,000	-	10,000/1,000[1]	OP
Fecal Coliform	MPN/100 ml	200[2]	-	400	OP
Enterococci	MPN/100 ml	35	-	104[3]	OP

Abbreviations/Acronyms
AMAL – average monthly action level
OP – Ocean Plan water quality objective
MDAL – maximum daily action level
MPN/100 ml – most probable number per 100 milliliters

Notes:
1. Total coliform density NAL is 1,000 MPN/100 ml when the fecal/total coliform ratio exceeds 0.1.
2. Fecal coliform density NAL is 200 MPN per 100 ml during any 30 day period.
3. This value has been set to the Basin Plan water quality objective for saltwater "designated beach areas."

[7] NALs incorporated into the Water Quality Improvement Plans are not considered by the San Diego Water Board to be enforceable effluent limitations, unless the NAL is based on a WQBEL expressed as an interim or final effluent limitation for a TMDL in Attachment E and the interim or final compliance date has passed.
[8] The Copermittees may utilize NALs or other benchmarks currently established by the Copermittees as interim NALs until the Water Quality Improvement Plans are accepted by the San Diego Water Board Executive Officer.

(2) Non-Storm Water Discharges from MS4s to Bays, Harbors, and Lagoons/Estuaries

Table C-2. Non-Storm Water Action Levels for Discharges from MS4s to Bays, Harbors, and Lagoons/Estuaries

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Turbidity	NTU	75	-	225	OP
pH	Units	Within limit of 6.0 to 9.0 at all times			OP
Fecal Coliform	MPN/100 ml	200[1]	-	400[2]	BP
Enterococci	MPN/100 ml	35	-	104[3]	BP
Priority Pollutants	µg/L	See Table C-3			

Abbreviations/Acronyms:
AMAL – average monthly action level
OP – Ocean Plan water quality objective
NTU – Nephelometric Turbidity Units
µg/L – micrograms per liter
MDAL – maximum daily action level
BP – Basin Plan water quality objective
MPN/100 ml – most probable number per 100 milliliters

Notes:
1. Based on a minimum of not less than five samples for any 30-day period.
2. The NAL is reached if more than 10 percent of total samples exceed 400 MPN per 100 ml during any 30 day period.
3. This value has been set to the Basin Plan water quality objective for saltwater "designated beach areas" and is not applicable to water bodies that are not designated with the water contact recreation (REC-1) beneficial use.

Table C-3. Non-Storm Water Action Levels for Priority Pollutants

Parameter	Units	Freshwater (CTR)		Saltwater (CTR)	
		MDAL	AMAL	MDAL	AMAL
Cadmium	µg/L	**	**	16	8
Copper	µg/L	*	*	5.8	2.9
Chromium III	µg/L	**	**	-	-
Chromium VI	µg/L	16	8.1	83	41
Lead	µg/L	*	*	14	2.9
Nickel	µg/L	**	**	14	6.8
Silver	µg/L	*	*	2.2	1.1
Zinc	µg/L	*	*	95	47

Abbreviations/Acronyms:
CTR – California Toxic Rule
AMAL – average monthly action level
µg/L – micrograms per liter
MDAL – maximum daily action level

Notes:
* Action levels developed on a case-by-case basis (see below)
** Action levels developed on a case-by-case basis (see below), but calculated criteria are not to exceed Maximum Contaminant Levels (MCLs) under the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431

The Cadmium, Copper, Chromium (III), Lead, Nickel, Silver and Zinc NALs for MS4 discharges to freshwater receiving waters will be developed on a case-by-case basis based on site-specific water quality data (receiving water hardness). For these priority pollutants, refer to 40 CFR 131.38(b)(2).

(3) Non-Storm Water Discharges from MS4s to Inland Surface Waters

Table C-4. Non-Storm Water Action Levels for Discharges from MS4s to Inland Surface Waters

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Dissolved Oxygen	mg/L	Not less than 5.0 in WARM waters and not less than 6.0 in COLD waters			BP
Turbidity	NTU	-	20	See MDAL	BP
pH	Units	Within limit of 6.5 to 8.5 at all times			BP
Fecal Coliform	MPN/100 ml	200[1]	-	400[2]	BP
Enterococci	MPN/100 ml	33	-	61[3]	BP
Total Nitrogen	mg/L	-	1.0	See MDAL	BP
Total Phosphorus	mg/L	-	0.1	See MDAL	BP
MBAS	mg/L	-	0.5	See MDAL	BP
Iron	mg/L	-	0.3	See MDAL	BP
Manganese	mg/L	-	0.05	See MDAL	BP
Priority Pollutants	µg/L	See Table C-3			

Abbreviations/Acronyms:
AMAL – average monthly action level
BP – Basin Plan water quality objective
COLD – cold freshwater habitat beneficial use
NTU – Nephelometric Turbidity Units
mg/L – milligrams per liter
MDAL – maximum daily action level
WARM – warm freshwater habitat beneficial use
MBAS – Methylene Blue Active Substances
MPN/100 ml – most probable number per 100 milliliters
µg/L – micrograms per liter

Notes:
1. Based on a minimum of not less than five samples for any 30-day period.
2. The NAL is reached if more than 10 percent of total samples exceed 400 MPN per 100 ml during any 30 day period.
3. This value has been set to the Basin Plan water quality objective for freshwater "designated beach areas" and is not applicable to water bodies that are not designated with the water contact recreation (REC-1) beneficial use.

b. If not identified in Provision C.1.a, NALs must be identified, developed and incorporated in the Water Quality Improvement Plan for any pollutants or waste constituents that cause or contribute, or are threatening to cause or contribute to a condition of pollution or nuisance in receiving waters associated with the highest priority water quality conditions related to non-storm water discharges from the MS4s. NALs must be based on:

(1) Applicable water quality standards which may be dependent upon site-specific or receiving water-specific conditions or assumptions to be identified by the Copermittees; or

(2) Applicable numeric WQBELs required to meet the WLAs established for the TMDLs in Attachment E to this Order.

c. For the NALs incorporated into the Water Quality Improvement Plan, the Copermittees may develop and incorporate secondary NALs specific to the Watershed Management Area at levels greater than the NALs required by Provisions C.1.a and C.1.b which can be utilized to further refine the prioritization and assessment of water quality improvement strategies for effectively prohibiting non-storm water discharges to the MS4s, as well as the detection and elimination of non-storm water and illicit discharges to and from the MS4. The

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