CITY OF CHULA VISTA

# JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM

JUNE 2015

UPDATED: JANUARY 2017
JANUARY 2018

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CITY OF CHULA VISTA

# Department of Public Works

CITY OF CHULA VISTA JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM DOCUMENT UPDATE, PROVISION F.2.a. SUBMITTAL, STATEMENT OF 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.

William S. Valle

WILLIAM S. VALLE
ASSISTANT DIRECTOR OF ENGINEERING

6/17/15
Date

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# CITY OF CHULA VISTA JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP)

## JUNE 2015

## UPDATED JANUARY 2017, JANUARY 2018

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**APPENDICES**

# 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 | Area(s) of Special Biological Significance |
| BMP | Best management practice |
| CASQA | California Stormwater Quality Association |
| CCV BMP Design Manual | City of Chula Vista Best Management Practices Design Manual |
| CFR | Code of Federal Regulations |
| CGP or Construction General Permit | SWRCB Construction General Permit, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ |
| CIP | Capital Improvement Program |
| City | City of Chula Vista |
| 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 |
| CSWMP | Construction Storm Water Management Plan |
| CTR | California Toxics Rule |
| CWA | Federal Water Pollution Control Act (Clean Water Act) |
| ESA | Environmentally sensitive area |
| FY | Fiscal Year |
| FPWQC | Focused Priority Water Quality Condition |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| HA | Hydrologic Area |
| HHW | Household hazardous waste |
| HOA | Home owners association |
| HPWQC | Highest priority water quality condition |
| HSA | Hydrologic subarea |

| Acronym/Abbreviation | Definition |
|---|---|
| IC/ID | Illicit/illegal connection and illicit/illegal discharge |
| IDDE | Illicit Discharge Detection and Elimination |
| IGP or Industrial General Permit | SWRCB Industrial General Permit, Order No. 2014-0057-DWQ |
| IPM | Integrated Pest Management |
| JRMP | Jurisdictional Runoff Management Program |
| JURMP | Jurisdictional Urban Runoff Management Plan |
| LID | Low Impact Development |
| MEP | Maximum extent practicable |
| MS4 | Municipal separate storm sewer system |
| MS4 Outfall Monitoring Program | Dry Weather Major MS4 Outfall Discharge Monitoring Program |
| Municipal Permit or Permit | RWQCB Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 & Order No. R9-2015-0100 |
| NAICS | North American Industrial Classification System |
| NOI | Notice of Intent |
| NOV | Notice of Violation |
| NPDES | National Pollutant Discharge Elimination System |
| PDP | Priority Development Project |
| RMA | Residential Management Area |
| RWQCB | Regional Water Quality Control Board, San Diego Region |
| SIC | Standard Industrial Classification |
| SMARTS | Storm Water Multiple Application and Report Tracking System |
| SOP | Standard Operating Procedure |
| SSMP | Sanitary Sewer Management Plan |
| SSO | Sanitary sewer overflow |
| Storm Water Ordinance | Storm Water Management and Discharge Control Ordinance (Chula Vista Municipal Code Chapter 14.20) |
| SUSMP | Standard Urban Storm Water Mitigation Plan |
| SWPPP | Storm Water Pollution Prevention Plan |

| Acronym/Abbreviation | Definition |
|---|---|
| SWQMP | Storm Water Quality Management Plan |
| SWRCB | State Water Resources Control Board |
| TDS | Total Dissolved Solids |
| 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

Recognizing that unregulated urban runoff has the potential to negatively impact receiving water bodies in and around the City of Chula Vista (City), the City has been implementing storm water management programs since 1990. In response to increasing development and stricter permit requirements, the City has increased the scope of its storm water management efforts over the years.

On May 8, 2013, the California Regional Water Quality Control Board, San Diego Region (RWQCB) adopted an updated National Pollutant Discharge Elimination System (NPDES) Municipal Permit, Order No. R9-2013-0001, As Amended by R9-2015-0001 and R9-2015-0100 (Municipal Permit). The Municipal Permit regulates discharges to storm drain systems within 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, as well as 13 Copermittees in Orange County and 5 Copermittees in Riverside County (collectively referred to as "Copermittees").

The new Municipal Permit is based on a watershed approach, in which initial planning is at the watershed level. The San Diego Bay Water Quality Improvement Plan (WQIP) was developed and identified and goals, strategies, and schedules to improve water quality throughout the watershed. The San Diego Bay WMA is different from other WMAs since it is comprised of three separate and very distinct hydrologic units that are not interconnected, but have one final downstream water body, the San Diego Bay. Therefore instead of identifying the highest priority water quality conditions for the entire watershed, the WQIP identified Highest Priority Conditions and Focused Priority Water Quality Conditions. Jurisdictional programs and regional coordination are designed to implement goals and strategies identified during the watershed planning. The new Municipal Permit requires Copermittees to update their Jurisdictional Runoff Management Plans (JRMPs), to meet new Municipal Permit requirements and establish local implementation programs intended to fulfill the WQIP strategies, goals, and schedules developed in collaboration with the San Diego Bay Watershed Management Area Copermittees. Major components of the JRMP include illicit discharge detection and elimination, development planning, construction management, existing development management, and public education and participation. The San Diego Bay WQIP also includes a water quality monitoring and assessment component to evaluate progress towards established goals and schedules. Where deficiencies are observed, adjustments will be made to watershed and jurisdictional programs through an iterative approach and adaptive management process.

The City of Chula Vista has made updates to its existing 2007 Jurisdictional Urban Runoff Management Plan (2007 JURMP) based on the new Municipal Permit requirements specific to jurisdictional programs and additional program enhancements

as identified in the San Diego Bay WQIP. The components of the City's updated JRMP are discussed below.

## JRMP Components

### Introduction

The introduction includes a discussion of the general regulatory background leading up to the creation of this JRMP document, and general objectives of updating the JRMP document. City setting information, land use statistics, a map of the City's MS4, and information about Environmentally Sensitive Areas (ESA) within the City are included in this section and were updated to account for changes since 2007.

### Legal Authority Establishment and Enforcement

This section identifies and describes the City's legal authority to implement its storm water program. It also identifies and describes the departments within the City that conduct and oversee urban runoff management activities. An organizational chart that illustrates the relationships between the various City departments is also included. The City's legal authority to implement its storm water program is discussed, and the various enforcement tools at the City's disposal are detailed in this section.

### Illicit Discharge Detection and Elimination (IDDE)

Prohibitions of various non-storm water discharges and the City's approach to controlling such discharges are included in this component. Non-storm water discharges are releases of water to the MS4 not associated with rain. Most types of these discharges can increase pollutant loads in the water that flows in the City's storm drain system and eventually to receiving waters during non-storm conditions. The Municipal Permit prohibits non-storm water discharges except for a few categories that are conditionally permitted as described in more detail in the Municipal Permit. The categories of non-storm water discharges determined to be significant sources of pollutants are identified, and the appropriate control measures the City has identified to reduce the discharge of pollutants from such non-storm water discharges are discussed.

### Development Planning

Development has the potential to negatively impact water quality when not properly managed. The City has incorporated water quality provisions into its General Plan, and the City's Development Storm Water Manual (aka BMP Design Manual) regulations have been updated. This section also describes the mechanisms that the City uses to require that development projects are designed in ways that minimize their potential to negatively impact urban runoff, including requirements to implement Low Impact Development (LID) measures. 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. A database has been developed in support of this program. A system to require the responsible party for

each treatment control BMP to verify proper operation and maintenance of the BMP each year has been in place and continues to be implemented.

**Construction Management**
This section includes updated information and regulations applicable to construction activities within the City; a watershed-based inventory of the construction sites within the City has also been created. Updates to the construction BMP requirements are described in this section. Revised construction site inspection frequencies are presented, and enforcement processes, including the mechanism to report high level enforcement actions to the RWQCB, are described. The building and construction permit approval process and storm water related contract specifications for Capital Improvement Projects (CIPs) are also discussed.

**Existing Development Management**
Existing development comprises of industrial and commercial component; municipal component; and residential component as described below:

**Industrial and Commercial Component** – A watershed-based inventory of industrial and commercial facilities within the City has been created for this section, including mobile businesses known to operate in the City and new categories of businesses not required to be inventoried under the requirements of the previous permit. The City has also created a prioritization procedure for industrial and commercial facilities based off the experience and knowledge gained through the inspections conducted during the previous permit cycle. Similar to the Municipal Component, BMP requirements are based on the latest CASQA BMP handbook. References to the appropriate fact sheets and specific City exceptions to the fact sheets are identified. Also similar to the Municipal Component, pollutants likely to be discharged from various types of industrial and commercial facilities have been identified. This section also includes how the City meets the new inspection frequency requirements of the Municipal Permit. Education, staff training, and enforcement activities are also described in this section.

**Municipal Component** – This section provides an updated management program for municipal areas and activities; a prioritized, watershed-based inventory of these areas and activities is included in the updated JRMP. The City has developed a table that identifies the pollutant categories most commonly associated with the various categories of municipal areas and activities discussed in the JRMP. Another table in this section lists the updated BMP requirements for each category of municipal area or activity. The BMP requirements are based on those listed in the latest CASQA BMP handbook for municipal facilities. References to the CASQA fact sheets are presented in the table. Updated

descriptions of how the City meets the levels of MS4 maintenance and street sweeping are provided, as is a description of facility inspection procedures.

**Residential Component –** This section provides a description of residential areas and activities that have been identified as high TTWQ and how the City plans to target such areas and activities. Minimum BMPs required to be implemented for high TTWQ residential areas and activities and the City's mechanisms for enforcing them are discussed in this section.

**Enforcement Response Plan**

This section describes the processes by the City enforces its ordinances with respect to IDDEs, development planning, construction, and existing development. This includes the receipt and recording of violation reports made by both the general public and City personnel regarding storm water pollution and the City's MS4 Outfall Monitoring Program.

**Public Education and Participation**

The updated education programs and activities that the City uses to foster awareness and encourage behavioral changes relating to storm water activities are presented in this section. Information regarding educational programs for the general public, municipal staff, developers, and business owners are discussed in this section. This section also describes how the City provides outreach efforts specifically tailored for target communities and activities.

This section also describes the mechanisms that are used to encourage public participation in the City urban runoff management-related programs.

**Fiscal Analysis**

The means by which the City funds its annual storm water-related activities including jurisdictional, watershed, and regional activities is discussed in this section. This section also provides the methods of reporting the yearly fiscal analysis in the annual reports. A regional standardized expenditure and budget format that was developed collaboratively by the Copermittees of the San Diego Region will continue to be used in future annual reports.

**Conclusions and Recommendations**

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

Each year during the transitional period, the City has used the information and data collected pursuant to its JRMP implementation to develop an annual report as required by the Municipal Permit Section F.3.b.(1). These JRMP Annual Reports were submitted to the RWQCB by October 31 of each year. After the transitional period, data and information regarding the City's JRMP implementation will be included in the Water Quality Improvement Plan Annual Reports for the San Diego Bay Watershed pursuant to the Municipal Permit Section F.3.b.(3).

# 1.0 INTRODUCTION

In 2001 and 2007, the San Diego Regional Water Quality Control Board adopted Orders No. 2001-001 and R9-2007-0001 respectively. Those orders regulated storm water and non-storm water discharges from jurisdictions within San Diego County that operated municipal storm drainage systems. The Copermittees were required to develop Jurisdictional Urban Runoff Management Programs (JURMPs) that outlined Best Management Practices (BMPs) and other management measures that would minimize the discharge of pollutants to receiving waters to the maximum extent practicable (MEP). The latest revision to those orders is the current Municipal Permit, Order No. R9-2013-0001 (Municipal Permit). This new Municipal Permit requires each Copermittee to update its JURMP document to comply with the new requirements. This document titled the City of Chula Vista Jurisdictional Runoff Management Program (JRMP), dated June 2015, builds upon the City's previous JURMPs dated February 2002 and December 2007 and contains a description of the City's program as a whole, with updates to specific measures the City will implement or require to be implemented to comply with the Municipal Permit.

This document is based on the most updated information available at the time this document was prepared. The City will submit updates to its JRMP with the WQIP annual report. Any program modifications will be for the advancement of the City's program and will comply with all regulations as presented in the Municipal Permit.

## 1.1 BACKGROUND

### 1.1.1 URBAN RUNOFF AS A SOURCE OF POLLUTANTS

Urban development typically involves conversion of natural space to impervious developed area such as streets, buildings, and parking lots and an increase in human population associated with use of the impervious developed areas. Increase in impervious area is related to higher runoff volume and velocity because impervious area has reduced ability to absorb and hold rainwater. Land use of developed areas is associated with a number of pollutants that can be conveyed to the municipal separate storm sewer system (MS4) by a rain event or non-storm water discharges. Polluted discharges to the MS4 (which is interchangeably referred to as the storm water conveyance system throughout this document), such as urban runoff discharges, constitute a large portion of pollutants to receiving water bodies in the San Diego region and throughout the United States. Pollutants commonly associated with urban runoff include pesticides, fertilizers, herbicides, trash, sediments, oil and grease, and heavy metals. Such pollutants are generated by everyday activities such as landscaping and vehicle use.

Pollutants that reach receiving water bodies, such as streams, lakes, lagoons, and the ocean, have the potential to significantly impact human and environmental health. Notably, environmentally sensitive areas (ESAs) are already impacted by urbanization and are less tolerant to pollutant loading.

### 1.1.2 Regulatory Background

The 1987 amendments to the Federal Water Pollution Control Act (also known as the Clean Water Act, or CWA) established a framework for regulating municipal MS4 discharges under the National Pollutant Discharge Elimination System (NPDES). In 1990, the San Diego RWQCB issued Order No. 90-42, a regional NPDES permit for urban storm water discharges from the jurisdictions in the urbanized portions of San Diego County. In February 2001, the San Diego RWQCB issued Order No. 2001-01, which was a revised county-wide NPDES permit for urban storm water discharges. Another revised Municipal Permit, Order No. R9-2007-0001 was adopted by the RWQCB on January 24, 2007. As previously mentioned, Orders No. 2001-01 and R9-2007-0001 required each Copermittee, including the City of Chula Vista, to develop a JURMP. The JURMP included management measures for a variety of different sectors and activity types such as municipal, industrial, commercial, construction, and significant development and re-development activities.

On May 8, 2013, the San Diego RWQCB released a revised municipal permit, Order No. R9-2013-0001. The new Municipal Permit required all Copermittees to update their JURMPs, which are now called Jurisdictional Runoff Management Programs (JRMPs) to bring them into compliance with the new requirements.

## 1.2 Purpose and Objectives

The purpose of this document is to present a strategy to reduce the discharge of pollutants from the MS4 to the MEP. This involves improving existing programs and developing new programs intended to minimize or eliminate the effects of urban runoff from the City on receiving water bodies. Improving the quality of the discharge from the MS4 should have beneficial effects on the local receiving water bodies.

## 1.3 City Setting

The City of Chula Vista is located in the southwest portion of San Diego County and is bordered by the cities of San Diego and National City and unincorporated areas of San Diego County. The City itself has a land area of approximately 52 square miles and an estimated population of 250,000. Land use within the City is largely residential; other land uses in the City include municipal facilities, industrial and commercial facilities, streets, highways, and undeveloped open spaces. Land use categories with the corresponding acreage and percentage of the total area are included in Table 1-1 below.

**Table 1-1**
**City of Chula Vista Land Use* Breakdown**

| Land Use | Total Area (Acres) | Percentage |
|---|---|---|
| Residential | 8,334 | 25 |
| Commercial | 964 | 3 |
| Industrial | 811 | 2 |
| Educational and Institutional | 807 | 2 |
| Parks and Recreation | 394 | 2 |
| Open Space | 2,875 | 9 |
| Water, Streets, and Vacant | 19,181 | 57 |
| **Total** | 33,366 | 100 |

*Source: City of Chula Vista General Plan, 2005

### 1.3.1 WATERSHEDS

The City of Chula Vista lies entirely within the San Diego Bay Watershed. The San Diego Bay Watershed is different from other Watershed Management Areas (WMAs) since it is divided into three distinct hydrologic units (HU) which are not interconnected: Pueblo San Diego (HU 908), Sweetwater River (HU 909), and Otay River (HU 910). The City of Chula Vista lies within two of these HUs: Sweetwater River and Otay River, both of which ultimately drain to San Diego Bay. The City is naturally divided into a number of different drainage basins, which direct flow to the City's major receiving water bodies: San Diego Bay, Sweetwater River, the Upper and Lower Otay Reservoir, and Otay River. Despite the fact that all of the City is in the Sweetwater River and Otay River HUs, some areas of the City drain directly to San Diego Bay without first draining to either of these rivers.

The San Diego Bay Watershed Copermittees have developed a Water Quality Improvement Plan (WQIP) for the San Diego Bay WMA. San Diego Bay WMA WQIP has identified priority water quality conditions, sources, goals, and strategies to address the conditions from MS4s in the San Diego Bay WMA. The City has identified and will address a Focused Priority Water Quality Condition (FPWQC) for which numeric goals, strategies, and schedules have been established. The City has identified the physical aesthetics related to trash in the Lower Sweetwater Hydrologic Area (HA) and Otay River HA west of Interstate 805 as its FPWQC, as established within the San Diego Bay WQIP.

### 1.3.2 STORM DRAIN SYSTEM

The City owns and maintains improved open storm water channels, underground pipes of varying material, storm water detention basins, and a variety of other MS4 facilities, which are included in Map 1 of Appendix E.

### 1.3.3 ENVIRONMENTALLY SENSITIVE AREAS

Environmentally sensitive areas, as defined in the Permit, include but are not limited to the following:

- Clean Water Act Section 303(d) impaired water bodies
- Areas designated as Areas of Special Biological Significance (ASBS) by the State Water Resources Control Board (SWRCB)
- Water bodies designated with the RARE beneficial use by the SWRCB
- Areas designated as preserves or their equivalent under the Multi Species Conservation Program
- Any other equivalent environmentally sensitive areas which have been identified by the Copermittees

Based on the criteria listed above, the City has identified the following areas that are within or adjacent to Chula Vista as ESAs:

- San Diego Bay
- San Diego Bay shoreline at Bayside Park
- Chula Vista Marina
- Poggi Canyon Creek
- Telegraph Canyon Creek
- Sweetwater River
- Otay River
- Lower Otay Reservoir

San Diego Bay as a whole is included on the 2010 CWA Section 303(d) list of impaired water bodies for polychlorinated biphenyls (PCB) based on fish tissue analyses. The San Diego Bay shoreline at Bayside Park in Chula Vista, is 303(d) listed for indicator bacteria. The Chula Vista Marina is 303(d) listed for copper. The Otay River has been listed with RARE beneficial use. As a measure to protect a valuable drinking water resource and because the Lower Otay Reservoir is 303(d) listed for ammonia, color, iron, manganese, nitrogen, and pH, the City has designated the area of the City draining to the Lower Otay Reservoir as an ESA (Lower Otay Reservoir is not actually located within the City). Table 1-2 is a summary of 303(d) listed waterbody/ pollutants within the City of Chula Vista jurisdiction. Map 3 of Appendix E includes all ESAs within or adjacent to the City.

**Table 1-2 303(d) Listed Waterbodies within the City of Chula Vista**

| Waterbody | Pollutant |
|---|---|
| Poggi Canyon Creek | Toxicity |
| Telegraph Canyon Creek | Selenium |
| Sweetwater River, Lower | *Enterococcus* |
| | Fecal Coliform |
| | Phosphorus |
| | Selenium |
| | Total Dissolved Solids (TDS) |
| | Total Nitrogen as N |
| | Toxicity |

## 1.4 REPORT ORGANIZATION

**Section 1 Introduction**
The introduction includes a general regulatory background leading up to the creation of this JRMP document and background information about the City.

**Section 2 Legal Authority Establishment and Enforcement**
This section identifies mechanisms and procedures in place that establish legal authority for the City to prohibit and eliminate illicit discharges and connections to its MS4.

**Section 3 Illicit Discharge Detection and Elimination**
This section describes non-storm water discharge prohibitions and the City's approach to controlling such discharges. This section also describes the processes by which illicit discharges and connections are detected and eliminated by the City.

**Section 4 Development Planning**
This section addresses how the City will reduce discharges of pollutants and minimize hydromodification impacts from development projects through its project approval process and Best Management Practices (BMPs) requirements and maintenance verification and enforcement efforts.

**Section 5 Construction Management**
This section describes how the City will reduce discharges of pollutants from construction activities though its construction and grading permit approval process, contract specifications, and inspection procedures.

**Section 6 Existing Development Management**
This section provides updated descriptions of different categories of existing development, including fixed industrial and commercial sites/sources, mobile commercial sources, municipal facilities/sources, and residential areas/sources. This section also identifies BMP standards for each category of existing development as well as general inspection and enforcement procedures.

**Section 7 Enforcement Response Plan**
This section reiterates the City's legal authority to initiate enforcement action when necessary. It also describes different enforcement response approaches for various program components.

**Section 8 Public Education and Participation**
This section describes public education programs and activities that will be used by the City for each target community as required by the Municipal Permit. It also describes the mechanisms that will be used to encourage public participation in the City's urban runoff management related programs.

**Section 9 Fiscal Analysis**
This section provides City revenue sources, expenditure categories, and the methods of reporting fiscal analysis.

**Section 10 Conclusions and Recommendations**
This section describes conclusions and recommendations that were drawn from updates made to the JRMP document.

**Section 11 References**

**Appendices**

**Appendix A Ordinances**
The City has revised its ordinances as part of the JRMP update process to comply with the new requirements of the Municipal Permit.

**Appendix B Inventories**
Includes inventories of Priority Development Projects, construction sites, and existing development.

**Appendix C Implementation Tools and Procedures**

Provides storm water quality inspection forms for treatment control BMP operation and maintenance inspections, construction inspections, and existing development inspections. Minimum BMP Guidance Sheets for existing development and construction sites and residential education brochures are also provided in this appendix.

**Appendix D MS4 Outfall Monitoring Program**

Includes Dry Weather Monitoring Sampling Manual and the Dry Weather Monitoring Field Data Sheet.

**Appendix E Maps**

Includes MS4 Maps, City of Chula Vista Sensitive Areas, Other Agencies' and Land Ownership, and Residential Areas

**Appendix F Retrofit and Rehabilitation**

This section describes the City's efforts to retrofit existing development and rehabilitate its existing streams, channels, and/or habitats. Candidate projects selection will be based on a variety of factors, including but not limited to attainment of numeric goals associated with the FPWQC, feasibility, and multiple benefits.

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# 2.0 LEGAL AUTHORITY ESTABLISHMENT AND ENFORCEMENT

## 2.1 LEGAL AUTHORITY

The City of Chula Vista has establishes, maintains, and enforces adequate legal authority within its jurisdiction to control pollutant discharges into and from its municipal separate storm sewer system MS4 as specified in Provision E.1a of the Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001 (Municipal Permit or Permit).

The City has established and updated local ordinances that have been incorporated into the City's Municipal Code, which provide legal authority for enforcing storm water requirements. The major ordinances relating to storm water are the following:

- City of Chula Vista Storm Water Management and Discharge Control Ordinance (Municipal Code Chapter 14.20)
- City of Chula Vista Excavation, Grading, Clearing, Grubbing and Fills Ordinance (Municipal Code Chapter 15.04)

The above ordinances have been updated to be consistent with the requirements of the Municipal Permit and are included in Appendix A of this JRMP document. In addition, the City's Municipal Code includes other ordinances such as litter and public nuisance ordinances which are not specific to storm water issues but may, in some cases, be used to support storm water program implementation.

The City updated its BMP Design Manual (formerly known as the Development Storm Water Manual) which contains the City's regulations and requirements for development and redevelopment projects on January 2016. The BMP Design Manual is incorporated in the Chula Vista Municipal Code by reference in Chapters 14.20 and 15.04. It has the same legal standing as the Municipal Code itself and its requirements are legally enforceable.

The City will ensure that it has the legal authority to require BMP implementation, to prohibit all identified illicit discharges which are not exempt, pursuant to Provision E.2.a of the Permit, to prohibit and eliminate illicit connections to the MS4, and to control the discharge of spills, dumping, and disposal of materials other than storm water to its MS4. Section 3, Illicit Discharge Detection and Elimination, of this JRMP document provides more information on discharge prohibitions.

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, at a minimum, to do the following as required by Section E.1.a of the Municipal Permit:

1. Prohibit, and eliminate all illicit discharges and illicit connection (IC/IDs) to the City's storm drain system.

2. Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to its storm drain system and control the quality of runoff from industrial and construction sites, including industrial and construction sites which have coverage under the State Water Resources Control Board (SWRCB) Industrial General Permit, or SWRCB Construction General Permit, as well as to those sites which do not.
3. Control the discharge of spills, dumping, or disposal of materials other than stormwater into the storm drain system. 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;
6. Require the use of BMPs to prevent or reduce the discharge of pollutants in stormwater from the MS4 to the MEP;
7. Require documentation on the effectiveness of BMPs implemented to prevent or reduce the discharge of pollutants in stormwater from its MS4 to the MEP;
8. Utilize enforcement mechanisms, as discussed in the City's Enforcement Response Plan in Section 7, to require compliance with its statutes, ordinances, permits, contracts, order, or similar means.
9. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with its statutes, ordinances, permits, contracts, order, or similar means and with the requirements of the Municipal Permit, including the prohibition of ID/IC to its MS4. The City has 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.

### 2.1.1 CERTIFICATION OF LEGAL AUTHORITY

Provision E.1.b of the Municipal Permit requires that each Copermittee must submit a statement certified by its Principal Executive Officer, Ranking Elected Official, or Duly Authorized Representative that the Copermittee has taken the necessary steps to obtain and maintain full legal authority within its jurisdiction to implement and enforce each of the requirements contained in the Municipal Permit. This certification statement must be submitted to the RWQCB with the first Water Quality Improvement Plan (WQIP) Annual Report. The City of Chula Vista will submit the certification statement with the first WQIP Annual Report.

## 2.2 DEPARTMENTAL ROLES AND RESPONSIBILITIES

Personnel from various City departments are involved in the implementation of the City's storm water program. The following is a list of departments, divisions, and sections within the City of Chula Vista that conduct urban runoff related activities (see Figure 2-1, which presents the overall City of Chula Vista Organizational Chart). Only those departmental responsibilities and activities directly related to compliance with the Municipal Permit are mentioned below.

**City Attorney's Office**

- Reviews and approves contracts, agreements, and Agenda Statements related to storm water issues.
- Advises and assists Storm Water Management Section with Cease and Desist Orders, Administrative Hearings, and other escalated enforcement action.

**City Clerk's Office**

- Maintain records of Ordinances and Resolutions approved by the City Council and oversee the Ordinances incorporation into the Chula Vista Municipal Code.
- Process public records request related to the Municipal Permit and storm water.

**Office of Communications**

- Reviews and approves brochures, announcements, and other communication with the general public.
- Assists the Storm Water Management Section with the graphic design of brochures, websites, and other design needs.

**Finance Department**

- Coordinates with the Storm Water Management Section to evaluate annual budget needs and obtain necessary approvals.
- Collects citations and fines issued by Storm Water Management Section staff and manages accounts for such citations and fines.
- The Business License Section of the Finance Department refers mobile businesses with the potential to discharge pollutants to the Storm Water Management Section to be educated and to sign a certification before a business license is issued.
- The Purchasing Section of the Finance Department approves agreements and purchases by the Storm Water Management Section.

**Human Resources Department**

- Assists the Storm Water Management Section with recruitment of personnel.

- The Risk Management Section of the Human Resources Department assists the Storm Water Management Section with the insurance requirements of contracts.

**Information Technology Services (ITS) Department**

- **GIS Section**
  - Develops and maintains GIS layers for the City's storm drainage system, drainage basins, major projects status, Priority Development Projects, etc. This information is readily accessible to all staff via the CVMapper computer application.
  - Prepares GIS Maps for the Storm Water Management Section for inclusion in various required reports or other needs.
  - Develops applications within the CVMapper as requested by the Storm Water Management Section. Such applications facilitate access to scanned Water Quality Management Plans, Grading and Construction Plans.
  - Assists the Storm Water Management Section with developing programs to search the Business License database for identifying industrial and commercial facilities within the City of Chula Vista in preparation for the required inventories in the JRMP and annual reports.
  - The City's Webmaster assists the Storm Water Management Section in developing and maintaining the Storm Water Management web page.

**Development Services Department**

- **Planning Section**
  - Receives and reviews development and redevelopment applications. Development documents reviewed by the Department include Environmental Impact Reports, Initial Studies, Conditional Use Permits, Design Reviews, Tentative Map, etc.
  - The Department seeks and receives comments from other departments, divisions, and sections and ensures compliance with all City requirements by including conditions in the project approval.
- **Land Development Section**
  - Reviews and approves private project submittals for compliance with storm water regulations, including Storm Water Quality Management Plan (SWQMP), Subdivision Map Act, City's Ordinance, etc.
  - Issues grading and construction permits.
  - Drafts and signs maintenance agreements; covenants, conditions, and restrictions (CC&Rs); etc. with project applicants.
- **Building Section**

- Issues building permits and is responsible for storm water inspections of building projects while on-site inspecting for state and local building codes.
- Informs the Storm Water Management Section of impending Final Inspections on developments. The Storm Water Management Section inspects such projects for compliance with storm water requirements and verification of post-construction Best Management Practices, where applicable.

- **Code Enforcement Section**
  - Assists Storm Water Management Section staff with escalated enforcement actions.

**Department of Engineering and Capital Projects**

- **Design Section**
  - Plans and designs Capital Improvement Projects, and incorporates construction and post-construction BMPs in the project design.
  - Prepares construction and post construction BMP documents as required by the Municipal Permit, Construction General Permit (CGP), and the Chula Vista BMP Design Manual.
  - Develops contract documents and includes BMP implementation requirements in the conditions of contract.

- **Storm Water Management Section**
  - Coordinates Municipal Permit requirements
  - Develops and/or provides modifications for storm water-relate ordinances
  - Prepare storm water documents/reports to be submitted to the RWQCB
  - Participates in the development and implementation of the San Diego Bay Water Quality Improvement Plan
  - Maintains and updates, as needed, post-construction BMP requirements, including hydromodification requirements
  - Conducts inspections of construction, industrial, commercial and municipal facilities and manage their respective inventories
  - Conducts education and outreach to municipal personnel as well as outside organizations/individuals
  - Conducts water quality monitoring (including MS4 outfall monitoring)
  - Conducts IDDE source identification investigations and enforcement
  - Enforces the City's storm water requirements
  - Responds to and enforces storm water complaints received by the City's Hotline

- Respond to calls from all departments of observed violations of the City's Storm Water Management and Discharge Control Ordinance.
- Inspects Priority Development Projects (PDPs) to verify proper installation of approved post-construction structural BMPs
- The Storm Water Management Section is a part of the Construction and Inspection Section which inspects public and private construction projects, which in part include inspection of construction sites for compliance with temporary and permanent storm water BMPs.

**Economic Development Department**

- **Office of Sustainability**
  - Works closely with San Diego Gas & Electric (SDG&E) and other regional partners to promote energy efficiency and renewable energy
  - Administers the City's solid waste management and recycling program.
  - Administers the City's Household Hazardous Waste Collection and Used Oil Recycling Programs.

**Public Works Operations Department**

- **Storm Drain Maintenance Section**
  - Maintains the City's storm drainage system.
  - Responds to complaints and cleans spills to prevent pollution of storm drainage systems.
  - Reports observed violations of the City's Storm Water Management and Discharge Control Ordinance.
- **Wastewater Management Section**
  - Maintains the City's wastewater collection system to prevent sewage spills.
  - Responds to sewage spills from private sewer systems and laterals, contains and cleans up such spills to prevent or minimize discharge to storm drainage systems.
  - Reports observed violations of the City's Storm Water Management and Discharge Control Ordinance.
- **Street Maintenance Section**
  - Administers the City's street sweeping program.
  - Picks up trash from public right-of-way.
- **Parks and Open Space Section**
  - Maintains parks and open spaces.
  - Removes trash from parks and open spaces.

**Fire Department**

- Responds to hazardous materials spills.

**Police Department**

- Provides support to Storm Water Management Section staff when issuing Cease and Desist Orders.
- Assist with Stop Work Notices.

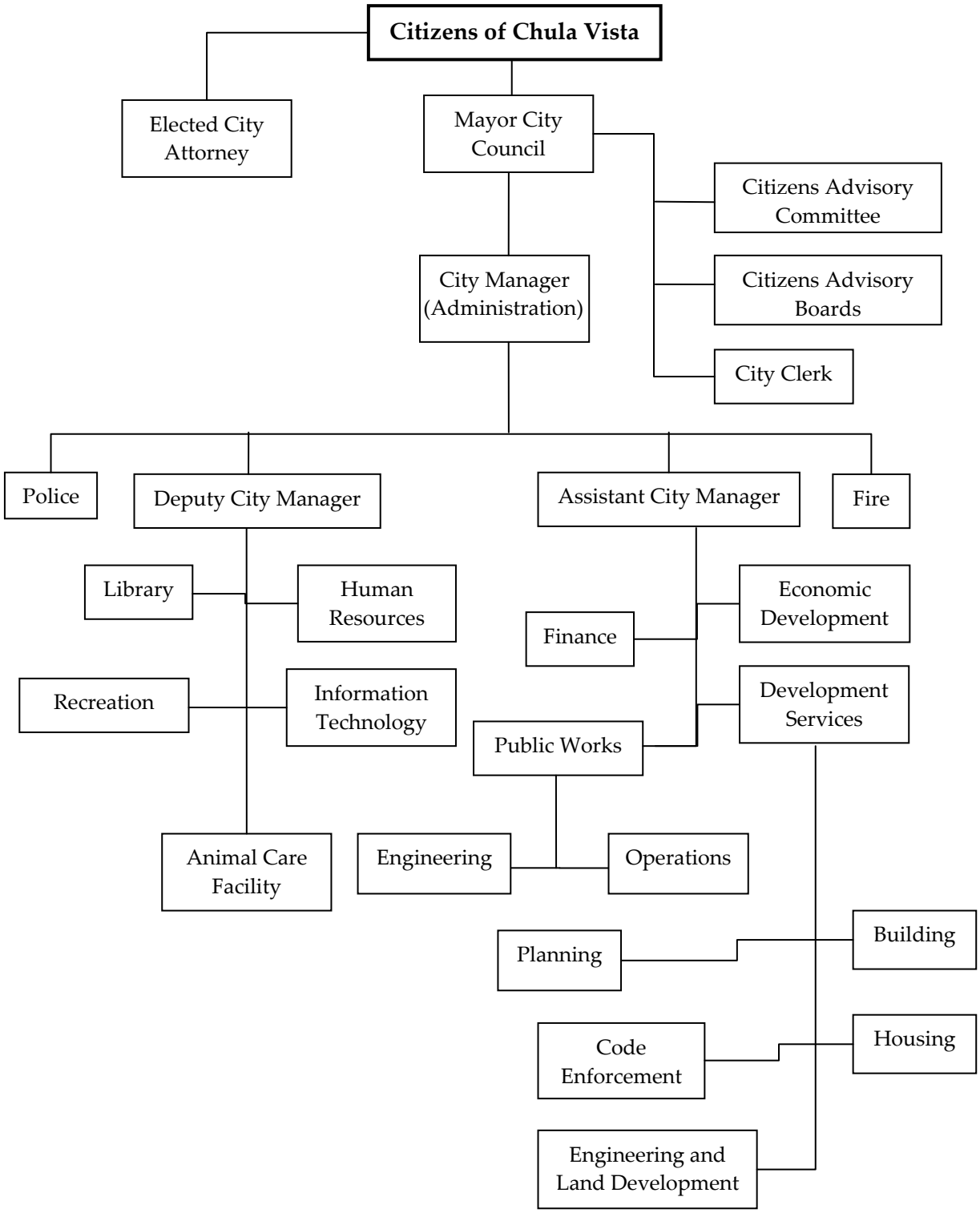


**FIGURE 2-1 City of Chula Vista Program Organization and Legal Authority**

## 2.3 ENFORCEMENT

The City of Chula Vista ensures compliance with its storm water ordinances, statutes, permits, contracts, orders, and the requirements of the Municipal Permit through inspections, surveillance, field screening, monitoring, and other methods described in this JRMP document. As discussed above, the City has established adequate legal authority to prohibit illicit discharges and connections to its MS4 and to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from existing development and construction sites that discharge into its MS4.

In the event of a non-compliance which cannot be resolved voluntarily, the City has established an Enforcement Response Plan which is included in Section 7.0 of this JRMP. The Enforcement Response Plan describes the City's approach to enforcement in different situations and discusses escalating enforcement methods that are used to bring about compliance within the shortest possible time.

## 2.4 JRMP MODIFICATIONS

Modifications to the JRMP, including associated attachments, will be documented during the annual reporting process to ensure clear communication and transferability from one staff person to another. Proposed modifications to the JRMP will be made in consultation with the affected departments. The Storm Water Management Section will record documentation of approval by the Mayor or designee. The updated JRMP will then be circulated to all City departments with stormwater program responsibilities.

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# 3.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

## 3.1 INTRODUCTION

Illicit/illegal (illegal) connections and illegal discharges can result in unauthorized discharges of pollutants to MS4s. Illegal discharges may be associated with activities such as vehicle washing or dewatering without appropriate BMPs. Illegal connections may include sewer pipes, washing machine effluent hoses, or other similar connections that have purposefully or mistakenly been configured to discharge into an MS4 pipe as well as other prohibited connections to the MS4. Unless promptly detected, contained, and captured, Illegal Connections and Illegal Discharges (IC/IDs) may flow untreated into receiving waters.

A list of prohibited discharges, controlled or exempt non-storm water discharges (allowable discharges) and a process for evaluating whether non-storm water discharge exemptions are allowed and under what conditions has been developed by the City, and is described in this section. IC/IDs can be defined as the following:

- An ***illegal connection*** is a connection that conveys an illegal discharge to the MS4 (pipe, drain, channel, catch basin, grated inlet, junction box, etc.).
- An ***illegal discharge*** is the act of disposing of any pollutant that is prohibited by the City either intentionally or unintentionally to the MS4. This does not include controlled non-storm water exempt discharges. Section 3.2 of this document discusses the City's discharge prohibitions in more detail.

The main objective of the Illegal Discharge Detection and Elimination component of the City's storm water program is to actively seek and eliminate IC/IDs into the MS4. Eliminating IC/IDs helps minimize potentially negative impacts of human activities on receiving water bodies.

The City's maintenance crews have been trained to proactively seek, identify, and report IC/IDs during their daily activities throughout the City. Detection and prevention of IC/IDs is achieved by

1. Operating a public reporting hotline
2. Facilitating online reporting of illegal discharges
3. Inspecting local businesses and municipal facilities
4. Conducting the Dry Weather Monitoring Program
5. Maintaining municipal MS4 and sewer systems
6. Educating the local community

The City investigates, inspects, and appropriately follows-up on every IC/ID that is reported or detected, to identify the source or sources of the discharge. Voluntary compliance and escalating enforcement mechanisms are implemented to immediately

eliminate the IC/ID once the source has been identified. Educational materials are distributed to help prevent future IC/ID occurrences. The City conducts annual MS4 outfall and source identification monitoring programs, which aid in identifying IC/IDs and are discussed later in this section.

## 3.2 NON-STORM WATER DISCHARGES

### 3.2.1 NON-STORM WATER DISCHARGE PROHIBITION

The City considers all non-storm water discharges as illegal discharges unless a non-storm water discharge is either identified as a discharge authorized by a separate NPDES permit, or identified as a category of non-storm water discharges or flows listed in Section 3.2.2 that must be addressed by control measures listed in Section 3.2.3.

### 3.2.2 CONTROLLED PERMITTED NON-STORM WATER DISCHARGE CATEGORIES

Generally, the following categories of non-storm water discharges are permitted if adequate control measures are implemented to ensure that the discharge does not cause or contribute to the pollution of storm drain systems or receiving waters. However, the City reserves the right to prohibit any discharge if the City considers it to be a source of pollutant, even if control measures listed in Section 3.2.3 are implemented. The City may require monitoring data from the discharger to determine if the discharge should be allowed. These situations are handled on a case by case basis. Controlled discharge categories are as follows:

1. Discharges requiring coverage under NPDES Permit No. CAG919001 (Order No. R9-2007-0034, or subsequent order) for discharges to San Diego Bay.
2. Discharges requiring coverage under NPDES Permit No. CAG679001 (Order No. R9-2010-0003, or subsequent order).
3. Permitted discharges if the City or the RWQCB do not otherwise identify the discharge as a source of pollutants to receiving waters.
4. Discharges requiring control measures as listed under Section 3.2.3
5. Firefighting discharges

Where feasible and priorities and resources allow, the City must reduce or eliminate non-storm water discharges listed under paragraphs 1 to 4 above, unless a non-storm water discharge is identified as a discharge authorized by a separate NPDES permit.

### 3.2.3 CONTROL MEASURES FOR CONTROLLED PERMITTED NON-STORM WATER DISCHARGE CATEGORIES

The City will periodically review and evaluate controlled permitted discharges to determine whether specified categories may be significant sources of pollutants to

waters of the United States. In certain cases, the City will prohibit the discharge category from entering the MS4. In other cases, pollution prevention methods, BMPs, and enforcement measures will be implemented for each category that is identified as a significant source of pollutants to the waters of the United States to reduce the discharge of pollutants to the MEP. Control measures for categories identified in Section 3.2.2 are as follows:

1. Discharges of non-storm water to the MS4 from the following categories are considered illegal discharges unless the discharge has coverage under NPDES Permit No. CAG919001 (Order No. R9-2007-0034, or subsequent order) for discharges to San Diego Bay:
    a. Uncontaminated pumped groundwater
    b. Discharges from foundation drains. Permit coverage is required only 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.
    c. Water from crawl space pumps
    d. Water from footing drains. Permit coverage is required only 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.
2. Discharges of non-storm water from water line flushing and water main breaks to the MS4 are considered illegal discharges unless the discharge has coverage under NPDES Permit No. CAG679001 (Order No. R9-2010-0003, or subsequent order). 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 installations. Discharges from recycled or reclaimed water lines to the MS4 are considered as illegal discharges, unless the discharges have coverage under a separate NPDES permit.
3. Discharges of non-storm water to the MS4 from the following categories are considered as illegal discharges only if the City or the RWQCB identifies the discharge as a source of pollutants to receiving waters:
    a. Diverted stream flows
    b. Rising groundwaters
    c. Uncontaminated ground water infiltration to MS4s
    d. Springs
    e. Flows from riparian habitats and wetlands
    f. Discharges from potable water sources
    g. Discharges from foundation drains. This exemption applies only 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-storm water under unusual circumstances.

h. Discharges from footing drains. This exemption applies only 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-storm water under unusual circumstances.

4. Discharges of non-storm water to the MS4 from the following categories are allowed on the condition that the discharge is addressed by the following BMPs, which are also discussed in the City's Minimum BMPs for Residential, Industrial, Commercial, and Municipal Sites/Sources in Appendix C; otherwise, they will be addressed as illicit discharge.

   a. Air conditioning condensation – The discharge of air conditioning condensation should be directed to landscaped areas or other pervious surfaces, or to the sanitary sewer, where feasible.

   b. Individual residential vehicle washing – The discharge of wash water should be directed to landscaped areas or other pervious surfaces where feasible. Usage of water, detergent, and other vehicle wash products used for residential vehicle washing should be minimized to the MEP. Other practices and/or behaviors that will prevent the discharge of pollutants and polluted runoff to storm drain systems should be implemented.

   c. Dechlorinated swimming pool discharges – Residual chlorine, algaecide, filter backwash, or other pollutants from swimming pools must be eliminated prior to discharging to the MS4. The discharge of saline swimming pool water must be directed to the sanitary sewer, landscaped areas, or other pervious surfaces that can accommodate the volume of water, unless the saline swimming pool water can be discharged via a pipe or concrete channel directly to a naturally saline water body (e.g. San Diego Bay or tidal reaches of the Sweetwater or Otay Rivers).

5. Firefighting discharges to the MS4 that the City or the RWQCB identify as significant sources of pollutants to receiving waters are considered illegal discharges. Firefighting discharges to the MS4 not identified as a significant source of pollutant to receiving waters must be controlled by the requirements provided below:

   a. Non-emergency firefighting discharges – Building fire suppression system maintenance discharges (e.g. sprinkler line flushing) to the MS4 are considered to be illegal discharges unless BMPs are implemented to prevent pollutants associated with such discharges to the MS4. Other non-emergency firefighting discharges such as discharges from controlled or practice blazes, firefighting training, and maintenance activities not associated with building

fire suppression systems must be controlled by implementing the following BMPs:

i. Best Management Practices – The City has developed and implemented a program to reduce pollutants from non-emergency firefighting flows. BMPs and educational methods are used to reduce the discharge of pollutants to the MEP. BMPs are implemented when conducting the activities described in the following sections.

ii. Regular Maintenance of Equipment – Vehicles and equipment must be cleaned where runoff can be directed to the sanitary sewer system. Alternatively, vehicles and equipment must be cleaned where runoff can pond and evaporate and/or where runoff filters through landscaped areas. Sewer drains in a vehicle cleaning area must be outfitted with hydro screen fabric barrier to collect debris. Spill kits must be available to promptly cleanup and contain leaking or spilled vehicle fluids. Use of soaps, cleaners, and detergents must be minimized and disposed of into the sanitary sewer system.

The City of Chula Vista maintains a number of fire stations, as listed in the municipal inventory (See Appendix B.4). Only one fire station (Fire Station No. 4/Training Tower) has training capabilities. This facility is located on a land which is slopes, so that all runoff generated by training activities is directed to a pervious infiltration area. Two fire stations within the City, Stations No. 2 and No. 7, have fueling stations on site. Trucks from other stations are brought to these locations for fueling. The following fire stations conduct washing activities onsite and have permanent storm water BMPs installed:

- Fire Station No. 6 – 3 filter inserts and a non-storm water diverter
- Fire Station No. 7 – 1 CDS unit and a non-storm water diverter
- Fire Station No. 8 – 1 CDS unit and a non-storm water diverter

Each of the above stations is sloped so that all runoff generated by washing activities flows to a drain equipped with a non-storm water diverter mechanism, which diverts the wash water to the sanitary sewer system and rainwater to the MS4.

All personnel who conduct washing activities are properly trained on using the diverter device and ensuring it is used appropriately. Trucks that require cleaning from other stations are brought to the stations equipped with washing capabilities.

iii. Training Exercises – Water flows must be directed to landscaped areas whenever possible. When water flows to an area where landscaping does not prevent runoff, the Officer-in-Charge must survey the area prior to

training activities to ensure that drill activities do not wash debris or sediment to the MS4. Prior to drill activities, debris must be removed from downstream areas that could potentially discharge to the MS4. Live fire training activities must be pre-planned to allow integration of barriers to off-site runoff that could contribute to storm water discharges.

iv. Facilities Maintenance – Impervious areas such as apparatus floors, maintenance bays, driveways, patios, and walkways must be swept regularly to remove debris. Debris must be placed in the trash. Landscaped areas must be maintained as required to reduce the introduction of leaves and other landscape waste into the MS4. Irrigation systems must be monitored and maintained to eliminate irrigation runoff from entering the storm drain system. Spills must be cleaned up using spill kits provided at the worksite, and the disposal of spilled materials must be in accordance with applicable regulations. Hazardous materials (Hazmat) spills that require a cleanup beyond the ability of the onsite personnel must be reported to the County of San Diego Hazardous Materials Division or a Hazmat certified contractor with appropriate resources to properly address the spill. Maintenance and repair of structures must be conducted using methods that do not contribute pollutants to the MS4.

b. Emergency Firefighting Discharges – During emergency situations, priority of efforts should be directed toward life, property, and the environment (in descending order). When and where possible and practicable, and when not interfering with health and safety, implementation of all applicable BMPs described in this section should be considered.

i. Discharges Associated with Emergency Firefighting Activities – To the extent allowed by the circumstances at the scene and without compromising the health and safety of personnel or the public, emergency firefighting activities should be performed in a manner that avoids or minimizes discharges to the MS4. Some BMPs that may be considered during emergency firefighting activities may include: 1) Minimize the use of water on the fire and/or use foam. 2) Block the storm drains that may be impacted to prevent the runoff from entering the storm drain system without causing flooding. 3) Avoid directing firefighting flows directly on erodible surfaces if runoff will enter receiving waters or storm drains. 4) Apply firefighting flows such that runoff will flow over vegetated areas prior to entering receiving waters or storm drains.

ii. Discharges Associated with Hazardous materials Spills – The City of Chula Vista Fire Department and safety personnel are trained to respond to hazardous material spills. Hazardous materials (Hazmat) spills that

require a cleanup beyond the ability of the onsite personnel must be reported to the County of San Diego Hazardous Materials Division or a Hazmat certified contractor with appropriate resources to properly address the spill.

iii. Post-Emergency Firefighting Activities – Tools, fire hoses, ladders, and other equipment utilized at the scene of an emergency are restored to a response-ready state in a manner that does not delay the ability of the apparatus to be available for another emergency response. Water must be used only if other practical and immediately available methods cannot be identified. Ins such cases, BMPs must be used to control water usage and effluent flows to prevent discharges to the MS4s.

## 3.3 Public and City Staff Reporting of Illegal Discharges and Connections

To further aid the process of identifying illegal discharges, the City encourages the public and City staff to report IC/IDs. Maintenance and operations personnel are also trained to promptly refer potential storm water violations observed while working in the field to the City Public Works Department (details of municipal staff training are discussed in Section 8.1 of this document).

A public storm water violation hotline (619-397-6000) is currently operated by City Public Works Operations Department. Additionally, the City of Chula Vista has an online form for reporting illegal discharges at the following link: http://www.chulavistaca.gov/departments/clean/contact-us

In addition to the Storm Water Hotline and online reporting, the City also utilizes a smart phone application called Act Chula Vista that allows the public to easily report and upload photos of illegal discharges or other storm water violations. City staff receives email notification about any online reports and forwards it to the appropriate staff for follow-up. Reported violations are received by Dispatch at the Public Works Department. Information is entered into a data management system (Lucity). Depending on the case, the person on duty at the Dispatch calls one or both of the following sections of the Public Works Department and provides the necessary information:

- Storm Water Management Section for investigation of storm water violations
- Public Works Storm Drain Maintenance Section for immediate containment and cleanup of illegal discharges that may enter or have entered storm drain systems

Storm Water Management Section staff responds immediately, investigates the case, and takes appropriate action to educate the illegal discharger and/or enforce the City's Storm Water Management and Discharge Control Ordinance. Public Works Department maintenance crews are equipped with vacuum trucks and other equipment and can

contain large volumes of illegal discharge and cleanup large spills. If the violation or accident involves hazardous materials, the Fire Department is informed and they respond immediately. When necessary, the Fire Department calls other responsible agencies or contractors for cleanup and handling of hazardous materials. When the case is closed, an incident report is entered into the database.

In cases of incidents occurring after working hours or on holidays, the Police Department has a dispatch number (619) 691-5151 where citizens can call and report emergency cases of illegal discharge. The Police Dispatch then calls the on-call Public Works Department Storm Drain Maintenance crews who respond, contain, and clean up the spill. Maintenance crews enter all the relevant information into the Lucity database and provide necessary information to Storm Water Management Section staff the following day for education or enforcement.

## 3.4 Spill Reporting, Response, and Prevention

The City implements spill prevention, spill response, and reporting mechanisms to prevent, respond to, contain, and clean up all sewage and other spills that discharge to its MS4 from any source that may contaminate surface water, groundwater, and soil. Elements of the program are described in more detail in the following sections.

### 3.4.1 Sewage Spill Prevention

Spill prevention measures outlined below are implemented to prevent overflows, spills, and infiltration from sanitary sewer systems to the MS4.

**Preventive Maintenance Activities**

Many spills can be avoided by putting effective preventative measures in place. Chula Vista operates and maintains a sewage collection system that consists of over 489 miles of pipeline. Under an agreement with the City of San Diego, collected sewage is transferred to the City of San Diego's sewer trunk lines and then to the Point Loma Facility for treatment and disposal. The City actively maintains its sewer collection system and MS4 as described in Section 6.4 of this document and ensures that the following measures are implemented:

- Sanitary sewer inspections.
- Thorough, routine preventive maintenance of all systems. The entire sanitary sewer system is cleaned annually, and "high priority" sewer lines are cleaned at least every one to two months.
- Recording of and response to public and City staff reported sewage spills.
- Video inspection of sewer systems to visually detect any potential problems.
- Replacement and upgrade of sewer pipes as part of the City's Capital Improvement Plan, on an as needed basis and subject to funding availability.
- GIS mapping of sewer and MS4 intersects.
- Alarm system at sewage pump stations.

**Sewer System Management Plan (SSMP)**

The State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ regulates sewer system maintenance, monitoring, and reporting with respect to SSOs. These regulations are met through the development and implementation of a Sewer System Management Plan (SSMP). The City of Chula Vista has developed a SSMP dated April 2009, which is designed to prevent or minimize the potential for SSOs. The program requirements of the SSMP are currently being met by the City.

The City continues to maintain a System Evaluation and Capacity Assurance Plan (SECAP), which is included as a section within the SSMP. The SECAP describes how the City actively attempts to understand potential capacity restrictions, and how they relate or contribute to SSOs. In the city of Chula Vista two types of capacity are typically analyzed: treatment capacity and flow capacity.

Another important element of the SSMP is the Fats, Oil, and Grease (FOG) Monitoring Program. Data from previous years indicate that the City of Chula Vista has experienced an average number of SSOs well below the San Diego County average. This can be attributed to the City's diligent preventive maintenance program for the wastewater collection system. However, more can be done via education and oversight of food service establishments.

In summary, the city's Sewage Spill Prevention efforts can be listed as follows:

- Manage, operate, and maintain at all times the parts of the collection system that the City owns or over which it has operational control
- Provide adequate capacity using citywide sewage flow monitoring programs to convey base flows and peak flows
- Take all feasible steps to stop and mitigate the impact of SSOs
- Provide notification to parties with a reasonable potential to exposure to pollutants associated with the overflow event through the County of San Diego
- Keep record of all maintenance activities

### 3.4.2 SEWAGE SPILL RESPONSE

The City of Chula Vista owns and operates a diverse wastewater collection system that consists of pump stations, gravity flow sewer mains, and force mains. Additionally, there are thousands of privately owned residential and commercial collection systems that connect to the City's collection system through private laterals. Any of the above systems are prone to clogging or other problems that cause SSOs. Spills from the sanitary sewer entering the MS4 may be discovered during routine maintenance activities or observed and reported to the City by citizens or City's maintenance crews, and they are dealt with as emergency situations requiring immediate action. Municipal personnel field crews are equipped with cell phones and can call the (619) 397-6000 (dispatch) number, or report spills to their immediate supervisor. Once a report of spill

is received by the City's Public Works Dispatch, adequate resources and personnel are immediately dispatched to the scene to control, contain, and cleanup the discharge.

As mentioned above, the City has developed and implements a SSMP which includes a section on Overflow Emergency Response Plan (OERP) to respond to SSOs and minimize the sewage overflow volume which enters storm drains and surface waters, and its resultant adverse effects on receiving water quality. Should a person need to notify the City of a spill condition after normal business hours or on holidays, the Public works phone number directs the person to call a non-life threatening Police Department dispatch phone number (619-691-5151), where the dispatcher collects the pertinent information and notify the on-call (Standby) Public Works staff. The Standby will investigate the reported spill and notify the supervisor of their findings. The supervisor has the authority to call for additional personnel if necessary to contain the spill clean, and disinfect the area. The supervisor then reports the SSO to other agencies as required by law.

The City requires that sewage discharges that are caused by blockages or other problems within a privately owned collection system or lateral, or failing septic systems are dealt with immediately by the property owner or other responsible parties. The City's maintenance crews remain onsite and contain the spill until the problem is taken care of.

In summary, measures to respond to and control sewage spills until the problems are mitigated are as follows:

- Secure the area by means of blocking off the affected area from public contact by using traffic cones, barricades, or warning tape to detour vehicles and pedestrian traffic safely around the affected area.
- Use proper traffic control patterns and advance warning signs.
- Intercept and reroute sewage flows around the sewage line failure by using materials such as Geo Logs or rock bags.
- Position a vacuum truck and begin to contain and recover SSOs.
- Call for more equipment if necessary.
- Containment of large overflow/spills may require different methods such as installing temporary dams and dikes or pumping to bypass using the City's own bypass pumping system.
- For spills from City sewer systems arrange for crews to take care of the problem. For spills from private collection systems or laterals instruct the responsible person to immediately arrange for plumbers to get to the site and mitigate the problem.
- Remain onsite and contain the spill until the problem is fixed and sewage flows as normal.
- Cleanup debris of sewage origin at the overflow site and wash and disinfect the affected area.
- Inform the Storm Water Management Section to require the responsible party to institute additional controls to prevent the repeat of similar spill incidences.

### 3.4.3 Other Spill Prevention and Mitigation Procedures

The City coordinates spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies so that maximum water quality protection is available at all times. If necessary, the City will coordinate with upstream and downstream Copermittees and/or other responsible agencies to prevent spills and illegal discharges into or from the City's MS4.

Spills are prevented and mitigated through the implementation and enforcement of BMPs, which are described for the Development Planning, Construction, Industrial and Commercial, Municipal, and Residential components in Sections 4, 5, and 6 of this JRMP.

Municipal personnel receive training regarding SSOs, as described in Section 8. The City has experienced a general downward trend in the number of SSOs reported, which has been facilitated by the City's well-managed wastewater collection system.

### 3.4.4 Hazardous Waste Disposal

The City of Chula Vista facilitates the proper disposal of used oil, toxic materials, and other HHW through education, providing public information, and providing a dedicated HHW collection center.

### 3.4.5 Spill Reporting

The SWRCB Order No. 2006-0003-DWQ regulates the operation of sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate such systems are required to comply with the terms of the above Order and such entities are referred to as "Enrollees". Among other requirements, Order No. 2006-0003-DWQ sets out monitoring and reporting requirements for SSOs. Those requirements were later amended by Order No. WQ 2013-0058-EXEC, which constitute current requirements for reporting of sanitary sewer spills.

Sanitary sewer spills are separated into four categories as follows:

> Category 1 – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that: 1) Reaches surface water and/or reach a drainage channel tributary to a surface water; or 2) Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured an disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

Category 2 – Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee's sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

Category 3 – All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

Private Lateral Sewage Discharge (PLSD) – Discharges of untreated or partially treated wastewater resulting from blockage or other problem within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

Notification, reporting, monitoring, and record keeping requirements for the above sewage spill incidences are as follows:

Notification – Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number. The Cal OES phone number to call is (800) 852-7550.

Reporting – The reporting requirements are as follows:

- Category 1 SSO – Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date.
- Category 2 SSO – Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date.
- Category 3 SSO – Submit certified report within 30 calendar days of the end of month in which the SSO occurred.
- SSO Technical Report – Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters.
- "No Spill" Certification – Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred.
- Collection System Questionnaire: Update and certify every 12 months.

Reporting should be accomplished through entering data into the CIWQS Online SSO Database http://ciwqs.waterboards.ca.gov certified by enrollee's Legally Responsible Official(s).

Water Quality Monitoring – Conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.

Record Keeping – The following records must be maintained by the enrollee:

- SSO event records.
- Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.
- Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.
- Collection system telemetery records if relied upon to document and/or estimate SSO Volume. Self-maintained records shall be available during inspections or upon request.

## 3.5 FIELD SCREENING

The City conducts field screening (i.e. visual observations, field testing, and/or analytical testing) of MS4 outfalls and other portions of its MS4 within its jurisdiction during dry weather conditions to detect non-storm water and illegal discharges and connections to the MS4 in accordance with the dry weather MS4 outfall discharge monitoring requirements of the Permit.

There are two phases of the dry weather MS4 major outfall discharge monitoring program. The initial, transitional phase of the program is to be implemented until the monitoring requirements and schedules of the long-term phase of the program are incorporated into the Water Quality Improvement Plan for the San Diego Bay Watershed Management Area and are accepted by the RWQCB. Long-term monitoring will then be implemented for the remainder of the current permit cycle. Each of the above two phases is explained in detail in the following paragraphs.

### 3.5.1 TRANSITIONAL DRY WEATHER MS4 OUTFALL DISCHARGE FIELD SCREENING MONITORING

Dry weather field screening monitoring is a crucial part of the City's urban runoff monitoring and illegal discharge detection and elimination programs. The City has been conducting dry weather field screening monitoring each year since 1994. The new transitional field screening program differs from previous dry weather monitoring programs in that it is designed to identify major outfalls throughout the City with persistent dry weather flows and to focus efforts on the identification and elimination of the sources of dry weather flows to the MEP. Unlike past dry weather monitoring programs, the transitional phase does not include field or lab testing of water samples.

The sampling component will be implemented in the long-term monitoring phase, described later in Section 3.5.2 of this document.

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.

The following paragraphs describe procedures for routine transitional dry weather MS4 outfall monitoring and for follow-up investigations to identify sources of flows.

The City of Chula Vista has identified all its major MS4 outfalls, which are listed in Appendix B.1 and shown on the map in Appendix E to this JRMP. According to Provision D.2.a.(2)(a) of the Permit, for Copermittees with 125 major MS4 outfalls or more, but less than or equal to 500, must visual inspected all the outfalls at least annually during dry weather conditions. The City of Chula Vista falls under this category and therefore field screening will continue to be conducted once during each of the transitional monitoring years. A monitoring year is defined as the period between October 1st of one year and September 30th of the following year.

#### 3.5.1.1 MS4 Outfall Discharge Monitoring Station Inventory

The Municipal Permit defines a major outfall as a single pipe with an inside diameter of at least 36 inches or more 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 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 lands zoned for industrial activity.

The City has identified all major outfalls within its jurisdiction and maintains an inventory of them as required by the Municipal Permit, presented in Appendix B.1 and shown on the MS4 map in Appendix E. In cases where a major outfall is permanently not accessible (e.g., due to private property constraints, safety concerns, excessive vegetation, etc.), the nearest accessible upstream location within the MS4 is designated as the monitoring site on the City's major outfall inventory.

Major outfall monitoring stations that are also within the Focused Priority area for aesthetics are identified in Table A3-3 of Attachment A3 to Appendix K of the WQIP Document. More information regarding these outfalls can be found in in said document. Persistent flow locations are designated in Table A2-3 and discussed in more detail in Section A.2.2.3 of the WQIP document. It is expected that the major outfalls identified in Appendix K of the WQIP as having persistent flow will change as persistent flows are eliminated. The City's selected persistent flow MS4 outfall

monitoring stations will be updated as needed as persistent flows are eliminated and per the City's adaptive management process.

Paired receiving water monitoring sites that will be monitored concurrently with MS4 major outfall monitoring locations in the Focused Priority Condition area locations are presented in Table A3-2 of Attachment A3 of Appendix K of the San Diego Bay WQIP.

City continues to assess trash as part of the MS4 Outfall Monitoring Program requirements at other major outfall locations in the Focused Priority Condition area, as presented in Table A3-3.

#### 3.5.1.2 SAMPLING PROCEDURES

Detailed procedures for dry weather major MS4 outfall monitoring, IC/ID investigations and prioritization of investigations are included in Appendix D (Dry Weather Major MS4 Outfall Discharge Monitoring Procedures). Additional field reference materials are available at all times including MS4 maps, contact numbers, and field equipment operating manuals and procedures. All field screening and laboratory analytical monitoring results are recorded on a Dry Weather Monitoring Field Datasheet included as an attachment to the Monitoring Procedures document (Appendix D). This datasheet is based on a standard form developed by the Dry Weather Monitoring Workgroup, and it may be modified in the future if directed by the workgroup or to reflect changes in record keeping and reporting requirements as directed by the WQIP and Municipal Permit.

### 3.5.2 LONG-TERM DRY WEATHER MS4 OUTFALL DISCHARGE FIELD SCREENING MONITORING

Permit Provision D.2.b sets out requirements for long-term dry weather MS4 Outfall Discharge Monitoring. This program consists of two separate elements:

1) Dry Weather MS4 Outfall Discharge Field Screening Monitoring – This element is a continuation of the transitional dry weather MS4 outfall discharge field screening monitoring and is primarily intended to identify and eliminate non-storm water and illegal discharges. During the long-term field screening program, the Copermittees are provided the flexibility to adjust the field screening monitoring frequencies and locations for the MS4 outfalls in their inventories to identify and eliminate sources of persistent flow non-storm water discharges in accordance with the highest priority water quality conditions identified in the Water Quality Improvement Plan.
2) Non-Storm Water Persistent Flow MS4 Outfall Discharge Monitoring. The second element is intended to determine which persistent non-storm water discharges contain concentrations of pollutants below Numeric Action Levels

(NALs), and which persistent non-storm water discharges negatively impact receiving water quality during dry weather. Prioritization of outfalls with persistent flows in this case is based on the highest priority water quality conditions identified in the Water Quality Improvement Plan for the San Diego Bay Watershed Management Area. If the City identifies and eliminates the source of the persistent flow non-storm water discharge, analysis of the sample is not required. For all other samples, the City will collect and analyze the sample for constituents listed in the Table of section 5.1 of the Dry Weather Major MS4 Outfall Monitoring Procedures (Appendix D). Persistent flow MS4 outfall monitoring stations that have been removed will be replaced with the next highest prioritized major MS4 outfall in the San Diego Bay WMA within the City's jurisdiction, unless there are no remaining qualifying major MS4 outfalls within the City's jurisdiction. This element of the long-term dry weather MS4 outfall discharge monitoring program will be discussed in Section 10 of this JRMP, which is dedicated to jurisdictional components of the Water Quality Improvement Plan and more specifically the Focused Priority Water Quality Condition for the City.

## 3.6 ILLEGAL DISCHARGE INVESTIGATION AND ELIMINATION PROCEDURE

All potential IC/IDs are investigated and eliminated in a timely manner after the City becomes aware of their occurrence. IC/IDs are mainly identified through routine inspections of existing development or construction sites (procedures are provided in Section 6), through public or City staff reporting and referrals, or the field screening program discussed earlier in this section. Illegal discharge reports and notifications are typically validated through field investigations conducted by City staff or an authorized contractor. Analyzing MS4 Outfall Monitoring Program data is another method used to detect potential illegal connections and illegal discharges. In this method, collected data is compared to the NALs included in Provision C of the Municipal Permit or other applicable and acceptable sources. All the City's major outfalls discharge to inland surface waters and therefore Table C-4 of the Municipal Permit is applicable to NALs with regard to non-storm water discharges.

**Numeric Action Levels**

Numeric action levels are used as the primary approach for interpreting dissolved oxygen, turbidity, pH, fecal coliform, enterococci, total nitrogen, total phosphorus, MBAS, iron, and manganese. These numeric action levels are based on the Basin Plan water quality objectives.

**California Toxics Rule**

The California Toxics Rule (CTR) Criteria Maximum Concentration (CMC) is used as action levels for cadmium, copper, chromium III, chromium VI, lead, nickel, silver, and zinc. Most of the action levels indicated in Table C-3 of the Municipal Permit are for discharges to saltwater conditions. For freshwater conditions, each action level is to be developed on a case-by-case basis but calculated criteria should not exceed Maximum Contaminant Levels (MCLs) under the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431.

**Best Professional Judgment**

Best professional judgment is used as the primary approach for interpreting parameters for which action levels are not specified in the Municipal Permit or other applicable and acceptable sources. Best professional judgment is also the secondary approach for interpreting the results of all other field and laboratory analyses. Best professional judgment may indicate that results which either exceed certain action levels or are statistical outliers may be the result of natural or background factors.

Procedures for investigation and elimination of illegal discharges and connections include four steps as follows:

1) Prioritization of investigations
2) Investigation and Inspection
3) Elimination of IC/IDs
4) Reporting

### 3.6.1 PRIORITIZATION

Provision A.1.b. of the Municipal Permit requires that non-storm water discharges into MS4s are to be effectively prohibited unless such discharges are authorized by a separate NPDES permit. As such and to the extent feasible, all non-storm water or pollutant discharges into MS4s should be identified and eliminated. However, in this effort higher priority should be given to discharges that pose a higher threat to human health or the environment or may have greater impact on the quality of receiving waters. As mentioned above, illegal discharges can be detected through routine inspections of existing development or construction sites, through public or City staff reporting and referrals, or the field screening or monitoring programs. The following criteria must be taken into consideration when prioritizing investigations of illegal discharges and illegal connections:

a. Illegal discharges observed during routine inspections of existing development or construction sites – This type of illegal discharge should be investigated during the inspection and eliminated as soon as possible.

b. Illegal discharges reported by the public or City staff – This type of illegal discharges should be investigated as soon as possible. Ongoing discharges should be investigated immediately where feasible. Other discharges of lesser

urgency should be investigated as soon as possible but not later than the next working day.

c. Illegal discharges detected or suspected during field screening – If visual or field testing evidence of contamination is present at a site during field screening or a routine investigation, an immediate source identification investigation should be initiated. Examples of visual or field testing evidence of contamination include substantial petroleum sheens, constituent concentrations above action levels, abnormal colors or odors not attributable to natural site conditions, or evidence of a sewage release. Other non-storm water discharges are investigated as well, such as swimming pool discharges and irrigation runoff discharges. These non-storm water discharges are address via education and enforcement, as needed.

d. Dry and Wet Weather MS4 Outfall Discharge Monitoring Data – Results from dry and wet weather MS4 outfall discharge monitoring should be annually evaluated to assess the overall quality of urban runoff in the City and identify potential problem areas. After prioritization of areas and problems, field investigations should be initiated to locate the sources of pollution in order of priority. The criteria for prioritizing investigations must consider the following:

- Pollutants identified as causing or contributing to the highest water quality priorities identified in the WQIP.
- Pollutants identified as causing or contributing, or threatening to cause or contribute to impairments in water bodies on the 303(d) List and/or in environmentally sensitive areas (ESAs) located within the City.
- Pollutants identified from sources or land uses known to exist within the area, drainage basin, or watershed that discharges to the portion of the MS4 within the City included in the investigation.
- Pollutants identified as causing or contributing to an exceedance of a NAL in the Water Quality Improvement Plan.
- Pollutants identified as a threat to human health or the environment.

#### 3.6.1.1 INVESTIGATION AND INSPECTION

When initial investigations confirm an illegal discharge or when follow-up sampling confirms continued exceedance of NALs, then the City conducts further investigation and makes every effort to identify the source of the illegal discharge. In some cases, the source cannot be easily identified due to the transitional nature of the illegal discharge or when a lapse in time has occurred between an incident to the time the City becomes aware of the discharge such as a car leaking oil on the street and leaving the scene. Also, during field screening events, it may happen that exceedances are not observed during the follow up visits, and without a high constituent level to track upstream, the investigation is unlikely to identify any sources. In those cases further investigation is not conducted but data is recorded and periodically compared to previous data to detect

patterns and identify problem areas. As noted earlier, when gross contamination is observed during a routine visit, an immediate upstream source investigation is initiated. Prior to beginning an upstream source investigation, field staff reviews previous dry weather monitoring reports and consult MS4 maps to plan the investigation. Jurisdictional monitoring data will be passed along to the WQIP groups, which may then decide to develop or revise NALs as appropriate.

If the source of illegal discharge has not already been reported to the City, dry weather flows are generally traced from the site in an upstream direction along the conveyance system. Field observations are made or when necessary, water samples are collected at upstream confluences for analyses of the constituent(s) being tracked. All samples are documented. If the samples are being submitted for laboratory analysis, they are delivered within the appropriate holding time, and all appropriate chain-of-custody procedures are followed. Photos and GPS coordinates are taken to aid in documentation and in potential enforcement procedures.

For dry weather flows that are traced to a specific source, if visual observations adequately provide proof of illegal discharge, staff documents observations, including photo documentation, gathers all evidence, and records site conditions. However, in the case of invisible pollutants, a confirmation sample of water from the source is collected at the curb or public right of way and may be submitted for analysis. Investigators take care to ensure the sample includes only water from the specific source and has not commingled with other discharges. If field observations or analysis of the sample indicates that an IC/ID is occurring or has occurred, appropriate action will be taken to eliminate the discharge as discussed in Sections 3.6.2 and 7.0. Where appropriate and feasible, field staff contacts the party responsible for the discharge regarding the IC/IDs and potential BMPs as soon as the source is positively identified.

In some cases, no above ground source can be located, and a below ground source such as an illegal connection or groundwater seepage may be the source of the water. In other cases, it may not be clear whether a potential source is connected to the downstream conveyance. The following techniques may be used by the City where appropriate:

**Review of Plans**

As-built drawings for the area of concern may be obtained to check how various lines were connected. Review of such plans is a useful first step, but plan review alone should usually not be relied upon to establish that an illegal connection is not present.

**Dye Testing**

Dye testing is useful to confirm hydraulic connections between the potential source and the location downstream. Non-Toxic 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 storm water 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 storm water 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 confined space trained crew may investigate the subject section of pipe or culvert instead of using video monitoring. All applicable health and safety regulations must be followed in this kind of investigation. The public and regulatory agencies 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. Water samples must be collected in sterile containers provided by the laboratory and delivered within the appropriate holding time.

All the information gathered from the initial reporting of the illegal discharge or connection to the final resolution of the case are entered into the City's Public Works database management system called Lucity. Typically, the following information is recorded and maintained:

- Location of incident, including hydrologic subareas, portion of MS4 receiving the non-storm water 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, the response is documented and reported with each Water Quality Improvement Plan Annual Report.

All source investigations in response to public and staff reports may be counted toward the required visual inspections of MS4 outfall discharge monitoring stations. The City may adjust the field screening monitoring frequencies and locations for the MS4 outfalls in its inventory, as needed, to identify and eliminate sources of persistent flow non-storm water discharges in accordance with the San Diego Bay WMA WQIP.

### 3.6.2 ELIMINATION

Action is taken to eliminate all detected 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 City's Enforcement Response Plan in Section 7.0 of this document.

If the source of a discharge is identified as a category of non-exempt non-storm water discharges, and the discharge is in exceedance of NALs listed in the WQIP, 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.

If the City suspects the source of the non-storm water 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. For example, the City may submit groundwater monitoring well data to support the conclusion of groundwater infiltration into the MS4.

**Remove Illegal Connections**

The City will require that the responsible party takes appropriate action to disconnect, block, stop, or divert drainage facilities and pipe connections that are determined to be illegal connections. Appropriate actions may include the following:

- Plug sinks and drains that are connected to the storm drain system.
- Disconnect all drainage pipes found to be illegal connections and provide for alternative connections to legal points of discharge.
- Dispose of contaminated flows or materials via other appropriate disposal or storage methods, such as the sanitary sewer system or Hazmat disposal.

Note that in some cases special permits from the local wastewater authority are needed before material can be discharged to the sanitary sewer system.

**Discontinue Illegal Discharges**
As applicable to each individual circumstance, the City will require that responsible parties implement the procedures outlined below to eliminate discharges that transport pollutant materials to the MS4.

- Use alternative methods and eliminate the source of the discharge
- Remove pollutant materials from the site
- Prevent pollutant materials from coming in contact with the discharge
- Contain potential illegal discharges on site for treatment or proper disposal

### 3.6.3 REPORTING

Provision E.2.d.(4) of the Municipal Permit requires the Copermittees to submit a summary of the non-storm water discharges and illegal discharges and connections investigated and eliminated within its jurisdiction with each Water Quality Improvement Plan Annual Report. The City of Chula Vista will maintain adequate information on each case to be able to report non-storm water discharges and illegal discharges per those requirements. The City will also maintain more detailed backup information in its data management system for future use and reference if needed. The City will also comply with the reporting requirements included in Section 1.l of Attachment B (Standard Permit Provisions and General Provisions) to the Municipal Permit.

## 3.7 MS4 MAP

Provision E.2.b.(1) of the Municipal Permit requires the Copermittees to maintain an updated map of its entire MS4 and the corresponding drainage areas. The City of Chula Vista maintains and regularly updates a GIS based mapping system that includes information about the City's MS4. This information can be used to develop various maps with needed information in geographic form. CVMapper, which is a proprietary desktop software, provides the interface for City staff to easily access various GIS layers and create their own maps showing various layers including MS4 drainage systems, aerial photos, drainage basins, parcel lines, etc. Staff can also search for parcels, drainage structures, etc. and get information about the property owners, etc.

A copy of the MS4 map is included in Appendix E of this JRMP. Due to the reduced scale of the map, it is not possible to see all the features, however, for City staff it is possible to use CVMapper to zoom in and get all the relevant information on a case by case basis.

# 4.0 DEVELOPMENT PLANNING

## 4.1 INTRODUCTION

Chula Vista's resident population grew 40.5 percent between the years 2000 and 2010 and is expected to continue rising, but at a slower rate. To accommodate this population increase, and provide opportunities for new businesses, new development projects are continually being proposed and built within the City. However, 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 has developed measures to limit the potential for development to negatively impact the environment through careful land use planning and thoughtful design of development projects. Development Projects are defined by the Municipal Permit as construction, rehabilitation, redevelopment, or reconstruction of any public or private project. Through the implementation of the City's development planning component the City will reduce the discharge of pollutants from development projects to the MEP to 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 addresses storm water pollution through implementation of its Municipal Code, specifically Chapter 14.20, Storm Water Management and Discharge Control (Storm Water Ordinance), included in Appendix A. In addition to the Storm Water Ordinance, the City has established design standards for new development and redevelopment projects that require use of permanent stormwater control measures, including Low Impact Development (LID), to minimize hydromodification impacts to local rivers and stream and to remove pollutants from stormwater runoff. This section describes the development process, from planning through project completion and long-term operation and maintenance.

## 4.2 LAND USE PLANNING

The City uses its land use and planning authorities to implement a development planning program for all development projects. The City's planning program incorporates requirements listed in the City's General Plan, targeted watershed plans for the Otay River watershed, and the San Diego Bay WMA WQIP strategies.

### 4.2.1 BACKGROUND

The City completed a comprehensive General Plan Update (GPU) in December of 2005. The GPU includes details on how the City will manage the use of land, meet the needs of the current and future community, and preserve natural resources and the overall character of the City through the year 2030. The General Plan consists of six major

elements: land use and transportation, economic development, housing, public facilities and services, environmental, and growth management. The Environmental Element of the General Plan includes a number of water quality and watershed protection principles. One of the major objectives within the Environmental Element of the City's General Plan is to "protect and improve water quality within surface water bodies and groundwater resources within and downstream of Chula Vista."

### 4.2.2 SOURCE CHARACTERIZATION

The City addresses seven major categories of land uses in its General Plan: residential, commercial, mixed-use, industrial, public, special planning areas, and streets, freeways, and right-of-ways. Mixed-use is a new City land use category in the GPU and has been adopted to support the City's sustainable development goals. Each land use is associated with different combinations of pollutants and activities that have the potential to negatively affect the surrounding environment. The recent adoption of mixed-use development places additional importance on controlling pollutants at their source for public safety reasons in addition to environmental quality concerns.

This development planning component focuses on how the City will reduce pollutant discharges in urban runoff as a result of development projects within the City to the MEP through land use planning and development project review, approval, and verification. Detailed discussion of the potential threats to water quality associated with existing residential, commercial, industrial, and municipal land uses and how the City plans to address these threats can be found in their designated sections within this JRMP document.

### 4.2.3 LAND USE POLICIES

To reach the City's objective of protecting and improving the water quality of surface water bodies and groundwater within the City's jurisdiction, the City has adopted the following policies, which are included in the Environmental Element of the General Plan:

- Ensure safely swimmable and fishable surface waters through careful management of land uses and activities within Chula Vista.
- Pursue safe alternatives to traditional pest management methods in order to reduce toxics in urban runoff and large open uses of land (e.g., golf courses, parks, and agricultural lands).
- Educate residents, business owners and City departments about feasible methods to minimize the discharge of pollutants into natural drainages and the municipal storm drainage system.
- Ensure compliance with current federal and state water quality regulations, including the implementation of applicable NPDES requirements.
- Encourage and facilitate construction and land development techniques that minimize water quality impacts from urban development.

- Maximize the protection of potable water supply resources from pollutants.
- Collaborate with other applicable jurisdictions in the development and funding of regional watershed management plans that will provide a balance between watershed protection, regional economic growth, and development of public infrastructure and services consistent with the goals and objectives of the General Plan.

To implement the policies outlined above, the City uses various programs and documents that are described in the following sections. The City also has established minimum design requirements for all development projects, which are discussed in Section 4.6.1.

### 4.2.4 General Plan and Watershed Planning

The General Plan is a legally binding document that has been adopted by the City Council, and the City is required to abide by its policies. The City implements the policies in the General Plan using a variety of resources, including the City's Municipal Code, various land use plans and permits, and Development Agreements.

In addition to the General Plan the City addresses water pollution issues through targeted watershed planning. The City was a participating member of the Otay River Watershed Management Plan (ORWMP) and the Otay River Watershed Special Area Management Plan (ORWSAMP). The ultimate goals of these two documents are to preserve natural areas and improve water quality within the Otay River watershed while still allowing for economic growth.

The City is also part of the San Diego Bay WMA and has incorporated strategies into the JRMP which were outlined in San Diego Bay WMA WQIP.

## 4.3 Program review and Implementation

Development projects undergo an environmental review process to ensure compliance with state and local laws. Additionally, the new Municipal permit requires all development planning projects to implement BMPs listed in the City's BMP design Manual. The City is in the process of updating the BMP Design Manual and the existing SUSMP manual requirements will be in effect until it is replaced by the updated BMP Design Manual in order to meet the new Municipal permit requirements. The BMP Design Manual has been modeled after the regional BMP Design Manual. Further details about the environmental review process and updates to the BMP Design Manual are described below.

### 4.3.1 Environmental Review Process

The City has evaluated its current established environmental review process for all development projects to determine compliance with the new Municipal Permit. Currently, when a project proponent initially contacts the City regarding a development

project, the City guides the project proponent through filling out all necessary paperwork and identifies which reports or forms need to be submitted and approved before development may begin. The City's current environmental review process emphasizes the evaluation of water quality impacts and other related impacts that each development project may have.

All development and redevelopment projects are reviewed for compliance with the California Environmental Quality Act (CEQA) by the Environmental Planning Section. The Environmental Planning Section and the Storm Water Management Section will review Environmental Impact Reports as needed to determine if water quality issues have been adequately addressed. The Land Development Section and Storm Water Management Section also review all private development projects for compliance with the Municipal Permit development planning requirements, and the City's Grading and Storm Water Management and Discharge Control Ordinances. The Engineering Design Section is responsible to ensure that public projects incorporate the same storm water requirements as private projects. Further description of how the City verifies compliance with the Municipal Permit development planning requirements is provided in The Standard Procedure for Development Projects Screening, Review, Implementation, and Maintenance document, which is included in Appendix C. The Standard Procedure document includes a flow chart and written description of the development project review and approval process for both public and private development projects.

The City has determined that the current environmental review process adequately addresses the needs of the new Municipal Permit. While the specific requirements evaluated during the environmental review process are expected to change periodically, the basic review structure, including the designated City departments responsible for reviewing submitted environment related documents, does not require revision at this time.

### 4.3.2 BMP DESIGN MANUAL

As a condition of the previous Municipal Permit, the City adopted a Local Standard Urban Storm Water Mitigation Plan (SUSMP) in January 2008, which was based on a regionally developed Model SUSMP. The Model SUSMP was developed to address post-construction urban runoff pollution from development projects. The Local SUSMP was incorporated in a document titled Chula Vista Development Storm Water Manual (Storm Water Manual), which was in turn incorporated in the Chula Vista Municipal Code to make its requirements enforceable. The Storm Water Manual was later updated in March 2010 and January 2011 to incorporate additional requirements of the previous Municipal Permit. The SUSMP considered certain categories of development projects deemed more likely to discharge pollutants defined in the City's SUSMP as Priority Development Projects (PDPs) which were subject to stricter requirements. As part of the design process, PDPs must submit post-construction BMP plans, generally known as

Water Quality Technical Reports (WQTR). The new BMP Design Manual, which will be in effect in 2015-2016, refers to the WQTR as the Storm Water Quality Management Plan (SWQMP). These reports list the BMPs proposed to address potential pollutants likely to be generated and other conditions of concern likely to be associated with the development.

In compliance with the requirements of the 2013 Municipal Permit, the City has updated its Storm Water Manual, which is now also known as the BMP Design Manual, to meet new Municipal Permit requirements. Details on the updates can be found in Section 4.3.2.1.

The BMP Design Manual is intended to be used by individuals involved with development projects within the City. It has compiled all requirements related to water quality with respect to development projects including permanent BMP requirements, construction BMP requirements (which are further discussed in Section 5), implementation requirements, and maintenance requirements. The BMP Design Manual also includes various checklists to help identify which requirements are applicable to each unique development project. The BMP Design Manual is available on the City's website, and hard copies are available at the City's offices.

#### 4.3.2.1 MODEL AND LOCAL BMP DESIGN MANUAL UPDATES

The City is in process of updating its BMP Design Manual to meet the new requirements outlined in the new Municipal Permit. The City's updated BMP Design Manual will be in conformance with the recommendations of the Model BMP Design Manual titled "San Diego Region Model BMP Design Manual for Permanent Site Design, Storm Water Treatment and Hydromodification Management" which is an update of the previous Countywide Model SUSMP. The following were performed during the review and update of the Regional BMP Design Manual:

- Procedures to identify storm water requirements for each category of development project were reviewed and updated where necessary.
- Procedures to identify pollutants and conditions of concern were reviewed and updated where necessary.
- Procedures for designing structural BMPs were reviewed and updated where necessary.
- PDP Project categories were updated.
- The document was reviewed to ensure no obsolete requirements were retained.
- Source control and LID requirements for all development projects were updated.
- Retention, biofiltration, and alternative compliance requirements were added.
- Changes to the hydromodification requirements were applied.
- Long term maintenance criteria were reviewed and updated where necessary.

In addition to the changes discussed above, an updated regional Model BMP Design Manual has been developed by all the Copermittees of San Diego County. The Model BMP Design Manual includes many changes to the previous Countywide Model SUSMP to bring the document in conformance with the new Municipal Permit requirements. Performance and design standards of the Model BMP Design Manual are generally accepted by the City of Chula Vista unless specified otherwise in the City's BMP Design Manual.

## 4.4 Development Project Approval and Verification Process

### 4.4.1 Background

As discussed in Section 4.5, the City of Chula Vista has an established multi-departmental review process for all new development and re-development projects. Through the use of the City's BMP Design Manual and development project review process, the City will mitigate the negative impacts of urban runoff from development projects to the MEP.

### 4.4.2 Source Characterization

As discussed earlier in this document, development projects have the potential to discharge different types and amounts of pollutants based on the development project's size and intended land use. Pollutants such as trash and debris are anticipated from all developments regardless of land use; however, pollutants like bacteria and viruses are more likely to originate from restaurants and residential developments rather than from parking lots and automotive repair shops. Since the potential for a site to discharge pollutants is unique to each development, the City's design requirements for development projects vary according to size, project characteristics, and anticipated land use.

As required by the Municipal Permit and explained in the Model BMP Design Manual, all development projects that require local permits, should implement source control and low impact development (LID) BMPs.

## 4.5 Development Project Requirements and Oversight

All development project applicants are required to use the checklists provided in the BMP Design Manual to identify specific BMP requirements for each development project and whether the project is subject to PDP requirements. These checklists must be completed by the party responsible for the development project and submitted with the project's permit applications. The Development Projects Storm Water Requirements handout found in the BMP Design Manual is used to determine if development projects are PDPs and thus subject to PDP requirements.

City personnel involved with public development projects also use this handout to identify applicable storm water requirements.

A project determined not to be a PDP is required to complete the "Permanent Standard Storm Water BMPs Requirements" form, which identifies what design concepts and BMPs must be implemented to meet the City's minimum design requirements.

### 4.5.1 PRIORITY DEVELOPMENT PROJECT EXEMPTIONS

The Municipal Permit provides the Copermittees the discretion to exempt some projects from being defined as PDPs as follows:

- New or retrofit paved sidewalks, bicycle lanes, or trails that meet the following criteria:
    - Designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas; OR
    - Designed and constructed to be hydraulically disconnected from paved streets or roads; OR
    - Designed and constructed with permeable pavements or surfaces in accordance with USEPA Green Streets guidance.
    - Retrofitting or redevelopment of existing paved alleys, street or roads that are designed and constructed in accordance with the USEPA Green Streets guidance.

The intent of this provision is to encourage the use of LID features in development and redevelopment projects and the City intends to use this option in its public project designs where LID BMPs are found to be more desirable and more effective than pollutant and hydromodification control BMPs.

### 4.5.2 PROGRAM IMPLEMENTATION

As discussed in Section 4.7, the Standard Procedure for Development Projects Screening Review, Implementation, and Maintenance document found in the BMP Design Manual provides a basic overview of the City's implementation process (including project tracking) for PDP and non-PDP development projects. Additional information on how the City implements its development project review and verification process is presented below.

#### 4.5.2.1 OUTREACH AND STAFF TRAINING

The City works closely with developers and consultants involved with the planning and design of development projects in the City of Chula Vista to make them aware of the City's storm water requirements. As soon as a project proponent contacts the City to obtain permits for a development project, the applicant is given the appropriate information regarding the applicable storm water requirements. The main tool used for

educating the development community about applicable storm water requirements is the City's BMP Design Manual. The City works closely with applicants during the entire approval process through meetings, phone conversations, and emails.

City staff involved in the planning, design, and review of development projects is trained on an as needed basis in storm water requirements. Training focuses on general water quality concepts in addition to specific PDP requirements and implementation procedures. City planners and engineers have been educated on the new Municipal Permit requirements, so they can effectively review development projects for appropriate BMP implementation and incorporate appropriate BMPs into City projects.

In accordance with the WQIP, the City trains on LID regulatory changes and BMP Design Manual. For more detail on the City of Chula Vista's outreach and training with respect to development planning, refer to Section 8 of this document.

### 4.5.3 Priority Development Projects Oversight

The applicant for a PDP must submit a SWQMP, which includes proposed source control, LID, pollutant and hydromodification control BMPs, and where offsite BMPs are proposed, details of offsite BMPs and onsite flow-thru BMPs. Calculations for sizing the BMPs, and a maintenance plan are also to be included in the SWQMP.

The applicant for a PDP is also required to sign a maintenance agreement with the City of Chula Vista to ensure that structural BMPs are maintained into perpetuity. The agreement identifies the responsible party for the maintenance of structural BMPs. In some cases the property owner is designated as the responsible party and the terms, covenants and conditions contained in the agreement constitute covenants running with the land and become binding on future owners. In other cases, the owners establish a Community Facility District (CFD), whereby they become responsible for the payment of maintenance costs to the City and the City undertakes to maintain the structural BMPs into perpetuity. A Standard "Storm Water Management Facilities Maintenance Agreement with Grant of Access and Covenants" form is included in the Chula Vista BMP Design Manual.

The City will not issue permits to development projects until all minimum BMP requirements are met. Any changes made to a development project's proposed storm water BMPs during project construction must be approved by the City before being implemented.

### 4.5.4 Priority Development Project Inventory and Prioritization

Since 2002, the City's Storm Water Management Section maintains and frequently updates an inventory of PDPs. The City's current PDP Inventory is presented in Appendix B-2. Since the entire City is within the San Diego Bay watershed, an explicit watershed field has not been included as part of the City's development project

inventory, but the watershed of all inventoried PDPs is the San Diego Bay Watershed. The inventory only includes PDPs with completed structural BMPs. Projects that are in the planning or construction phases at the time of this writing will be added to the inventory after the project is completed and proper structural BMP installation has been verified by the City. With the aid of the City's Prioritization of Priority Development Projects for Threat to Water Quality (Figure 4-1), all development projects with approved structural BMPs were prioritized as high or low Threat to Water Quality (TTWQ). The following criteria were used to determine the TTWQ:

- The focused water quality priority identified in the San Diego Bay WQIP.
- Receiving water quality.
- Number and sizes of structural BMPs.
- Recommended maintenance frequency of structural BMPs.
- Likelihood of operation and maintenance issues of structural BMPs
- Land use and expected pollutants generated.
- Compliance record.

The City's flow chart Figure 4-1 addresses basic site and pollutant control BMP characteristics that can influence a site's TTWQ such as receiving water body sensitivity, and the removal efficiencies of the installed pollutant controls. Note that not all development projects and pollutant control BMPs are the same and each may have unique water quality risks associated with it. The City will consider additional relevant factors beyond those included in the flow chart as necessary. Unless otherwise directly explained in future annual reports, the consideration of such factors will only be used to assign a higher priority than what would be expected based on the flow chart.

Each year the City of Chula Vista will prepare an inventory of all PDPs incorporating approved structural BMPs for completed development projects within the City's jurisdiction in addition to a list of all PDPs approved during the previous permit cycles. These inventories of PDPs will be included in the City's JRMP Annual Reports.

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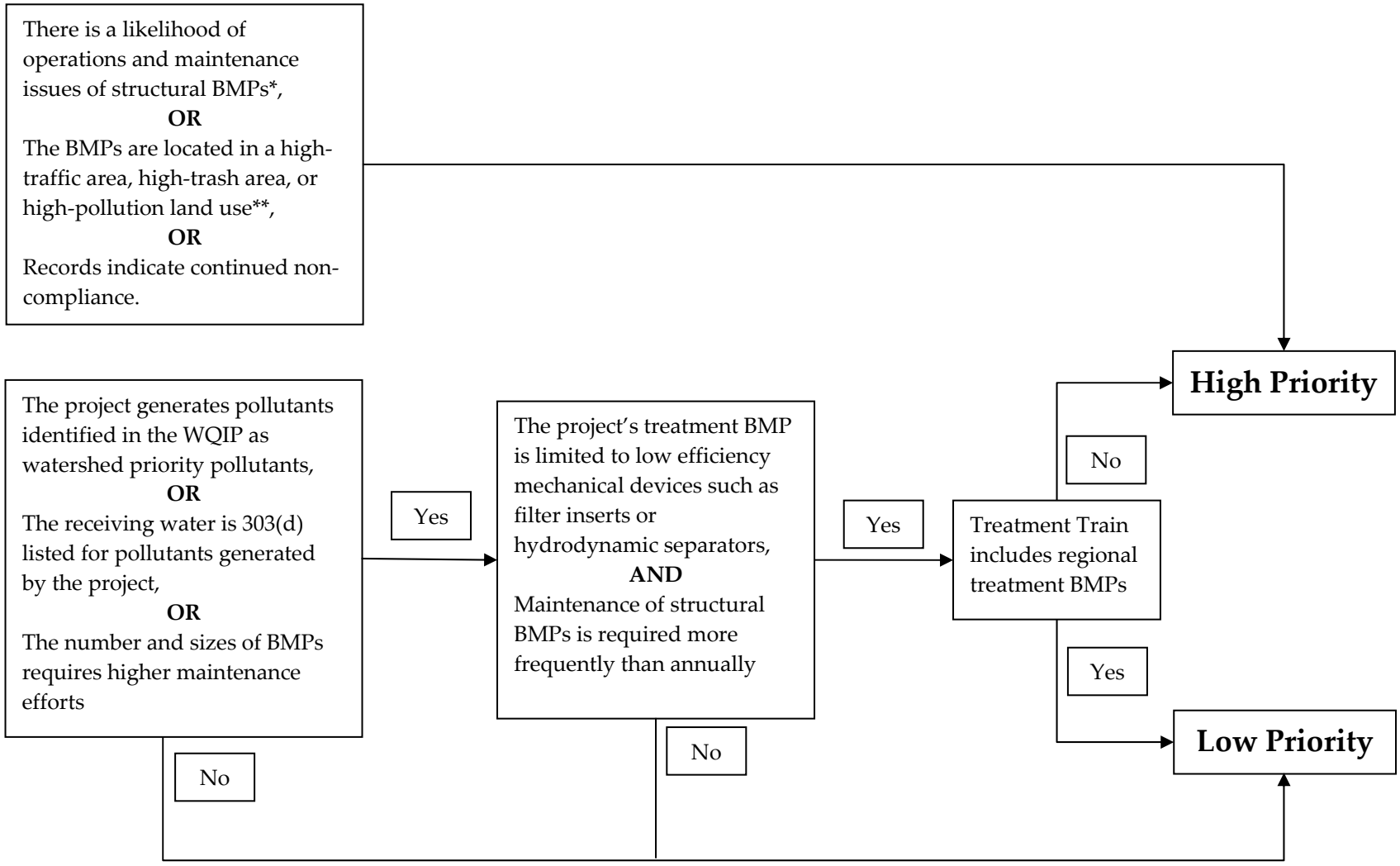
**FIGURE 4-1 City's Prioritization of Priority Development Projects for Threat to Water Quality**




* likelihood of operations and maintenance issues of structural BMPs: based on size, project land use, history and staff knowledge.
** High traffic areas: commercial and industrial corridors; High trash areas: commercial and industrial corridors & high density residential

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## 4.6 DEVELOPMENT PROJECTS BMP REQUIREMENTS

Development projects have the potential to discharge different types and amounts of pollutants based on the development project's size and intended land use. Pollutants such as trash and debris are anticipated from all developments regardless of land use; however, pollutants like bacteria and viruses are more likely to originate from restaurants and residential developments than parking lots and automotive repair shops. Since the potential for a site to discharge pollutants is unique to each development, the City's design requirements for development projects vary according to size, project characteristics, and anticipated land use.

The City's updated BMP Design Manual describes 10 specific categories for development projects and indicates common pollutants associated with each category. This source characterization can be used to design flow-thru pollutant control BMPs. A PDP must identify the potential pollutants anticipated from its development and implement design concepts and other BMPs to address these pollutants.

### 4.6.1 BMP REQUIREMENTS FOR ALL DEVELOPMENT PROJECTS

The City's BMP minimum requirements for all development projects are outlined below and are included in the City's BMP Design Manual. All development projects are required to implement the following principles, where applicable:

- Source control BMPs that reduce storm water pollutants of concern in urban runoff, including storm drain stenciling and signage, properly designed material and trash storage areas, and use of efficient irrigation systems.
- Low Impact Development (LID) BMPs that maximize infiltration, provide retention, slow runoff, minimize impervious footprint, direct runoff from impervious areas into landscaping, and construct impervious surfaces to minimum widths necessary.
- Provide buffer zones or other buffers for natural water bodies.
- Grading and construction activities must implement all requirements outlined in Section 5 of this document.
- Submittal of proof of a mechanism for ongoing long-term maintenance of all structural post-construction BMPs.

### 4.6.2 BMP REQUIREMENTS FOR PRIORITY DEVELOPMENT PROJECTS

In addition to the BMP requirements listed in Section 4.6.1 for all development projects, Priority Development Projects are also required to implement structural BMPs that

meet certain performance standards established by the Municipal Permit. These structural BMP requirements fall under two categories: storm water pollutant control and hydromodification management.

### Storm Water Pollutant Control BMPs

Storm water pollutant control BMPs are designed to remove pollutants from storm water discharges. A tiered approach is used to determine the appropriate storm water pollutant control BMPs for each project. All PDPs are required to implement LID BMPs that are designed to retain (i.e., intercept, store, infiltration, evaporate, and evapotranspire) onsite pollutants contained in storm water runoff. If the installation of these types of BMPs is infeasible, biofiltration BMPs shall be implemented. If both retention and biofiltration are infeasible, the project shall utilize flow-thru treatment control BMPs to treat runoff leaving the site.

### Hydromodification Management BMPs

Hydromodification management BMPs control the flow rate and duration of storm water discharges. PDPs must also implement hydromodification management BMPs unless the project qualifies for any of the exemptions specified in the City's BMP Manual. Hydromodification BMP requirements dictate that the post-construction runoff conditions (flow rates and durations) must not exceed pre-development runoff conditions by more than 10 percent. PDPs must be designed to ensure that they have no net impact on critical coarse sediment discharges to receiving waters.

Additional information on the BMP requirements for PDPs can be found in the BMP Design Manual. Where implementation of pollutant control BMPs or hydromodification BMPs are infeasible on a PDP project site, then the project must implement onsite flow-thru pollutant control BMPs and implement or contribute to the implementation of offsite BMPs (also known as Alternative Compliance). The City is currently participating in a study to identify technical information needed to support the development of an Alternative Compliance Program. Once the study has been completed the City will develop the Alternative Compliance Program.

## 4.7 Structural BMP Approval and Verification Process

Storm Water Management Section staff inspects all projects subject to PDP requirements prior to occupancy to ensure that all structural BMPs proposed for the project have been constructed in compliance with all approved plans and City permits and ordinances. Inspections of PDP sites prior to occupancy will allow the City to verify that all BMPs are in place before any anticipated pollutants associated with the occupied site are generated.

Public Works inspectors and the Storm Water Management Section staff check to ensure that BMPs have been built according to plans before signing off on each stage of construction. During inspections, the inspectors confirm that appropriate easements and ownerships are properly recorded in public records and the information is

conveyed to all appropriate parties when there is a change in project or site ownership. The inspectors use the project's grading plans and SWQMP to identify any missing or incorrectly installed structural BMPs and deny approval for sites with observed problems. Structural BMPs are also checked to ensure they are operating in compliance with all permits, ordinances, and the requirements of the Municipal Permit.

Digital copies of the grading plans and the SWQMP for each PDP are easily accessible to City staff through the City's electronic project tracking system described in the Standard Procedure for Development Projects Screening, Review, Implementation, and Maintenance document in Appendix C. Correct BMP installation is also examined during the final project inspection.

Since installation of structural BMPs is closely inspected and signed off during regular grading and building inspections, the City does not expect major deficiencies in BMP installation to be found once construction is completed. However, some pollutant control BMPs, such as filter inserts, are usually installed post-construction and thus may not be checked during grading and building inspections. Before final inspection of each project, Building Inspectors notify the Storm Water Management Section of the project's completion. This allows City personnel to check the completed project against its approved SWQMP. If any BMP, including filter inserts, 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 4.11.3 will be taken to require proper installation of all approved BMP(s).

### 4.7.1 Structural BMP Maintenance Verification and Inspections

All structural BMPs installed at PDPs are regularly inspected by Storm Water Management Section staff to ensure that they are operating effectively and are being properly maintained. Inspection frequencies are based on the project's assigned TTWQ priority as determined by the criteria outlined earlier. Table 4-1 below presents PDP priorities and their corresponding inspection frequencies.

**Table 4-1 PDP Inspection Frequencies**

| PDP Priority | Inspection Frequency |
|---|---|
| High | Annually (prior to the start of the rainy season) |
| Low | As needed, annual self-certification by the project |

Some development projects in the City have utilized a number of regional structural BMPs, such as regional water quality basins, which have been prioritized separately from the development projects that drain to them. Regional structural BMPs are taken into consideration when prioritizing each individual development project's TTWQ.

However, regional structural BMPs will likely have lower TTWQ priorities than the separate projects that drain to them. Thus, in some cases, regional BMPs may be inspected less frequently than the onsite BMPs at the projects that drain to the regional BMPs.

Inspections include examination of all structural BMPs at the site to verify that each BMP is working, being maintained properly, and is in compliance with all applicable City ordinances and permits. Inspection findings are documented by the inspector using the Treatment Control BMP Inspection Compliance Report included in Appendix C. If any deficiencies in the operation and maintenance of the structural BMPs are noted during the inspection, the responsible party is notified, and appropriate enforcement actions may be taken as described in Section 7.0 of this document to achieve compliance.

Inspection findings and follow-up actions for each development site with installed structural BMPs are entered into the City's structural BMP inspection and maintenance tracking database.

### 4.7.2 Annual Maintenance Verification

In accordance with the San Diego Bay WMA WQIP, the City will continue to require annual verification of proper maintenance of all structural BMPs by the party responsible for maintenance prior to the start of the rainy season. The City mails annual verification letters to the responsible party for each development site with structural BMPs in the City's electronic PDP inventory. Utilizing information from the City's structural BMP database, the verification letters inform the responsible parties of the structural BMPs for which they are responsible and require the responsible parties to sign statements verifying that the structural BMPs are being properly maintained in accordance with the sites' maintenance requirements. An example of the verification letter can be found in Appendix C.

### 4.7.3 Development Project Enforcement

The City uses a variety of enforcement methods to implement storm water requirements for all development projects within the City's jurisdiction. Enforcement methods include verbal and written warnings, notices of violation, monetary penalties, and denial of permits. A more detailed description of the different enforcement measures used by the City to enforce its storm water regulations and their legal basis can be found in Sections 2.0 and 7.0 of this document.

# 5.0 CONSTRUCTION MANAGEMENT

## 5.1 INTRODUCTION

Construction and grading activities have the potential to impact neighboring water bodies due to the presence of disturbed soils and building materials. It is important that construction sites take appropriate measures to prevent potential pollutants from entering the City of Chula Vista's (City) municipal separate storm water system (MS4).

The purpose of the construction component section is to limit the negative impact that construction and grading activities can have on receiving water bodies. The following section provides details on how the City will meet the minimum requirements outlined in Provision E.4 of the Municipal Permit to reduce the release of pollutants into the storm drain system to the MEP.

## 5.2 PROJECT APPROVAL PROCESS

As explained in Sections 4.5 and 4.6 of this JRMP, the City has a comprehensive process for reviewing development project submittals and ensuring that they comply with all federal, state, local laws, and regulations. As part of the project review and approval process, the City requires that all applicants for development projects submit a pollution control plan, construction BMP plan, and/or erosion and sediment control plan for review and approval. Local regulations for pollution control on construction sites are included in the Chula Vista Municipal Code Sections 15.04 (Grading Ordinance) and 14.20 (Storm Water Management Ordinance). Those ordinances in turn refer to the Chula Vista BMP Design Manual (formerly known as the Development Storm Water Manual) which includes detailed requirements for pollution prevention on construction sites.

The BMP Design Manual requires all projects that disturb one acre or more of land to obtain coverage under the NPDES Construction General Permit and submit a Storm Water Pollution Prevention Plan (SWPPP) for City review. Plan Check staff reviews SWPPPs and ensures that it meets the requirements of the Municipal Permit and the Storm Water Manual. The SWPPP is then accepted by the City as the construction site's local pollution control plan as well as the State Water Resources Control Board's SWPPP.

Project applicants whose project disturbs less than one acre of land are required to submit Construction Storm Water Pollution Control Plan (CSWPCP) or Construction Storm Water Certification Statement (both included in Appendix K of the BMP Design Manual) with their project submittals. The CSWPCP is a simplified version of the SWPPP and covers a comprehensive list of BMPs applicable to smaller construction sites. The applicants select from the list all those BMPs that are applicable to their

project and sign and certify the form. City staff reviews and approves the completed form before issuing any permits.

During the pre-construction meeting for each project, the City verifies that each construction site subject to the General Construction Permit has existing permit coverage and that the project's SWPPP or CSWPCP has been developed. The City also requires proof that a Notice of Intent (NOI) has been submitted for sites that are subject to the General Construction Permit.

City Capital Improvement Projects (CIPs) are required to implement the same minimum BMPs required for private projects. Responsible City personnel use the City's BMP Design Manual to prepare all required documents, which are submitted to the engineer in charge of the project who signs off on the plans and is responsible for compliance with all storm water regulations.

## 5.3 Education and Staff Training

The City provides all appropriate parties involved with construction activities with training and informational materials regarding storm water quality, as applicable. These parties include but are not limited to City employees and project proponents, which can include contractors, subcontractors, developers, property owners, and superintendents. The City's BMP Design Manual is the major tool used by the City to educate the development community in regards to storm water quality, and it is revised by the City as needed to ensure the document reflects current regulations and standards. Education and training of the development community in the City is typically done on a project-by-project basis, while training of City staff is done on an as needed basis. For further detail regarding the City's construction educational program, please refer to Section 8 of this document.

## 5.4 Construction Site Inventory and Tracking

The City of Chula Vista maintains a watershed-based inventory of all active construction sites issued a local permit within its jurisdiction. The City utilizes a construction site database to maintain its inventory. The inventory includes details on each construction site, including project name, owner contact, contractor contact, project address, HSA, WDID number, size of the site, approximate area of disturbance, TTWQ, start and completion dates, inspection frequency, date erosion plan(s) or equivalent accepted, and a list of outstanding enforcement actions. A list of current construction projects under the City's jurisdiction, all of which are located within the San Diego Bay watershed, can be found in Appendix B-3.

### 5.4.1 Inventory Updates

To ensure that the City's watershed-based inventory of construction sites is current and accurate, the inventory will be updated at least quarterly by the Storm Water

Management Section of the Public Works Department. Updates to the inventory will include the addition of new construction projects, the removal of completed construction projects, and re-assignment of inspection frequencies of active construction sites as needed.

### 5.4.2 CONSTRUCTION SITE PRIORITIZATION

For the purpose of determining inspection frequencies of construction sites, the Municipal Permit requires that all listed sites on the construction site inventory be evaluated for threat to downstream surface water quality. The Municipal Permit requires the following factors to be considered when determining threat to water quality:

- Sites located within a hydrologic subarea where sediment is known or suspected to contribute to the highest priority water quality conditions identified in the WQIP,
- Sites located within the same hydrologic subarea and tributary to a water body segment listed as impaired for sediment on the CWA section 303(d) List;
- Sites located within, directly adjacent to, or discharging directly to a receiving water within an ESA; and
- Other sites determined by the Copermittee or the San Diego Water Board as a high threat to water quality.

The WQIP does not identify hydrologic subareas where sediment in known or suspected to contribute to the highest priority water quality conditions in the City of Chula Vista. Also, the City does not discharge to a CWA section 303(d) listed water body impaired for sediment. Therefore, the first two factors do not apply to Chula Vista. There are significant areas of land within the City which are considered Environmentally Sensitive Areas (ESAs). These ESAs are shown on Map 3 included in Appendix E of this JRMP. Also, there are other factors that the City considers to affect a construction site's threat to water quality as discussed below. Therefore, the City has developed the following criteria for designating a site as a high threat to water quality.

- A site 50 acres or more in size where grading will occur during the rainy season.
- A site within, directly adjacent to, or discharging directly to a receiving water body within an ESA.
- Any other site that has been determined by the City to pose a significant TTWQ. The City will consider the following factors when evaluating TTWQ:
    - Soil erosion potential
    - Site slope
    - Project type
    - Sensitivity of receiving water bodies
    - Proximity to receiving water bodies

- Non-storm water discharge potential
- Past record of non-compliance at the site
- Other site specific factors

#### 5.4.2.1 Low Threat to Water Quality Sites

Construction sites that are not classified as high TTWQ are considered low TTWQ. These sites are generally less than one acre and have not otherwise been determined to be a significant threat to water quality.

The City recognizes that there are 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.

## 5.5 Program Implementation

The City's BMP Design Manual is designed to assist project proponents and City staff in meeting various Municipal Permit requirements with respect to construction activities. A section of the BMP Design Manual includes text and charts to help determine which projects need coverage under the NPDES Construction General Permit. Each site subject to the Construction General Permit is required to develop a Storm Water Pollution Prevention Plan (SWPPP). Each construction site not covered under the General Permit is required to develop a Construction Storm Water Management Plan Form 5504A (CSWPCP). Both SWPPPs and CSWPCPs are required to include a list of BMPs that will be implemented during each phase of construction to reduce pollution discharges to the MEP. All construction sites are required to implement the City's minimum BMPs listed in Section 5.6.1 as applicable in addition to the dry and rainy season requirements and additional controls outlined in Sections 5.6.2-5.6.4. Additionally, the construction BMPs are required to be shown on the project's Erosion Control Plan or equivalent. The SWPPP or CSWPCP is required to be kept at the construction site at all times for review by City inspectors and the RWQCB.

## 5.6 Best Management Practice Requirements

### 5.6.1 Minimum BMP requirements

The City has developed a set of minimum BMPs that must be implemented at all construction sites. The Chula Vista BMP Design Manual incorporates detailed requirements for pollution prevention on construction sites. Every construction site within the City's jurisdiction is required to implement general site management BMPs and erosion and sediment control BMPs to reduce, retain, and manage pollutant discharges to the MEP. Appendix C outlines the minimum construction BMPs required by the City where applicable along with the corresponding current fact sheets obtained from the CASQA Storm Water BMP Portal and the Caltrans Construction Site BMP

Manual, where available. BMPs included in Appendix C are also represented in the City's BMP Design Manual.

The City has special design requirements for some of the minimum BMPs Listed above which are outlined in the BMP Design Manual. Prior to start of construction activities, project proponents are required to present the planned BMPs that meet the above minimum requirements to the City's Development Services Department for compliance review. Refer to section 5.2 for a more detailed description of the review process.

### 5.6.2 SEASONAL SITE MANAGEMENT REQUIREMENTS

Construction sites are required to implement minimum construction BMPs outlined in Appendix C as applicable to prevent pollution discharges to the MEP regardless of the season. The City also requires additional or enhanced BMPs for specific site conditions that may be different for the rainy season (October 1st – April 30th) than they are for the dry season (May 1st – September 30th). The City's BMP Design Manual provides a detailed list of dry and rainy season requirements for all construction sites. For example, during the rainy season, all areas being graded that are left or planned to be inactive for more than 14 days must be fully protected from erosion. Sites are also required to retain enough materials on site to protect all disturbed areas if a rain event were to occur. The City sends all developers and contractors with active and inactive construction sites within the City's jurisdiction reminder letters of BMP requirements at the beginning of both the dry and rainy seasons.

### 5.6.3 MAXIMUM DISTURBED AREA FOR EROSION CONTROLS

The City requires that temporary or permanent erosion controls be implemented before a construction site has disturbed a total of 50 acres. If the site is in compliance with applicable stormwater regulations and has adequate control practices implemented to prevent stormwater pollution, the City has the option to give the site written authorization to disturb beyond the 50 acre maximum up to 100 acres maximum. The City will require, as necessary, additional controls for construction sites allowed to disturb more than 50 acres, which could include additional BMPs, increased inspection frequency, and/or stronger penalties for non-compliance.

### 5.6.4 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, advanced treatment will be required. The term "advanced treatment," as used in this section, includes both active and passive sediment treatment systems. These systems usually

involve adding a coagulant to construction site discharge to facilitate sediment removal; see the BMP Design Manual for additional details.

A site is considered to pose an exceptional threat to water quality if it meets all of the following criteria:

- Is located within, adjacent to, or a portion of the site is within 200 feet of waters listed on the 303(d) List for sedimentation or turbidity impairments;
- 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;

Contains a predominance of soils with U.S. Department of Agriculture – National Resources Conservation Service Erosion factor *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 Engineer as listed in the Water Quality Control Plan for the San Diego Basin for Inland Surface Waters and Lagoons and Estuaries (Basin Plan) 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 whether they meet the above criteria. For projects where advanced 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.

### 5.6.5 Additional Controls for Construction Sites

Depending on specific site conditions and where a threat to water quality is anticipated, the City may require a construction site to implement BMPs in addition to the minimum and seasonal BMPs describe above. Such additional BMPs will be determined by the City on a site-by-site basis. Additional controls may include required de-silting basins, increased inspection frequency, and/or stronger penalties for non-compliance. Currently, there are no water bodies that are 303(d) Listed for sediment in or downstream of the City.

## 5.7 Construction Site Inspections

The City has an established inspection program to evaluate compliance with storm water regulations at construction sites within the City's jurisdiction. Site inspections for both public and private construction sites are performed by City staff with inspection and enforcement authority. Sites are evaluated for compliance with each project's BMP requirements and applicable ordinances and permits (grading, storm water, etc.).

### 5.7.1 INSPECTION FREQUENCY

All construction sites within the City's jurisdiction have been assigned appropriate inspection frequencies as required by the Municipal Permit. The inspection frequencies are based on several factors, including threat to downstream surface water quality and construction site prioritization discussed in Section 5.4.2, and seasonal considerations discussed in Section 5.6.2. This approach optimizes inspection frequencies and focuses inspection efforts on a combination of construction sites and weather conditions where there is a greater potential for pollutant discharges. Inspection frequencies for construction sites are established as follows in Table 5-1 below:

**Table 5-1 Construction Inspection Frequencies**

| Site Prioritization | Inspection Frequency | |
|---|---|---|
| | Rainy Season | Dry Season |
| High | 2x per Month | Monthly |
| Low | Monthly | As needed |
| Inactive | Monthly | As needed |

The City maintains the right to inspect a site as often as deemed necessary but never less than the minimum frequencies outlined above.

### 5.7.2 INSPECTION CONTENT

Construction site inspections will include the following:

a. Where applicable, a check for proof of coverage under the Construction General Permit. This may include checking the SWPPP for a copy of the Notice of Intent and/or the WDID number. This proof can also be obtained from the State Water Resources Control Board SMARTS website. Once coverage has been confirmed, this information is not checked during subsequent inspections.

b. Assessment of the implementation of all required BMPs, including the minimum and any additional controls required by the City in the SWPPP or the CSWPCP.

c. Assessment of BMP adequacy and effectiveness. The inspector can issue orders for additional BMPs if it is determined that previously approved BMPs are not adequate or effective.

d. Visual observations of actual non-storm water discharges, actual or potential illicit connections, and potential discharge of pollutants in storm water runoff.

e. Visual observations for actual or potential discharge of sediment and/or construction related materials from the site.

f. A check for proper maintenance of the applicable BMPs.

g. Education of responsible person at the construction site on storm water pollution prevention as needed. A responsible person, preferably the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), or the site superintendent, should accompany the inspector and receive instructions on BMP deficiencies and corrective actions.

h. Photographs to document BMP implementation and potential violations. This photo documentation will be required in the event that enforcement actions become necessary.

The inspection form titled "Storm Water Quality Inspection for Construction Activities", attached in Appendix C, will be used during all construction site BMP inspections. The inspection form contains questions to ensure all the previously mentioned inspection components are addressed. The form lists the construction BMPs required by the City and includes boxes to document if BMPs need to be implemented or if they require maintenance. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in Section 5.8, will be taken.

### 5.7.3 INSPECTION TRACKING AND RECORDS

All inspection reports created by the Public Works Inspectors at construction sites are sent to the Storm Water Management Section, where the information is entered into a database called GBA/Lucity. GBA/Lucity is a data management system that is used by the Public Works Operations Division to track the City's Public Works Operations activities. In the event that follow-up inspections become necessary by the Public Works Inspectors, a copy of the inspection report is retained by the inspector until all issues are resolved.

The information tracked on construction site inspections include:

a. Project name, location (address or APN and hydrologic subarea(s)), and WDID number if applicable;

b. Inspection date;

c. Approximate amount of rainfall since last inspection;

d. 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;

e. Descriptions of any other specific inspection comments which must, at a minimum, include rationales for longer compliance time;

f. Description of enforcement actions issued; and

g. Resolution of problems noted and date problems fixed.

## 5.8 CONSTRUCTION SITE ENFORCEMENT

The City is responsible for enforcement of local ordinances and applicable local permits at all construction sites in its jurisdiction. Enforcement for construction projects will be administered by City inspectors and/or other staff with inspection and enforcement authority.

When violations are observed and documented during a site inspection, the City will utilize appropriate enforcement measures based on the severity of the violation. Enforcement can range from verbal warnings to more severe enforcement such as Stop Work Notices. Escalating 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 for construction sites include the following:

- Verbal warnings
- Written warnings
- Enforcement of contracts (municipal projects)
- Stop Work Notices and Orders
- Denial or revocation of permits
- Administrative, Civil, and criminal actions

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or before 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. For more detailed descriptions of the above enforcement methods and their legal base, please reference Section 7 of this document.

### 5.8.1 RWQCB NOTIFICATION

In accordance with Section 1.I. (6) of Attachment B of the Municipal Permit, the City will report any non-compliance associated with construction activity that may endanger human or environmental health. All information will be reported to the RWQCB verbally within 24 hours of the City becoming aware of the circumstances. Within 5 days of the City first becoming aware of the circumstances, a written submission including the following information will be provided to the RWQCB:

- Description of the non-compliance and its cause
- Exact dates and times of non-compliance, or if the non-compliance has not been corrected by the time of the written submission, the anticipated time it is expected to continue
- Description of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance

Criteria listed below will be used to determine the human or environmental health threats of a non-compliance event, whether from storm water or non-storm water discharges, where applicable:

- Estimated area of erosion caused by discharge
- Estimated pollutant load discharged from site
- Estimated volume of discharge
- Types of pollutants discharged, including if toxic materials were discharged
- Total suspended solids (TSS) concentration and turbidity of discharge
- Other materials discharged that pose a threat (concrete washout, sanitary washes, etc.)
- 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)
- How much, if any, of the discharge reached the receiving water body
- Beneficial uses for affected water bodies
- In addition to notifying the RWQCB about threats to human health or the environment, the City copies the RWQCB on NOVs, Stop Work Notices, or any other high level enforcement measures whenever they are issued to construction sites in the City's jurisdiction.

# 6.0 EXISTING DEVELOPMENT MANAGEMENT

## 6.1 INTRODUCTION

Existing development includes land uses and activities on industrial, commercial, municipal, and residential facilities and areas. Activities associated with existing development can contribute pollutants to the MS4. The City of Chula Vista has implemented a program that aims to reduce and prevent discharges of pollution from existing development into MS4s to the MEP to protect local receiving water bodies and to comply with the Municipal Permit. The City has compiled inventories of existing development facilities and activities and developed BMP requirements, including pollution prevention measures, for each source and activity. Implementation of these requirements will be accomplished through education, inspection, and enforcement. Because of varying concerns and pollution prevention approaches involved in dealing with each category of existing development, the following sections are divided into sub-sections, which separately deal with industrial, commercial, municipal, and residential land uses as follows.

## 6.2 EXISTING DEVELOPMENT INVENTORY AND TRACKING

The main objective of the existing development inventory is to identify sources of pollution and require responsible persons to implement BMPs to minimize or eliminate the impacts of such land use activities on receiving waters and other sensitive environmental resources. In developing existing development inventories, all the information required by Provision E.5.a of the Municipal Permit has been included, to the extent available.

Further, in order to optimize inspections and BMP implementation, some existing development facilities and activities have been prioritized into low and high priority or threat to water quality (TTWQ). This prioritization is based on several factors which have been further discussed under each sub-section below. The inventories current at the time of writing this document are included in Appendix B. Each year the City will review its inventories and update them where necessary. Each inventory includes at a minimum the following:

1. Individual facility classification as Industrial, Commercial, Municipal or Residential;
2. Name and location (hydrologic subarea (HSA) and address if applicable) of the individual facilities;
3. Status of area as active or inactive.
4. Identification if a business is a mobile business;
5. SIC Code or NAICS Code, if applicable;
6. Industrial General Permit NOI and/or WDID number, if applicable;
7. Residential Inventory only: Drainage basin (and RMA if this information is different than the drainage basin);
8. Identification if a residential area is or includes a Common Interest Area/Home Owner Association, or mobile home park;

9. Identification of pollutants generated and potentially generated by the facility area.
10. Whether the area is adjacent to an ESA (within 200 feet).
11. Whether the area is tributary to and within the same HSA as a water body segment listed as impaired on the California Water Act (CWA) section 303(d) List and generates pollutants for which the water body segment is impaired.

Existing development facility inventories are included in Appendix B; watershed boundaries and water bodies are shown on the Map 1 in Appendix E. The inventories will be maintained and updated annually. It must be noted that the City of Chula Vista is completely within the San Diego Bay Watershed and the watershed designation has not been repeated for each facility or activity listed on the inventory.

### 6.2.1 INDUSTRIAL FACILITIES INVENTORY

A watershed-based inventory of industrial sites/sources within the City's jurisdiction has been compiled and is included in Appendix B.5. Information was obtained from the City's business license listings, the State of California database of industrial sites that have filed NOIs, inspection records, and local knowledge and experience.

Examples of the most common industrial facilities within the City of Chula Vista include the following categories:

- Industrial Facilities, as defined at 40 CFR § 122.26(b)(14)
- Facilities subject to the statewide General Industrial Permit or other individual NPDES permit
- Facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Hazardous waste treatment, disposal, storage and recovery facilities

Each facility has the potential to discharge pollutants into the MS4 and hence degrade local water quality. In this program, pollution prevention methods will be used as a primary mechanism for reducing discharges of pollutants into regional MS4s from industrial facilities. Often, the most cost effective and simple solution to reducing pollution is to implement pollution prevention techniques at the source. The City will also require minimum site and activity specific BMPs to be implemented, and inspections and enforcement procedures will be conducted where necessary, to comply with the Municipal Permit.

The inventories will be updated annually through reviewing business license records for new businesses, performing routine inspections, and responding to reported incidents.

### 6.2.2 STATIONARY COMMERCIAL FACILITIES INVENTORY

Watershed-based inventories of stationary commercial sites/sources within the City's jurisdiction have been compiled. The City's stationary commercial inventory is separated into the inventory of stationary commercial facilities with high threat to water quality

(HTTWQ), included in Appendix B.6, and the inventory of stationary commercial facilities with low threat to water quality (LTTWQ), included in Appendix B.7. This arrangement facilitates more frequent inspections of stationary commercial facilities that pose a higher threat to water quality and increases the effectiveness of the program.

Information for the inventories was obtained from the City's business license listings, inspection records, and previous local knowledge and experience. Examples of the most common stationary commercial facilities within the City of Chula Vista include the following categories:

- Automobile repair, maintenance, fueling, or cleaning
- Equipment repair, maintenance, fueling, or cleaning
- Automobile and other vehicle body repair, or painting
- Automobile (or other vehicle) parking lots and storage facilities
- Retail or wholesale fueling
- Eating or drinking establishments, including food markets
- Nurseries and greenhouses
- Golf courses, parks and other recreational areas/facilities
- Building material retailers and storage
- Animal facilities

The inventories will be updated annually through reviewing business license records for new businesses, performing routine inspections, and responding to reported incidents.

### 6.2.3 MOBILE BUSINESSES INVENTORY

A watershed-based inventory of mobile businesses within the City's jurisdiction has been compiled and is included in Appendix B.8. Information was obtained from the City's business license listings.

Examples of the most common mobile businesses within the City of Chula Vista include the following categories:

- Mobile automobile or other vehicle washing
- Mobile carpet, drape or furniture cleaning
- Mobile construction trades
  - Cement mixing or cutting
  - Masonry
  - Painting and coating
- Landscaping
- Pool and fountain cleaning
- Power washing services

In addition to the types of businesses listed above, any other mobile businesses that the City identifies as significant threats to water quality will be added to the inventory. Because not all mobile businesses have obtained business licenses in the City or have a base of

operations in the City, the City expects that a continual process of refining and updating its inventory will be needed. Sources for such inventory updates will include reported incidents, general observations by City staff, and available business licenses.

Illegal discharges tend to be the major area of concern with mobile businesses. Due to the nature of their activities, mobile businesses are regulated somewhat differently than other businesses. Mobile businesses can be difficult to identify because many do not have City business licenses. Additionally, new mobile businesses are started and previously existing mobile businesses go out of business on a relatively regular basis. For the reasons listed above and also simply because they are not consistently present at a fixed location, regular inspections of mobile businesses are not a feasible option.

The inventory of mobile businesses will be updated annually through reviewing business license records for new businesses and responding to reported incidents.

### 6.2.4 Prioritization of Industrial and Commercial Facilities

The City has prioritized both industrial and stationary commercial businesses as either high or low TTWQ. This prioritization is not required by the Municipal Permit but the City has determined that it has value in optimizing pollution prevention efforts by focusing on facilities and activities that have higher potential for illicit discharges and greater impact on receiving water quality. The City of Chula Vista evaluated the potential TTWQ of each business by reviewing historical records of compliance with BMP standards established for industrial and commercial facilities and activities. The industrial and commercial inventories included in Attachment B to this JRMP are prioritized according to this methodology.

The prioritization of industrial and commercial facilities will be updated annually and any industrial or commercial facility that is issued a citation or Notice of Violation; or is not fully in compliance with BMP standards established by the City will be automatically moved to the HTTWQ status.

Businesses that are identified as HTTWQ are inspected more frequently than the minimum inspections required by the Municipal Permit until such time that their inspection records indicate continued compliance.

### 6.2.5 Municipal Facilities Inventory

Due to the large expanse of municipal areas and activities, City staff must carefully manage pollution prevention measures and BMPs to reduce or potentially eliminate the discharge of pollutants into the MS4 from municipal areas and activities. The City of Chula Vista owns, operates, and maintains a variety of municipal facilities including public parks, a civic center complex, a corporation yard, fire stations, libraries, public parking lots, and other buildings in addition to streets; sewer and storm drain systems; open spaces; etc. Additionally, the City conducts potentially high TTWQ municipal activities such as power washing, graffiti abatement, street and sidewalk repair, building cleaning, painting,

fountain maintenance, and vehicle maintenance. To comply with the Municipal Permit, the City of Chula Vista has developed a comprehensive program designed to reduce the amount of pollutants that are transported in urban runoff from municipal areas and activities.

In order to accomplish an effective municipal pollution prevention program and comply with the Municipal Permit requirements, the City of Chula Vista has developed a watershed-based inventory of municipal properties and activities which is included in Appendix B4. The municipal inventory, including areas and activities, is updated annually.

### 6.2.6 PRIORITIZATION OF MUNICIPAL FACILITIES

Municipal facilities are prioritized based on their threat to water quality which takes into consideration a variety of site-specific factors including:

- Type of municipal area or activity
- Materials used
- Wastes generated
- Pollutant discharge potential. Table 6-3 at the end of this section details the pollutants potentially generated by municipal facilities.
- Non-storm water discharges
- Size of facility or area
- Proximity to receiving water bodies
- Sensitivity of receiving water bodies
- Any other relevant factors
- Compliance history

Based on the above factors, the following municipal facilities and activities have been designated High TTWQ:

- Roads, Streets, Highways, and Parking Facilities
- Flood Management Projects and Flood Control Devices
- Areas and activities tributary to a CWA section 303(d) Listed impaired water body segment, where an area or activity generates pollutants for which the water body segment is impaired.
- Municipal Facilities within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas.
- Power Washing
- Other municipal areas and activities that the City has determined to potentially contribute a significant pollutant load to the MS4

All other municipal facilities which do not meet the above HTTWQ requirements are classified as low TTWQ. Inspection staff reserves the right to elevate a facilities' TTWQ based on compliance history.

### 6.2.7 RESIDENTIAL INVENTORY

A total of 25 percent of the City is designated as either multi-or single-family residential land use. Since residential land use comprises such a large area of the City, residential activities can have a considerable effect on the water quality of receiving waters. The City has developed an extensive program that aims to reduce pollutant runoff from residential areas and activities to the MEP.

Provision E.5.a of the Municipal Permit requires that an inventory of residential areas be developed and maintained. Further, the Municipal Permit provides that residential areas may be designated by one or more of the following:

- Residential management area;
- Drainage basin or area;
- Land use (e.g., single family, multi-family, rural);
- Neighborhood;
- Common Interest Area;
- Home Owner Association;
- Mobile home park; and/or
- Other designations accepted by the San Diego Board Executive Officer.

The City of Chula Vista has determined that the best approach for the City's specific topographic and geographic conditions is to define residential management areas (RMAs) by drainage basins. Chula Vista's topography includes a series of well-defined drainage basins. The water quality in the receiving waters of each drainage basin is fairly well known due to many years of monitoring. Selecting drainage basins as the criteria for defining residential areas, allows the City to focus efforts in each drainage basin on known problems that are suspected to be generated from residential land uses. In this way, there will be a better likelihood that the sources of pollution attributable to residential areas are more readily identified and eliminated. Currently, all RMAs are considered a likely source for metals, oil & grease, sediment, nutrients, bacteria, dissolved minerals, and organics based on the 2011 Long Term Effectiveness Assessment (County of San Diego).

A map depicting residential area delineations in the City of Chula Vista is included as Map 5 in the map pocket of this JRMP.

## 6.3 MUNICIPAL INFRASTRUCTURE OPERATIONS AND MAINTENANCE

### 6.3.1 ROADS, STREETS, HIGHWAYS, AND PARKING FACILITIES

Roads, streets, highways, and parking facilities make up a large part of the City. Pollutants associated with roads, streets, highways, and parking facilities include sediment, metals, and trash. The City maintains 464 miles of roads, streets, and highways, and the City has implemented various BMPs to reduce the amount of pollutants that come off of these areas.

#### 6.3.1.1 MAINTENANCE PROCEDURES

Street sweeping is one of the ongoing city functions that provides for the reduction in pollutants entering the storm drain system and ultimately local receiving waters. It is the main BMP used to maintain roads, streets, highways, and parking areas. It is conducted in a systematic and coordinated manner as to compliment pollution prevention throughout the City.

For the purpose of street sweeping, roads, streets, and highways are further classified into high, medium, and low priority based on the amounts of trash, sediment, and debris that are generated by their use. Commercial and industrial streets are classified as high priority; center islands and medians are classified as medium priority; and centerlines and residential streets are classified as low priority. Table 6-1 below provides more information about these classifications, the type of areas these classes cover, and respective sweeping frequencies.

**Table 6-1 Street Sweeping Information Based on Class**

| CLASS | APPROXIMATE NUMBER OF CURB MILES | TYPE | SWEEPING FREQUENCY |
|---|---|---|---|
| High | 10.5 | Industrial and Commercial Streets | Once per week |
| | 131.6 | Commercial and Business Streets | Once every two weeks |
| Medium | 74.6 | Center Islands and Medians | Twice per month |
| Low | 656.4 | Residential Streets | Once every two months |
| | 45.9 | Center Lines | Once every two months |
| | 19.4 | Non-curbed Streets | Once every two months |

The City has identified some streets located in the industrial areas of Energy Way and Nirvana Avenue which generate trash at a higher rate than other areas of the City. Trash in these areas is mainly attributable to customers of recycling businesses. Also, trash trucks shedding some of their load while traveling to and from the Otay Landfill on Maxwell Road and Main Street east of I-805 are sources of trash on these streets. As a proactive measure to minimize trash entering the storm drain system, the City has retrofitted existing curb inlets in these areas with filter inserts. The City's storm drain crews conduct regular inspections and cleaning of these filter inserts and replace parts as necessary.

The City has one stand-alone covered parking facility in downtown Chula Vista that generates a moderate volume of trash and debris that is swept twice per month and is inspected annually as a part of the City's Municipal Inspection Program. Other City parking facilities are associated with other municipal facilities (such as parks) and generate low volumes of trash and/or debris. These are swept on a monthly basis and are inspected annually.

### 6.3.2 MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

The City maintains its MS4s, which include open channels, catch basins and inlets, and outfalls. MS4 maintenance is an ongoing city function that is essential for the removal of pollutants that may be discharged to receiving waters. MS4 maintenance activities address pollution prevention through four primary activities: 1) Inspections, 2) catch basin maintenance, 3) channel maintenance, and 4) outfall maintenance.

#### 6.3.2.1 MAINTENANCE PROCEDURES

Storm drain inlets throughout the City have been marked with prohibitive signs to discourage pedestrians and drivers from dumping into storm drainage systems. They are of various types, including thermoplastic signs, stamped concrete, stenciled markings, or plastic decals.

Storm drain infrastructure is maintained according the following frequencies:

- Storm drain structures are inspected once a year and cleaned where necessary based on inspection results.
- Storm drain pipes are designed to be self-cleaning and do not typically required scheduled cleaning. Storm drain pipes are video surveyed on an as needed basis.
- Structures and pipes are repaired as needed based on the results of inspections
- Open-channel cleaning is completed on an as needed basis.

As part of the City's maintenance protocol, a maintenance supervisor inspects storm drain facilities before and after cleaning operations. Sites found to accumulate more trash and debris may be cleaned more frequently. All channel and outfall maintenance activities are conducted in a manner as to assure compliance with all environmental regulatory standards. Notably, channel and outfall maintenance activities have been limited to manual removal of trash and debris from areas that trash accumulation may cause flooding and damage to life or property.

In addition to routine storm drain system inspections and cleaning described above, the City's consultant for dry weather MS4 field screening annually inspects all major outfall locations throughout the City and conducts upstream investigations based on field screening results. They report observed pollution in storm drainage systems to the City, in which case Public Works maintenance crews immediately take action to inspect the drainage area, abate the pollution, and conduct cleanup.

Another method of inspection of storm drainage facilities employed by the City is through investigation of reported violations. When an inspector responds to a reported violation, in addition to normal investigations, he or she inspects the first downstream storm drain inlet to determine if pollutants have reached the inlet. In case of presence of any trash, silt, or other visible pollutants in the storm drain inlet, Public Works crews are immediately notified and they take action to clean the storm drainage system, as necessary. Debris removed from the MS4 is transported to the City's municipal yard and properly disposed of by the City's waste hauler. Any contaminated material that needs special disposal is handled and disposed of appropriately by an outside contractor. This multi-layer inspection program ensures that almost all MS4 facilities are inspected and maintained regularly.

The City also maintains treatment control BMPs that have been installed at municipal fixed facilities as CIPs. Public Works Maintenance staff inspects treatment control BMPs to ensure their proper operation. Additionally, Storm Water Management staff conducts random inspections of these facilities to provide a second layer of confidence and to ensure that maintenance standards are met. City crews inspect, clean, and maintain structural treatment control BMPs annually and their condition is evaluated for effectiveness. Repairs are noted and carried out on a timely manner.

The City maintains an extensive record keeping and maintenance tracking system called Lucity, which is an automated system universally used by the Public Works Department for collecting and tracking data. Detailed maintenance logs are available in the City's storm drain maintenance database and can be presented upon request.

### 6.3.3 SANITARY SEWER SYSTEM

The City inspects, cleans, and maintains a total of 498 miles of sewer main. This includes critical maintenance areas, which are cleaned more than once per year. The sanitary sewer system is included in the municipal inventory as such (see Appendix B.4). The City recognizes the vital pollution prevention role that sanitary sewer system maintenance plays in the protection of the MS4 system. If not properly maintained, the sewer system can potentially discharge numerous pollutants to the storm drain system such as bacteria, viruses, nutrients, parasites, and chemicals.

Pursuant to the Statewide General Waste Discharge Requirements for Sewer Collection Agencies, the City has developed and implements a Sewer System Management Plan (SSMP). The SSMP describes procedures to prevent sanitary sewer overflows (SSO) and methods to respond to and clean up SSOs if they occur. The City has established a Fats, Oils, and Grease (FOG) Monitoring Program as a component of the SSO prevention approach described in the SSMP includes. As part of the FOG program, the City has conducted a survey in which questionnaires were sent out to all restaurants in the City. Information collected about their FOG practices, and methods of preventing oil and grease from entering sanitary sewer systems will be used to track BMPs, assess their efficiencies, and direct future inspections.

The City of Chula Vista does not operate a Publicly Owned Treatment Works. Sewage generated in Chula Vista is collected and conveyed to the City of San Diego treatment works at Point Loma.

#### 6.3.3.1 MAINTENANCE PROCEDURES

The City has identified critical maintenance areas, which are cleaned on a monthly basis by City crews. Sanitary sewer pipes which are designed to be self-cleaning are video surveyed on an as needed basis. All other sanitary sewer collection structures are inspected once a year. In addition to comprehensive sanitary sewer maintenance activities, the City utilizes a number of controls to limit infiltration from the sanitary sewer system to the MS4. Most essential of which, the City's standards require concrete pipes for all new storm drains, which ensure a much longer life, watertight joints, and effectively minimizes infiltration of groundwater and sewage to storm drain pipes. In addition, flow metering is also conducted throughout the City's sanitary sewer system to monitor flow depths and potential capacity concerns, minimizing potential sewer overflows and infiltration. The City has video cameras that can be moved through storm drain or sanitary sewer pipes for close inspection of pipe conditions. If a problem is suspected, that section of the pipe is video surveyed. This practice has greatly minimized the potential for infiltration of sewage into storm drain pipes. City staff regularly receives training on inspection and maintenance of the sanitary sewer system.

The City also implements a rehabilitation program for aged sewer pipes. Rehabilitation consists of lining deteriorated existing Vitrified Clay Pipes (VCP) with a continuous material. This process eliminates the joints of the VCP, thereby eliminating the potential for ex-filtration of sewage. Also, only PVC sewer pipes are used for new construction for all but interceptors with diameters larger than 36 inches. PVC pipes have proven to be very watertight and minimize sewage infiltration into the ground and storm drain systems.

Another control to limit infiltration from the sanitary sewer system to the MS4 is the City's initiative to replace aged corrugated metal pipe storm drains with concrete pipes. The City no longer allows metal pipes to be used for storm drains due to their inherent corrosion potential and increased risk of infiltration. Corrugated metal pipes are gradually being replaced with concrete pipes, which are more durable and watertight.

The City's maintenance procedures help prevent SSOs. However, if a SSO occurs, the City responds promptly, as described in the SSMP. City staff also respond when private lateral spills reach or threaten to reach City property. Concurrent with the arrival of maintenance and cleanup crews at the scene of a sewage spill from private sewer lines to contain and clean up the spill, a Storm Water Compliance Inspector or an Environmental Health Specialist contacts the responsible person at the residence or facility and makes it a requirement to implement BMPs to prevent the recurrence of similar incidents. Such BMPs frequently include the requirement for regular and frequent inspections and cleaning of private sewer lines, tightly closing the cap on cleanouts, preventing oil and grease from entering sanitary sewer systems, etc.

## 6.4 EXISTING DEVELOPMENT BMP IMPLEMENTATION AND MAINTENANCE

The main objective of the existing development component of the JRMP is to minimize or eliminate the impacts of existing development on receiving waters and other sensitive environmental resources. Each existing development facility or activity has the potential to discharge pollutants into the MS4 and hence degrade local water quality. Various BMPs have been developed to allow essential urban activities to continue while minimizing or eliminating their negative impacts on urban runoff and receiving waters. BMPs for existing development are commonly designed to address a specific activity but since each facility or activity often comprises of a subset of activities, it frequently become necessary to implement a combination of BMPs in each case. BMPs are typically divided into two major categories, non-structural and structural, and each applicable BMP should be used depending on their effectiveness and feasibility. In this program, a minimum set of BMPs have been designated for each category of inventoried existing development facility or activity, with special attention to focused priorities and strategies developed in the WQIP for the San Diego Bay WMA. Implementing pollution prevention techniques and other BMPs is often the most cost effective and simple solution to reduce pollution at the source and preventing costly remediation efforts. The General BMPs which are included in Appendix C, such as housekeeping, are stressed at all existing development facilities. Site-specific BMPs are also implemented to reduce the potential for pollution from existing development facilities and activities.

### 6.4.1 INDUSTRIAL AND COMMERCIAL FACILITIES AND ACTIVITIES

Industrial and commercial facilities produce a range of pollutants, both indoors and outdoors, that can threaten human and environmental health if washed into the storm drain system by way of urban runoff. Businesses can benefit from pollution prevention methods by reducing labor time associated with excess pollutant waste handling, thereby re-directing labor time more efficiently to production, as well as the accompanying costs of storage, disposal or treatment.

The following pollution prevention methods may be considered and implemented to the MEP where applicable:

- Reduce quantity of toxic materials used or substitute less-toxic materials
- Use minimal cleaning water to decrease wastewater generation
- Display pollution prevention methods prominently to remind or instruct employees and customers
- Implement a spill response plan
- Segregate and recycle wastes
- Provide a schedule of preventive maintenance procedures
- Reduce waste through more efficient production processes

- Recycle wastes as part of the production process (most preferred), off site or on site (least preferred)
- Treat wastes on site to decrease volume and/or toxicity
- Dispose of wastes properly
- Continually train employees as needed

In addition to the methods listed above, the Chula Vista Municipal Code Chapter 14.20 provides the City with authority to require a Storm Water Pollution Prevention Plan (SWPPP) for any industrial or commercial facility within its jurisdiction that discharges significant pollutants into receiving water bodies.

In addition to the pollution prevention BMPs described above, the City has also established a set of minimum BMPs based on the CASQA California Storm Water BMP Handbook – Industrial & Commercial (CASQA, 2014) for all industrial and commercial sites. A summary of the minimum BMPs requirements for existing development is provided in Appendix C. All of the minimum BMPs for industrial, commercial, and municipal facilities also apply to special events that occur in the City's jurisdiction.

#### 6.4.1.1 Additional Controls for Industrial and Commercial Facilities and Activities

The City of Chula Vista does not discharge to any water body for which a Total Maximum Daily Load (TMDL) has been established. There are several water bodies in and around Chula Vista that receive discharges from the City and are on the 2010 303(d) list. During inspections of any businesses tributary to those water bodies, City inspectors will conduct more detailed investigations into whether the businesses are potential sources of the listed pollutants of concern. If a business is believed to be a significant source of the pollutant of concern and the standard BMPs listed above are not adequate, the City will require additional BMPs such that discharges of the pollutants of concern will be reduced to the MEP.

A variety of ESAs are located in the City, as shown on Map 3. Most of the ESAs are along canyons in residential areas. During inspections of any industrial or commercial businesses that are within, are directly adjacent to, or discharge directly to a receiving water body within an ESA, the City will evaluate the businesses' potential to discharge the pollutant(s) of concern. If a high discharge potential is determined and the standard BMPs listed in Section 6.3.1 are not being implemented or are not effectively being implemented, the business will be required to properly implement all applicable standard BMPs or install additional BMPs. Proper BMP implementation will be confirmed through the standard enforcement and follow-up procedure described later in this JRMP. If all minimum BMPs are being properly implemented but the business nonetheless has a high discharge potential, the City may require the business to implement treatment control BMPs. As of this writing, the City is not aware of any businesses in its jurisdiction that meet this description.

In order to address the focused priority condition of trash, the City will consider the requirement of retrofits of trash enclosures in existing development. The City currently requires new development projects to design their trash enclosure to prevent run on and runoff. City staff will evaluate the potential for retrofits based on past inspection records and general waste management BMPs of the business. These retrofits will reduce the potential for trash to discharge from a facility to the MS4 and/or receiving waters.

### 6.4.2 MUNICIPAL FACILITIES AND ACTIVITIES

The City implements BMPs at municipal areas and during municipal activities to decrease or potentially eliminate pollutants that originate from a specific area and/or activity. City personnel are trained to implement good housekeeping BMPs and general pollution prevention measures at all municipal areas and during all municipal activities. The City utilizes the California Storm Water Quality Association (CASQA) Municipal Handbook to designate minimum BMPs for specific municipal areas and activities. Table 6-3 at the end of this section, provides a list of municipal facility types and estimated load potentials of specific pollutants from a particular type of facility area or activity. If implementing the required BMPs at specific sites and/or during specific activities is not feasible, the City implements other equivalent BMPs as necessary to comply with the Municipal Permit.

More detailed information about BMP implementation at specific facility types is included in the following sub-sections.

**Public Works Facilities**

City personnel implement appropriate BMPs for all activities that take place at public works facilities. In addition, the Household Hazardous Waste (HHW) Collection facility is under 24-hour camera surveillance to avoid illegal dumping in and around its surrounding areas. Additionally, during hours of service operations personnel place temporary berms in the proximate storm drain to prevent contamination in the event of a spill.

**Fire Stations**

The City implements pollution prevention measures and BMPs to reduce or eliminate the amount of pollutants generated by firefighting activities both at fire stations in the City and locations throughout the City. Detailed information regarding non-emergency firefighting flows can be found in Section 3 of this document.

**Animal Facility**

Municipal personnel who are responsible for maintaining this facility are responsible for properly managing and properly disposing of all pet waste from animals being cared for at this facility.

**Parks and Recreational Facilities**

The City implements a variety of BMPs to reduce or eliminate the amount of pollutants entering the MS4 from municipal parks and recreation facilities and other open landscaped areas. City personnel impellent general waste management BMPs, and patrons of the facility are encouraged to properly dispose of trash and pet waste. More details about BMPs for landscaping are provided in Section 6.4.2.1 below.

**Other Facilities**

The City implements pollution prevention methods and BMPs to reduce or eliminate the amount of pollutants generated by the management of public buildings, other fixed facilities, and surrounding areas. The City implements BMPs to control erosion and sediment, during landscaping maintenance, and for waste management, as discussed in Section 6.4.2.1 below. As previously mentioned, sweeping of the parking facilities associated with the municipal facility is conducted at these facilities during regular maintenance activities.

### 6.4.2.1 Best Management Practices for Landscaped Areas

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 storms; (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 a comprehensive program aimed at preventing or reducing pesticides, herbicides, and fertilizers from entering the storm water system and causing direct or indirect harm on non-target flora and fauna and receiving waters for municipal facilities. Whenever practicable, integrated pest management techniques that rely on non-chemical solutions are implemented. City departments responsible for maintaining landscaped areas implement the following BMPs, or require their contractors to implement them, to prevent pollution of storm water conveyance systems:

- Manual weeding whenever possible along with IPM Practices to minimize chemical application.
- Staff is supplied with spill kits in case of an accidental spill.
- Any accidental spill is cleaned up and applied to the plant material. Areas are cleaned using a gas blower.
- All leaf blowing is towards plant material and away from any hardscape.

**Fertilizers, Pesticides, and Herbicides**

- All federal, state, and local regulations are followed in the use of 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.
- All mixing is done in an area that is away from storm drains.
- All employees who handle pesticides are trained and familiar with the most recent Material Safety Data Sheet (MSDS) files.
- MSDS sheets for chemicals being used must be kept with the applicator while applying pesticides.
- Weeds, grass, and brush are cleared from building perimeters and fence lines to reduce the need for pesticides and herbicides use, when applicable.
- Minimize fertilizer use. Compost and soil amendments are used in place of fertilizer, where applicable.
- All fertilizing is done so that no fertilizer is applied to the walkways or street.
- Pesticides, herbicides, and fertilizers are applied only when necessary (typically during growing seasons) and not during or prior to anticipated storms.
- Prevent pesticide drift – do not spray on windy days.
- All pesticides, herbicides, and fertilizers are stored in a controlled, locked and properly marked chemical locker.

**Proper Planting Techniques**

- Proper plant selection for pest resistance to minimize the use of pesticides and fertilizers.
- Removal or pruning of deceased plants and branches.
- Clearing of weeds, grass, and brush from building perimeters and fence lines.
- Plant native vegetation and convert existing turf areas to drought tolerant, sustainable landscaping when possible.
- Increase plant vigor and pest resistance through proper cultural practices; proper water application, clearing of weeds to decrease competition, pruning at the right time of year, and accurate diagnosis of plant pests.
- Control pests by removing diseased plants, pruning to increase air circulation and to remove diseased or injured plant parts.

**Minimize Runoff**

- The City utilizes several weather stations throughout the City to monitor microclimates to set evapotransporation (ET) rates for Maxicom Irrigation Systems.
- Installation of flow sensors and master valves to prevent water loss in the event of mainline break.
- The City is in the process of reducing large-scale vegetation on curb lines along major roads such as East Palomar, La Media, and Heritage Road. Existing ground cover is reduced by bringing it back from the curb line about 5-10 feet. Mulch is applied in the vegetated area that was removed and irrigation lines along the curb line are capped off. This cuts down on irrigation overspray, excess water use, and runoff.

### 6.4.3 MOBILE MUNICIPAL ACTIVITIES, INCLUDING POWER WASHING

The City performs a variety of mobile activities such as power washing for graffiti removal and street repairs. Pollution prevention using source control BMPs are implemented for such activities.

#### 6.4.3.1 BMP REQUIREMENTS

The City provides graffiti removal services for public and private facilities and areas. Graffiti removal operations include power washing, sand blasting, and color matching. City power washing crews implement BMPs during their activities and receive regular training on storm water pollution prevention. Streets crews are trained on proper handling of liquid material and waste and storm drain inlet protection.

The City implements source control BMPs for mobile activities and uses the minimum BMPs in Appendix C.

### 6.4.4 SPECIAL EVENTS

The City hosts or sponsors a variety of special local events, which include festivals, fairs, and other events for special causes and occasions. Usually, these events involve the participation of outside organizations, community groups, and the general public. The gathering of event participants and crowds is generally a source of trash and debris if BMPs are not implemented.

#### 6.4.4.1 BMP REQUIREMENTS

In addition to the minimum BMPs in Appendix C, the City implements various BMPs for special events. Additional BMPs for special events include having special bins available for recyclables and trash, using street sweeping immediately following major events taking place on a street, and having personnel dedicated to litter abatement throughout City events.

#### 6.4.4.2 ADDITIONAL CONTROLS FOR MUNICIPAL FACILITIES AND ACTIVITIES

The City will implement additional controls for municipal areas and activities adjacent to or tributary to ESAs when determined to be necessary. Present BMP implementation activities are effective in reducing pollutant discharge to all receiving waters in the City to the MEP.

### 6.4.5 RESIDENTIAL AREAS AND ACTIVITIES

The City of Chula Vista continues to encourage and require the implementation of BMPs for residential areas and activities. If particular BMPs are not feasible for any specific site or source, the City requires implementation of other equivalent BMPs. Education and outreach aimed at residents helps facilitate the implementation of BMPs, including pollution prevention methods. A detailed discussion of the City's education program can be found in

Section 8 of this JRMP document. Residents are required to use minimum BMPs in Appendix C.

#### 6.4.5.1 Additional Controls for Residential Areas and Activities

The City uses additional measures in certain residential areas where BMP implementation is regarded as especially important. These include residential areas and activities that are known to discharge to or are a tributary to an ESA. The City conducts residential drive-by inspections and uses a database to check for individuals with repeated non-storm water discharges or BMP issues. The Dry Weather Field Screening program also helps the City to identify residential neighborhoods that discharge to outfalls with elevated levels of pollutants. The City analyses this data to identify areas where more attention should be focused. The City sends out informational materials to residential areas that are believed to contribute to storm water pollution, particularly those residences where irrigation runoff to the storm drain system is observed during source identification efforts. The City has developed a door hanger that explains the type of pollution discharged from a neighborhood and encourages residents to prevent such pollution by implementing appropriate BMPs, such as the elimination of irrigation runoff to the storm drain.

## 6.5 Existing Development Inspections

The Municipal Permit requires the Copermittees to conduct inspections of inventoried existing development to ensure compliance with applicable local ordinances and permits, and the requirements of the Municipal Permit. At a minimum, inventoried existing development must be inspected once every five years. Onsite inspections of at least 20 percent of the commercial facilities and areas, industrial facilities, and municipal facilities in the inventoried existing development will be conducted each year. This requirement excludes municipal infrastructure (i.e., MS4 linear channels, sanitary sewer collection systems, streets, roads and highways). In addition, the City performs as-needed inspections of existing development in response to valid public complaints.

The City has developed the following existing development inspection program that meets the standards established by the Municipal Permit, including the focused priority water quality condition for the City. Inspection forms for these facilities are included in Appendix C.

### 6.5.1 Inspection Frequency

**Industrial and Commercial Facilities**

The inventories of industrial and stationary commercial facilities have been divided into two categories based on each facility's threat to water quality as discussed in Section 6.2.4 above. Facilities with High Threat to Water Quality (HTTWQ) designation are inspected annually. Those with Low Threat to Water Quality (LTTWQ) designation are inspected once every five years (20 percent each year).

**Municipal Facilities**
The inventory of municipal facilities have been divided into two categories based on each facility's threat to water quality as discussed in Section 6.2.6. Facilities with HTTWQ designation are inspected annually. Those with LTTWQ designation are inspected once every five years (20 percent each year).

**Municipal Infrastructure**
See Section 6.3 for details regarding municipal infrastructure maintenance activities, frequency, and inspections.

**Residential Areas**
Residential areas are inspected once a year using drive-by inspections. These areas are inspected in more detail when discharges of non-storm water or evidence of pollution is observed during dry weather field screening. Also, residential areas that are suspected of generating pollutants identified as focused priority water quality conditions in the WQIP for the San Diego Bay WMA will be subject to more frequent targeted inspections.

### 6.5.2 Inspection Content

**Industrial and Commercial Facilities**
The first step during an inspection visit involves verifying relevant information regarding ownership, management, and contact names and phone numbers. If the inventoried business is no longer present, the inspector makes a note to update the inventory accordingly. If the new business should be included on the inventory, the inspector also notes that information, and the business is usually inspected at that time. The description of the business activity and location is also verified pursuant to Section E.5.a.(2) of the Municipal Permit. For industrial sites, the inspector reviews the facility's SWPPP or BMP Plan and monitoring results, if applicable. Typically only sites that are covered under the Industrial General Permit have these documents. The inspector checks for coverage under the Industrial General Permit where applicable. If the inspector finds reason to believe that the business might need coverage under the Industrial General Permit but has not obtained such coverage, the Regional Board is notified and a joint inspection with Regional Board staff is conducted, as needed.

During site inspections the main focus is on review of the implementation of pollution prevention methods and other BMPs, which includes the prevention of non-storm water discharges and illicit connections. A walk through of the site is conducted to identify potential pollutants and pollutant generating activities. The facility contact typically accompanies the inspector during the walk through so that the contact can answer questions about specific areas and activities and so that the inspector can more clearly point out areas where corrections are needed.

Based on the results of the site evaluation, the inspector will complete a City of Chula Vista Storm Water Quality Inspection for Commercial/Industrial Facilities compliance report, a blank copy of which is included in Appendix C. The responsible party is provided with a

copy of the inspection findings after the inspection. The inspection report contains the following sections:

- General information to update the inventory
- General site observations and/or conditions of concern noted
- Notations for review of SWPPP or BMP Plan and monitoring results
- Assessment of BMP implementation
- Recommended corrective action
- Enforcement action taken
- Inspector name and signature
- Signature of party receiving the form

While inspectors do not typically prescribe exact BMP solutions, the inspectors generally do attempt to work with site contact to provide examples of BMPs solutions that could be implemented. Effective, low cost solutions are sought whenever possible, although in some cases more expensive BMPs are needed to reduce pollutant discharges to the MEP. The business is also evaluated for its staff training procedures and the storm water quality awareness of the contact person; educational information is provided as appropriate. Whenever possible, the findings of the inspection and related corrective actions are discussed with the responsible party while the inspector is at the site. As discussed above, the business is also provided with a copy of the completed inspection form. Based on observations during the inspection, the City may also determine that the TTWQ rating of the business should be changed from low to high or vice versa. Any such changes will be reflected in inventory updates submitted as part of the JRMP annual reports.

**Municipal Facilities**

City personnel with inspection and enforcement authority inspect municipal facilities and activities. Inspectors fully assess facility areas and activities to ensure that all areas and activities are being maintained in accordance with City regulations, ordinances, and BMP requirements.

Inspections of facilities will include, at minimum, visual inspections for the presence of non-storm water 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. Onsite inspections will include, at a minimum:

- Assessment of compliance with applicable local ordinances and permits related to non-storm water and storm water discharges and runoff.
- Assessment of the implementation of the City's minimum BMPs and any other required BMPs.
- Verification of coverage under the IGP, when applicable.

Inspectors assess the areas and activities based on the minimum BMP requirements as detailed in Appendix C. Inspectors utilize the following plan when conducting an inspection:

- The inspector determines if BMPs are being used in accordance with the intent of all laws and approved plans.
- The inspector determines whether BMPs are effectively being implemented and maintained properly.
- The inspector determines whether the facility manager or supervisor is making appropriate adjustment when ineffective BMPs are found.

If BMPs are found to be deficient or otherwise ineffective, internal enforcement action is initiated in accordance with the Enforcement Response Plan (Section 7). The responsible party or department is provided with required corrective actions, and inspectors conduct a follow-up within a reasonable time frame to assure that all applicable requirements are implemented. Inspections are documented using the inspection form attached in Appendix C (Compliance Report – Storm Water Quality Inspection for Municipal Activities).

**Mobile Washing Activities**

As a part of the inspection process, Storm Water Management staff has conducted regular ride-alongs with the graffiti/power washing crews to observe their operations and activities to inspect their operation and implementation of BMPs. Storm water staff has provided storm water education to the crew and gives any additional BMP recommendations or improvements to their existing pollution prevention measures. Based on past field evaluations, the graffiti crews have consistently implemented all BMPs and have prevented any wash water from entering the storm drain system. Storm Water Management staff may also complete future ride-alongs with graffiti/power washing crews to verify continued BMP implementation.

**Residential Areas**

The focus of residential inspections will be to identify and address the following issues by conducting visual inspections of residential areas:

- Presence of non-storm water discharges, such as irrigation runoff
- Presence of actual or potential discharge of pollutants, such as trash
- Presence of illicit connections
- Activities such as car washing or swimming pool water discharges that are not controlled by appropriate BMPs.
- Visual observations for the accumulation of pollutants on public right of way or privately owned property where visible from publicly accessible areas. Such pollutants may include excessive amounts of leaves, pet waste, sediment, trash and debris, illegal dumping of solid waste, oil and grease, or any other pollutant

identified as focused priority water quality condition in the Water Quality Improvement Plan for San Diego Bay Watershed Management Area.

The City of Chula Vista has determined that the best way to divide the City for residential inspections is by drainage basins. The residential inventory discussed in Section 6.2.7 above is therefore developed based on this concept.

The inspector plans his/her inspection round by focusing on one drainage area at a time. Drive-by inspections are planned ahead of time and the inspector uses an inspection form, included in Appendix C that has been developed to record observations and any potential enforcement actions taken during each round of inspection.

The inspection form includes general information about the date, time, weather conditions, RMA, drainage basin, and any other necessary data as well as a checklist to help the inspector in ensuring that all inspection items are covered. Space is also provided for noting observations and/or conditions of concern and enforcement actions taken. The inspection staff will also assess the implementation of the designated BMPs, including the assessment of compliance with applicable local ordinances and permits related to non-storm water and storm water discharges and runoff. Finally, the inspector dates and signs the inspection report and files it, which later will be used to assess all residential areas for compliance.

If any problems or violations are found during the inspection, the City will implement and document all follow-up actions (i.e., education and outreach, follow-up inspections, and escalated enforcement actions) necessary to require and confirm compliance. Immediate enforcement will be initiated in the case of observed illegal discharges in accordance with the City's Enforcement Response Plan (Section 7). All other cases of potential illegal discharge or cases with unidentifiable source will require neighborhood or community-wide public education.

**Special Event Inspections**

Environmental Services Division and Storm Water Management staff works in conjunction with other City departments and event organizers to ensure that adequate BMPs are implemented during special events.

Storm Water Management and Environmental Services staff has active presence at the majority of City events. They set up booths, provide public education on environmental issues, and distribute informational materials. As necessary, they conduct surveys at the same time to evaluate general public's awareness and practice of BMPs. As a part of storm water education outreach, staff working at the events provides information on pollution prevention and watershed protection. City Environmental Services staff notifies hired personnel if there are overflowing trash bins or areas where more trash receptacles are needed. Following every event, City staff inspects the grounds for trash and performs other clean-up activities as necessary.

### 6.5.3 Inspection Tracking and Records

In accordance with the Municipal Permit, the City tracks all inspection and re-inspection records for existing development and retains inspection information in an electronic database.

The City maintains an extensive record keeping and maintenance tracking system utilizing George Butler Associates Work Management System (GBA), also known as Lucity, which is an automated system universally used by the Public Works Department for collecting and tracking data about all its activities. Lucity is also used for tracking all facilities currently included on the existing development inventory.

The Storm Water Management Section utilizes this data management system to track and record all inspections and re-inspections. The fields in the database have been designed to include all the information required by the Municipal Permit including:

- Name and location of the facility or area (address and hydrologic subarea)
- Inspection and re-inspection date(s)
- Inspection method (i.e., drive-by, onsite)
- Observations and findings from the inspection(s)
- Description of any problems or violations found during the inspection(s)
- Description of enforcement actions issued
- The date problems or violations were resolved

Additionally, each inspection report is scanned and electronically saved in a dedicated folder for existing development inspection reports.

## 6.6 Existing Development Enforcement

### 6.6.1 Industrial and Commercial Facilities

The City will ensure that pollution prevention methods and BMPs will be implemented on industrial and commercial facilities by enforcing its ordinance. City inspectors and staff members will properly document each observed violation at facilities failing to comply with storm water requirements, and enforcement action in accordance with the City's Enforcement Response Plan will be taken where necessary to bring about compliance.

In some cases compliance is achieved and observed at the time the initial enforcement action is taken and no follow-up is necessary. In other cases, City inspectors will conduct follow-up inspections to determine if corrective actions have been taken to come into compliance with City ordinances and minimum BMP requirements.

In instances where a City inspector observes a significant and/or immediate threat to water quality, immediate enforcement action will be taken to require the facility owner or operator to remedy the problem. In any case in which the City determines that a noncompliant site

within its jurisdiction poses a threat to human or environmental health, the City will verbally notify the Regional Board within 24 hours of the discovery of non-compliance, as required by Attachment B of the Municipal Permit. Oral notification will be followed up by a written report to the Regional Board within five days of the time that the City becomes aware of the noncompliance.

Depending on the severity of the infraction, enforcement can range from verbal warnings to monetary fines. Escalating enforcement steps, providing flexibility for the inspectors to establish appropriate compliance time frames on a case-by-case basis; will be used as needed to ensure compliance. More detail about the City's enforcement procedures can be found in the Enforcement Response Plan in Section 7 of this document. Note that the City does maintain the authority to require businesses to prepare SWPPPs or to conduct sampling and analysis where deemed necessary by the City.

As mentioned before, the City works with Regional Board staff to identify businesses that are required to obtain coverage under the NPDES Industrial General Permit but have failed to do so. In each JRMP Annual Report the City of Chula Vista will provide a list of industrial non-filers. The list will include the name, address, and NAICS industrial code of each business.

**Mobile Commercial Businesses**
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 cleanup of discharged materials when applicable and feasible. Education may also be provided to operators who are not aware of the City's storm water requirements. Businesses that do not possess the materials necessary to implement the required BMPs may 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. The types of enforcement measures available to the City are discussed in Section 7 of this document. Also, discharges related to noncompliance deemed to pose a threat to human or environmental health will be reported to the Regional Board using the same process described in Section 7.

### 6.6.2 MUNICIPAL FACILITIES

City personnel, or contractors, involved in activities that may potentially result in discharges of pollutants to storm drain systems or the environment are trained annually. Municipal personnel education includes information about state and local regulations, the requirement to implement pollution prevention measures, and proper BMP implementation during routine activities. If however, due to negligence or lack of knowledge about BMPs applicable to a new specific activity, City personnel fails to implement adequate BMPs or causes an illegal discharge to storm drain systems, the case is typically resolved by immediate cleanup and mitigation of the discharge and additional training for the

personnel. If it is determined that noncompliance was a result of negligence or deliberate act, the personnel involved will be subjected to appropriate disciplinary action by his/her supervisors in accordance with the Enforcement Response Plan.

### 6.6.3 RESIDENTIAL AREAS

The following mechanisms are used by the City to determine when enforcement actions in residential areas may be necessary:

- Public reporting hotline
- Analysis of MS4 Major Outfall Discharge Monitoring Program results
- Observations from City maintenance personnel
- Annual residential areas inspections

Further information about the City's hotline reporting system and MS4 Major Outfall Discharge Monitoring Program are provided in Section 3 of this JRMP.

The City of Chula Vista evaluates its methods used to encourage improved pollution prevention practices and the implementation of BMPs through the review of the aforementioned mechanisms. The City will continue to develop measures to inspect and investigate areas of the City that are considered high TTWQ.

Violations are investigated by City personnel with enforcement authority within a reasonable timeframe. Violations are documented and depending on the nature and severity of the violation, enforcement may consist of verbal warnings, written warnings, orders to abate or correct, and monetary fines. Details on the escalating enforcement procedures are included in Section 7.

## 6.7 RETROFITTING AND REHABILITATING AREAS OF EXISTING DEVELOPMENT

In accordance with the Municipal Permit the City has developed and described a program to retrofit areas of existing development and/or rehabilitate streams, channels, or other habitat areas within developed parts of the City. Retrofit and rehabilitation projects can help address identified sources of pollutants and/or stressors that contribute to the focused priority water quality conditions identified for the City of Chula Vista in the San Diego Bay Water Quality Improvement Plan. For more details about this program, please see Appendix F.

**TABLE 6-2**
**GENERAL POLLUTANT LOADING POTENTIAL OF INDUSTRIAL AND COMMERCIAL SOURCES**

| Source Category | Heavy Metals* | Organics | Oil & Grease | Sediment | Pesticides | Nutrients | Oxygen Demanding Substances | Bacteria/ Viruses | Trash |
|---|---|---|---|---|---|---|---|---|---|
| Auto Repair | L | L | L | PO | UL | UL | PO | UL | PO |
| Equipment Repair | L | L | L | PO | UL | UL | PO | UL | PO |
| Pest Control | PO | PO | UL | PO | L | UL | PO | UL | PO |
| Auto Paint/Body | L | L | PO | PO | UL | UL | PO | UL | PO |
| Vehicle Washing | PO | L | PO | PO | UL | UL | PO | UL | PO |
| Vehicle Parking/Storage | L | L | L | L | UL | UL | PO | UL | PO |
| Fueling | L | L | L | PO | UL | UL | PO | UL | PO |
| Eating/Drinking Establishments | UL | UL | L | PO | UL | UL | L | L | 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 |
| Masonry | UL | UL | PO | L | UL | UL | PO | UL | PO |
| Painting/Coating | PO | PO | PO | PO | UL | UL | PO | UL | PO |
| Botanical/Zoological Exhibits | UL | PO | UL | PO | L | L | PO | L | PO |
| Landscaping | UL | PO | UL | PO | L | L | PO | UL | PO |
| Nurseries/Greenhouses | UL | PO | UL | L | L | L | PO | PO | PO |
| Golf courses/Parks | UL | UL | UL | PO | L | L | PO | PO | PO |
| Pool/Fountain Cleaning | UL | UL | UL | PO | UL | UL | UL | UL | UL |
| Portable Sanitation | UL | PO | PO | PO | UL | L | PO | L | PO |

**TABLE 6-2**
**GENERAL POLLUTANT LOADING POTENTIAL OF INDUSTRIAL AND COMMERCIAL SOURCES (CONTINUED)**

| Source Category | Heavy Metals* | Organics | Oil & Grease | Sediment | Pesticides | Nutrients | Oxygen Demanding Substances | Bacteria/ Viruses | Trash |
|---|---|---|---|---|---|---|---|---|---|
| Building Materials | PO | UL | PO | L | PO | PO | PO | UL | L |
| Animal Facilities | UL | UL | UL | PO | UL | L | L | L | PO |
| Power Washing | PO | PO | PO | PO | UL | UL | UL | UL | UL |
| Aggregates | PO | UL | UL | L | UL | UL | PO | UL | UL |
| Entertainment | UL | UL | UL | UL | UL | UL | PO | PO | L |
| Ground Transportation | L | PO | L | PO | UL | UL | 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 |
| 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 |

**TABLE 6-2**
**GENERAL POLLUTANT LOADING POTENTIAL OF INDUSTRIAL AND COMMERCIAL SOURCES (CONTINUED)**

| Source Category | Heavy Metals* | Organics | Oil & Grease | Sediment | Pesticides | Nutrients | Oxygen Demanding Substances | Bacteria/ Viruses | Trash |
|---|---|---|---|---|---|---|---|---|---|
| Manufacturing, Structural Steel | L | UL | UL | PO | UL | UL | PO | UL | PO |
| Manufacturing, Wood/Furniture | UL | UL | UL | PO | UL | UL | PO | PO | PO |
| Other Contractor | PO | PO | PO | PO | UL | UL | PO | UL | PO |
| Power Generation | PO | PO | PO | L | 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/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
* Discharge of heavy metals and oil and grease is possible if the facility has on-site parking
** Sediment and oxygen demanding substances are possible pollutants for earthen or natural conveyances. Bacteria, but generally not viruses and other pathogens, may regrow in MS4s under certain conditions. While other pollutants may be discharged from the MS4, the MS4 itself is not a direct source of those pollutants.
***The sanitary sewer system is only a potential source of pollutants in the event of sewer line breaks or SSOs.
This table is based on the field experience of D-MAX Engineering and on tables in the Copermittees' Baseline LTEA.

## TABLE 6-3
## GENERAL POLLUTANT LOADING POTENTIALS OF MUNICIPAL AREAS/ACTIVITIES

Potential for discharge based on activities and existing information

| Source | Heavy Metals | Organics | Oil & Grease | Sediment | Pesticides | Nutrients | Oxygen Demanding Substances | Bacteria/ Viruses | Trash |
|---|---|---|---|---|---|---|---|---|---|
| Animal Facilities | PO* | UL | PO* | UL | UL | L | L | L | PO |
| Fire Stations | PO | PO | PO | PO | UL | UL | UL | UL | PO |
| Mobile Municipal Activities, Including Power Washing | PO | PO | PO | PO | UL | UL | UL | PO | UL |
| MS4** | UL | UL | UL | PO** | UL | UL | PO** | PO** | UL |
| Other Fixed Facilities | PO* | PO | PO* | PO | PO | PO | PO | PO | PO |
| Parks, Landscaped Areas, and Recreational Facilities | PO* | UL | PO* | L | L | L | L | L | PO |
| Public Works Facilities | L | PO | L | L | PO | PO | PO | PO | PO |
| Roads, Streets, Highways, and Parking Facilities | L | L | L | L | UL | UL | UL | PO | L |
| Sanitary Sewer System | PO*** | UL | PO*** | UL | UL | PO*** | PO*** | PO*** | UL |
| Special Events | UL | UL | UL | UL | UL | UL | PO | PO | L |

**Notes:**

L = Likely, PO = Possible, UL= Unlikely

* Discharge of heavy metals and oil and grease is possible if the facility has on-site parking

** Sediment and oxygen demanding substances are possible pollutants for earthen or natural conveyances. Bacteria, but generally not viruses and other pathogens, may regrow in MS4s under certain conditions. While other pollutants may be discharged from the MS4, the MS4 itself is not a direct source of those pollutants.

***The sanitary sewer system is only a potential source of pollutants in the event of sewer line breaks or SSOs.

This table is based on the field experience of D-MAX Engineering and on tables in the Copermittees' 2011 LTEA.

# 7.0 ENFORCEMENT RESPONSE PLAN

## 7.1 INTRODUCTION

Provision E.6 of the Municipal Permit requires the development of an Enforcement Response Plan (ERP) as a part of the JRMP document. The ERP describes the City's approach to enforcing its legal authority to achieve compliance with its Municipal Code. The ultimate goal of the ERP is to effectively prohibit non-storm water discharges to the MS4 and reduce the discharge of pollutants in storm water from the MS4. This ERP is designed to establish uniformity of action for City Storm Water Management Section staff in dealing with observed or reported violations. Compliance with the City's ordinances will be assessed through a variety of means, including inspections, responses to hotline calls, and routine municipal separate storm sewer system (MS4) outfall monitoring. However, the City reserves and retains the right and the discretion to revise, amend, or follow other procedures deemed necessary based on specific circumstances.

The goals of the City's enforcement program are the following:

- Educate the regulated community
- Achieve compliance with the laws and regulations within the regulated community
- Return violators to compliance in a timely manner and eliminate any threats posed due to non-compliance
- Initiate and conclude enforcement activities in a timely manner
- Penalize violators, as appropriate, and prevent any business from having an unfair business advantage through non-compliance
- Provide consistency in responding to violations

The following sections provide more detail about the City's enforcement procedures.

## 7.2 LEGAL AUTHORITY

The City has local ordinances and Municipal Code Sections that provide legal authority for enforcing storm water requirements. These include the following:

1. Storm Water Management and Discharge Control Ordinance (Chula Vista Municipal Code Chapter 14.20) outlines the administrative remedies, maximum penalties, and other civil action that may be applied to any violation of CVMC 14.20.
2. Excavation, Grading, Clearing, Grubbing, and Fills Ordinance (Chula Vista Municipal Code Chapter 15.04) regulates excavation, grading, and fill activities.
3. Chula Vista Development Storm Water Manual (aka BMP Design Manual, incorporated by reference in Chula Vista Municipal Code Chapters 14.20 and 15.04))

## 7.3 ESCALATED ENFORCEMENT

During an inspection, response to a reported violation, or during dry weather upstream investigations, the inspector must evaluate and assess the discharge or violation's impact to the environment and threat to water quality which may occur as a result of an illegal discharge or inadequacy of BMPs. If a City inspector observes a significant and/or immediate threat to water quality, action must be taken to require the discharger or the responsible person to immediately cease the discharge or conduct corrective action to contain the discharge and prevent pollution of storm drainage systems and receiving waters. If corrective actions are not implemented in a timely manner, a series of progressive enforcement steps are available to the inspector to bring about compliance. The inspector must use best professional judgment in selecting any one or a combination of the following steps, typically starting with the least sever step and continuing to more sever steps, providing the discharger or violator reasonable opportunity to voluntarily correct the deficiencies. However, with due regard to specific circumstances such as knowing and deliberate violations of storm water regulations, the inspector may not follow that order.

Enforcement actions available to the City are as follows:

1. Verbal and/or written warning
2. Administrative citation
3. Order to develop a storm water pollution prevention plan (SWPPP), or equivalent
4. Notice of violation (NOV), which in most cases includes a cease and desist order and/or a notice to clean and abate, and a declaration of public nuisance
5. Civil Penalty
6. Enforcement of contract
7. Stop Work Notice or order
8. Suspension, denial, or revocation of permit
9. Judicial enforcement

These actions are further described in Section 7.4 below. The City has determined that enforcement actions 4 to 9 above are escalated enforcement actions. Enforcement actions 1 to 4 are taken by Storm Water Management Section staff. Escalated enforcement actions are reported to the City Attorney's Office and the Regional Board and in the case of enforcement actions 6 to 9, the City Attorney Office is consulted for further action.

As required by Provision E.6 of the Municipal Permit, the City has determined that any violation or other non-compliance that may cause or contribute to the focused priority water quality condition identified in the WQIP for the City will require escalated enforcement action. In such cases, enforcement action will typically begin with step 4, notice of violation.

## 7.4 ADMINISTRATIVE ENFORCEMENT PROCEDURES

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, within the limits of authority provided to

him/her by the Chula Vista Municipal Code. For example, a stricter initial enforcement measure may be applied where significant noncompliance is noted or when a potential rain event increases the potential for the violation to have a negative impact on water quality. The various administrative enforcement measures employed by the City, in order of increasing severity, are discussed below. The City's appeals process is described following the list of enforcement measures.

### Verbal Warning

Verbal warnings will typically be the initial enforcement method employed to enforce compliance, assuming the site or individual does not have a history of non-compliance with storm water laws. The inspector will educate the violator on what actions need to be taken to correct the violation and document the violation and verbal warning in the inspection file. A time frame will be given for the violation to be corrected, and a follow-up inspection date will be scheduled, which will also be documented.

### Written Warning

A written warning is typically issued to violators that should already be conscious of the City's storm water regulations, or when the deficiencies noted in a verbal warning are not corrected by the next inspection. Written warnings can be given using a variety of methods, one of which is issuance of a notice of violation (NOV). The NOV will provide a description of the violation to be corrected, the time frame for correction, and a follow-up inspection date. A copy of the NOV is sent via regular and certified mail to the responsible party and a copy is kept on file with the City. The inspector will conduct a follow-up inspection and will record whether or not compliance has been achieved.

Other written warnings include non-monetary warning citations, cease and desist orders, and notices to clean and abate. Non-monetary warning citations are documented on the City's administrative citation form, but do not require payment of a fine. Cease and desist orders are typically given when an illegal discharge has or is likely to occur or if an illegal connection to the storm drain system has been found. Notices to clean and ablate are typically given when materials that pose a threat to water quality are observed on or adjacent to private property. Documentation and follow-up procedures for these additional written warnings are similar to those for the NOV.

### Creation of a Storm Water Pollution Prevention Plan (SWPPP) or Equivalent

The City enforcement official (the Director of Public Works or his/her designee) has the authority to require any owner or occupier of any premises that is in violation of the City's Storm Water Management and Discharge Control Ordinance to adopt and implement elements of a SWPPP, or equivalent. Creation of a SWPPP or equivalent may also include development of an employee training program and/or a storm water monitoring plan. If required elements of the SWPPP are not prepared by the violator within the time frame allotted by the enforcement official, additional enforcement action may be taken until the required elements of the SWPPP are implemented.

### Enforcement of Contracts

If a contractor is performing work for the City of Chula Vista, then the City may use the provisions within the contract for enforcement of non-compliance. 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.

### Stop Work Notice or Order

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, a Stop Work Notice may be issued by the enforcement official. Stop Work Notices prohibit further activity until the problem is resolved. The Stop Work Notice will describe the infraction and specify what corrective action must be taken. A copy of the Stop Work Notice will be given to the owner or contractor and placed in the active inspection file. To restart work once a Stop Work Notice has been issued, it will be necessary that the responsible party requests a re-inspection of the site and to verify that the deficiencies have been satisfactorily corrected. Once the inspector verifies that the appropriate corrections have been implemented, activities may resume.

### Public Nuisance Abatement

Violations that are deemed to be a threat to public health and safety, or the environment may be identified as a public nuisance. In such cases, and when the violator refuses to correct the problem, the City has the authority to take action to enter the site (with a court order if necessary) and to mitigate the problem. Costs for pollution detection and abatement may be recovered from the discharger in addition to any other fines and penalties.

### Denial or Revocation of Permits

In severe cases of non-compliance or significant discharges relating to development and/or construction activities, the City can 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 then needs to re-apply for permits and meet the requirements the City may have placed on the project before resuming the project.

### Additional Penalties or Fines

The City may give administrative citations or civil penalties for infractions or misdemeanors, depending on the threat to water quality. The penalty for a storm water infraction will be relatively minor for a first offense, but repeated violations will result in escalating fines or misdemeanor charges.

### Hearing and Appeals

When any of the above administrative enforcement actions are taken, a violator may request a hearing to contest the enforcement official's determination that a violation of the City's storm water requirements has occurred. Such request must be in writing and received by the City within 10 calendar days of service of the notice of violation (or 30 calendar days for out-of-state

residents) in a form approved by the enforcement official. If the City does not receive such a written notice in the specified time frame, it shall constitute a waiver of the right to a hearing and adjudication of all or any portion of the notice and order. Once a request for hearing is received, the hearing shall be conducted pursuant to Chula Vista Municipal Code Section 1.40.020 and 1.40.070. If the violator fails to attend the hearing, it shall constitute a waiver of the right to a hearing and adjudication of all or any portion of the notice and order.

### 7.4.1 JUDICIAL ENFORCEMENT PROCEDURES

In addition to administrative enforcement procedures, the City also may take the judicial enforcement actions described below.

**Criminal Penalties**

The assistance of a peace officer may be enlisted to arrest violators as provided in the California Penal Code (Ordinance 5, 5c, and 5d, Title 3, Part2). A citation and/or a notice to appear may also be issued as prescribed in the Penal Code (Ordinance 5c of Title 13763, Part 2 including Section 853.6 or as amended).

**Injunction/Abatement of Public Nuisance**

The City may pursue enforcement by judicial action for preliminary or permanent injunctive relief for violations of its Ordinances or when the violation threatens to cause a condition of contamination, pollution, or nuisance.

**Other Civil Action**

If an enforcement official's decision regarding a violation is not complied with, the city attorney may initiate, at the request of the enforcement official, any appropriate civil action in a court of jurisdiction to enforce such decision.

## 7.5 ENFORCEMENT RESPONSE PLAN COMPONENTS

For the purpose of investigations and enforcement actions, the Enforcement Response Plan can be divided into the following enforcement categories:

- Illicit Discharge Detection and Elimination (IDDE) Enforcement Component
- Development Planning Enforcement Component
- Construction Management Enforcement Component
- Existing Development Enforcement Component

Each of these components is discussed below.

### 7.5.1 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) ENFORCEMENT COMPONENT

The following steps should be taken by City staff once an IDDE incident has been reported to the City by citizens, City staff, other agencies, etc.; observed in the field; or in response to an

exceedance of a Water Quality Objective, dry weather action level, Non-Storm Water Action Level (NAL), or Storm Water Action Level (SAL):

1. For all potential violations reported to the Public Works Hotline, the following information should be obtained:
    - Name and phone number of the reporting party.
    - Address of the incident.
    - Date and time of the incident.
    - A description of the incident with as many details as possible.
2. Conduct an inspection of the location as soon as possible and interview responsible persons or witnesses to obtain more information.
3. Report any immediate threats to human health or the environment to the Public Works Hotline at 619-397-6000 in order for a vacuum truck to be dispatched to contain the discharge and clean the storm drain system. Refer to Section 7.7, Reporting of Non-Compliant Sites, as applicable.
4. If there is an obvious illegal discharge (based on color or odor), an upstream investigation should be done immediately to find the source of the discharge. Once the source is found, it should be ceased immediately.
5. If enforcement action or escalated enforcement is necessary, refer to the construction, development planning, or existing development components of the ERP to determine the appropriate course of action.
6. Obtain the following information:
    - Name of violator (if possible)
    - Date, time, weather conditions
    - Location of violation
    - Did the illegal discharge reach receiving waters?
    - Photographs for documentation of the violation.
7. In the case of sewage spills, the Public Works Department reports the incident to the Regional Board and the County of San Diego. Spills of hazardous materials are reported to the California Emergency Management Agency (Cal EMA).
8. Reported discharges that are not immediately dangerous to human health or the environment should be investigated within one business day of reporting.
9. Refer to the Water Quality Improvement Plan (WQIP) for guidance as needed.

### 7.5.2 Development Planning Enforcement Component

Development planning enforcement refers to the enforcement of post-construction BMP requirements on a development project and is intended to ensure that post-construction BMPs are properly maintained. It is different from construction management enforcement, which

deals with BMPs implementation during the construction phase of the project. Development planning projects are subject to enforcement action; however the process of reporting potential violations is different than an IDDE investigation or an inspection of an industrial or commercial facility. There are two mechanisms by which development projects are inspected or evaluated: 1) through the treatment control BMP installation verification process and, 2) through the treatment control BMP maintenance inspection process. Both processes are detailed below. More information about the requirements for development projects are in the City's Development Storm Water Manual (BMP Design Manual).

**Treatment Control BMP Installation Enforcement Procedure:**

1. Public Works Inspectors and Storm Water Compliance Inspectors periodically conduct inspections of treatment control and LID BMPs during their construction to ensure that they are constructed per approved construction plans.
2. Building Inspectors notify Storm Water Management Section staff of any requests for final inspections or certificates of occupancy. Storm Water Management Section staff also receives notifications of any bond release requests by the developers.
3. After each notification as explained above, Storm Water Management Section staff conducts an inspection and verifies that all post-construction BMPs are in place per the Storm Water Quality Management Plan (SWQMP) and construction plans, and that they are in good operational order
4. In the case of continued noncompliance with post construction BMPs, after a verbal and/or written warning and additional time to remedy the issues, a NOV is issued to initiate enforcement action.
5. If the developer or the responsible person does not address the issues within the time specified, enforcement action is taken.

**Treatment Control BMP Maintenance Enforcement Procedure:**

1. City staff performs annual treatment control BMP inspections of facilities or sites.
2. Annually, a Storm Water Treatment Facility Inspections and Maintenance Verification letter is issued to each party responsible for the self-inspection and maintenance of privately maintained storm water treatment facilities. Attached to the letter is Form 5502 (Storm Water Treatment BMP Inspection and Maintenance Certification Form), which the responsible party must complete and return to the City. If City inspectors have already inspected the treatment BMPs, a copy of the inspection report, which details the results of the inspection and the corrective actions that the responsible party must implement to come into compliance is attached to the letter.
3. If Form 5502 is not completed and returned by the date specified in the letter, or corrective actions are not implemented within the specified time, the responsible party is contacted and verbally warned that they are in violation of their development agreement with the Storm Water Management Facilities Maintenance Agreement with

the City, CVMC 14.20, and the Development Storm Water Manual (BMP Design Manual).

4. If the Form is still not received after the verbal warning, or corrective actions to properly maintain BMPs are not taken to the satisfaction of the City, then a notice of violation is issued to the responsible party to initiate enforcement action. Fines and/or other escalated enforcement action are imposed on responsible parties until full compliance is achieved.

### 7.5.3 Construction Management Enforcement Component

Construction sites are inspected as described in Section 5.0 of this JRMP to ensure that adequate BMPs are implemented to reduce the discharge of pollutants to the MEP. Inspection frequencies, including inspections of high threat to water quality sites, are detailed in Section 5.0 of this JRMP. The following steps should be followed by City staff after observing a storm water violation on a construction site:

1. Obtain and document the following information:
   - Name of the violator (person causing an illegal discharge, if applicable), supervisor, and company.
   - Address and phone number of the contractor, subcontractor, or company.
   - Name of the developer.
   - Time and date of violation.
   - Photographs of the violation.
   - Verification of coverage under the Construction General Permit (NOI and WDID), as applicable.
2. Inform the violator that he/she is in violation of the City's Storm Water Ordinance (CVMC 14.20) and the reason for the violation. Provide copy if requested.
3. If the violation is a direct discharge of pollutants or non-storm water to the storm conveyance system, issue an administrative citation or civil penalty to the company that hired the violator (without the need for warning). All contractors, sub-contractors, and vendors working in Chula Vista should already be familiar with existing laws prohibiting non-storm water discharges.
4. Administrative citations assessed pursuant to CVMC Chapter 1.41 shall be assessed at a maximum rate of $100 for the first violation, and $200 for the second violation within one year from the date of the first violation. The maximum rate for a third, and all subsequent violations, shall not exceed $500 for any violation within one year of any prior violation. Each day a violation occurs is considered a separate offense. Civil penalties of up to $10,000 per violation per day and up to a maximum of $100,000 per tax assessor's parcel number can be issued for major violations.
5. If necessary, issue a NOV to the developer for the project stating that an administrative citation or civil penalty has been issued to the contractor and that property owners are jointly responsible for the actions of their employees and contractors and they must

provide water quality training to their staff, contractors, and sub-contactors. Attach a copy of CVMC 14.20 to the NOV.

6. If the violation is not a direct discharge, but a potential threat to water quality, then issue an administrative citation and/or NOV, as the case may demand, to the developer or builder and require them to implement BMPs.
7. Use the City's standard notice of violation format when writing up NOVs. All NOVs are to be signed by the Director of Public Works or designee. Always attach a copy of CVMC 14.20 to NOVs. The developer or builder should be given an allotted time to bring the site into compliance by implementing appropriate BMPs. The NOV should indicate a due date for compliance or state that compliance actions should be implemented by the next predicted rain event, whichever occurs first, or as the case may demand.
8. File copies of any administrative citation, notice of violation, or other documentation issued to a contractor, developer, or builder. Enter violation information into the violations database in Lucity. The database will serve the dual purpose of identifying repeat violators and providing backup documentation for the City's enforcement actions that need to be reported to the Regional Water Quality Control Board.
9. After the time frame given in the NOV to the developer or builder to bring the site into compliance, conduct a follow-up visit to ensure that satisfactory action has been taken to correct the violation(s). If it is determined that adequate measures have not been implemented, take pictures, document observations, and inform your supervisor of the status. Your supervisor will discuss the case with the staff member managing the Storm Water Management Section to follow-up with escalated enforcement action, which in most cases will be a Stop Work Notice. Keep all follow-up records in the appropriate file.

### 7.5.4 Existing Development Enforcement Component

#### 7.5.4.1 Industrial, Commercial, and Municipal

This category covers violations observed on industrial, commercial (including mobile), or municipal sites during response or routine/follow-up inspections. The procedure for dealing with these cases is as follows:

1. Obtain and document the following information:
   - Name of the violator (person causing an illegal discharge, if applicable) and the business or site, if applicable.
   - A contact address and phone number.
   - Location of the violation.
   - Date and time violation started (estimated or witnessed).
   - Date and time responded.
   - License plate number of the vehicle, if applicable.

- Photographs for documentation of the violation.

2. If immediate containment and cleanup by the City is necessary, call the Public Works Hotline at 619-397-6000. Public Works Operations staff does not handle hazardous materials. In case immediate cleanup of hazardous materials is necessary, contact the Fire Department who will contact the County Hazardous Materials Division as needed.
3. Inform the violator that he/she is in violation of CVMC 14.20 and the reason for the violation. Provide a copy of CVMC 14.20 if necessary.
4. If the violation is a direct discharge of pollutants or non-storm water to storm drainage systems, issue an administrative citation to the business owner or operator that hired the violator. All businesses working in Chula Vista should already be familiar with existing laws prohibiting non-storm water discharges.
5. Administrative fines are $100, $200, or $500 per violation for 1st, 2nd, or 3rd violation, respectively. Each day a violation occurs is considered a separate offense. Check the Violations Database. If the violator or business has one or two previous violations, then the present violation is considered 2nd or 3rd violation, respectively.
6. If deemed necessary, issue a NOV to the property owner along with the administrative citation and corrective actions. Attach a copy of CVMC 14.20.
7. For municipal facilities, immediately stop the illegal discharge and contact the division manager responsible for maintenance of the facility for further action. Work with the division manager to correct the problem and initiate disciplinary action to the violating staff member. The enforcement procedure for violations of storm water regulations by contractors working for the City are the same as private individuals, however, inform the division manager or project manager (in the case of construction projects) and work with the division manager or project manager to coordinate any enforcement action.
8. If the violation is not a direct discharge, but a potential threat to water quality, then issue an administrative citation (warning or with fines) and/or NOV, as applicable.
9. Use the City's standard NOV format when writing up NOVs. All NOVs are to be signed by the Director of Public Works or his designee. Attach a copy of CVMC 14.20 to NOVs. The business owner or operator should be given a time frame to bring the site into compliance by implementing appropriate BMPs. The NOV should indicate a due date for compliance or state that compliance actions should be completed by the next predicted rain event, whichever occurs first, or as the case may demand. NOVs can be delivered to the responsible party(ies) via certified and/or regular mail, email, fax, hand delivery, or posted on the site.
10. File copies of any administrative citation, NOV, or other correspondence issued to a business owner or operator. Enter information into the violations database in Lucity. The database will serve the dual purpose of identifying repeat violators and providing backup documentation for the City's enforcement actions that need to be reported to the Regional Water Quality Control Board.

11. After the compliance time frame given in the NOV or administrative citation to the business owner or operator, conduct a follow-up visit to ensure that satisfactory action has been taken to correct the violation(s). If it is determined that adequate measures have not been implemented, take pictures, and document observations. Discuss the case with the Storm Water Management Section supervisor on how to continue with escalated enforcement action, which in most cases will be civil penalties. Keep all follow-up records in the appropriate file.

#### 7.5.4.2 RESIDENTIAL

When a residential violation is reported to the City by citizens, City staff, other agencies, etc., the following steps should be taken:

1. In the case of a continual illegal discharge, or if a violation poses a threat to human health or the environment, respond to the incident immediately (within 2 hours). In other cases respond as soon as possible but no later than the next working day.
2. Obtain and record the following information after arriving at the site:
   - Name and phone number of the violator, if applicable.
   - Mailing address of the violator.
   - Name and phone number of the property owner if different from the violator.
   - Name, mailing addresses, and phone number of the property manager (or the property management company) if the violation has taken place from an apartment, condo, or similar location.
   - License plate number of any vehicles involved in the violation.
   - Photographs for documentation of the violation.
   - Date and time of violation.
3. For mobile businesses working at a residence, follow the procedure outlined above (Existing Development – Commercial or Construction). If the business is no longer at the residence, the owner or resident, as applicable, will be the subject of enforcement action.
4. If immediate containment and cleanup by the City is necessary, call the Public Works Hotline (619-397-6000). Public Works Operations Department staff does not handle, cleanup, or transport hazardous materials. In case immediate cleanup of hazardous materials is necessary, contact the Chula Vista Fire Department who will contact the County Hazardous Materials Division as needed.
5. Inform the violator that he or she is in violation of CVMC 14.20, and for what reason. Provide a copy of CVMC 14.20 to the violator.
6. Provide education to the resident about pollution prevention. Give educational materials as applicable.
7. Issue an administrative citation warning, as the case may demand, and require cleanup of spills or staining if clean up can be accomplished by the resident or responsible party.

Otherwise, the City will perform the cleanup and charge the costs to the property owner or resident. The resident should be informed that repeat violations will be subject to citations, fines, and other penalties. Inform the resident that if cleanup is not completed within the specified timeframe, that City staff may cleanup the pollutants and charge the costs to the owner in addition to fines and penalties. Provide a timeframe for compliance or state that compliance must be met by the next predicted rain event, whichever comes first, or as the case may demand.

8. If the resident has received previous violations or warnings, issue an administrative citation with a fine or a civil penalty. Administrative citations pursuant to CVMC Chapter 1.41 shall be assessed at a maximum rate of $100 for a first violation, and $200 for a second violation within one year from the date of the first violation. The maximum rate for a third, and all subsequent violations, shall not exceed $500 for any violation within one year of any prior violation. Each day a violation occurs is considered a separate offense. Check the violations database to determine the resident's violation history. Civil penalties of up to $10,000 per day may also be issued for major violations.
9. If the violation has taken place from shared areas of an apartment or condo complex and the property owner or the property management company (on behalf of the HOA) is the responsible person for the violation (as in the case of sewage spills), immediately issue an administrative citation (warning or with fine) to the property owner or manager. In addition, the property owner should be provided a timeframe for compliance. Inform the property owner or manager that if cleanup is not completed within the specified timeframe, that City staff may cleanup the pollutants and charge the costs to the owner in addition to fines and penalties.
10. If the violation is not a direct discharge, but a potential threat to water quality, then issue a verbal warning as the case may demand, to the resident or property owner, and require him or her to implement BMPs. Provide a timeframe for compliance or state that compliance must be met by the next predicted rain event, whichever comes first, or as the case may demand.
11. File copies of any administrative citation issued to a resident or property owner or manager. Enter important information into the violations database in GBA. The database will serve the dual purpose of identifying repeat violators, and provide backup documentation for the City's enforcement actions that need to be reported to the Regional Board.
12. Conduct a follow-up visit to ensure that satisfactory action has been taken to correct the situation. If it is determined that adequate measures have not been implemented, take pictures, document observations, and inform the City staff managing the Storm Water Management Section of the status. The City staff will decide on the next enforcement action, such as civil penalties. Keep all follow-up records in the appropriate file

## 7.6 Enforcement Response Approaches and Options

General administrative compliance and enforcement procedures are included in CVMC Chapter 1. More specific enforcement response approaches and options for storm water violations are included in CVMC Section 14.20. Compliance with the City's ordinances will be assessed through a variety of means, including inspections, responses to hotline calls, and the City's MS4 Outfall Monitoring Program. Where violations are observed, administrative and judicial procedures may be employed to enforce storm water requirements.

## 7.7 Correction of Violations

Each of the enforcement actions described above includes a list of corrective actions that the discharger is required to implement to mitigate the impact of the illegal discharge as soon as possible and to the maximum extent practicable. The inspector determines the date and time by which all corrective actions must be completed. The deadline is set with due consideration to a reasonable time in which the discharger can provide all the resources necessary, weather conditions including predicted storm events, sensitivity of receiving waters, nature of the violation and its impact on the environment and water quality, and any other case-specific parameters. The allocated time will not be more than 30 calendar days after the violations are discovered. In the case of complex corrective actions such as major alterations to structures or drainage systems, more than 30 days may be allowed, in which case the justification and rationale for that decision will be recorded in the applicable electronic database used to track violations.

The inspector visits the site immediately after the deadline to conduct a follow-up inspection. If by that time corrective actions are not implemented to the satisfaction of the City inspector, higher level enforcement action will be taken until full compliance is achieved.

## 7.8 Reporting of Non-Compliant Sites

In addition to procedures set out in this ERP, any noncompliance incident that may endanger human health or the environmental will be verbally reported to the Regional Board within 24 hours. A written description of the non-compliance will be submitted within 5ddays from the time that the City becomes aware of the non-compliance. Details of the required information to be included in the written report are in Appendix B (Standard Permit Provisions and General Provisions) of the Municipal Permit.

The Regional Board shall be notified in writing within 5 days of issuing escalated enforcement issued to a construction site that poses a significant threat to water quality as a result of violations or other non-compliance with its permits, CVMC 14.20, or the Municipal Permit. This written notification will be provided electronically to Regional Board staff.

The Regional Board shall be notified by email (Nonfilers_R9@waterboards.ca.gov) if there are non-filers under the General Industrial Permit or the General Construction Permit within 5 days of becoming aware of the non-filing party.

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# 8.0 PUBLIC EDUCATION AND PARTICIPATION

## 8.1 PUBLIC EDUCATION

Routine daily activities can potentially impact storm water, 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 large amount of pollutants to receiving waters. Considering our growing regional population and urban expansion, larger environmental problems may be created by these seemingly harmless activities. Receiving water quality is a concern to all of us, not only because water degradation can have a negative effect on public health and safety, but it also negatively impacts the aquatic environment, riparian habitat, tourist and beach oriented economies, property values, and the aesthetic value of the area.

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 the attitude and the behavior of the general public and the regulated community, the City may reduce or eliminate storm water pollution caused by common daily activities.

The City of Chula Vista will continue to provide a comprehensive storm water education program to achieve the following objectives:

- Measurably increase the knowledge of target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience
- Measurably change the behavior of target communities, and thereby reduce pollutant releases to MS4s and the environment

Educational programs and activities are tailored to meet the needs of the following target audiences:

- Municipal departments and personnel
- Construction site owners and developers
- Industrial and commercial owners and operators
- Residential community, general public, and students
- "Underserved" target audiences, where applicable

Many educational efforts, such as direct interaction during inspections, through pre-construction meetings, or when taking calls to the City's Storm Water Hotline are conducted on an ongoing basis. Educational materials are also available throughout the year. Targeted mailings, focused training sessions, and other educational efforts are provided when found to be necessary through monitoring programs, records of complaints, and other similar factors.

Public participation also plays an important role in achieving the goals of the JRMP. Involving the general public and schoolchildren 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 also 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.

### 8.1.1 MUNICIPAL STAFF TRAINING

The City presents general storm water educational content, which is described in Section 8.1.2, and will continue to provide specific content information to various audiences, including municipal personnel. The City updates its education program to include information regarding plan review practices, current BMP technologies, and SUSMP requirements. The City does not own any utilities that have utility vaults; therefore the education program does not include information about the Statewide General NPDES Utility Vault Permit. Since the City does not do hydrostatic testing, that topic will also not be included in the regular education program. The City primarily educates its municipal staff through workshop training, refresher sessions, staff meetings, and on-the-job training. Training for municipal personnel is focused on maintenance crews, land development staff, planners, landscape architects, and staff from other departments. Municipal personnel are also notified of regional workshops, and are encouraged to participate in workshops and seminars relevant to their type of work.

#### 8.1.1.1 MUNICIPAL DEVELOPMENT PLANNING

The City will continue to offer an education program so that its planning and development review staff has an understanding of the following where appropriate:

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to development and redevelopment projects
- General urban runoff Concepts
  - Short- and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development)
  - Integration of LID BMP requirements into the local regulatory program(s) and requirements
- Best Management Practices
  - Methods of minimizing impacts to receiving water quality resulting from development, including the following:
    - Storm water management plan development and review
    - Spill response, containment, and recovery
    - Non-stormwater disposal alternatives
    - 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
  - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
  - Further education will be provided on additional topics, when necessary

In accordance with the WQIP, the City encourages municipal development planning personnel to participate in regional LID workshops, invites LID experts to give in-house presentations, and provides LID education on a case-by-case basis during project reviews. The City's municipal development planning personnel are educated on the requirements for the RWQCB 401 Water Quality Certification Program and the requirements in the BMP Design Manual.

#### 8.1.1.2 MUNICIPAL CONSTRUCTION ACTIVITIES

The City will continue to provide an education program so that its contractors, maintenance crews, building inspectors, code enforcement officers, grading plans review personnel, Public Works inspectors, and other responsible construction personnel have an understanding of the following topics, *where appropriate:*

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to construction and grading activities
  - Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities

- General urban runoff concepts
  - Short- and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development, construction materials, etc.)
  - Requirements of the City's BMP Design Manual including treatment options, LID BMPs, source control, and applicable tracking mechanisms
  - Distinction between MS4s and sanitary sewers
  - Inspection, plan review, and enforcement policies and procedures

- Best Management Practices
  - Pollution prevention, safe alternatives, 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

  - BMP types: facility or activity specific, LID BMPs, source control, and treatment control and applicable tracking mechanisms
  - Methods of minimizing impacts to receiving water quality resulting from construction activities, including the following:
    - Proper implementation of erosion and sediment control
    - Other activity specific BMPs
    - Current advancements in BMP technologies

- Other Topics
  - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
  - Inspection, plan review, and enforcement policies and procedures to verify consistent application
  - Public reporting mechanisms
  - Water conservation
  - PDP requirements including treatment options, LID BMPs, source control, and applicable tracking mechanisms

City project reviewers and designers are trained on storm water issues on an as-needed basis. Dewatering is generally not an issue of concern in the City since most of the construction activity is done on the east side of the City where the ground water is well below the surface. City staff are familiar with BMPs for groundwater dewatering and the General NPDES Permit for Ground Water Dewatering and the issue is addressed on a case-by-case basis for any project where dewatering may be required.

#### 8.1.1.3 MUNICIPAL INDUSTRIAL/COMMERCIAL ACTIVITIES

City personnel who supervise storm water compliance inspectors regularly evaluate the inspectors and their work, and training is provided on an ongoing basis. Additionally, the City may send inspectors to regional training workshops when such workshops occur. Training and educational programs include the following topics where appropriate:

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to industrial and commercial activities
  - Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (except Construction)

- General urban runoff concepts
  - BMP types: facility or activity specific, source control, and treatment control
  - How to conduct storm water inspections
  - Distinction between MS4s and sanitary sewers

- Best Management Practices

- Other Topics
  - Enforcement procedures
  - BMP implementation
  - Reviewing monitoring data
  - Water conservation

#### 8.1.1.4 OTHER MUNICIPAL ACTIVITIES

The City will continue to provide information and training to other municipal personnel, including the City fire department and contractors performing activities within the City that may generate pollutants, by conducting staff training workshops, field training, and follow-up sessions. The education program includes the following topics where appropriate:

- Laws, regulations, permits, and requirements
- General runoff and pollution prevention concepts
- Activity-specific BMPs
- Other Topics

### 8.1.2 EDUCATIONAL OUTREACH

The general storm water education for all target audiences, including previously mentioned municipal personnel, covers the following topics, *where appropriate:*

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations
  - Requirements of local municipal permits and ordinances
- General Urban Runoff Concepts
  - Impacts of urban runoff on receiving waters
  - Distinction between MS4s and sanitary sewers
  - Non-storm water discharge prohibitions
- General BMPs
  - Pollution prevention and safe alternatives
  - Good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
  - Proper waste disposal (e.g., garbage, pet/animal waste, green waste, household hazardous materials, appliances, tires, furniture, vehicles, boat/recreational vehicle waste, catch basin/MS4 cleanout waste)
  - Non-storm water disposal alternatives (e.g., all wash waters)
  - Erosion prevention
  - Preventive Maintenance
  - Equipment/vehicle maintenance and repair
  - Spill response, containment, and recovery
  - Recycling
  - BMP maintenance

- Other Topics
  - Public reporting mechanisms
  - Potable water discharges to the MS4
  - Integrated pest management
  - Benefits of native vegetation
  - Water conservation
  - Traffic reduction, alternative fuel use

#### 8.1.2.1 CONSTRUCTION SITE OWNERS AND DEVELOPERS

Construction site owners and developers alter the landscape and natural flow of storm water runoff and generally create increased amounts of disturbed surface. During such activities, construction site owners, developers, and employees have the potential to discharge a number of different types of pollutants to receiving waters. It is important that this sector is 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 and development.

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

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

Potential impacts of activities:

- Degradation of aquatic and riparian ecosystems
- Pollutant transport
- Alteration of pervious areas and natural drainage patterns
- Erosion and sedimentation
- Sedimentation of stormwater runoff

The following education topics are covered during training, *where appropriate:*

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to construction activities
  - Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- General Urban Runoff Concepts
  - BMP types: facility or activity specific, LID BMPs, source control, and treatment control
  - Short- and long-term water quality impacts associated with urbanization (e.g. land-use decisions, development, construction)
  - Detecting, reporting, and eliminating IC/IDs

  - Distinction between MS4s and sanitary sewers

- General BMPs
  - Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities
  - Current advancements in BMP technologies
  - Methods of minimizing impacts to receiving water quality resulting from development and construction, including:
    - Pollution prevention, safe alternatives, 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
    - Storm water 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
  - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
  - Public reporting mechanisms
  - Water conservation

Contractors and developers are sent annual reminders of dry season and wet season storm water BMP requirements. Letters are mailed to the corporate offices of developers and contractors, as well as hand delivered to construction site superintendents. In addition, the City's Storm Water Compliance Inspectors and Public Works Inspectors conduct one-on-one training to contractors' staff regularly during inspections. The City will continue to educate construction site owners, developers, and contractors through annual training prior to the beginning of each rainy season. The City requires all parties (contractors, owners, etc.) to be present during pre-construction meetings, and the topics of discussion may include general and site specific BMPs appropriate for the subject construction site and a review of the storm water pollution prevention plan for the project.

Building and Grading Permit applicants are required to comply with the requirements outlined in the Chula Vista Development Storm Water Manual (BMP Design Manual), which is available in the storm water management section of the City's website. City personnel review all project submittals for storm water regulations and requirements

and provide comments to the applicants. Environmental planning staff reviews all project submittals and requires compliance with the 401 Water Quality Certification Program regulations, where appropriate. Dewatering is generally not an issue of concern in the City since most of the mass grading activity is done on the east side of the City where the ground water is well below the surface. City staff is familiar with BMPs for dewatering and the General NPDES Permit for Groundwater Extraction and Similar Waste Discharges to San Diego Bay, Order No. R9-2007-0034. The issue of groundwater extraction and dewatering is addressed with any specific project where dewatering may be required.

City staff will continue to participate in workshops and seminars organized by various building industry and storm water associations and other organizations and keeps abreast of the latest developments regarding pollution prevention methods on construction sites. City staff is from time to time invited to training sessions and workshops organized by developers and builders to present City's perspective and discuss storm water requirements on construction sites. These training sessions are particularly important in educating developers, contractors, and sub-contractors on storm water issues on construction sited due to the fact that each participant gets the opportunity to ask questions and learn from each other.

The City will continue to disseminate information in print media and printed materials, which are delivered to the builders, who then distribute them to new homebuyers. Such printed media include guidelines for landscaping, swimming pool maintenance, pet waste management, auto care, and home improvements.

#### 8.1.2.2 Industrial Owners and Operators

Activities conducted on many heavy industrial facilities are considered as high threat to water quality due to the nature of the industry (e.g., manufacturing facilities, oil and gas facilities, hazardous waste treatment facilities, landfills, recycling facilities, transportation facilities, etc.). Pollutants may be generated from day to day operations, and have the potential to enter storm water runoff if not conducted properly or without the use of BMPs.

The City will continue to provide education for industrial owners and operators through the use of print media, printed materials, participation in regional workshops and presentations, and inspections, which includes the following topics, *where appropriate:*

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations applicable to industrial activities
  - Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction)
  - Short and long-term water quality impacts associated with urbanization
- General Urban Runoff Concepts

  - BMP types: facility or activity specific, source control, and treatment control
  - Detecting, reporting, and eliminating IC/IDs
  - Distinction between MS4s and sanitary sewers

- General BMPs
  - BMP types: facility or activity specific, source control, and treatment control
  - Pollution prevention, safe alternatives, and recycling
  - Good housekeeping and proper waste disposal
  - Spill response, containment, and recovery
  - Non-stormwater disposal alternatives
  - Non-stormwater discharge prohibitions

- Other Topics
  - IDDE observations and follow-up during daily work activities
  - Public reporting mechanisms
  - Integrated Pest Management techniques
  - Water conservation

#### 8.1.2.3 COMMERCIAL OWNERS AND OPERATORS

Commercial facilities include a wide range of businesses including restaurants, automotive related facilities, landscape maintenance service businesses, and mobile cleaning businesses. Pollutants may be generated from day to day operations, and have the potential to enter storm water runoff if not conducted properly or without the use of BMPs.

The City will continue to provide education to commercial owners and operators through the use of print media, printed materials, participation in regional workshops and presentations, and inspections, which includes the following topics, where appropriate:

- Laws, regulations, permits, and requirements
  - Federal, state, and local water quality laws and regulations
  - Short and long-term water quality impacts associated with urbanization

- General urban runoff concepts
  - Detecting, reporting, and eliminating IC/IDs
  - Distinction between MS4s and sanitary sewers

- Best Management Practices
  - BMP types: facility or activity specific, source control, and treatment control
  - Pollution prevention, safe alternatives, 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
  - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
  - Public reporting mechanisms
  - Integrated Pest Management techniques
  - Water conservation

**CLEAN Business Program**

As part of its efforts to involve local businesses in keeping the City clean, the CLEAN Team started the CLEAN Business Program in February 2008. The CLEAN Business Program was designed to help small businesses exercise environmentally safe practices and become sustainable. This goal could only be achieved by learning basic environmentally responsible and sound methods related to their specific daily activities. The program verifies and promotes businesses that demonstrate environmentally friendly practices and conserve resources. As part of the verification process, the business must complete a packet of checklists with minimum BMPs and request an inspection by the CLEAN Team to verify that the selected BMPs are adequate and have been correctly implemented. A part of these BMP checklists are items related to storm water pollution prevention. The CLEAN Team verifies that the BMPs are in place and functioning. Once a business becomes a CLEAN Business, they receive recognition on the City's website and receive a decal sticker to put on their front window to show consumers that they are shopping at a CLEAN Business.

#### 8.1.2.4 Residential Community, General Public, and Students

Residential areas make up a significant portion of the land use in the City, so even a small pollutant discharge can be magnified greatly and have the potential to affect the quality of the receiving waters. Providing residents with appropriate educational materials such as those included in Appendix C may help to increase overall awareness, and encourage residents to change harmful behaviors and subsequently reduce the potential for pollutants to enter the storm drain system and reach receiving water bodies.

The City will educate local residents and the general public so that they have an understanding of the following topics, where appropriate:

- Laws, regulations, permits, and requirements
- General storm water concepts
- Best Management Practices
  - Pollution prevention, safe alternatives, and recycling

  - Good housekeeping and proper waste disposal
  - Spill response, containment, and recovery
  - Non-storm water disposal alternatives
  - Non-storm water discharge prohibitions
  - BMP maintenance and implementation
  - Methods to eliminate landscape irrigation runoff through regular inspections of irrigation systems,
  - 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 HHW
  - Community outreach events and activities
  - Public reporting mechanisms
  - Integrated Pest Management techniques
  - Water conservation programs via Sweetwater Authority and Otay Water District

### City of Chula Vista CLEAN Campaign

The CLEAN Team, made up of the City's environmental departments and various environmentally focused stakeholders, has continued to collaborate on various environmental education programs within the City that are aimed at residents, the general public, and students. The following mission statement established by the CLEAN Team has guided these efforts:

"Foster environmental awareness in the City of Chula Vista, through stakeholder and community involvement and participation."

The CLEAN education program was developed around three primary elements: 1) Media 2) Community Interaction and 3) Stakeholder Coordination. It is important to distinguish the focus of this program to promote not only community education, but also community action.

Through the CLEAN education program, the City plans to educate its residents regarding its updated regulations, especially those involving over-irrigation and trash. Sweetwater Authority, Otay Water District, and Republic Services are CLEAN stakeholders and the City plans to continue collaboration with them to provide education to residents regarding these issues.

### Community Events and Outreach

Community events and outreach, such as informational booths at fairs, flyers, brochures, website postings, advertisements, and other educational materials are an important part of disseminating storm water information. Such programs raise awareness of storm water programs that exist in the City and that they have the ability to improve local water quality by making a few simple changes to regular routines. The City of Chula Vista will continue to provide educational information and training to residents through the following media, where appropriate:

- CLEAN program (website, brochures, and promotional items)
- Special events
- Storm drain stenciling
- Community clean up events
- Presentations at local and regional meetings and workshops
- Residential Recycling Guide (used oil and waste recycling)
- Christmas tree recycling program
- Billboards on waste management service trucks (overseen by Environmental Services Division)
- Point of purchase displays (overseen by Environmental Services Division)
- Mailing inserts included with trash bills
- Door hangers
- Booths at public events
- Posting of the City's newsletter "Community Connection" on the City's website
- Installation of displays at selected trail locations

Community events also allow the City to enhance interaction with the public via the use of surveys. The City periodically conducts surveys in order to better focus education efforts and assess program effectiveness. The City plans to administer surveys to gauge the public's awareness of pollution prevention measures, including but not limited to those dealing with trash and over-irrigation. These surveys will be used to further enhance and improve education efforts.

### School Education

Educating the City's youngest residents is important in two ways: 1) Ideally, the good habits/behaviors learned will be carried into adulthood and 2) children may educate their families and friends around them with the information they have learned. Children are impressionable at a young age, and therefore may be more likely to act upon the knowledge given to them.

The City will continue to educate school children by collaborating with organizations such as the Boys and Girls Club, school districts, and I Love A Clean San Diego to offer the following programs:

- Age appropriate school presentations
- Hands-on experiences for students and their parents
- Potential for field trips, such as to the Living Coast Discovery Center
- Opportunities to volunteer at clean up events

Potential storm water related topics may include the following, where appropriate:

- Watershed protection
- Water cycle
- Impact of urbanization
- Storm water and sewer drains
- Trash and recycling
- Car washing
- Pest control
- Local wetlands, plants, wildlife, creeks, lakes, and rivers
- Pollutants
- General pollution prevention techniques

#### 8.1.2.5 TARGETED EDUCATION

The City plans to implement an education program that targets underserved communities and high-risk behaviors:

**Beautify Chula Vista Day**
The City works with I Love a Clean San Diego (ILACSD) to organize this annual event. Volunteers are teamed up to paint over graffiti, pick up litter, stencil storm drains, and beautify the City. Participants may receive a free commemorative t-shirt and refreshments. This event targets underserved areas where graffiti and littering is a problem and aims to clean up those areas through volunteer involvement.

**Graffiti Abatement Program**
The graffiti control program operates largely in more underserved areas of the City. Cleaning the graffiti is considered education because it encourages residents to keep their communities clean. After graffiti removal is completed for a neighborhood, the City posts educational door hangers in the neighborhood that describe the cleanup that was done and that encourage the residents to keep their community clean.

**Home Owner Associations**
The City plans to reach out to HOAs to provide education to their communities, as well as their staff. Observations from the MS4 Outfall Monitoring and residential inspection programs can help the City to determine which HOAs need education. Mailers with trash information are sent out twice a year via the Environmental Services Section, and information on trash disposal, over irrigation, and general BMPs may be included.

## 8.2 PUBLIC PARTICIPATION

### 8.2.1 INTRODUCTION

Community involvement plays an important role in achieving the goals of the JRMP. Public participation can occur at two levels, i.e., 1) program planning, and 2) program implementation. The Municipal Permit places emphasis on public participation throughout all aspects of development and implementation phases of storm water programs and advocates transparency by requiring all final documents and reports to be placed on a clearinghouse for easy public access and input. The Municipal Permit also requires that major program planning efforts be undertaken at the watershed level with participation of all Copermittees discharging to their respective watershed.

### 8.2.2 PROGRAM PLANNING

As mentioned above, major program planning efforts take place at the watershed level. The WQIP is the instrument that identifies priority water quality conditions in the watershed; establishes water quality improvement goals, strategies and schedules; and develops water quality improvement monitoring and assessment programs. In order to seek public participation and input, various stakeholders and the general public were invited to participate in the process by volunteering to become members of a Consultation Panel for the San Diego Bay WMA. Public workshops and Consultation Panel meetings were organized to provide opportunities for public participation as drafts of various program elements and sections of the WQIP were being developed. Draft documents were revised to incorporate comments received on each topic.

In addition to the WQIP, which has been developed at the watershed level, the City of Chula Vista has updated its Storm Water Ordinance, this JRMP document and the Chula Vista Development Storm Water Manual (Fall 2015) (BMP Design Manual). Drafts of these documents were placed on the City's website and the public were encouraged to review and provide comments on both before they were submitted for approval by the City Council.

### 8.2.3 PROGRAM IMPLEMENTATION

The participation of the general public and school children in implementing storm water programs helps to improve storm water awareness among individuals and lead to improved water quality. Some programs, such as cleanup events, have direct water quality benefits. Collaboration between the City and the community should 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.

### Storm Drain Stenciling

High school, middle school, and elementary school students and any interested volunteers are encouraged to participate in a storm drain stenciling program that improves public awareness about the storm drain system. The program focuses on stenciling all major storm drains within public view and updating stenciling on previously stenciled drains.

### City of Chula Vista CLEAN Campaign

Representatives from environmental groups, community groups, local industries, businesses, and other agencies work together toward implementation of environmental projects in the City. The following mission statement established by the CLEAN workgroup has guided these efforts:

"Foster environmental awareness in the City of Chula Vista, through stakeholder and community involvement and participation."

Public meetings and citizen panels are organized. These forums allow citizens to discuss various viewpoints and provide input concerning appropriate storm water management policies and BMPs. The CLEAN workgroup has adopted the slogan "Your community. Your Environment. Your Choice." to be repeated on all public education and participation media. CLEAN branding and messaging on promotional items that are distributed during community events helps to increase public awareness.

### Creek and Waterways Cleanups

The public is encouraged to participate in organized creek, marina, and waterway cleanup events such as Creek to Bay Cleanup and Coastal Clean Up Day. Typically, such events are designed to remove trash and debris that may otherwise contaminate receiving waters. Projects may be organized by the City or other interested parties such as high schools, volunteer groups, or other outside agencies. For example, the City has regularly partnered with ILACSD and other jurisdictions in the San Diego Bay watershed to coordinate the Creek to Bay Cleanup events. The annual Creek to Bay Cleanup attracts significant numbers of volunteers, and results in the removal of large amounts of trash and recyclables from parks and waterways within the City. The City will seek further opportunities for partnering with other organizations for cleanups especially within the focused priority area.

### Otay River Valley Clean Up Project

The Otay Valley Regional Park organizes clean up events, which have the following objectives:

- Remove trash and debris

- Encourage transient individuals living in unsanitary encampments to leave the area in order to protect the sensitive habitat and create safer surroundings
- Improve the security of the area by preparing the area for installation of fencing along sidewalks and streets, and trimming foliage

The scope of the cleanup and abatement work that happens on an annual basis includes significant volunteer involvement, numerous landfill trips, substantial removal of trash and debris, and cleanup of homeless camps and abandoned drug dens. The City of Chula Vista is a sponsor of such events and provides support for all public outreach activities.

### Regional Outreach

The City participates in regional storm water related outreach activities such as the annual Earth Fair in Balboa Park and the San Diego County Fair at the Del Mar Fairgrounds.

### Public Reporting

The City encourages citizens to report to the City's Storm Water Hotline (619-397-6000) any illicit connections, illicit discharges, or any other activity that contributes to pollutants entering storm drain systems. The City's website provides the hotline number to report violations in addition to providing an online form to submit concerns on the City's website (http://www.chulavistaca.gov/departments/clean/contact-us). The City advertises its Storm Water Hotline number on various educational materials targeted at residents and businesses.

### Hazardous Waste Collection and Used Oil Recycling

Citizens may dispose of Household Hazardous Waste (HHW) at the City of Chula Vista HHW Collection Facility, and many local certified collection centers across the City accept used-oil from residents for recycling. Information about HHW and used oil disposal can be found on the City's website or through www.wastefreesd.org. Some of the items accepted at the City's HHW Facility include paints, fertilizers, sharps/needles, pesticides, motor oil, and electronics to name a few. Qualified residents may also take advantage of the City's door-to-door HHW collection program. In addition, the City also offers residents the opportunity to drop off HHW at several of the community events sponsored by the City every year. During community events, the City takes the opportunity to educate the public regarding the HHW facility and used oil recycling centers. HHW events are advertised on the City's website through the City's CLEAN program, in local newspapers, or on trash trucks.

### Encourage Responsible Cleanup

Residents are encouraged to take responsibility to keep the community clean by properly disposing of all waste. Pet waste bag dispensers are provided at various parks

in the City to encourage residents to clean up after their pets, and trashcans are available throughout all City parks for waste disposal. Many homeowner associations provide pet waste bags and have posted signs throughout their communities to encourage proper pet waste disposal. In addition, the City's Adopt a Park and Buff a Block Programs encourage residents to take ownership and pride in their communities by picking up trash and debris and eliminating graffiti.

### Public participation in JRMP development, implementation, and updates

The City will encourage continued public participation in the implementation of and any future updates to the JRMP document. The City will utilize email blasts and its website to encourage public participation in updating the City's priority water quality conditions, numeric goals, and water quality improvement strategies and their effectiveness as identified in the JRMP and WQIP documents.

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# 9.0 FISCAL ANALYSIS

## 9.1 INTRODUCTION

The City secures the funds necessary to facilitate the City's JRMP and comply with the Municipal Permit. Funds secured for implementing the JRMP are utilized for a number of different programs including jurisdictional, watershed, and regional programs. The City will continue to conduct an annual fiscal analysis of its jurisdictional runoff management program in its entirety and submit a summary of the annual fiscal analysis with each WQIP annual report.

## 9.2 PROGRAM FUNDING

The City of Chula Vista acquires the funds necessary to facilitate the City's storm water program through a number of different sources as listed below. A large portion of the funding is through general funds; capital improvement project (CIP) funds; and storm drain fees assessed on property owners or tenants of single family homes, multi-family residential properties, and industrial and commercial businesses. The City obtains additional revenue for the storm water program through fees associated with industrial, commercial, and treatment control facilities inspections, and from deposits submitted by developers for development project reviews. Further funding may be obtained through grants, if available.

City of Chula Vista anticipated funding sources and their related program elements are listed in the table below:

**Table 9-1 Storm Water Program Funding Sources**

| No. | FUNDING SOURCE | PROGRAM ELEMENT |
|---|---|---|
| 1 | General Fund | Storm Water Management Program |
| | | Storm Drain Maintenance |
| 2 | Storm Drain Fee | Storm Water Management Program |
| 3 | Sewer Fee | Wastewater Collection System Maintenance |
| 4 | Special Assessment District Fees | Storm Drain Maintenance |
| | | Wastewater Collection System Maintenance |
| 5 | Grant Funds | Used Oil Recycling |
| | | Drainage CIPs |
| 6 | Solid Waste Fee | Household Hazardous Waste Management<br>Waste Management Recycling |
| 7 | Developer Deposits and Fees | Environmental Project Reviews |
| 8 | Loans | Drainage CIPs |
| 9 | Transnet | Drainage CIPs |

## 9.3 PROGRAM EXPENDITURES

In Accordance with the Municipal Permit, various categories of expenditures necessary to implement the requirements of the Municipal Permit were identified. A summary of the expenditures related to each category will be submitted to the Regional Board with each WQIP annual report. The City of Chula Vista utilizes the Standardized Fiscal Analysis Method and Format, which was collaboratively developed and adopted by the Copermittees of San Diego County on January 29, 2009.

The Standardized Fiscal Analysis Method includes a Standardized Fiscal Analysis Reporting Form, which consists of three tables separating jurisdictional, watershed, and regional expenditures. Jurisdictional expenditures are divided into various components as follows:

- Administration
- Development Planning
- Construction
- Municipal
- Industrial and Commercial
- Residential
- Illicit Discharge Detection and Elimination (IDDE)
- Education
- Public Participation
- Special Investigations
- Non-Emergency Firefighting

Further, each of the above categories may be broken down into sub-categories. Potential sub-categories may include:

- Land Use Planning
- Environmental Review
- Development Project Approval and Verification
- Public Construction Projects
- Private Construction Projects
- Public Reporting of illicit connections or illicit discharges (IC/IDs)
- Jurisdictional Urban Runoff Monitoring Programs
- Other

Expenditure items to be considered for each category or sub-category may include:

- Administration
- Permitting and Licensing
- Project Planning and Engineering
- Maintenance Inspections
- Compliance Inspection and Enforcement
- BMP Implementation
- Educational Outreach
- Waste Collection and Recycling

- Jurisdictional Urban Runoff and Receiving Water Monitoring
- Other Expenditures

For reporting purposes, only major jurisdictional components will be used. Sub-categories and expenditure items are intended to provide standardization of expenditures and need not be shown in the final report.

The City's accounting system separates expenditures related to support staff expenditures such as salaries, health insurance, pension, etc. and operating budget (non-staff) expenditures. Examples of non-staff expenditures include monitoring, permit fees, public education, consultant services, equipment costs for storm drain cleaning, street sweeping contracts, as well as watershed and regional storm water activities. The City has developed a spreadsheet that with input from various elements of the City's accounting system, expenditures are translated into the reporting format compatible with the Standardized Fiscal Analysis Method and Format.

Personnel from various City departments are involved in the implementation of the City's storm water program. A list of various departments is included below. Refer to Section 1.3.5 of this document for further detail regarding the responsibilities of various departments.

- The Storm Water Management Section
- Public Works Department Engineering
- Public Works Department Operations
- The Conservation and Environmental Services Division
- The Inspection Services Division
- The Development Services Department
- The City Attorney's Office
- The Management and Information Services Department

In addition to expenditures related to the implementation of the City's jurisdictional storm water program, there are watershed and regional expenditures that are tracked separately. Further, there are expenditures that are primarily related to other programs but also benefit the City's storm water program. A list of such expenditures is as follows:

- Used Oil Recycling
- Household Hazardous Waste Management
- Wastewater Collection Systems Maintenance
- Flood Management Projects and Flood Control Devices
- Land Use Planning
- Environmental Reviews
- Development Project Approval and Verification
- Management of Pesticides, Herbicides, and Fertilizers
- Roads, Streets, Highways, and Parking Facilities Maintenance
- Parks and Recreational Facilities Maintenance

## 9.3 FISCAL ANALYSIS REPORTING

After each fiscal year, the City conducts an analysis of its JRMP in its entirety to identify the expenditures (such as capital, operation and maintenance, education, enforcement, and administrative expenditures) necessary to implement the requirements of the Municipal Permit, and to accomplish the goals and activities described in the JRMP. The annual analysis will include the following components:

- A description of each expenditure to be accounted for in each category of expenditures.
- Staff resources necessary and allocated to implement the JRMP, including required any development, implementation, and enforcement activities.
- An expenditure summary and associated funding source(s) for the above expenditures for the current fiscal year.
- A description of legal restrictions on the use of each funding source for the current fiscal year and the next fiscal year.

Additionally, the City will present a summary of its storm water program fiscal analysis for the reporting fiscal year in its annual reports to the Regional Board. Backup documentation used to develop the summary of the annual fiscal analysis is saved in the City's data management system and can be made available upon request by the Regional Board.

# 10.0 CONCLUSIONS AND RECOMMENDATIONS

Using past experiences and current regulation under the new Municipal Permit, the City has updated its JRMP to both improve upon storm water programs in the City and to meet the requirements of the new Municipal Permit. Under the new Municipal Permit, the City has implemented a number of new programs. The City anticipates assessing and refining these new programs as well as continuing to assess and improve existing ones so that the City's program is implemented to the MEP. Continually working to improve existing programs and implementing additional programs is expected to be effective in reducing or eliminating pollutant runoff from the variety of areas and activities discussed throughout the JRMP document. The City will continue to work with the other Copermittees within the San Diego Bay Watershed to develop methods to foster and assess long-term success in regional water quality improvement.

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# 11.0 REFERENCES


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