CITY OF SOLANA BEACH
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STATEMENT OF CERTIFICATION

City of Solana Beach Jurisdictional Runoff Management Plan

I certify under penalty of law that this Jurisdictional Runoff Management Plan 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.

1-30-17

Gregory Wade
City Manager

Date

CITY OF SOLANA BEACH JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM

June 2015 (Revised January 2017)

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1 Introduction

The San Diego Regional Water Quality Control Board (RWQCB) adopted the Municipal Storm Water Permit Order No. R9-2013-0001, National Pollutant Discharge Elimination System (NPDES) No. CAS019266 (Permit) which became effective on June 27, 2013, to control waste discharges in urban runoff from the Municipal Separate Storm Sewer Systems (MS4) draining the watersheds in the County of San Diego, the incorporated cities of San Diego County, San Diego County Regional Airport Authority, and the San Diego Unified Port District, collectively known as Copermittees. Each Copermittee is required to implement a Jurisdictional Runoff Management Program (JRMP) to control the contribution of pollutants to and the discharges from the MS4 within its jurisdiction.

1.1 Purpose and Objectives

The purpose of the City's JRMP is to implement strategies that effectively prohibit non-storm water discharges to the MS4 and reduce the discharge of pollutants in storm water to the maximum extent practicable (MEP). Improving the quality of the discharge from the MS4 should have beneficial effects on the local receiving water bodies.

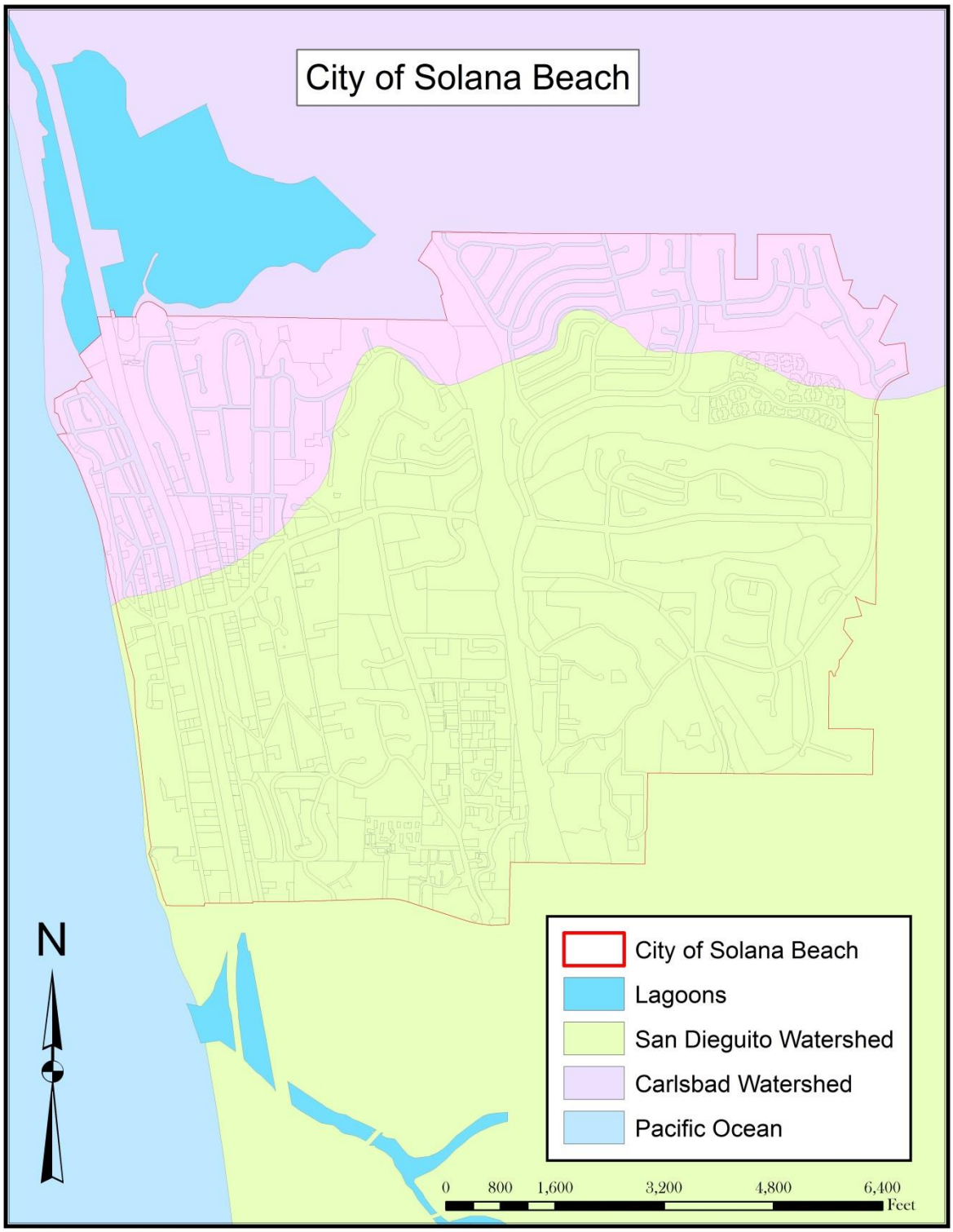
This document is based on the most updated information available at the time this document was prepared. Each year the City will submit a JRMP Annual Report to the RWQCB, and modifications to the City's JRMP will be noted in the annual report. Any program modifications will be for the advancement of the City's program and will comply with all requirements as presented in the Permit.

1.2 Overview of City of Solana Beach

The City of Solana Beach (City) is a small city located in southern California on the central coast of San Diego County. It is bordered to the west by the Pacific Ocean, to the north by San Elijo Lagoon and the City of Encinitas, to the east by County of San Diego and rural residences, and to the south by the San Dieguito River Valley and the City of Del Mar.

Solana Beach is located within the Carlsbad and San Dieguito River Watershed Management Areas (WMAs), as shown in Figure 1 below. Major surface water bodies in the Carlsbad WMA that receive urban runoff discharges from areas within the City include the San Elijo Lagoon and the Pacific Ocean. Major surface water bodies in the San Dieguito WMA that receive urban runoff discharges from areas within the City are the San Dieguito River/Estuary and the Pacific Ocean.

Figure 1: City of Solana Beach Map



1.3 Regulatory Setting

The San Elijo Lagoon and Pacific Ocean shoreline are designated as impaired by the RWQCB and United States Environmental Protection Agency (USEPA) and listed on the 2010 Clean Water Act (CWA) section 303(d) as follows:

- The San Elijo Lagoon is impaired for nutrients, indicator bacteria and sediment.
- The Pacific Ocean Shoreline of the San Dieguito HA has been identified as a waterbody subject to the requirements of San Diego Beaches and Creeks Project I Bacteria Total Maximum Daily Load (TMDL)[1].

1.4 Water Quality Improvement Plans

Provision B of the Permit requires Responsible Agencies, in each of the region's WMAs to develop Water Quality Improvement Plans (WQIPs). Through the WQIP approach, highest priority water quality conditions within the WMA are identified and strategies are implemented through the Responsible Agencies' JRMPs to make progress toward improvements in water quality. The Permit and the WQIP process allow Copermittees to focus JRMPs on particular areas or water quality issues of concern.

This approach represents a paradigm shift from previous permit requirements where jurisdictions essentially implemented the same activities throughout their jurisdictions. The new Permit enables jurisdictions to focus resources and efforts on WMAs and to prioritize implementation efforts by receiving waters. The WQIPs guide the development and implementation of each Responsible Agency's JRMP.

The City's JRMP contains the strategies, standards and protocols by which the City will implement its individual program in response to the priorities and goals established in the WQIP. The WMAs and the associated highest priority water quality conditions (HPWQC) are described below.

The City identified the HPWQC and Priority Water Quality Conditions (PWQCs) to focus implementation efforts. Numeric goals and strategies were developed to address the identified HPWQC and PWQCs. Strategies typically address multiple conditions; therefore, it is anticipated that all priority conditions will be improved by the selection and implementation of water quality improvement strategies.

For the San Dieguito WMA, the HPWQC identified is indicator bacteria. The rationale for identification of indicator bacteria includes its prevalence in receiving waters and MS4 outfalls. Indicator bacteria was identified during both dry and wet weather conditions at locations within the receiving waters as well as MS4 outfalls during regional monitoring efforts.

The City of Solana Beach is focusing its resources and efforts towards addressing the HPWQC of bacteria in the San Dieguito Watershed, as the majority of the City is situated within the San Dieguito Watershed, and the issue of bacteria is a primary concern. For these reasons, the City does not have an identified HPWQC in the Carlsbad WMA. The City, however, is implementing strategies to assist in addressing the

[1] The TMDL is for REC-1 beneficial use impairments of waterbodies throughout San Diego County. Based on analysis conducted in 2012, it was determined that the Pacific Ocean shoreline at San Dieguito HA would not have qualified for REC-1 beneficial use impairment at any time. Therefore, the HA was inappropriately included in the TMDL. The San Dieguito HA Responsible Parties are not responsible for any further Bacteria TMDL action, including preparation and submittal of a Load Reduction Plan or Monitoring Plan, as long as monitoring data continues to support compliance with water quality standards. If at any time, the Pacific Ocean Shoreline becomes impaired under the Listing Policy, the Responsible Parties will make appropriate modifications to the WQIP to meet the requirements of the Bacteria TMDL. The Responsible Parties will monitor the Pacific Ocean receiving waters and assess the potential for further TMDL actions.

HPWQC goals (riparian habitat in Escondido Creek) in the Carlsbad Watershed that are established by other RAs.

The City developed numeric goals, schedules, and selected water quality improvement strategies for implementation in order to address the HPWQC of indicator bacteria. The focus on the HPWQC will not result in PWQCs or other conditions being overlooked, rather, preference will be given to strategies that have a variety of benefits to improve multiple priority conditions.

Both the 303(d) listings and TMDL processes influence the City's management and implementation of the JRMP and prioritization of resources. Through the WQIP process, the City designated a HPWQC and identified numeric goals and strategies to improve the HPWQC. The strategies and goals are incorporated into the City's JRMP development and implementation.

For more information regarding HPWQCs, goals and strategies, see the final Carlsbad and San Dieguito WQIPs at the Project Clean Water website, www.projectcleanwater.org, under the Carlsbad and San Dieguito WMA webpages.

2 Legal Authority and Program Responsibilities

This section describes the City's legal authority and Department Program responsibilities and roles, regarding storm water management. The City maintains adequate legal authority within its jurisdiction to control pollutant discharge into and from its MS4 through the City's Municipal Code and ordinances.

2.1 Legal Authority

The City's ordinances and Municipal Code provide legal authority for enforcing storm water requirements. The primary ordinances relating to storm water and urban runoff requirements include the following:

- Solana Beach Municipal Code Chapter 15.54 – Excavation and Grading
- Solana Beach Municipal Code Chapter 13.10 – Storm Water Management

The City's legal authority allows for the enforcement of storm water requirements including to:

- Prohibit and eliminate all illicit discharges and illicit connections to its MS4;
- Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to its MS4 and control the quality of runoff from industrial and construction sites, including industrial and construction sites which have coverage under the statewide General Permit for Discharges of Storm Water Associated with Industrial Activities (Industrial General Permit) or General Permit for Discharges of Storm Water Associated with Construction Activities (Construction General Permit), as well as to those sites which do not;
- Control the discharge of spills, dumping, or disposal of materials other than storm water into its MS4;
- Control through interagency agreements among Copermittees the contribution of pollutants from one portion of the MS4 to another portion of the MS4;
- Control, by coordinating and cooperating with other owners of the MS4 such as Caltrans, the U.S. federal government, or sovereign Native American Tribes through interagency agreements, where possible, the contribution of pollutants from their portion of the MS4 to the portion of the MS4 within the Copermittee's jurisdiction;
- Require compliance with conditions in its statutes, ordinances, permits, contracts, orders, or similar means to hold dischargers to its MS4 accountable for their contributions of pollutants and flows;
- Require the use of BMPs to prevent or reduce the discharge of pollutants in storm water from its MS4 to the MEP;
- Require documentation on the effectiveness of BMPs implemented to prevent or reduce the discharge of pollutants in storm water from its MS4 to the MEP;
- Utilize enforcement mechanisms to require compliance with its statutes, ordinances, permits, contracts, orders, or similar means; and
- Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with its statutes, ordinances, permits, contracts, orders, or similar means and with the requirements of this Order, including the prohibition of illicit discharges and connections to its MS4; the Copermittee must also have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from industrial facilities, including construction sites, discharging into its MS4.

The City utilizes a tiered, increasing enforcement system for violations of the City's Municipal Code. The various increasing enforcement mechanisms and penalties are described in Section 11 Enforcement Response Plan.

2.2 City Department Program Responsibilities

While the primary responsibility of managing the JRMP lies with the Department of Public Works, other City departments participate in the implementation of the program. Each Department and associated Division has an established role in implementing the components of the JRMP. For this reason, the City's JRMP is considered a City-wide approach to control pollution and storm water runoff. The organizational chart in Figure 2 below displays the City Departments and staff positions.

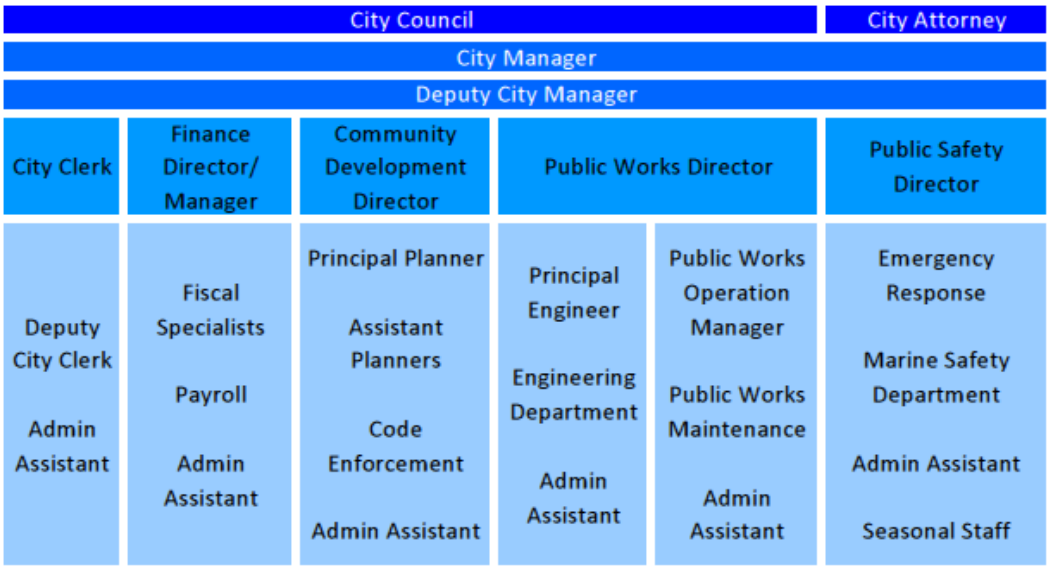


Figure 2 Solana Beach Organizational Chart

The following table identifies the departments and staff that conduct storm water management activities and their roles under the City's JRMP. For broader descriptions of the departments and their overall roles in City operations, please see the City's website at http://www.ci.solana-beach.ca.us/

Table 1: Department/Division JRMP Responsibilities

Department/ Division	JRMP Responsibilities
City Manager's Office	Overall oversight for JRMP implementation
City Attorney	Certification of adequate legal authority; enforcement assistance when applicable
City Clerk	Maintains records of programs and implementation; provides public records request support when applicable
Engineering – Storm Water Program	Conduct follow-up inspections and enforcement of industrial and commercial facilities; hotline and complaint response, enforcement and follow-up; education of residential sector, industrial and commercial facilities; personnel; provide educational materials and outreach for various target audiences; provide education for residents, general public, and school children; Household Hazardous Waste Management Program; oversight of the Urban Runoff Management Program; maintain inventory and conduct initial inspections of industrial and commercial facilities; responsible for corrective actions of municipal areas and activities; provide enforcement support for construction activities; oversight of illicit discharge detection and elimination program, including dry weather monitoring, investigation, enforcement; assist with training of municipal employees; coordinate annual report preparation; serve as liaison to City Departments regarding implementation of the Order and JRMP; serve as Carlsbad and San Dieguito WQIP liaison
Planning	Business License database management
Information Technology	GIS development and implementation; database management
Community Development – Planning Division	General Plan update; Environmental Review process update and implementation; review of projects for compliance with all City development codes; conditions of approval for project permitting process; provide data and information for annual reports; provide education to development community
Engineering Division	Ensure that capital improvement projects meet the new development or significant redevelopment requirements; ensure that the capital improvement projects construction activities have adequate best management practices (BMPs) required for implementation by the City's contractor; provide data and information for annual reports; maintain construction site inventory; conduct inspections and regulate construction sites regarding erosion, sediment control and other site management activities; contribute to education and outreach for construction audience; conduct post-construction BMP construction verification; maintain the treatment control BMP inventory and oversee maintenance tracking activities; special event inspections; provide data and information for annual reporting; modifications to development requirements; ensure that new development and significant redevelopment requirements (e.g., SUSMP) are included in all development projects; maintain inventory of permits; assist in development of and implementation of Hydromodification Management Plan; provide data and information for annual reports; provide education to development community
Community Development – Building Division	Plan review; permit issuance; building inspection and code enforcement for building permit projects – including post-construction BMPs; provide data and information for annual reports; provide education to development community
Public Works	Application of pesticides; herbicides and fertilizers; maintenance of parks and park facilities; maintenance of BMPs; provides general, routine maintenance, and BMP maintenance at City-owned buildings; administers street sweeping program; maintenance of City streets and roads; operate and maintain the City's storm water system and structural controls; conduct preventative maintenance; provide data and information for annual reports
Fire Department	Implementation of BMPs at Fire Stations and during non-emergency fire-fighting activities; provide training to staff; provide data and information for annual reporting

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3 Non-Storm Water Discharges

This section describes the City's approach to controlling the non-storm water discharges to the MS4. The City addresses non-storm water discharges as illicit discharges unless a non-storm water discharge is authorized by a separate NPDES permit or qualifies as a conditional discharge, as explained in Section 3.3 below.

3.1 Introduction

Non-storm water discharges are runoff flows from any type of activity other than weather generated precipitation or naturally occurring groundwater. Typical non-storm water discharges include, but are not limited to:

- Irrigation runoff (e.g., overspray and over irrigation)
- Vehicle washing
- Street, sidewalk and parking lot washing (e.g., hosing down and high pressure washing)
- Air conditioning condensation
- Swimming pool discharges
- Sanitary sewer overflows
- Septic system overflows

Identifying and eliminating non-storm water discharges from entering the City's MS4 is a cost-effective best management practice (BMP) for improving water quality. Through the Illicit Discharge Detection and Elimination Program (IDDE), the City investigates and eliminates any observed illicit non-storm water discharge. The IDDE program is described in more detail in Section 4.

Prohibited Non-Storm Water Discharges

The City prohibits all non-storm water discharges unless a discharge is authorized by a separate NPDES permit or qualifies as a conditional discharge (see Section 3.2).

3.2 Conditional Non-Storm Water Discharges

The following categories of non-storm water discharges are conditionally allowed by the City if the discharger meets the criteria described below. If a discharge does not meet the criteria, then the discharge is prohibited by the City.

3.2.1 Discharges Associated with Separate NPDES Permit

The RWQCB may permit a discharger to discharge water to the City's MS4, as long as the City does not determine that the discharge is a source of pollutants. For scheduled discharges, the discharger shall notify City Staff at least 30 days prior to the scheduled date of discharge.

Pumping and Groundwater

The following non-storm water discharges *are allowed* if the discharge is covered under the NPDES Permit No. CAG919002 (Order No. R9-2008-0002):

- Uncontaminated pumped ground water
- Discharges from foundation drains (i.e., if the system is located at or below the groundwater table to extract groundwater)
- Water from crawl space pumps
- Water from footing drains

Water Line Flushing and Breaks

The City considers non-storm water discharges associated with water line flushing or breaks as an illicit discharge, unless the discharge has coverage under NPDES Permit No. CAG 679001 (Order No. R9-2010-

0003). In addition, discharges from recycled or reclaimed water lines are illicit, unless covered under a separate NPDES permit.

3.2.2 Controlled Non-Storm Water Discharges

The City of Solana Beach allows the following non-storm water discharges to enter the MS4 if the following controls and criteria are implemented:

Air Conditioning Condensation

The discharge should be directed to landscaped areas or other pervious surfaces.

Individual Residential Vehicle Washing

The use of water and washing detergent should be minimized and the discharge of wash water should be directed to landscaped areas or other pervious surfaces.

Dechlorinated Swimming Pool Discharges

Prior to discharging to the MS4, residual chlorine, algaecide, filter backwash, or other pollutants from the swimming pools, must be eliminated.

The discharge of saline swimming pools must be directed to the sanitary sewer, landscaped areas, or other pervious surfaces that can accommodate the volume of water. Prior to discharge, the path to the MS4 should be cleared and flow rates should be non-erosive.

Emergency and Non-Emergency Fire-Fighting

Fire-fighting flows, both emergency and non-emergency, are allowed under specific conditions as follows:

- Non-Emergency Firefighting Discharges:
    - Building fire suppression system maintenance discharges (e.g. sprinkler line flushing) to the MS4 must have BMPs implemented to prevent pollutants associated with such discharges to the MS4. If appropriate BMPs are not implemented, these discharges will be considered illicit discharges.
    - Non-emergency firefighting discharges (i.e., discharges from controlled or practice blazes, firefighting training, and maintenance activities not associated with building fire suppression systems) are controlled through a program (see Section 7.11) to reduce or eliminate pollutants in such discharges from entering the MS4.
- Emergency Firefighting Discharges
    - The City encourage implementation of BMPs to reduce or eliminate pollutants in emergency firefighting discharges to the MS4s and receiving waters. During emergency situations, priority of efforts are directed toward life, property, and the environment (in descending order). BMPs should not interfere with immediate emergency response operations or impact public health and safety.

3.2.3 Discretionary Discharges

The following discharges are not prohibited unless they are identified by the City or the RWQCB as pollutant sources to receiving waters:

- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration to MS4s
- Springs
- Flows from riparian habitats and wetlands

- Direct discharges from potable water sources
- Direct discharges from foundation drains
- Direct discharges from footing drains

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4 Illicit Discharge Detection and Elimination

This section describes the responsibilities of staff with respect to implementation of the Illicit Discharge Detection and Elimination (IDDE) component of the JRMP. This program section is intended to provide direction to actively seek and eliminate illicit discharges and connections.

4.1 Introduction

In general, illicit discharges to the MS4 are any discharges not composed entirely of storm water unless they are authorized under a separate NPDES permit or are considered conditional discharges, explained further in Section 3, Non-Storm Water Discharges.

The City's program to actively seek and eliminate illicit discharges to the MS4 is comprised of the following elements:

- Visual outfall monitoring
- Source specific observations
- Use of City staff for reporting observations
- Use of public hotline and reporting methods
- Investigations and enforcement
- Spill reporting, response and prevention

In almost all cases of illicit discharges, elimination of the discharge requires some level of enforcement and/or abatement action. Specifications in the Solana Beach Municipal Code grant the City the powers to enforce its regulations pertaining to illicit discharges. The Municipal Code requires the violator to conduct abatement activities required to eliminate an illicit discharge or for the City to conduct the abatement activities itself, at the cost of the violator.

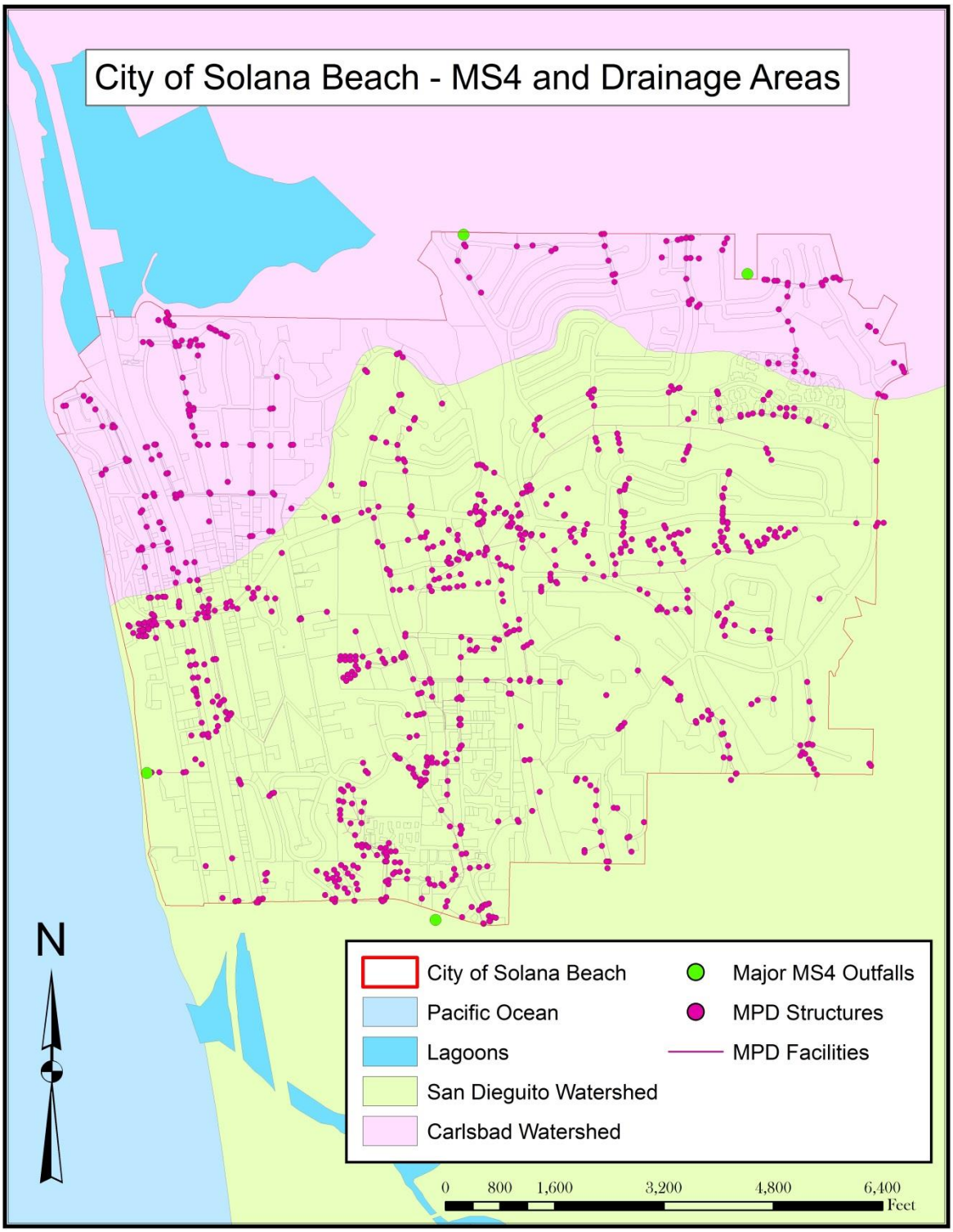
4.2 Program Elements

4.2.1 MS4 Map

The City maintains an updated map of its MS4 and the corresponding drainage areas. As shown in Figure 3 the map identifies the following:

- Segments of the MS4 owned, operated, and maintained by the City
- Locations of inlets
- Known locations of connections with other MS4s, not owned by the City
- Known locations of MS4 outfalls and private outfalls that discharge runoff collected from areas within the City
- Segments of receiving waters within the City that receive and convey runoff discharge from the MS4 outfalls
- Locations of MS4 outfall discharge monitoring stations
- Locations of non-storm water persistent flow MS4 outfall discharge monitoring stations

Figure 3: MS4 Facilities and Drainage Areas



4.2.2 Monitoring Programs

The City conducts field screenings of MS4 outfalls and portions of the MS4 infrastructure, to detect illicit discharges. The following sections briefly describe the monitoring programs performed by the City that are specific to IDDE. Monitoring programs are explained in more detail in Section 14, Monitoring Programs.

Dry Weather MS4 Outfall Discharge Field Screening Monitoring

The intent of the Dry Weather MS4 Outfall Discharge Monitoring Program is to investigate any observed discharge from the MS4 and determine if the discharge is an illicit connection or discharge. If flowing water is observed at an outfall, City Storm Water Staff document the findings and investigate the source of the flow. In most instances, the flow can be eliminated after the source is identified. If the discharge requires enforcement actions, City staff will implement enforcement procedures described in Section 11, Enforcement Response Plan.

Non-Storm Water Persistent Flow MS4 Outfall Discharge Monitoring

The Non-Storm Water Persistent Flow MS4 Outfall Discharge Monitoring Program focuses analytical monitoring at locations known to have persistent flow. The City monitors all of its major MS4 outfalls in the Carlsbad and San Dieguito River WMAs. More information is provided in Section 14, Monitoring.

4.2.3 Source Specific Observations

The City implements investigational source identification procedures in order to identify and eliminate discharge sources. The City inspects municipal, industrial, commercial, residential, and construction activities to identify sources of illicit discharge. Often, when an illicit discharge is detected during an inspection, it can be eliminated before it affects receiving waters.

4.2.4 Observation Reporting by City Staff

Maintenance and operations personnel are trained to promptly refer any storm water violations observed while working in the field, to appropriate City Staff for investigation. Once City Staff receive notification of an illicit discharge, they implement procedures described below in Section 4.2.6, to eliminate the source of the discharge.

4.2.5 Public Reporting Methods

The public can report water quality issues to the following email address: stormwater@cosb.org. This email is directed to staff and allows for tracking and timely investigations.

The City of Solana Beach currently uses the public hotline phone number operated by the County of San Diego for reporting illegal discharge of pollutants into storm drains. The hotline is to facilitate public complaints and reports of illicit discharges or water quality impacts associated with discharges into or from the MS4 within the County of San Diego. The public hotline phone number is operational 24 hours a day/7 days a week and accepts reports in English and Spanish. Reports received which occur within the City of Solana Beach jurisdiction, are transferred to a city contact for investigation. The public hotline phone number is (888) 844-6525.

Hotline reports contain a robust standard for recording third party complaints to facilitate a timely investigation. Documented information include: Provided complaint information, violator information, location and description of the discharge, and materials and waste involved. Standardized complaint forms are used for documenting complaint information. These reporting standards are set by the Permit.

4.2.6 City Staff Investigation

Once a report is received, City code compliance staff visit the location of the complaint to investigate and determine the appropriate course of action. Depending on the severity of the violation, City code compliance staff may provide educational information or materials to the discharger or follow the appropriate enforcement action(s) as described in Section 11- Enforcement Response Plan. If deemed necessary, staff will conduct a follow-up investigation to ensure the correction has been made. This process encourages pollution prevention methods and verifies the implementation of required BMPs.

4.2.7 Sewage Spill Reporting, Response, and Prevention

The City's Public Works Department is responsible for preventing, responding to, containing and cleaning up sewage spills and other spills that may discharge into the MS4 from any source (including private laterals and failing septic systems). A description of strategies implemented to limit spills and infiltration from the sanitary sewer into the MS4 is provided below.

Sewage Spill Response

The City has two Sanitary Sewer Overflow (SSO) Response Plans for handling sewer overflow emergencies. The Working Hours Response Plan applies to releases that occur during business hours, Monday through Friday between 7:00 A.M. and 4:00 P.M. After Hours Response Plan covers emergencies which occur outside of business hours.

The Working Hours Response Plan requires a City's Public Works crewmember and/or Public Works Superintendent to respond to an emergency call. When responding to an emergency call, the responding staff member assesses the situation to determine whether to contact the City's contractor.

The After Hours Response Plan states that the designated standby crewmember will respond to the emergency call. The standby crewmember is determined through a monthly rotation of crewmembers who serve on a one-week "on-call" basis. The standby crewmember responds to the call and requests additional assistance from other City staff or a sewer response contractor, as needed.

Both response plans currently consist of the following elements and, will be amended, if improved BMPs are identified for response plans and/or improvements to the plan are shown to reduce the likelihood of pollutants entering the storm drain:

1) Emergency call received by the City of Solana Beach Public Works Department (During Work Hours) or the North County Dispatch (After Hours). Public Works Superintendent or lead worker paged.
2) Crew member(s) and/or Public Works Superintendent (During Work Hours) or stand-by person (After Work Hours) notified and dispatched to emergency.
3) Situation evaluated to determine if a sewer related problem exists. If yes, City's contractor contacted.
4) Contractor personnel and Solana Beach Public Works personnel evaluate situation to determine: a) cause of overflow; b) plan of action; and c) resources needed.
5) Initiate Plan of Action – call for additional help, appropriate vehicles and equipment, etc.
6) Clear blockage.
7) Clean-up overflow by a) thorough cleansing; b) disinfecting site; and c) determine size of spill.
8) Prepare written report including size of spill, address, time, and persons notified.

Reporting of Sewage Spills

To facilitate timely responses to spills, the following measures are implemented by the City.

- Copermittee Complaint Programs - Storm water-related complaints are received through the use of a hotline, referrals from staff or agencies, or a number of other channels. The City will coordinate as closely as possible with other agencies and departments that receive IDDE or related reports within their jurisdictions to ensure that all reports are appropriately received, routed, and investigated.
- Emergency Response Program - The City is responsible for coordinating with other emergency responders (e.g., hazardous materials or fire agencies) to ensure compliance with their local and permit requirements associated with responding to reported spills.

The City of Solana Beach will report sewage spills or reports of sewage spills from third parties to the following agencies when appropriate:

1) County of San Diego Department of Environmental Health (DEH) – California Health and Safety Code Section 5411.5 requires that all sewage spills be immediately reported to the DEH 24 hours a day. During standard work hours (M-F, 7:30 a.m. to 4:30 p.m.) spills can be reported to the Proposition 65/Recreational Water Duty Specialist at 619-338-2386 or faxed to 619-338-2848. All immediately reportable spills should be called in by telephone regardless of whether an accompanying fax has been sent. After hours spills should be reported to County Communications at 858-565-5255, and a request made to page the Environmental Health Specialist.
2) State Office of Emergency Services (OES) – California Water Code Section 13271 and the California Code of Regulations Section 2250 also require that the State Office of Emergency Services (OES) be notified of sewage spills of 1000 gallons or more by telephone at 800-825-7550 and by fax at 916-262-1677 (follow up only).
3) RWQCB – Order No. 96-50 requires that dischargers report to the RWQCB all sewage spills of at least 1000 gallons, or any discharge to surface waters, within 24 hours by fax (858-571-6972) or telephone (858-467-2952). In all instances, the discharger must fax a Sanitary Sewer Overflow (SSO) Report Form to the RWQCB within five days of the spill. The completed SSO form must also be faxed to the DEH. A quarterly report of all sewage spills, including those not meeting the criteria stated above, must also be submitted electronically to the RWQCB.

4.3 Enforcement

The City investigates illicit discharges or connections immediately after they are reported or observed. City staff document reports, observations and responses through internal memorandums, emails, and work orders.

For any enforcement actions, the City follows the established protocols described in Section 11, Enforcement Response Plan.

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5 Development Planning

The development planning process is a comprehensive process that includes planning, engineering, construction and post-construction phases. Each phase includes review, conditional requirements and verification that the requirements have been satisfied. The construction portion of the development process is described in Section 6 of the JRMP. Because the process weaves through various phases, there are several City Departments/Divisions involved in the development process, including, Planning, Engineering Development Services, Engineering Construction Inspection, Fire and Building.

5.1 Introduction

This section describes the responsibilities of staff with respect to implementation of the Development Planning Component. As land development, or redevelopment, occurs, the City requires projects to plan for, design and construct post-construction BMPs to mitigate the water quality impacts of the planned land use.

Development Planning is intended to:

- Reduce discharges of pollutants from developed properties;
- Prevent discharges from the MS4 from causing or contributing to a violation of water quality standards, and;
- Manage increases in runoff discharge rates and durations from developed properties that are likely to cause increased erosion of stream beds and banks, silt pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

5.2 Land Use Planning

The City is tasked with ensuring that land uses in Solana Beach comply with City codes, the General Plan, Council policies, Engineering Standards and state law requirements. Approval of projects through the discretionary review process is generally but not always required prior to issuing grading, building and right-of-way permits. The City Code requires compliance with storm water requirements for all discretionary approvals and ministerial permits. The Planning, Engineering, Building and Fire Departments administer the storm water program requirements for all discretionary approvals and ministerial permits issued for private development. The Engineering and Public Works Departments administer all aspects of design and construction for public improvement projects. The Planning Department administers the environmental review of both public and private projects.

The City of Solana Beach revised its General Plan (adopted 1988) to include additional water quality and watershed protection principles and policies to direct land-use decisions and require implementation of consistent water quality protection measures for new development and redevelopment projects. Policy amendments and revisions will be made to the Land Use Element, Circulation Element, Safety Element, and Open Space and Conservation Element of the City's General Plan. These revisions to the General Plan were approved and adopted on February 19, 2002.

5.3 Environmental Review Process

The City's Environmental Review Process begins with the Initial Study Checklist (CEQA Guidelines). Based on the results of the checklist, the City requires the project applicant to provide additional studies to elaborate on the environmental impacts or recommend denial of the permit that the project applicant is seeking. The Initial Study Checklist includes specific hydrology and water quality analysis as follows:

1) Could the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).
2) Could the proposed project result in significant alteration of receiving water quality during or following construction?
3) Could the proposed project result in increased impervious surfaces and associated increased runoff?
4) Could the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?
5) Could the proposed project result in increased erosion downstream?
6) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list. If so, can it result in an increase in any pollutant for which the water body is already impaired?
7) Is project tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?
8) Could the proposed project have a potentially significant environmental impact on surface water quality to either marine, fresh, or wetland waters?
9) Could the proposed project have a potentially significant adverse impact on ground water quality?
10) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?
11) Can the project impact aquatic, wetland, or riparian habitat?

5.4 Development Project BMP Requirements

Land Development in the City of Solana Beach consists of various types of projects, ranging from single family homes to smaller commercial projects and includes City Capital Improvement Program (CIP) projects. Because Land Use Planning addresses all development projects, including municipal capital projects, essentially all project types are addressed through this program component.

Each development project in the City is required to meet minimum BMP requirements of incorporating both source control BMPs and Low Impact Development (LID) BMPs. Some projects are Priority Development Projects and require additional Structural BMPs to be incorporated into the project.

Source control BMPs are intended to control the sources of pollutants – not allowing for the pollutants to come into contact with runoff or to be discharged from a development site. Source control BMPs are sometimes physical features and elements, however, they are often practices that are implemented to counteract or modify the actions taken by residents, businesses and employees that may cause pollution.

LID BMPs are intended to mimic a project site's pre-project hydrology by using design features and elements to effectively capture, filter, store, evaporate, detain and infiltrate runoff within the development footprint.

Structural BMPs are considered part of the tools available to treat or control runoff from developments that have been determined to be a threat to water quality or downstream conditions, based on existing water quality conditions or the activities associated with the development. These BMPs are considered a necessary part of controlling pollutants and flows from entering the receiving waters.

> **BMP Design Manual**
>
> The City, in cooperation with the other regional jurisdictions, developed a Model BMP Design Manual (formerly the Standard Urban Stormwater Mitigation Plan or SUSMP) as a foundation for consistent application of requirements for post-construction BMPs. The City tailored the Model BMP Design Manual and formally implemented the BMP Design Manual prior to December 31, 2015. Updates are posted to the City's website.

The City's local BMP Design Manual identifies specific post-construction LID, source control and structural BMPs that must be incorporated into all development projects as well as priority development projects. The BMP Design Manual provides information on selection and implementation of the LID, source control and structural BMPs for pollution control and hydromodification controls.

5.5 Program Implementation

The City relies on its Excavation and Grading, and Stormwater Management codes as the foundation for its development planning implementation. The Municipal Code requires new development and significant redevelopment projects to incorporate into their project plans and specifications, stormwater best management practices to control stormwater pollution and potential impacts to downstream channels from erosive flows.

The development process is comprehensive in that it encompasses planning, engineering and building plan check, construction, inspection and final verification of construction to ensure requirements are met. A description of how stormwater program requirements are implemented throughout this process is described in the sub-sections below.

If a project is determined to be a Priority Project, the SUSMP (or BMP Design Manual) Structural BMP requirements become an integral part of the project.

The City has developed a database to track the information required of the Structural BMP Maintenance element of the program. Initial project information is tracked in the early planning phases of the project. As more definitive data and information is developed, it is incorporated into the database for tracking and inspection purposes.

5.5.1 Planning Phase

The Planning Phase is a critical phase in the development process for ensuring that storm water LID measures are incorporated. The City emphasizes to developers the importance of incorporating LID principles into the initial conceptualization and design of a development project. By focusing developer efforts on early incorporation of LID, the City hopes to avoid costly and time consuming project redesign and an over reliance upon the type of end of pipe structural solutions utilized by developers in past years.

After initial conceptualization of a project development, the owner/ developer/ applicant has the option of submitting the project for preliminary or pre-application review by City staff. The City will review the conceptual project plans for conformance with codes, policies and standards, and return a written response to the applicant detailing the City's initial concerns and issues with the project, including any storm water compliance issues. The preliminary review process may also include a pre-application meeting wherein the applicant and City staff meets to discuss the City's concerns and issues with the proposed project.

Upon completion of the conceptual design process, the developer/owner/applicant is ready to submit a formal discretionary review application(s) to the City for review and processing.

The Planning Department maintains coordination with the project proponent throughout the permitting process. Planning Department reviews the conceptual project and informational studies and determines the governing authority for the review process – Administrative or City Council. Planning, Building, Engineering, Environmental, Fire and other various departments will review the conceptual plans and technical studies for various issues, including water quality. The various departments provide the Planning Department with specific project conditions for permit approval that address the project issues, including water quality. The City maintains a list of standard conditions, including storm water compliance conditions that are applied to project conditions of approval as applicable.

Once a project has been conditioned, the project staff report and conditions of approval are forwarded to the governing authority for decision. The governing authority may then deny, approve or conditionally approve the project. Upon discretionary approval, the project proponent may begin the plan check process.

5.5.2 Plan Check Phase

During the plan check phase, the project proponent submits plans and studies that describe the proposed project in detail. Several departments review the projects for conformance with the conditions of approval, engineering standards, zoning codes, landscape standards, building codes and other City requirements. Once the plan check process is complete and the project plans are approved for each of the applicable permits, the permit(s) are issued and construction of the permitted portion of the project may begin.

This part of the process includes the submittal of the final Storm Water Management Plan (SWMP) that demonstrates that all required site design, source control and structural BMPs have been incorporated. The specific requirements of the SWMP are provided in the City's SUSMP/BMP Design Manual – see Appendix B. All projects will be assigned a post-construction inspection priority. This post-construction inspection priority level is used during post-construction for the purpose of determining the frequency at which the structural BMPs are inspected for maintenance and effectiveness.

The City uses a process for ensuring verification that all permanent post-construction BMPs are constructed per the requirements of approved SWMPs. Approved post-construction BMPs are incorporated onto numerous separate and distinct construction drawings including mass grading plans, finish grading plans, building plans, improvement plans and landscape plans. Each of these plan sets may be reviewed by different City or consultant staff and be inspected during construction by different

construction inspectors over extended periods of time. To ensure that all permanent post-construction BMPs for a particular project are installed by the conclusion of the project, the City is requiring developer preparation of a single plan BMP sheet as part of the SWMP.

The single plan BMP sheet includes a site plan of the project detailing the location of each required LID site design, source control and structural BMP. In addition, the plan contains a matrix listing of the required BMPs cross referenced with a list of the specific construction drawing where the specified BMP construction is detailed. A copy of the single plan BMP sheet is attached to each construction drawing highlighting only those BMPs included with the referenced construction drawing.

At the conclusion of project construction, before occupancy permits are granted or construction securities are returned, a City inspector conducts a final inspection of the site using the single plan BMP sheet to verify installation of all required BMPs for the project. The single plan BMP sheet is also used to verify that all structural BMP elements are incorporated into the City's watershed based inventory.

5.5.3 Construction Verification Process (Prior to Occupancy/Release of Bonds)

Construction Inspectors inspect the construction and installation of BMPs that are associated with engineering permits (grading permits and public improvement permits) and Capital Improvement Program (CIP) projects. The Construction Inspectors review the projects for compliance with the water quality requirements for the project and the storm water ordinances. For Capital Improvement Projects that are Priority Development Projects, enforcement will be withholding operational acceptance or notification of completion until it is verified that post-construction BMPs are installed.

Building Inspectors inspect the construction and installation of BMPs that are associated with private development that requires a demolition or building permit. For Priority Development Projects that are private developments, the Certificate of Occupancy will not be issued unless the BMPs have been inspected and signed off as being constructed properly.

Prior to certifying a project ready for occupancy (one of the final project releases) or releasing the applicant's bonds, the City will verify that each post-construction BMP that was to be incorporated has been installed per City requirements. Based on the single plan BMP sheet approach described above, Engineering Inspection and the Building Department Inspection will have key items to review and confirm their construction on the plan sheet itself.

5.5.4 Post-Construction Phase

Structural BMP Maintenance Tracking

The City implements a watershed-based database to track and inventory structural BMPs and structural BMP maintenance within the jurisdiction. The database is used to verify that structural BMPs are regularly maintained by the parties responsible. Post-construction inspection priority for each project site is based upon the types of BMPs installed with the project. The post-construction inspection priority is assigned during preparation of the SWMP in accordance with the City SUSMP/BMP Design Manual requirements. The structural BMP information for the database is collected during the plan check process using information provided by the project applicant. The existing database includes a host of information regarding structural BMPs collected for all projects approved since 2001, including following:

1) Geographic Location (northing and easting)

2) BMP Type (CASQA identifier)
3) BMP Description (general type description)
4) BMP detail (specific type description)
5) BMP Manufacturer, if applicable
6) BMP Model No. or manufacturer code if applicable
7) BMP installation date
8) Inspection frequency
9) Maintenance frequency
10) Maintenance agreement, if provided
11) Watershed
12) Owner
13) Owners address

Annual Inspection Program

Based on the project BMP priorities determined during the plan-check phase, the City will inspect structural BMPs on the following schedule:

- High Inspection Frequency Priority – 100% of BMPs Inspected Annually
- Medium Inspection Frequency Priority – 50 % of BMPs Inspected Annually
- Low Inspection Frequency Priority – BMPs will be Inspected on an As-Needed Basis

Annually, the City will review project sites with structural BMPs in accordance with the inspection requirements noted above. At a minimum, the City will inspect 20% of the total number of projects with structural BMPs and a maximum of 100% of the average number of projects with structural BMPs approved per year. These inspections will be completed prior to October 1st each year.

The inspection process will include records review prior to a site inspection. The inspector will review the site for the following:

- Properly maintained BMP
- Effective operations of the BMP(s)

Annual Verification Program

The City has an annual verification of effective operation and maintenance of constructed structural BMPs. The City's structural BMP verification program utilizes the following steps to verify the effective operation and maintenance of each structural BMP constructed under the City's processes:

1) Utilize the structural BMP inventory to create a list of sites, responsible parties, addresses and the associated BMPs.
2) Annually mail out a verification form to be returned to the City. The form will include the following information:
    a. BMPs to verified
    b. Description of maintenance taken during previous year
    c. Requirement to supply information to demonstrate maintenance and/or operating status (vendor invoices, photos etc.)
    d. Certification from the responsible party that the BMP(s) were maintained and are operating
3) In the event that a responsible party does not respond the City may use its available enforcement measures to obtain compliance.

Intentionally Inserted for Printing Purposes

6 Construction Management

6.1 Introduction

The City implements a Construction Management Program that includes a project approval process, construction site inventory and tracking system, BMPs implementation, site inspections and enforcement procedures.

Construction and grading activities have the potential to impact nearby water bodies due to the presence of disturbed soils and building materials. Storm water or non-storm water discharges may transport pollutants from the site to the City's municipal separate storm sewer system (MS4). The City's program is implemented to prevent construction site discharges from entering the MS4 to the maximum extent practicable (MEP).

6.2 Construction Site Inventory

The Engineering Department maintains an electronic database of all of the active construction projects. All pertinent information, including the threat to water quality (TTWQ) level and inspection frequency priorities are contained in the database. Once a project enters the construction phase it becomes the responsibility of the Engineering Department. The Construction Inspector enters the project information once it becomes active and updates the inventory at least monthly. The inventory is used to determine the minimum frequency of inspections for the projects that are active at any time. A copy of the current construction site inventory is available upon request.

The inventory includes the following information for each project:

- Relevant contact information for each site (e.g., name, address, phone and email for the owner and contractor)
- The basic site information including location (address and hydrologic subarea), Waste Discharge Identification (WDID) number (if applicable), size of the site and approximate area of disturbance
- Whether or not the site is considered a high treat to water quality
- The project start and completion date
- Inspection frequency (see Section 6.4.3 below)
- Date the City approved the pollution control plan, construction BMP plan, and/or erosion and sediment control plan
- Whether or not there are ongoing enforcement actions administered to the site

6.2.1 Threat to Water Quality Prioritization

The following methodology is used to determine inspection frequency during the wet season (October 1st through April 30th). Construction projects are assigned one of three inspection frequency priorities, high, medium, or low.

At a minimum, the following project types are considered high priority for the purposes of inspection frequency:

- Sites 50 acres or more in size and grading will occur during the wet season
- 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

- Other projects sites, determined by the City or RWQCB, may qualify as high priority for the purposes of inspection frequency based on the following criteria:

    1) Project Size
    2) Planned Period of Grading
    3) Vicinity of the Project to Environmentally Sensitive Water Bodies
    4) Project Type
    5) Past Record of Compliance by the Operators of the Construction Site
    6) Presence of Significant Erodible Slopes
    7) Potential to Produce Significant Non-Storm water Discharge or Pollutants

At a minimum, the following project type is considered medium priority for the purposes of inspection frequency:

- All sites with one acre or more of soil disturbance not meeting the criteria specified above for high priority construction sites

At a minimum, the following project type is considered low priority for the purposes of inspection frequency:

- All sites less than one acre in size

6.3 Best Management Practice Requirements

It is the responsibility of the project proponent to select, install and maintain appropriate BMPs. BMPs must be installed in accordance with an industry recommended standard (e.g., Caltrans or California Storm water BMP handbooks) or in accordance with the State's General Permit for Construction Activities.

At a minimum, the City requires that BMPs from each subcategory below are installed and maintained for all grading and building projects. The responsible parties must implement an effective combination of BMPs to prevent onsite erosion to the MEP and to prevent sediment from leaving the project site. These BMPs are described in Appendix A.

Depending on project scope and potential associated discharges, additional BMPs may be needed. If the project proponent proposes to use a BMP not listed below, approval from the City is required prior to installation.

The following BMP categories shall be implemented:

- Project Planning/Scheduling
- Good Site Management "Housekeeping" (including waste management)
- Non-storm Water Management
- Erosion Control
- Sediment Control
- Run-on and Run-off Control
- Active/Passive Sediment Treatment Systems (where applicable)

If a BMP is selected and implemented, but fails in actual use, causing sediment or other pollutants to be discharged from the site, applicable regulations will have been violated. The ability to deploy standby BMPs within 48 hours does not substitute for actual protection of slopes during storm events. Excessive erosion and sediment discharges are prohibited even if they result from a dry season storm that arrives with less than 48 hours' notice.

303(d) Listed Water Body Segments

For project sites that drain into water body segments impaired for sediment, the following BMPs must be implemented at all times:

- Maintain vegetative cover as much as possible by developing the project in a phased approach to reduce the amount of exposed soil at any one time.
- Limit the areas of active construction to five acres at any one time.
- Provide appropriate perimeter control at all appropriate locations along the site perimeter and at all inlets to the storm drain system at all times during the rainy season.
- Provide vegetated buffer strips between the active construction area and any water bodies.
- Provide stabilized construction entrances and limit all vehicle and foot traffic to those entrances.

Maximum Disturbed Area for Erosion Controls

The active disturbed soil area of any project site shall be not more than 50 acres for an individual grading permit or a combination of grading permits under an associated Tentative or Final Map. The City may approve, on a case-by-case basis, expansions of the active disturbed soil area limit if adequate site protection is demonstrated. At all times, sufficient soil stabilization and sediment control materials shall be maintained on site to provide adequate site protection.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continues to occur or will occur during the ensuing 10 days. Non-active areas shall be protected within 10 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

6.4 Program Implementation

6.4.1 Construction and Grading Approval Process

Because most construction activities involve soil disturbances and/or potential storm water and non-storm water discharges, the City's project approval process requires project proponents to incorporate storm water protection and urban runoff management into their projects, prior to, during, and following construction activities. The City utilizes the following elements when processing and approving projects for construction related activities.

Storm Water Pollution Prevention Plan

City staff use the applicant's submittals to evaluate compliance with the City's Storm Water and Grading Ordinances. This process also provides City staff with the information necessary to determine:

1) If the project is exempt from requiring BMPs
2) If the project requires additional permit coverage (e.g., California General Construction Permit)
3) The project's inspection frequency priority (i.e., high, medium or low)

The approval process requires project proponents to do the following:

- Implement a plan to manage storm water and non-storm water discharges from the site at all times.
- Minimize grading during the wet season and coincide grading with seasonal dry weather periods to the extent feasible. If grading does occur during the wet season, require project proponent to implement additional BMPs for any rain events that may occur.
- Emphasize erosion prevention as the most important measure for keeping sediment onsite during construction.
- Utilize sediment controls as a supplement to erosion prevention for keeping sediment onsite during construction, and never as the single or primary method.

- Minimize areas that are cleared and graded to only the portion of the site that is necessary for construction.
- Minimize exposure time of disturbed soil areas.
- Temporarily stabilize and/or re-seed disturbed soil areas as rapidly as possible.
- Permanently re-vegetate or landscape as early as feasible.
- Stabilize all slopes.
- When applicable, provide evidence of existing coverage under the State's General National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities.

Depending on the type of construction work to be performed, projects fall within one of the following categories:

- Exempt projects
- Building permit projects
- Grading/Building projects not subject to the requirements of the State NPDES Construction General Permit
- Grading/Building Projects that are required to obtain coverage under the State NPDES Construction General Permit

Exempt Projects

To qualify for an exclusion from storm water BMPs and documentation requirements, project proponents are required to complete a certification of exemption prior to the issuance of any regulatory approval or permit. Exemption approvals are limited to only those projects where all activity, including storage and handling of construction-related materials and any wastes or spills, are completely enclosed (i.e. not exposed to storm water) and no conduit to storm drains or surface waters exist (except for sanitary sewer system). Types of activities that may be categorized as exempt include:

- Interior remodeling
- Mechanical permit work
- Electrical permit work
- Tenant improvements
- Signs
- Changes of use within an existing building
- Temporary mobile home and trailer permits
- Minor permits accessory to an existing building such as patio covers, decks and carports
- Emergency construction activities required for immediate protection of public health and safety

These exemptions do not relieve the project proponents from preventing any construction-related materials, wastes, spills or residues from entering the MS4. Exempt projects are periodically reviewed by the storm water department to determine if the exemption is still accurate.

Projects that Require Building Permit

For construction activities requiring a building permit, but which are not exempt, project applicants are required to implement the minimum BMPs. These requirements include site management, construction materials, waste management controls, and off-site sediment tracking and transport. Because some activities with the potential to disturb soil (e.g. landscaping, grading less than permit threshold) may not require grading permits, minimum BMPs are still required to implement basic erosion and sediment control practices.

Projects Not Subject to the State General Construction Permit

For projects that require a grading permit and where the amount of soil being disturbed is less than one acre, project proponents are required to implement the City's minimum construction and post construction BMPs.

Projects Subject to the State General Construction Permit

For activities that will disturb greater than one acre of soil, project applicants are required to select and implement erosion control, sediment control and non-storm water BMPs to prevent the discharge of contaminates off-site or to the MS4. In addition to meeting the City's minimum BMP requirements, the project proponent must provide evidence of coverage under the State General Construction Permit. The City has adopted the Caltrans model Storm Water Pollution Prevention Plan (SWPPP) that may be completed and used to satisfy this requirement. Upon submittal to the State Water Quality Resources Control Board (SWQRCB), the project proponent must also submit a copy of the Notice of Intent (NOI), proof of fee payment, and the completed SWPPP to the City for review and file.

6.4.2 BMP Implementation

The City requires minimum BMPs to be implemented year-round for all construction projects. The minimum BMP requirements are the same for each inspection frequency priority because all sites must be protected to prevent discharges to the MEP. Each site must be protected by an effective combination of erosion and sediment controls, materials and waste management controls, and site management controls.

If particular BMPs are infeasible at any specific site, the project proponent must install other equivalent BMPs. At any time of the year, an inactive site must be fully protected from erosion and discharges of sediment. A site is considered inactive if weather permitting construction activities have ceased for a period of ten or more consecutive days. It is also the project proponent's responsibility at both active and inactive sites to implement a plan to address all potential non-storm water discharges.

Dry Season Requirements

The following minimum BMPs must be in place at all sites during the dry season (i.e., May 1st through September 30th):

- All graded areas must have erosion protection BMPs properly installed.
- Adequate perimeter protection BMPs must be installed and maintained.
- Adequate sediment control BMPs must be installed and maintained.
- Adequate BMPs to control offsite sediment tracking must be installed and maintained.
- A minimum of 125% of the material needed to install standby BMPs to protect the exposed areas from erosion and prevent sediment discharges, must be stored onsite. Areas already protected from erosion using physical stabilization or established vegetation stabilization BMPs are not considered to be "exposed" for purposes of this requirement.
- The project proponent must have an approved "weather triggered" action plan and be able to deploy standby BMPs to completely protect the exposed portions of the site within 48 hours of a predicted storm event (a predicted storm event is defined as a forecasted, 40% chance of rain by the National Weather Service). Upon request, the project proponent must provide proof of this capability that is acceptable to the City.
- Deployment of physical or vegetation erosion control BMPs must commence as soon as slopes are completed. The project proponent may not continue to rely on the ability to deploy standby BMP materials to prevent erosion of slopes that have been completed.

- The area that can be cleared, graded, and left exposed at one time is limited to the amount of acreage that the contractor can adequately protect prior to a predicted rainstorm. For larger sites grading should be phased. It may be necessary to deploy erosion and sediment control BMPs in areas that are not completed, but are not actively being worked before additional grading is done.

Rainy Season Requirements

In addition to the dry season requirements, the following must be implemented during the rainy season (October 1st through April 30th):

- Perimeter protection and sediment control BMPs must be upgraded if necessary to provide sufficient protection for storms likely to occur during the rainy season.
- Adequate physical or vegetation erosion control BMPs must be installed and established for all completed slopes prior to the start of the rainy season. These BMPs must be maintained throughout the rainy season. If a selected BMP fails, it must be repaired and improved, or replaced with an acceptable alternate as soon as it is safe to do so. The failure of a BMP indicates it was not adequate for the circumstances in which it was used. Therefore, repairs or replacements must put a more robust BMP in place.
- The amount of exposed soil allowed at one time shall not exceed that which can be adequately protected by deploying standby erosion control and sediment control BMPs prior to a predicted rainstorm.
- A disturbed area that is not completed but that is not being actively graded must be fully protected from erosion if left for 10 or more days. The ability to deploy standby BMP materials is not sufficient for these areas, BMPs must actually be deployed.

6.4.3 Construction Site Inspections

Inspection Frequencies

The inspection frequencies are based on the site's threat to water quality (TTWQ), appropriate season (wet or dry), and phases of construction activities. The following table presents the different TTWQ categories and their corresponding minimum inspection frequencies for the wet (October 1 through April 30) and dry (May 1 through September 30) seasons.

Table 2: Construction Site Inspection Frequency

Construction Site TTWQ	Wet Season Inspection Frequency	Dry Season Inspection Frequency
High	Every two weeks	As needed
Medium	Monthly	
Low	As needed	

All construction sites are inspected for storm water management compliance on an as needed basis during the dry season. Site specific inspection frequencies will be re-evaluated periodically, particularly when grading activities are being conducted during the rainy season. The need for additional inspections may vary depending upon several factors including:

- Site conditions
- Previous violations
- History of developer or contractor's past performance
- Grading during rainy season
- Weather patterns

Inspection Procedures

The City inspects all ongoing construction projects including both private projects and City Capital Improvement Projects (CIPs). City inspectors are responsible for all grading, infrastructure, right-of-way, engineering and building projects within the City. Inspectors are responsible for ensuring construction activities are being performed in accordance with the project plans, building and grading permits, and all applicable codes, regulations and ordinances.

The City's inspection procedures include the following:

- Assessment of BMP effectiveness including implementation of an effective combination of erosion, sediment and non-storm water BMPs to meet the City's minimum water quality protection requirements and prevent the discharge of pollutants into storm water and receiving waters.
- Check for coverage under the General Construction Permit (Notice of Intent and/or Waste Discharge Identification Number) during initial inspection.
- Ensure compliance with the City's applicable ordinances, permits and other site-specific requirements.
- Check for non-storm water discharges, potential illicit connections and potential discharge of pollutants in storm water runoff.
- Ensure proper implementation of plans and specifications.
- Conduct education and outreach on storm water pollution prevention as needed.
- Ensure that the project proponent implements storm water management on a year-round basis.

City inspectors assess the construction site against the minimum BMP requirements designated by the City (see Appendix A) to determine if the site is in compliance with requirements. The minimum BMP requirements are intended to be easy to interpret field observations that allow an assessment of site conditions during both dry and wet conditions.

Inspection Content

Inspections conducted by City staff include the following content:

- Verification of coverage under the Construction General Permit (Notice of Intent (NOI) and/or WDID number) during initial inspections, when applicable
- Assessment of compliance with local permits and applicable local ordinances related to pollution prevention, including the implementation and maintenance of applicable BMPs
- Assessment of BMP adequacy and effectiveness
- Visual observations of actual non-storm water discharges
- Visual observations of actual or potential discharge of sediment and/or construction related materials from the site
- Visual observations of actual or potential illicit connections
- If any violations are found and BMP corrections are needed, inspectors must take and document appropriate actions in accordance with the Enforcement Response Plan

Inspection Tracking and Records

City staff track and record all inspections at all inventoried construction sites. A list of the data collected and tracked during inspections is provided below and all records are available upon request by the RWQCB.

- Site name, location (address and hydrologic area), and WDID number (if applicable)
- Inspection date

- Approximate amount of rainfall since last inspection
- Description of problems observed with BMPs and indication of need for BMP addition/repair/replacement and any scheduled re-inspection, and date of re-inspection
- Descriptions of any other specific inspection comments and rationales for any longer compliance times allowed
- Description of enforcement actions issued in accordance with the City's Enforcement Response Plan (see Section 11)
- Resolution of problems noted and date problems were fixed

6.5 Corrective Actions and Enforcement

If a City site inspector determines that a site is out of compliance with the City's requirements, the inspector will document the corrective actions necessary to bring the site into compliance. The corrective actions include a compliance date at which the inspector has determined that the site needs to be in compliance. This compliance date is based on the best professional judgment of the inspector. The inspector will perform a follow-up inspection to determine compliance. If compliance has not been achieved by the follow-up inspection, increased enforcement actions may be implemented.

The enforcement actions regarding construction activities are described in Section 11, Enforcement Response Plan.

7 Municipal

7.1 Introduction

The City owns and maintains a variety of municipal facilities, areas, and activities. Municipal facilities represent a physical location at which activities occur, such as administration buildings and fire stations. Areas include municipally owned spaces such as streets, roads, highways, parking lots, sanitary sewers and municipal separate storm sewer systems (MS4s). Activities may take place at a fixed facility/area or in the field and include street sweeping, graffiti abatement, street and sidewalk repair, painting, MS4 maintenance, and regular maintenance of the sanitary sewer system to prevent overflows.

This section provides an introduction to the City's program to comply with the Existing Development Management Component of the Permit (Provision E.5.), focused specifically on municipal facilities, areas and activities. This section describes the responsibilities of staff with respect to implementation of the Municipal Component of the JRMP.

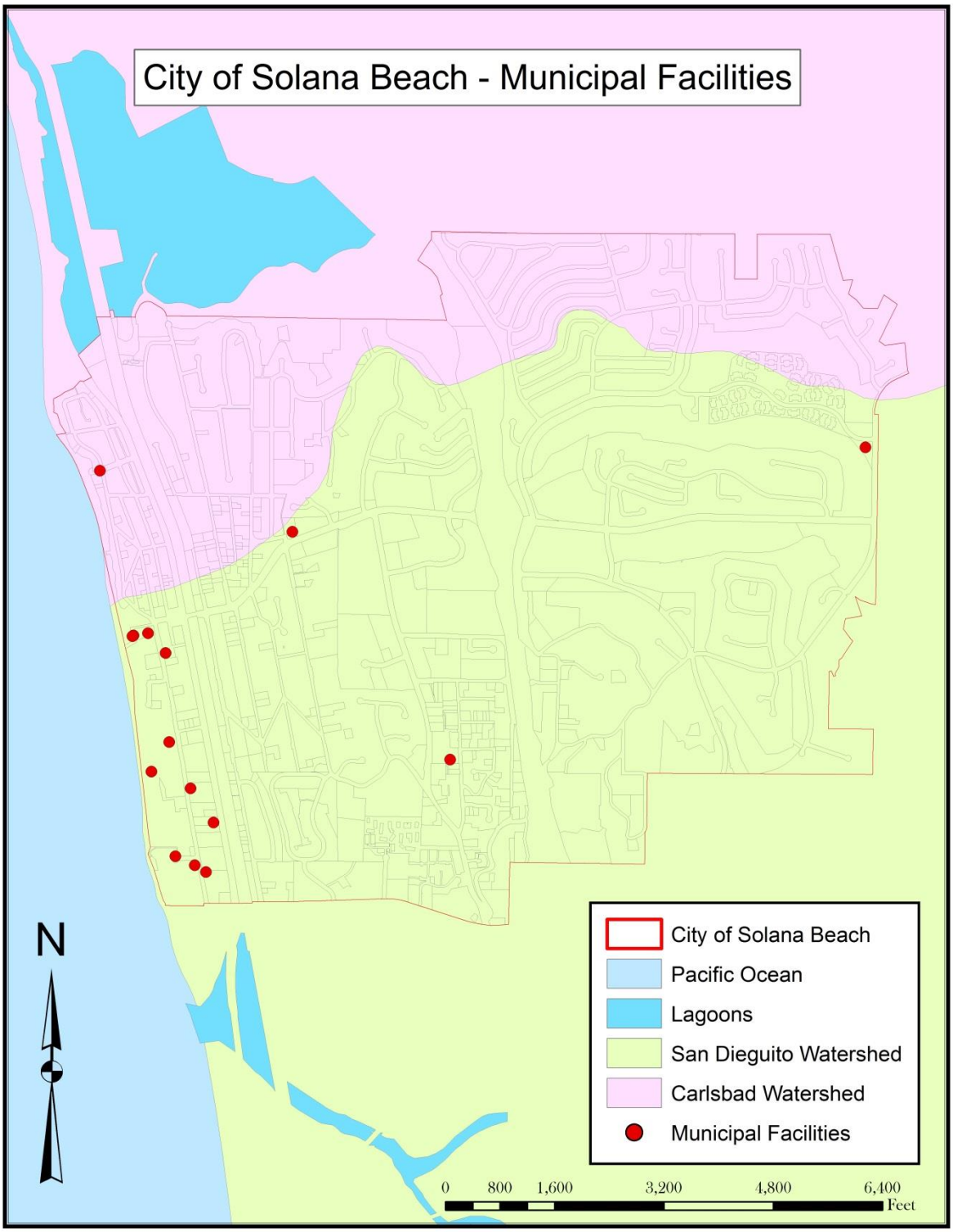
7.2 Municipal Facilities and Activities Inventory and Tracking

City Storm Water Staff maintain a watershed-based inventory for all municipal facilities, areas, and activities. Basic inventory information includes:

- Facility name
- Contact information
- Location information (hydrological subarea and address)
- Facility category (e.g., fire station, public works facility and MS4)
- Industrial General Permit NOI and/or WDID number, if applicable
- Identification of pollutants generated and potentially generated by the facility or area
- Whether facility is adjacent to an ESA
- Whether the facility or area is tributary to and within the same hydrologic subarea as a water body segment listed as impaired on the CWA section 303(d) list and if the facility or area generates pollutants for which the water body segment is impaired for.

The City also maintains a map showing the location of the municipal facilities, watershed boundaries and water bodies, as shown in Figure 4.

Figure 4: Map of Municipal Facilities



7.3 Best Management Practices Requirements

The City requires a minimum set of BMPs for all municipal facilities and activities and ensures proper implementation, operation and maintenance. The City's BMP Manual identifies the requirements for all municipal facilities and activities and can be found in Appendix A.

The City also requires the use of pollution prevention methods to address the priorities and strategies in the Carlsbad and San Dieguito River and Water Quality Improvement Plans (WQIPs.)

7.4 Municipal Inspections

The City implements a patrolling and facility inspection program throughout its jurisdiction. The City's Storm Water Staff utilize patrols to monitor and inspect industrial and commercial businesses, municipal facilities, and residential areas for storm water violations per the City's ordinances. Patrolling inspections are a proactive way to enforce compliance with the storm water ordinances, discover and abate hotspots and trouble areas, and educate business owners, property managers, and residents regarding the City's storm water requirements. In addition, the patrol methodology allows for a more efficient visual observation of the City and incorporates multiple components from the JRMP.

The patrolling method allows the City to perform an all-inclusive inspection effort where the following tasks can be performed at one time per designated area:

- Municipal facilities inspections
- Treatment Control BMPs inspections
- MS4 inspections
- Industrial and commercial inspections
- Residential inspections

Inspections of municipal facilities, areas and activities include the following:

- Assessment of BMP implementation, maintenance and effectiveness.
- Check for coverage under the IGP (NOI and/or WDID), if applicable.
- Assessment of compliance with Copermittee ordinances and permits related to storm water runoff.
- Check for presence of non-storm water discharges, presence of actual or potential discharge of pollutants and presence of actual or potential illicit connections.
- Verification that the description of the facility or area in the inventory has not changed.
- If any problems or violations are found, proper documentation and appropriate actions will be taken in accordance with the City's Enforcement Response Plan.

7.5 Inspection Frequency

At a minimum, City staff inspect (patrol and/or onsite) each inventoried municipal facility, area and activity once in five years. More frequent inspections are based on the potential for a facility or activity to discharge non-storm water and pollutants, and the highest priority water quality conditions determined in the Carlsbad and San Dieguito River WQIPs.

Annually, the City inspects at least 20% of the inventoried municipal facilities, areas and activities. In addition, municipal facilities will be inspected on an as-needed basis, in response to valid reporting of potential illegal discharges.

Follow-up Inspections

City staff conduct follow-up inspections to determine if corrective actions have been taken in accordance with City ordinances and minimum BMP requirements. Increasing enforcement steps, providing flexibility for the inspectors or investigators to establish appropriate compliance time frames on a case-by-case basis, are used to ensure compliance. Follow-up and enforcement inspections are documented in the inspection inventory.

7.5.1 Inspection Tracking and Records

City staff track and record all inspections and follow-up inspections at all locations in the industrial and commercial inventory. This information is retained in an excel database. The information and data gathered as part of the inspections includes, but is not limited to:

- Name and location of the facility (address and hydrologic subarea) consistent with inventory name and location
- Inspection and re-inspection date(s)
- Inspection method(s) (drive-by or onsite)
- Observations and findings from the inspection(s)
- Descriptions of any problems or violations found during the inspection
- Description of enforcement actions issued in accordance with the City's Enforcement Response Plan
- The date that problems or violations were resolved

7.6 Municipal Separate Storm Sewer System Program

The City's Public Works Department is responsible for the routine and emergency maintenance of the City's MS4 and flood control channels. The City storm drain maintenance crews (or contractors) inspect and clean catch basins, curb inlets, under sidewalk drains, channels and culverts using manual procedures and equipment, including vactor trucks and front loaders.

The City inspects all MS4 facilities that receive or collect high volumes of trash and debris between May 1st and September 30th once per year. These locations are assessed periodically to determine if inspection frequency revisions are necessary. All remaining MS4 facilities are inspected at any time during the year.

Any catch basin or storm drain inlet that has accumulated trash and debris greater than 33% of design capacity is cleaned in a timely manner. Any MS4 facility that is designed to be self- cleaning is cleaned of any accumulated trash and debris immediately. Open channels are cleaned of observed anthropogenic litter in a timely manner. Portion of the concrete channel in Steven's Creek are cleaned once per year.

In addition to routine cleaning, the City proactively repairs and replaces corrugated metal pipe throughout the MS4 in order to control and prevent pollutant sources from within the MS4 infrastructure.

7.7 Street Sweeping Program

Street sweeping is widely recognized as an effective BMP for reducing the amount of pollutants (e.g., litter, green waste, oils, grease and sediment) on street and parking lot surfaces. City streets are swept on a revolving schedule, at a rate of approximately 325 miles every month.

Based on historic sweeping volumes collected and traffic loadings for the street network, the City categorized its street network into high, moderate and low priority areas within the City. At a minimum, the following street sweeping frequencies are implemented:

- High – Minimum of twice per month

    - South Sierra Ave
    - Highway 101
    - Lomas Santa Fe
    - Stevens/Valley
    - Cedros
- Moderate –Once per month
    - Residential Streets
- Low – Once per month
    - Parking Lots

In addition to streets, the City sweeps the road medians of Highway 101 and Lomas Santa Fe once per month.

7.8 Application of Pesticides, Herbicides, and Fertilizers

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and California Title 3, Division 6, Pesticides and Pest Control Operations place strict controls over pesticide application, handling, training and testing requirements. The California Department of Pesticide Regulations and the County Agricultural Commission coordinate and maintain the licensing and certification programs. These certifications require the implementation of Integrated Pest Management (IPM) practices during maintenance activities. All City staff that apply pesticides and herbicides in "agricultural use" areas such as parks, golf courses, rights-of-way and recreation areas, are certified in accordance with state regulations. All certifications are kept on file at the City's Parks Department. Contracts for landscape maintenance include similar requirements.

All employees that work with pesticides are responsible for implementing safety precautions from the Materials Safety Data Sheet (MSDS) files. In addition, municipal facilities or activities that require the use of pesticides, herbicides, and/or fertilizers implement BMPs to address application, storage, and disposal. Improper use, handling, or storage of pesticides, herbicides, and fertilizers may allow these chemicals to come into contact with receiving waters via storm water or urban runoff. BMPs are applied at all municipal facilities, public rights-of-ways, parks, recreational facilities, and other landscaped areas.

7.9 Sanitary Sewer Systems

The City provides wastewater collection and transmission for its residential, commercial and industrial users through its sanitary sewer system. The sanitary sewer system is an underground utility system that has the potential to convey runoff and pollutants. The City implements BMPs in order to reduce and prevent runoff from entering the sanitary sewer system to the MEP.

7.9.1 BMP Requirements

The City implements BMPs to prevent sanitary sewer failures or emergencies. The City maintains contracts to complete its prevention program and response to overflows. Below is a general description of the responsibilities of the City and its contractors.

Sewer System Overflow Response

The City maintains a contract for Sewer System Overflow Response under emergency conditions. The primary function of the response program is to prevent human health and environmental impacts from sanitary sewer spills.

System Cleaning

The City contracts with a specialized contractor to perform sanitary sewer collection system cleaning. The contractor uses jet-rodding equipment and vactor trucks to conduct the cleaning process. The City inspects and cleans all sewer lines once per year and hotspots are cleaned every three months.

Video Inspection

The City contracts with a specialized contractor to perform video inspections of the sanitary sewer collection systems to identify potential problems and to prioritize the City's maintenance and rehabilitation program. One-fifth of the City's sewer lines are video inspected each year.

Utility Crew Work

When the City requires maintenance and modifications to sanitary sewer manholes, and point repairs in the sanitary sewer collection system it contracts under a competitive bid. These activities fall under a general construction activity, therefore the construction related BMP and contract requirements are implemented.

7.10 Special Events

Periodically the City hosts special events such as street festivals and marathons/races. These special events typically have a high density of people per square foot, raising the potential for pollutant generation. The pollutant generating activities and their potential pollutant types are shown in Table 3 below.

Table 3: Pollutant Generating Activities and Types

Pollutant Generating Activity	Potential Pollutant Type
Setup and teardown of equipment booths	Illicit discharges and trash generation
Booth operation	Trash generation
Food/drink preparation and consumption	Illicit discharges, trash generation, and organic materials
Temporary portable restrooms	Chemicals and bacteria

Event Organizers must complete a permit application that is reviewed and approved by the City prior to permit issuance. The BMPs listed below are explained to each Event Organizer at a pre-event meeting. Site conditions and pre and post-event, are inspected by the City. In the event that the Event Organizer fails to adequately clean the venue, the City will clean the site and seek retribution for costs through enforcement actions.

Special Events Best Management Practices

The following BMPs represent the minimum requirements for special events that take place in the City. The City may modify these BMPs at any time, as needed, to provide equal or greater protection.

- Properly dispose of any refuse associated with their activities, utilizing trash & recyclable material receptacles, provided by event organizer, as required.
- Precautions such as dry-spill kits & absorbents shall be readily available for clean-up of discharges containing chemicals, fuels, grease, oil, or other hazardous materials.
- Litter or other discarded or abandoned objects, articles, and accumulations from event related activities shall be prohibited from any street, alley, sidewalk, storm drain, inlet, catch basin, conduit or other drainage structures on any public or private lot of land in the City of Solana Beach, except as allowed by applicable solid waste ordinances.
- No dumping or allowing of any material into the City's MS4.

- Install secondary containment around portable restroom facilities, when feasible.
- Prompt and proper clean-up of all trash debris.
- Do not use water or any liquid to rinse down any debris or dirt on any ground surface, only dry sweeping is allowed.
- Protect all storm drain catch basins/inlets, when feasible, with proper BMP implementation.
- Do not allow excess water to leave the site. Properly contain everything onsite before it enters the City's MS4.
- No dumping of excess water or ice chests/coolers onto the ground.

7.11 Program for Non-Emergency Fire Fighting Flows

The City implements a program to reduce or eliminate pollutants in non-emergency firefighting discharges. The program includes BMPs to reduce or prevent discharges from entering the City's MS4. BMPs include the following:

Regular Maintenance of Fire and Emergency Vehicles and Equipment

- Vehicles and equipment are cleaned where runoff is directed to the sanitary sewer system, to a pervious infiltration area, or otherwise collected and disposed of properly.
- Significant maintenance is conducted off–site, and used oil, hydraulic fluids, and antifreeze are stored in containers for recycling or are disposed of as hazardous waste.
- Spill kits are available to promptly cleanup and contain leaking or spilled vehicle fluids.
- Biodegradable soaps, cleaners, and detergents are used when available.
- Use of soaps, cleaners, and detergents is minimized, and general cleaning solutions are disposed of into the sanitary sewer system.
- Caustics, flammables, and solvents are contained and disposed of properly as hazardous waste.

Training Exercises

The City performs non-emergency firefighting training at the City of San Marcos Regional Emergency Service Training Center. With this facility, the City of Solana Beach is able to conduct all non-emergency firefighting activities in a controlled environment. The City does not generate non-emergency firefighting flows outside of this training facility.

Facilities Maintenance

- Impervious areas such as apparatus floors, maintenance bays, driveways, patios, and walkways are swept to remove debris. Interior floors are mopped as necessary, and the wastewater is discharged into the sanitary sewer system or onto landscaped areas.
- Landscaped areas are maintained as required to reduce introduction of leaves and other landscape waste into the MS4.
- Irrigation systems are monitored and maintained as required to reduce irrigation water from flowing off-site.
- Spills are cleaned up using spill kits provided at the work site, and disposal of spilled material is in accordance with applicable regulations.
- Spills that require a cleanup beyond the ability of the on-site employees are reported to the City Public Works Department or the County Hazmat Team for assistance with appropriate resources.
- Maintenance and repair of structures are conducted using methods that do not contribute pollutants to the MS4.

- General non-hazardous cleaning solutions are disposed of in a utility sink that drains into the sanitary sewer system.

The City encourages the implementation of BMPs to reduce or eliminate pollutants in emergency firefighting discharges and to prevent flows from entering the MS4s. BMPs and educational methods are used to reduce the discharge of pollutants to the MEP, however, in emergency situations, priority of efforts will be directed towards life, property and the environment.

7.12 Enforcement

If the City determines that a municipal facility or activity is out of compliance with requirements, the corrective actions are documented and implemented in order to bring the site into compliance. For further details regarding the City's enforcement procedures see Section 11, Enforcement Response Plan.

8 Commercial and Industrial

The City implements an industrial and commercial management program that includes an inventory and tracking system, BMPs implementation, site inspections, and enforcement procedures.

8.1 Introduction

The City's industrial and commercial management program is intended to (1) reduce industrial and commercial discharges to the MS4 to the MEP; and (2) prevent MS4 discharges to receiving waters from causing or contributing to exceedances of water quality standards.

8.2 Commercial and Industrial Site Inventory and Tracking

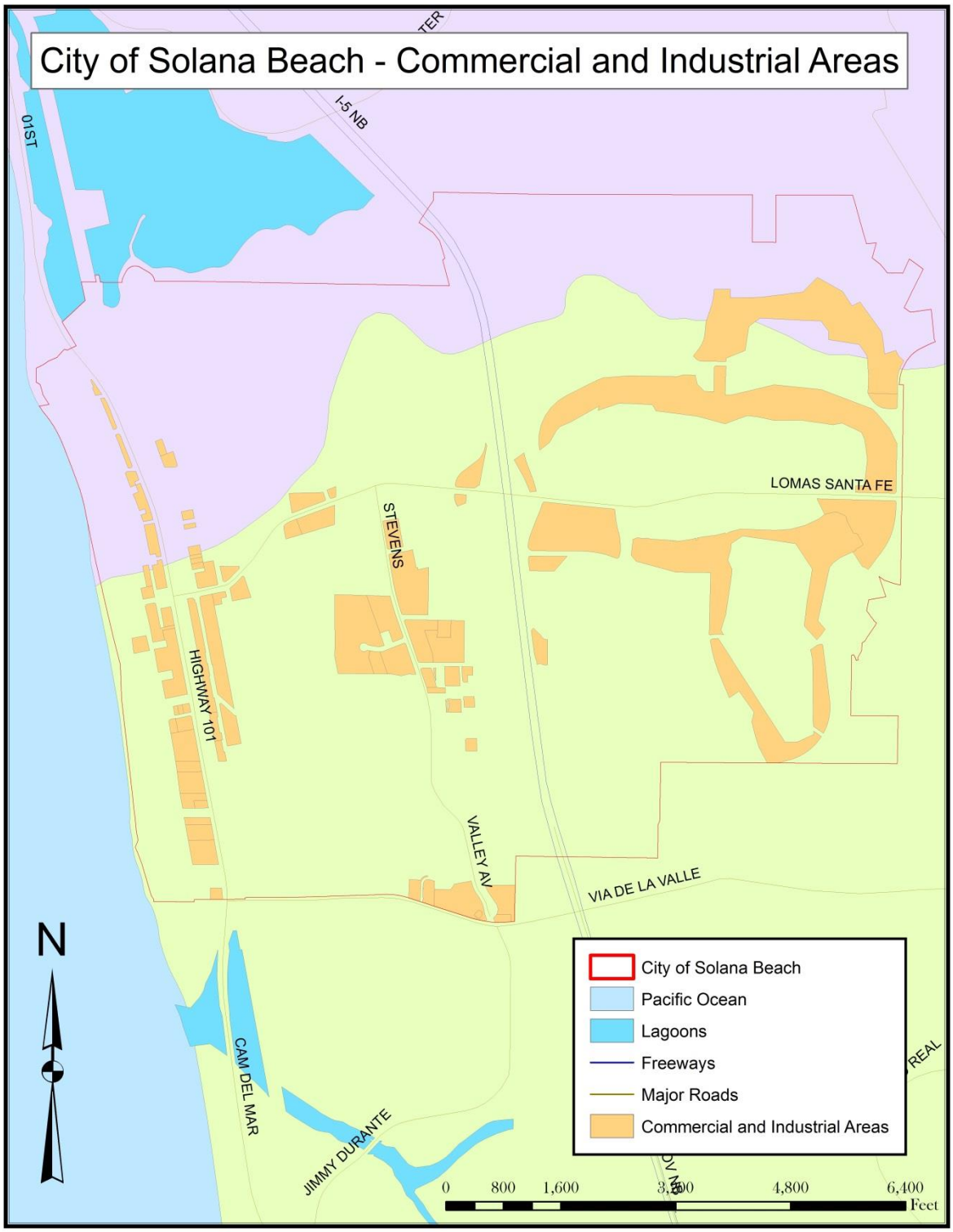
City Storm Water Staff maintain a watershed-based inventory of all industrial facilities and commercial sites/sources within the City's jurisdiction. A copy of the current commercial and industrial inventory is available upon request. Basic inventory information includes:

- Facility name
- Contact information
- Location information (address and watershed)
- Identification of business type (stationary or mobile)
- Industrial General Permit NOI and/or WDID number, if applicable
- Identification of pollutants generated and potentially generated by the facility or area
- Whether facility is adjacent to an ESA
- Whether the facility or area is tributary to and within the same hydrologic subarea as a water body segment listed as impaired on the CWA section 303(d) list and if the facility or area generates pollutants for which the water body segment is impaired for.

The City's commercial and industrial inventory includes both stationary and mobile businesses. Stationary businesses include for example, repair shops, restaurants, and various types of wholesalers. Mobile businesses include businesses such as power washers, auto detailers, landscapers, and contractors. Industrial facilities are also stationary and include facilities such as manufacturing and hazardous waste treatment.

At a minimum, the commercial and industrial inventory is updated annually through reviewing business license records for new businesses, performing routine inspections, and responding to reported incidents. The City also maintains a map showing the location of the commercial and industrial facilities, watershed boundaries and water bodies, as shown in Figure 5.

Figure 5: Map of Commercial and Industrial Facilities



8.3 Best Management Practice Requirements

Industrial and commercial facilities produce a range of pollutants that can threaten human and environmental health if washed into the storm drain system by storm water runoff. The City of Solana Beach requires all inventoried industrial and commercial facilities to ensure proper implementation, operation and maintenance of required BMPs. The City also requires the use of pollution prevention methods to address the HPWQC (indicator bacteria) and strategies in the WQIP(s).

Businesses that utilize pesticides, herbicides, and/or fertilizers are required to implement BMPs to address application, storage, and disposal. Improper use, handling, or storage of pesticides, herbicides, and fertilizers may allow these chemicals to come into contact with receiving waters via storm water or urban runoff. The minimum BMPs required for industrial and commercial businesses are included in Appendix A.

8.4 Facility Inspections

The City of Solana Beach implements a patrolling and onsite inspection program throughout its jurisdiction. The City's Storm Water Staff utilize patrols to monitor and inspect industrial and commercial businesses, municipal facilities, and residential areas for storm water violations per the City's ordinances. Patrolling inspections are a proactive way to enforce compliance with the storm water ordinances, discover and abate hotspots and trouble areas, and educate business owners, property managers, and residents regarding the City's storm water requirements. In addition, the patrol methodology allows for a more efficient visual observation of the City and incorporates multiple components of the JRMP. The patrolling method allows the City to perform an all-inclusive inspection effort where the following tasks can be performed at one time per designated area:

- Commercial and industrial facility inspections
- Residential property and area inspections
- Municipal facilities inspections
- Treatment Control BMPs inspections
- MS4 inspections

Periodically, commercial and industrial facilities are selected for an inspection and/or review. For new businesses, a site visit will be scheduled and a comprehensive inspection conducted. Throughout the year, the City conducts scheduled, unscheduled and follow-up site inspections. During site inspections City staff:

- Assess BMP implementation, maintenance and effectiveness.
- Review BMP implementation plans, if applicable.
- Check for coverage under the IGP (Notice of Intent and/or Waste Discharge Identification Number), if applicable.
- Assess compliance with Copermittee ordinances and permits related to storm water runoff.
- Conduct visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff.
- Review facility monitoring data, if applicable.

8.4.1 Inspection Frequency

At a minimum, City staff conduct patrol inspections or onsite inspections (when warranted) at each commercial and industrial facility once in five years. More frequent inspections are based on the potential for a facility or area to discharge non-storm water and pollutants. Additionally, inspection frequency is based on the facility's potential to discharge pollutants associated with the highest priority water quality condition as defined by the WQIPs.

Annually, the City will inspect at least 20% of the inventoried commercial and industrial facilities. All inventoried commercial and industrial facilities will be inspected on an as-needed basis, in response to valid public complaints of illegal discharges.

Follow-up Inspections

City staff conduct follow-up inspections to determine if corrective actions have occurred in accordance with City ordinances and minimum BMP requirements. Escalating enforcement steps, providing flexibility for the City staff to establish appropriate compliance periods on a case-by-case basis, will be used to ensure compliance. Follow-up and enforcement actions are documented in the inspection inventory.

8.4.2 Inspection Tracking and Records

City staff track and record all inspections and follow-up inspections at all locations in the industrial and commercial inventory. This information is retained in an excel database. The information and data gathered as part of the inspections includes, but is not limited to:

- Name and location of the facility (address and hydrologic subarea) consistent with inventory name and location
- Inspection and re-inspection date(s)
- Inspection method(s) (drive-by or onsite)
- Observations and findings from the inspection(s)
- Descriptions of any problems or violations found during the inspection
- Description of enforcement actions issued in accordance with the City's Enforcement Response Plan
- The date that problems or violations were resolved

8.5 Enforcement

If the City determines that a commercial, industrial or mobile business is out of compliance with requirements, the violation and the corrective actions necessary to bring the site into compliance are documented. Corrective actions include a compliance date at which the City inspector or investigator determines that the site needs to be in compliance. A follow-up inspection is performed to determine compliance. If compliance has not been achieved by the follow-up inspection, increased enforcement actions may be implemented.

For further details regarding the City's enforcement procedures see Section 11, Enforcement Response Plan.

9 Residential

9.1 Introduction

The City maintains and updates at least annually, a watershed-based inventory of the residential properties and areas, within its jurisdiction that may discharge a pollutant load to MS4. This section describes the responsibilities of City staff to implement the Residential Component of the JRMP.

9.2 Source Characterization

The City characterizes possible pollutant sources in residential properties and areas that may pose a threat to water quality (TTWQ). Pollutant sources in residential areas may include:

- Automobile repair, maintenance, washing, and parking.
- Home and garden care activities and product use (pesticides, herbicides, and fertilizers).
- Disposal of trash, pet waste, green waste, and household hazardous waste (e.g., paints, cleaning products).
- Sanitary sewer spills from private laterals.
- Any residential areas tributary to a Clean Water Act section 303(d) impaired waterbody, where the residential property or activity generates pollutants for which the waterbody is impaired for.
- Any residential areas within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an environmentally sensitive area (ESA).
- Any other residential source that the City determines may contribute a significant pollutant load to the MS4.

The City uses the following criteria to establish oversight and inspection procedures:

- Type of activity
- Material used
- Waste generated
- Pollutant discharge potential
- Non-storm water discharges
- Proximity of area or activity to receiving waters
- Sensitivity of receiving waters
- Any other factors identified by the City as relevant

The City's residential properties and areas inventory are shown on the map in Figure 6.

Residential Management Areas

The City's residential area inventory is categorized by residential management areas (RMAs). The goal of designating and organizing residential areas is to make the implementation of the JRMP as efficient as possible. The following are residential management areas the City identified:

Home Owner Associations (HOAs)

The City identifies HOAs by reviewing land use data as well as residential inventory data. Because all properties within HOAs are managed collectively, it may be more efficient to patrol, track issues and conduct follow-up inspections, as compared to individual homeowners and individual properties.

Housing Developments

Housing developments or communities of homes that are not considered HOAs, but still are grouped together geographically and share common areas are also considered a RMA. Grouping these types of residences together make sense geographically and make it possible for patrols and inspections to cover multiple residences at the same time and frequency.

Quadrants

For residential areas that are not included in the HOA or housing development RMAs, the City designates RMAs according to the established quadrants created by Interstate Highway 5 (I-5) and Lomas Santa Fe Drive. The quadrants include:

- Northwest Quad – north of Lomas Santa Fe Drive and west of I-5
- Northeast Quad – north of Lomas Santa Fe Drive and east of I-5
- Southwest Quad – south of Lomas Santa Fe Drive and west of I-5
- Southeast Quad – south of Lomas Santa Fe Drive and east of I-5

Designating residential areas based on a quadrant, using streets as boundaries, is an efficient system for mapping designated area. Streets form known and clear boundaries throughout the City and will help define residential areas allowing patrols and inspections to be conducted in an efficient manner.

Figure 6 shows the City's residential areas inventoried and designated RMAs.

9.3 Residential Inspections

The City implements a patrolling and onsite inspection program throughout its jurisdiction. The City staff utilize patrols to monitor and inspect residential areas, industrial and commercial businesses and municipal facilities for storm water violations per the City's ordinances. Patrolling inspections are a proactive way to enforce compliance with the storm water ordinances, discover and abate hotspots and trouble areas, and educate residents regarding the City's storm water requirements. In addition, the patrol methodology allows for a more efficient visual observation of the City and incorporates multiple components of the JRMP.

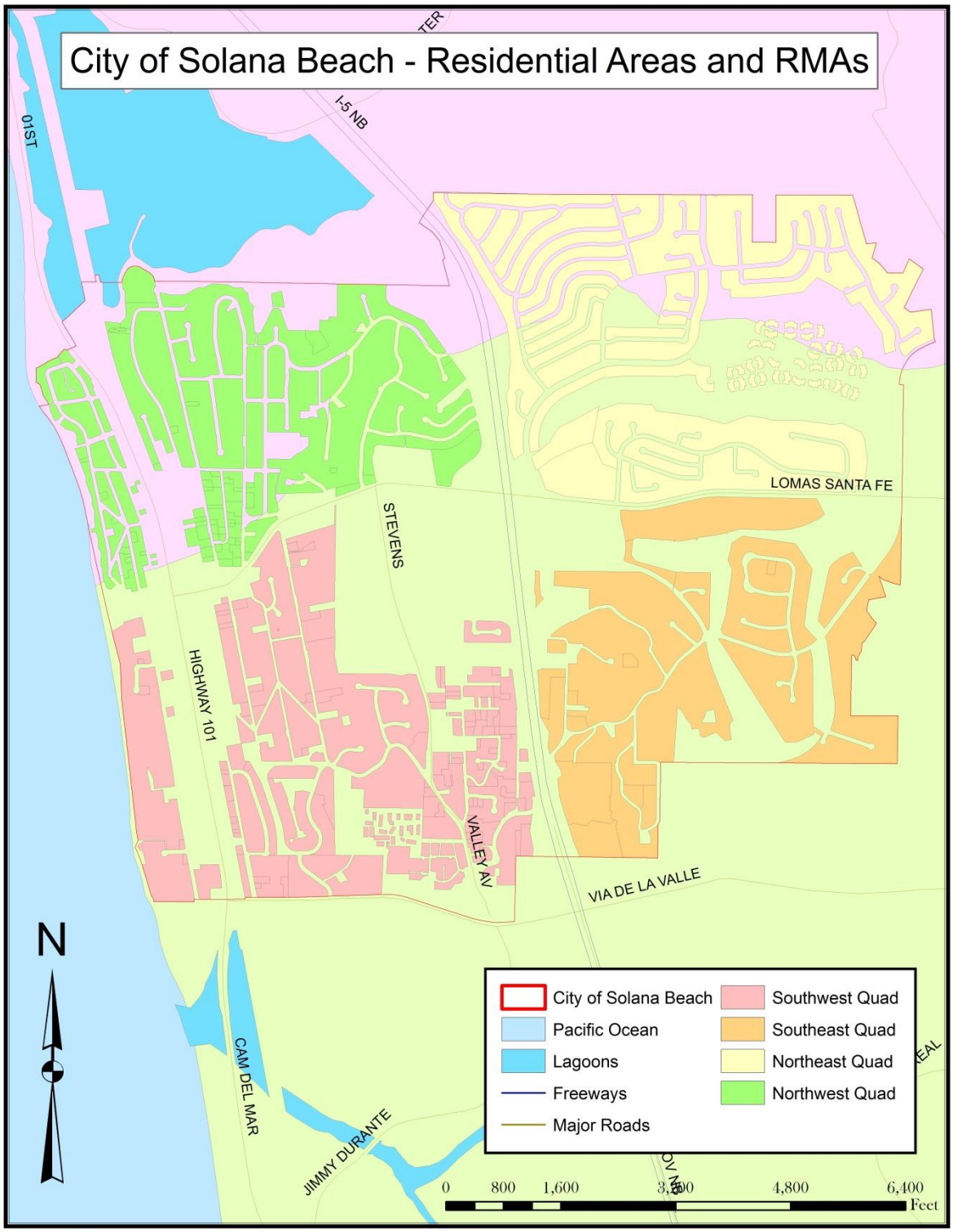
The patrolling method allows the City to perform an all-inclusive inspection effort where the following tasks can be performed at one time per designated area:

- Residential inspections
- Industrial and commercial inspections
- Municipal facilities inspections
- Treatment Control BMPs inspections
- MS4 inspections

Periodically, residential management areas are selected for an inspection and/or review. During onsite visits the inspector:

- Assesses BMP implementation, maintenance and effectiveness.
- Reviews BMP implementation plans, if applicable.
- Assesses compliance with Copermittee ordinances and permits related to storm water runoff.
- Conducts visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff.

Figure 6: Residential Area Inventory and RMAS



9.3.1 Inspection Frequency

At a minimum, the City inspects (patrol and/or onsite) each residential area once in five years. More frequent inspections are based on the potential for a residential area or activity to discharge non-storm water and pollutants. The City will inspect RMAs that have the potential to discharge pollutants associated with the highest priority water quality condition (HPWQC) at an increased frequency to implement WQIPs strategies and ensure BMPs are effectively prohibiting non-storm water discharges to the MS4.

Annually, the City inspects at least 20% of the inventoried residential areas. All residential areas are inspected on an as-needed basis, in response to valid public complaints of illegal discharges.

Follow-up Inspections

The City conducts follow-up inspections for corrective action compliance in accordance with City ordinances and minimum BMP requirements. Escalating enforcement steps, providing flexibility for the inspectors to establish appropriate compliance periods on a case-by-case basis, to ensure compliance Documentation for follow-up and enforcement inspections are recorded in the inspection inventory.

9.3.2 Inspection Tracking and Records

City tracks and records all inspections and follow-up inspections in an Excel database. The information and data gathered as part of the inspections includes, but is not limited to:

- Name and location of the residential management area (address and hydrologic subarea) consistent with inventory name and location
- Inspection and re-inspection date(s)
- Inspection method(s) (drive-by or onsite)
- Observations and findings from the inspection(s)
- Descriptions of any problems or violations found during the inspection
- Description of enforcement actions issued in accordance with the City's Enforcement Response Plan
- The date that problems or violations were resolved

9.4 Best Management Practice Requirements

The City promotes and encourages the use of pollution prevention methods and BMPs by all residential areas. If particular BMPs are not feasible for any specific residential area, the City requires implementation of other equivalent BMPs.

The City's Storm Water BMP Manual (See Appendix A) includes general and specific BMP requirements for residential properties and areas. General residential BMPs include erosion control, non-storm water discharge management, elimination of illicit connections and discharges, and sweeping rather than hosing off driveways and sidewalks.

Pesticides, Herbicides and Fertilizers

The City encourages the implementation of BMPs to reduce pollutants in storm water discharges to the maximum extent practicable and effectively prohibit non-storm water discharges associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from all residential areas in its inventory.

9.5 Used Oil and Waste Collection Services

The City of Solana Beach facilitates the proper management and disposal of used oil, toxic materials, and other household hazardous wastes through implementation of educational activities, public information activities, and establishment of collection sites/or collection days.

Used Oil Recycling

The City collaborates with other north County cities to implement a used oil recycling. The program consists primarily of public education through school presentations, public displays at street fairs, and articles in the newsletter *down 2 E.A.R.T.H. News,* and surveying of established certified used oil collection centers. These programs are funded through Used Oil Block Grants awarded to the City of Solana Beach.

Household Hazardous Waste (HHW) Collection

The HHW program for the City of Solana Beach is facilitated by the Regional Solid Waste Authority (RSWA), which represents the cities of Solana Beach, Del Mar, Encinitas, National City, Vista and Poway. The RSWA sponsors programs using funds obtained from a HHW Grant awarded by the CIWMB. Programs include permanent HHW collection facilities, public education and outreach, and equipment and disposal costs.

Two permanent HHW collection facilities are available to the residents and businesses of Solana Beach. These facilities are located in Vista and Poway, and are open to the public on Saturdays between the hours of 9:00AM and 3:00PM excluding holiday weekends. Door-to-door HHW collection is available for elderly and homebound residents of Solana Beach by appointment.

9.6 Enforcement

If City staff determine that a site is out of compliance with requirements, the violation, corrective actions necessary to bring the site into compliance and a compliance date are documented. The City inspector or investigator will perform a follow-up inspection to determine compliance. If compliance has not been achieved by the follow-up inspection, the inspector or investigator will follow the City's enforcement procedures. For more information regarding enforcement, see Section 11, Enforcement Response Plan.

Intentionally Inserted for Printing Purposes

10 Retrofitting and Rehabilitation in Areas of Existing Development

10.1 Introduction

The City's retrofit and rehabilitation program identifies opportunities to implement retrofits and stream, channel and/or habitat rehabilitation within areas of existing development. The intent of the City's program is to encourage or require retrofits or rehabilitation projects in areas of existing development where controls do not exist or are ineffective. Implementation of retrofits and rehabilitation projects in areas of existing development are expected to improve the discharges from the City's MS4. The City's program is described below.

10.2 Identifying Candidate Retrofits and Rehabilitation Projects

Using the Urban Subwatershed Restoration Manual Series (CWP, 2005, 2007) as a guide, the City will develop and maintain a list of candidate retrofits and rehabilitation projects using a system of identification and field verification. Identification will be conducted using desktop analyses to identify key areas in the City where it is expected that retrofits and rehabilitation projects will have effective and efficient benefits. Field confirmations will be used for final verification that the identified retrofits and rehabilitation projects are appropriate applications of BMPs and controls both in type and location.

The process for identifying retrofits will evaluate the following considerations:

- Water Quality Improvement Plan (WQIP) Priority and Highest Priority Water Quality Conditions
- Likely sources of pollutants generating pollutants related to WQIP conditions
- Focus areas identified in WQIP
- Vintage of geographic areas of the City – time period existing development was constructed
- Public retrofit opportunities through Capital Improvement Program (CIP) projects
- Areas of persistent discharges
- Inspection/Illicit Discharge Detection and Elimination program findings
- Identified areas of hydromodification or other stream impacts

Using the considerations above, the City will identify areas where opportunities could provide water quality improvement benefits. Evaluation will include layering of the findings to determine where compounding factors overlap. The City will consider the locations where overlapping occurs and significance of the factors to prioritize areas suited for retrofits and rehabilitation projects.

Once specific areas within the City have been identified and prioritized for retrofits and/or rehabilitation projects, the City will perform field verifications on an as-needed basis to substantiate the:

- need for retrofits or rehabilitation projects
- locations of potential retrofits or rehabilitation projects
- appropriate type(s) of retrofit or rehabilitation project
- appropriate responsible party to implement the retrofits or rehabilitation projects

10.2.1 Retrofit Types

The type of retrofit recommended for a specific area will depend on the site conditions and consider the desktop analyses conducted during the initial candidate evaluations. Types of retrofits range from large storage systems to on-site applications of source control and treatment. The types of retrofits the City will consider when evaluating applicability include:

- Modifications to existing basins (flood control or treatment basins)
- Installing inline filtration (e.g., inlet, vaults)
- Disconnecting impervious surfaces (e.g., roof drainage from conveyance system)

- Creating buffer areas around irrigated systems
- Creating storage in areas adjacent to conveyance systems (e.g., culverts, outfalls)
- Installing source control systems, e.g., covering pollutant generating activity areas (e.g., trash enclosures, material storage)
- Creating storage within the conveyance system
- Installing bioretention systems
- Converting impervious surfaces to pervious
- Upgrading irrigation systems to low-flow or direct systems
- Installing green roofs
- Installation of green streets
- Installation of additional covered trash receptacles in key areas
- Stabilization of erodible areas

Geographic areas identified and prioritized for retrofits as well as site specific retrofit candidates will be maintained by the City and available to the various departments that may require or use the list for implementation of retrofits.

10.2.2 Rehabilitation Types

The type of rehabilitation recommended for a specific area will depend on the site conditions and consider the desktop analyses conducted during the initial candidate evaluations. Types of rehabilitation projects range from in-channel improvements to habitat improvements. The types of rehabilitation projects the City will consider when evaluating applicability include:

- Stream/channel modifications
    - Hard bank stabilization
    - Soft bank stabilization
    - Grade controls
    - Flow deflection/diversion
    - Habitat enhancement
- Habitat restoration
- Wetland restoration

Geographic areas identified and prioritized for rehabilitation projects as well as site specific rehabilitation project candidates will be maintained by the City and available to the various departments that may require or use the list for implementation.

10.3 Implementing Candidate Retrofits and Rehabilitation Projects

Facilitating the construction of retrofits and rehabilitation projects is a multi-pronged long-term process that includes public and private support. The City will continue to develop this aspect of the program and provide appropriate updates.

Methods to implement retrofits and rehabilitation projects within existing development areas include:

- Developing and implementing demonstration retrofits and rehabilitation projects that are highly visible and receive foot traffic. This may include parks, public facilities, trails, or schools
- Mitigation for identified sources of pollutants from private properties
- Offsite alternative compliance pathways for land development requirements (if the City develops an offsite alternative compliance program)
- Retrofits on public lands or rights-of-way (e.g., streets, trails)
- Encouraged retrofits within home owners association or other private entity common areas

- Incorporating into Capital Improvement Program (CIP) Projects
- Implementation of redevelopment requirements

Mechanisms to fund retrofits and rehabilitation projects may come from public or private sources and may include:

- Grants
- Development impact fees
- Developer implementing offsite alternative compliance (if the City develops an offsite alternative compliance program)
- City funding
- Private property owners

As the City matches appropriate mechanisms and funding to implement candidate retrofits and/or rehabilitation projects, projects will be implemented on a case-by-case basis.

Intentionally Inserted for Printing Purposes

11 Enforcement Response Plan

The City implements an Enforcement Response Plan as part of its jurisdictional runoff management program. The Enforcement Response Plan describes the applicable approaches and options to enforce the City's legal authority to achieve compliance with the requirements of the Permit.

11.1 Introduction

The City enforces its Municipal Code (Chapter 1.16 General Penalty, Chapter 1.18 Administrative Citations and Penalties, and Section 13.10.180 Residential BMP requirements) throughout its jurisdiction and implements escalating enforcement responses to compel compliance with statutes, ordinances, permits, contracts, orders, and other requirements for the IDDE, development planning, construction management, and existing development components of the JRMP. A storm water enforcement action would typically occur as a result of an inspection or in response to a reported incident by the public or City staff.

11.2 Enforcement Mechanisms

The City typically employs a tiered, increasing enforcement system. However, the City reserves the right to apply stricter initial enforcement measures where significant non-compliance is noted or when a potential rain event increases the potential for the violation to have a negative impact on water quality. The various increasing administrative and judicial enforcement measures, as prescribed by the City's Municipal Code, are discussed below.

11.2.1 Administrative Enforcement Mechanisms

Verbal Warnings

Verbal warnings are used as an initial method of requesting corrective action and enforcing compliance. City staff notify the violator and may establish a specific time frame for correcting the problem.

Written Warnings

If the violation noted in a verbal warning is not corrected by the scheduled follow-up date, or the severity of the violation is such that a verbal warning is not strong enough, a written notice of violation (NOV) will be issued. The NOV describes the infraction that is to be corrected, and provides a time frame for correction and may include a date for a follow-up inspection. A copy of the notice will be provided to the violator. The City inspector or investigator will document the violation and date of resolution.

Enforcement of Contracts (For Municipal Projects Only)

Construction contracts include the City's authority to refuse payment, stop work (without time penalties) or revoke contracts, if contractors performing the construction activities do not comply with appropriate permits, laws, regulations and ordinances.

Stop Work Orders (Construction Activities)

If an NOV has not been addressed by the follow-up inspection, the contractor has not complied with permit requirements, or a significant threat to water quality is observed (such as a failure of BMPs resulting in a significant release of sediment or other pollutants), a stop work order may be issued by the appropriate City official. Stop work orders prohibit further construction activity until the violation is resolved and provide a time frame for correcting the problem. The stop work order describes the infraction and specifies what corrective action must be taken. To restart work once a stop work order has been issued, the contractor's project supervisor must request that the City re-inspect the project and verify that the deficiencies have been satisfactorily corrected. If the City is satisfied with the corrections,

work may proceed. The stop work order and other related information is documented in the inspection inventory.

Denial or Revocation of Permits

In severe cases of non-compliance or significant discharges related to development or construction projects, the City may decide to revoke the building or grading permits or deny future permits. The project proponents would have to re-apply for permits and meet any requirements that the City may place on the project.

Denial or Revocation of Business License

In severe cases of non-compliance or significant discharges related to businesses, it may be appropriate to revoke a business' license. If revocation occurs, the facility owner would need to re-apply for a business license and meet all applicable City requirements.

11.2.2 Judicial Enforcement Mechanisms

Civil and Criminal Court Actions and Penalties

The City may use Civil and or Criminal court actions under the State Porter Cologne Water Quality Act, the Federal Clean Water Act, and/or the City's municipal code to enforce requirements, which may include injunctive relief or orders of abatement. The approach may result in significant fines for the violator. Any violation of the Solana Beach Municipal Code Section 13.10 (Storm Water Management) can result in a monetary fine (13.10.180). In addition, fines can accumulate on a "per-day" basis per Municipal Code 13.10.180.

The following factors are considered when the City determines the amount of civil and criminal penalties:

- Seriousness of the violation
- Duration of the violation
- Frequency or recurrence of the violation
- History of the violation
- Violator's conduct after issuance of the Notice and Order
- Violator's good faith efforts to comply
- Impact of the violation upon the community

11.2.3 Escalated Enforcement

Escalated Enforcement is considered to be major enforcement actions taken by the City to correct a significant threat to water quality or discharge that has occurred. Threats are generally corrected through the tiered increasing enforcement actions applied by the City. However, if the threat to water quality is not addressed in a timely manner – Escalated Enforcement will be implemented by the City. If a significant discharge has occurred and penalties need to be considered and assessed, the City considers these penalties to be Escalated Enforcement. Escalated Enforcement actions include:

- Stop Work Orders (for Construction Activities)
- Civil and Criminal Court Actions and Penalties

Escalated Enforcement is implemented through each of the individual Enforcement Response Plan components. Should the City determine that Escalated Enforcement is not required for any violation; the rationale will be properly documented in the City's tracking system. Violations are documented in the Enforcement Response Plan excel database. Documentation includes the violation type, when it was identified and compliance achievement date.

In general, the City's approach to enforcement is to use an iterative process. Upon issuing any level of enforcement, if the violator does not take appropriate corrective actions in a timely manner, the City will increase enforcement actions. The City, on a case by case basis, may forgo lower tier enforcement and increase to higher level of enforcement. Generally, this is based on severity of the issue, past violations by violator/responsible party or other factors.

11.3 Enforcement Response Plan Components

11.3.1 Illicit Discharge Detection Elimination

The City enforces its ordinances and orders to prevent illegal connections and illicit discharges (IC/IDs) to its MS4. Enforcement mechanisms are implemented on an increasing scale to ensure compliance is achieved.

The typical process for implementing necessary actions involves an administrative abatement procedure in the form of a notice of violation with corrective actions. The City requires the violator to conduct activities necessary to eliminate the illicit discharge at his or her own expense. The activities necessary are directed by City staff and are described on the notice. A deadline for correcting the infraction with the required activities is provided by City staff. If the violator does not meet compliance by the deadline, the City may conduct the necessary corrective actions and charge the resulting costs to the violator.

11.3.2 Development Planning

The City will use a variety of enforcement methods to ensure storm water requirements are implemented for all development projects within the City's jurisdiction. Enforcement methods include verbal and written warnings, monetary penalties, stop work orders, and denial of permits or occupancy.
Construction inspectors review the projects for compliance with the water quality requirements for the project and the storm water ordinances. For CIPs that are Priority Development Projects, enforcement may include withholding operational acceptance or notification of completion until post-construction BMPs are properly installed.

Building inspectors inspect the installation of BMPs that are associated with private development and that require a demolition or building permit. For Priority Development Projects that are private developments, the Certificate of Occupancy will not be issued unless the BMPs have been inspected and signed off as being constructed properly.

Prior to certifying a project ready for occupancy (one of the final project releases) or releasing the applicant's bonds, the City will verify that each post-construction BMP has been installed per City requirements.

11.3.3 Construction Management

The City is responsible for enforcement of applicable local ordinances and permits at all construction sites in its jurisdiction. City inspection staff have the authority to take immediate enforcement actions when necessary. This facilitates rapid correction of inadequate BMP implementation, reducing the risk of pollutant discharges from a construction site.

If an inspector determines that a construction site is out of compliance with the City's requirements, the inspector will document the corrective actions necessary to bring the site into compliance. Documentation of the corrective actions includes a compliance date at which the inspector has

determined that the site needs to be in compliance. This compliance date is based on the best professional judgment of the inspector. The inspector will perform a follow-up inspection to determine compliance.

If compliance has not been achieved, the City will implement appropriate enforcement measures based on the severity of the violation. Enforcement can range from verbal warnings to more severe enforcement such as stop work orders. Increasing enforcement measures will be used when necessary if proper corrective actions are not implemented during the allotted time frame.

11.3.4 Existing Development

Municipal

If the City determines that a municipal facility or activity is out of compliance with requirements, the corrective actions are documented and implemented in order to bring the site into compliance.

Industrial and Commercial

If City staff determine that a site is out of compliance with City requirements, the violation and corrective actions necessary to bring the site into compliance are documented and include a compliance date by which the site needs to be in compliance. If compliance has not been achieved by the follow-up inspection, City Staff will implement increasing enforcement actions.

Residential

The City uses the following mechanisms to determine areas where residential enforcement actions may be necessary:

- Public reporting hotline
- Analysis of monitoring data (field screening and analytical monitoring results)
- Observations from City maintenance personnel

If City Staff observe a significant and/or immediate threat to water quality, enforcement actions are taken to require the residential property owner to immediately eliminate the discharge. City Staff will conduct follow-up inspections to determine if corrective actions have been taken in accordance with City ordinances and minimum BMP requirements. Escalating enforcement steps may be utilized at the discretion of City staff in order to establish appropriate compliance time frames on a case-by-case basis.

The City is currently developing a plan to increase enforcement over specific residential activities such as over-irrigation and power-washing. Increased enforcement will be in compliance with the Santa Fe Irrigation District's (SFID's) new regulations regarding over irrigation and water runoff.

11.3.5 Correction of Violations

The City requires any violation to be corrected in a timely manner with the goal of correcting the violations within 30 calendar days after the violations are discovered, or prior to the next predicted rain event, whichever is sooner. If more than 30 calendar days are required to achieve compliance, then the City documents the rationale in the violation tracking database.

11.3.6 Reporting of Non-Compliant Sites

The City will notify the RWQCB in writing within five (5) calendar days of issuing Escalated Enforcement to a construction site that poses a significant threat to water quality as a result of violations or other non-compliance with its permits and applicable location ordinances, and the requirements of the Permit.

The City will notify the RWQCB of any persons required to obtain coverage under the statewide IGP and CGP and failing to do so, within five (5) calendar days from the time the City becomes aware of the circumstances.

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12 Education

The City implements a public education program to promote and encourage development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water, and to prioritize by high-risk behaviors, pollutants of concern, and target audiences.

12.1 Introduction

The City's educational programs and activities are tailored to meet the needs of the following target audiences, as applicable:

- Municipal staff
- Construction site owners and developers
- Industrial and commercial business owners and operators
- Residents
- School-aged children
- Underserved target audiences

Many educational efforts (e.g., direct interaction during inspections, meetings and answering calls to the City's Storm Water Hotline) are conducted on an ongoing basis. Educational materials are available to the public 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.

12.2 Municipal Staff Training

The City provides training to staff involved with the implementation of the JRMP. Staff training includes presentations, field trainings, and tailgate meetings. The City continually updates its educational program to include information about current BMP technologies and any other relevant storm water information.

The objectives of the employee training program are to:

- Promote a clear understanding of the JRMP and water quality issues, including activities that may potentially pollute receiving water bodies.
- Identify and implement strategies for BMPs.
- Promote employee ownership of the problems and their ability to apply solutions.
- Integrate employee feedback into training and BMP implementation.

12.3 Construction Site Owners and Operators

The City is committed to working with construction site owners and developers to ensure that BMPs are implemented at all construction sites. The Community Development Department provides information and educational materials to applicants and developers during one-on-one or small group meetings, inspections, complaint investigations, and during pre-construction meetings. Construction site owners and developers are given resources such as template SWPPPs to guide engineers, contractors or applicants in preparation of documents for proposed development projects.

The City distributes BMP and pollution prevention information regarding several topics including: materials storage, perimeter controls, building and staging areas, dumpsters and port-a-potty services, tracking controls, concrete trucks and pumpers, washout areas, dirt and grading, earthmoving equipment, and storm drain protection.

12.4 Industrial Facility Owners and Operators Training

Many activities from industrial facilities are considered a high threat to water quality due to the nature of the activities and associated wastes. Pollutants may be generated from daily operations (e.g., vehicle and equipment fueling and cleaning, material loading and unloading, material and waste storage) and have the potential to enter storm water runoff if storm water management practices are not conducted in accordance with the Permit and City ordinances.

The City provides an educational program for industrial facility owners and operators through the use of printed materials and individual educational efforts during and after inspections.

12.5 Commercial Business Owners and Operators Training

Commercial sites include a wide range of businesses including restaurants, automotive facilities, landscape maintenance services and mobile businesses. Pollutants may be generated from daily operations and have the potential to enter storm water runoff if storm water management practices are not conducted in accordance with the Permit and City ordinances.

The City provides an educational program for commercial business owners and operators through the use of printed materials and individual educational efforts during and after inspections.

12.6 Residential Community and General Public

Residential activities, such as car washing and irrigation, contribute pollutants (e.g., heavy metals, detergents, and nutrients) to the MS4 and ultimately to receiving waters. The City provides residents with appropriate educational materials to help increase overall awareness, and encourage behavioral changes that reduce the potential for pollutants to enter the MS4 and receiving waters.

The City is developing an education and outreach program to reduce over-irrigation throughout the residential community. The City will work with the SFID to educate residents about reducing over irrigation. The Municipal Code will be modified to include program requirements.

The City participates in the Regional Think Blue campaign and will continue to collaborate with other regional efforts to provide consistent messaging and efficiency in training for target audiences, such as the residential community and general public.

12.7 School-Aged Children

In order to target school-aged children with educational materials regarding storm water management, the City collaborates with the Solana Center to present relevant watershed and storm water pollution prevention information to school groups once per year.

12.8 Targeting Underserved Communities

Low Socio-Economic Status (SES) and Spanish speaking communities have been traditionally underserved with respect to outreach. The City now focuses efforts on tailoring messages specifically to target the underserved audiences. The City will continue to explore new opportunities to provide outreach to these communities.

13 Public Participation

13.1 Introduction

The goals of the public participation program are to develop mechanisms for public participation throughout the development and implementation of the JRMP. The City encourages public participation through the programs discussed below.

13.2 Water Quality Improvement Plans

The City is located within the Carlsbad and San Dieguito River Watershed Management Areas (WMAs). The City, along with other jurisdictions, is required to develop and implement Water Quality Improvement Plans (WQIPs) for each WMA. WQIPs are intended to focus storm water management efforts on priority water quality conditions and pollutant sources.

The process of developing and implementing the WQIPs incorporates a significant public participation process, through engaging stakeholders by holding public workshops, coordinating with Consultation Panels (made up of stakeholders), as well as providing significant public review and comment periods for all WQIP documents. The public participation process not only influences the development of the WQIP, but also the implementation mechanisms included in the City's JRMP.

13.3 Local Public Participation

Listed below are several opportunities for members of the public to participate in the City's JRMP development and implementation processes.

Public's Daily Activities

The City asks the public to focus on reducing pollutant discharges during normal daily activities. The public's effort to recycle, carpool, reduce pesticide use, eliminate off-site drainage and reduce pollution within the City right-of-way, will assist the City in implementing a successful JRMP.

WQIP Development

Development of the WQIP relies on public participation, feedback and input in order to designate the priority conditions in the individual WMAs. The City encourages public participation in WQIP general public meetings, consultation panels, and by submitting comments online regarding WQIP documents at www.project cleanwater.org.

Community Based Organizations and Partnerships

The City encourages public participation in the JRMP by supporting local environmental groups such as the Clean and Green Committee; a committee of local residents and business owners working to preserve Solana Beach's environment, including water quality.

The City also conducts trash and beach clean-ups through community based organizations and partnerships. The City hosts two beach clean-ups per year in partnership with I Love a Clean San Diego, a local non-profit organization.

Public Feedback

The public is encouraged to get involved in the JRMP, take ownership of the City's MS4, and report violations. The City encourages the public to provide comments to City staff or City Council during meetings and public workshops.

Staff Feedback

City staff are encouraged to report violations and provide feedback on the implementation of the JRMP. City staff provide valuable information on how to improve implementation of the JRMP.

Education and Outreach

Through education and outreach, the public is encouraged to provide feedback. The City distributes fliers with text requesting that readers contact the City Storm Water Manager by mail, email, phone, or by fax with any comments regarding the City's JRMP. During public workshops, the public is encouraged to provide input on the implementation and effectiveness of the JRMP.

Code Enforcement

The City's Code Enforcement staff are directly involved in enforcing the JRMP and provide feedback to the Storm Water Manager on the implementation of the program.

Regional Hotline

The City utilizes a specific email (stormwater@cosb.org) and the County of San Diego's storm water hotline, (858) 720-4424, to facilitate public complaints and reports of illicit discharges or water quality impacts associated with discharges into or from the MS4, including sewage spills from private laterals and septic systems. The hotline is in operation 24 hours a day/7 days a week. The City also maintains an urban runoff report form accessible from the City website that allows the public to electronically report on an issue (http://www.mogawaeng.com/SBUrbanRunoff/).

14 Monitoring

The City conducts wet and dry monitoring of MS4 outfalls and receiving waters to assess water quality improvement efforts in respect to HPWQC, TMDLs, and 303(d) listed constituents. This section describes the City's monitoring and assessment efforts performed on a jurisdictional level and as part of Carlsbad and San Dieguito Watershed Management Areas (WMAs).

14.1 Dry Weather Major MS4 Outfall Discharge Field Screening Monitoring

The City contains six major MS4 outfalls within its jurisdiction. As a component of its Dry Weather Monitoring (DWM) efforts, field screening is conducted at major MS4 outfalls to:

- identify and investigate observed discharges;
- prioritize dry weather MS4 discharges to eliminate;
- assess effectiveness of source elimination; and
- differentiate monitoring conducted for the highest priority MS4 outfalls with persistent and transient non-storm water discharge.

The minimum number of field screenings conducted annually will be the same as the quantity of major MS4 outfalls identified per in the MS4 outfall discharge monitoring station inventory (currently six). However, specific outfall locations and frequencies of visual monitoring may change according to non-storm water discharges observed, source elimination, and the HPWQCs of the WMA.

Major MS4 outfalls are assessed through field observations and data measurements. Field observations collected are unique to specific major MS4 outfalls and describe:

- Site conditions (i.e. vegetation, structural condition, trash, etc…)
- Evidence of illicit Evidence of illicit connections or illegal dumping
- Presence and characteristics of flow, pooled or ponded water found

When field observations or field screening monitoring identifies an obvious illicit discharge, immediate action is taken to identify the source – see Section 4 Illicit Discharge Detection and Elimination.

14.2 Non-Storm Water Persistent Flow MS4 Discharge Monitoring

The City conducts non-storm water persistent flow MS4 outfall discharge monitoring at major MS4 outfalls identified. There are three major MS4 outfalls in each of the WMAs the City is a part of, for a total of six. The City monitors these outfalls semi-annually during dry weather conditions until:

- Discharge has been eliminated for three consecutive dry-weather monitoring events
- Data evaluation illustrates that constituents fall below an NAL
- The outfall is found to be an authorized discharge or covered by a separate NPDES permit

Discharge monitoring includes DWM field observations identified above (Section 12.1) with the addition of field parameter measurements and collection of grab samples when discharge is either ponded/pooled or flowing. Field parameters measured are shown below in Table 4.

Table 4: Field Measurements

Parameter	Units
Temperature	°C
Specific Conductivity	µmhos/cm
pH	pH Units
Dissolved Oxygen	mg/L
Turbidity	NTU

When active flow is present, the non-storm water discharge is sampled and is analyzed for the constituents identified in the two applicable WQIP documents:

- Carlsbad WMA MS4 Outfall Monitoring Plan: The current monitoring plan can be found on the Project Clean Water website under the Carlsbad WMA page.
- San Dieguito WMA WQIP: Appendix N. The current San Dieguito WQIP can be found at the Project Clean Water website under the San Dieguito WMA page.

Collection methods of samples and field parameters follow SWRCB approved SWAMP guidelines and/or EPA methods described, unless a site-specific method must be used enable to collect representative data.

14.3 TMDL Compliance Monitoring

The City participates with the other watershed Copermittees in implementing the TMDL compliance monitoring at the San Dieguito River mouth. The monitoring is summarized in the San Dieguito WMA WQIP: Appendix N.

14.4 Wet Weather MS4 Outfall Discharge Monitoring

The City performs wet weather MS4 outfall monitoring to identify pollutants in storm water discharges from the MS4s and to guide pollutant source identification and mitigation efforts. MS4 wet weather monitoring stations within the Carlsbad and San Dieguito WMAs were selected to best represent land use types (i.e. residential, commercial, industrial and mixed). The City performs monitoring at one MS4 outfall monitoring station in each WMA. The City's wet weather monitoring stations are currently outfall SDC-5 in the San Dieguito and CAR-6 in the Carlsbad WMA. Each year the City will reevaluate the site selection and make changes as needed in order to provide accurate data or facilitate better assessments.

During the wet season (October 1- April 30), the City monitors at least one wet weather event at each of the identified outfalls using the procedures identified in the Carlsbad WMA MS4 Outfall Monitoring Plan and the San Dieguito WMA WQIP: Appendix N. If pollutants are identified that cause or contribute to a HPWQC at the wet weather monitoring station, additional wet weather monitoring and source investigation will be scheduled to guide pollutant source identification efforts until eliminated. For each wet weather monitoring event, the City records the following information:

- A narrative description of the location and condition of the monitoring station.
- A narrative description and quantification of the storm event conditions.
- Results of field measurements listed in Table 4. Collected grab samples may be used to collect field measurements with the addition of hardness and indicator bacteria.
- Results of time-weighted, flow-weighted, manual compositing or a blend composite sample for a duration of a storm event to represent the changes in pollutant concentration and runoff flows.

Samples are collected using methods and protocols approved by the SWRCB and described in the MS4 Outfall Monitoring Plans. Composite samples are analyzed for constituents that have been identified in the Carlsbad WMA MS4 Outfall Monitoring Plan and San Dieguito WMA WQIP: Appendix N.

The City analyzes the wet weather monitoring results to support and assess the effectiveness of the water quality improvement efforts. Based on the results, the City may implement additional efforts to achieve water quality benchmarks set for the WMA.

14.5 Data Assessment, Reporting, and Quality Control

The City assesses collected dry and wet weather monitoring data for assessing the effectiveness of the current water quality improvements implemented. Results from dry weather MS4 outfall discharge monitoring is used as part of a prioritization procedure for non-storm water discharges to be addressed by the IDDE program. It is a key component in the iterative approach to water quality improvements and provides the City with adaptive management options to best address water quality concerns.

Monitoring efforts that occur at a greater frequency than expressed in this Monitoring and Assessment section are reported to the RWQCB at prescribed intervals. Annually, collected monitoring data are uploaded using specified templates to the California Environmental Data Exchange Network (CEDEN) Southern California Regional Data Center. The uploaded regional water quality information is ultimately available to the general public through the CEDEN website.

As a quality control component, the City maintains monitoring and calibration data for a minimum of five years from date sampled, measured, reported or applied. Sample collection methods involve the inclusion of a quality assurance/quality control (QAQC) program. The sampling, analysis, and, QAQC were conducted in accordance with the Quality Assurance Management Plan (QAMP) for SWAMP.

14.6 WQIP WMA Monitoring Requirements

As part of Carlsbad and San Dieguito WMAs, the City works in collaboration with the other stakeholders within the WMA boundaries. The goal is to create a bridge between the overall health of the receiving waters within the WMAs and water quality from MS4 systems. These requirements include:

- Sediment Quality Monitoring;
- Long-term Receiving Water Monitoring Requirements; and
- Special Studies.
- Storm Water Monitoring Coalition Regional Monitoring
- Southern California Bight Regional Monitoring

These monitoring programs are described in the following documents:

- Carlsbad WMA Water Quality Improvement Plan;
- Carlsbad WMA Sediment Monitoring Plan;
- Carlsbad Receiving Water Monitoring Plan; and
- San Dieguito WMA Water Quality Improvement Plan.

The current versions of these documents are located at the Project Clean Water website under the Carlsbad and San Dieguito WMA pages – www.projectcleanwater.org.

15 Fiscal Analysis

Effective programs require adequate funding to implement planned strategies. The first step in securing adequate program funding is to provide a strategy for effectively conducting a fiscal analysis of the Program in its entirety. The fiscal analysis evaluates the expenditures (such as capital, operation and maintenance, education, and administrative expenditures) necessary to accomplish the activities of the Program. The fiscal analyses will be completed annually and included in the Carlsbad and San Dieguito Water Quality Improvement Plan Annual Reports.

15.1 Expenditure Categories

The City has identified categories of expenditures related to storm water management and implementation. The following are category descriptions of specific implementation, capital, operation and maintenance activities. Six expenditure categories were identified for fiscal analysis to effectively communicate the types of program costs. Descriptions for these categories of expenditures are provided below:

15.1.1 Administration

Administrative activities include a range of tasks such as general government services related to storm water management programs and miscellaneous administrative tasks such as contract management, invoice processing, and accounting.

15.1.2 Development Planning

Activities identified in this category represent expenditures related to issuance or oversight of permits or of plans (e.g., permit counter support, plan checks, permit or application processing), project planning and engineering (e.g. project design specifications, capital improvement projects).

15.1.3 Construction

Activities identified in this category represent expenditures related to construction site inspections and enforcement.

15.1.4 Existing Development, Education, and Public Participation

Activities identified in this category represent expenditures related to municipal facility operations and maintenance, BMP implementation, evaluation and enforcement of program requirements at industrial, commercial, and residential sites or sources (e.g. inspections, complaint investigations, patrols), staffing outreach events, and outreach material development.

15.1.5 Illicit Discharge Detection and Elimination

Activities identified in this category represent expenditures related to the identification and elimination of illicit discharges or connections, enforcing the City of Solana Beach's storm water ordinance, and any expenditures related to monitoring programs (e.g. MS4 monitoring, special investigations, field or sampling equipment, materials and supplies).

15.1.6 Watershed and Regional

This category covers watershed and regional expenditures for activities that will be tracked according to program type.

15.2 Staff Resources

To meet the storm water management requirements in the Municipal Permit, implementation efforts and costs are shared across the entire City. For the fiscal analysis, the City staff will identify the staff resources

needed to implement the City's overall program. City staff resources will be analyzed according to their functions related to the City using the Expenditure Categories identified above.

15.3 Expenditures and Sources of Funds

Annually, the City will present its expenditures for the fiscal year as well as a proposed budget for the next fiscal year. The fiscal year expenditures are presented in tabular format with separate rows for different divisions and subdivisions. The budget for the next fiscal year is presented in similar format and includes the anticipated total expenditures.

The sources of the funds needed to fund the current and next fiscal year will be included in the analysis and include any identified restrictions on the use of those funds.