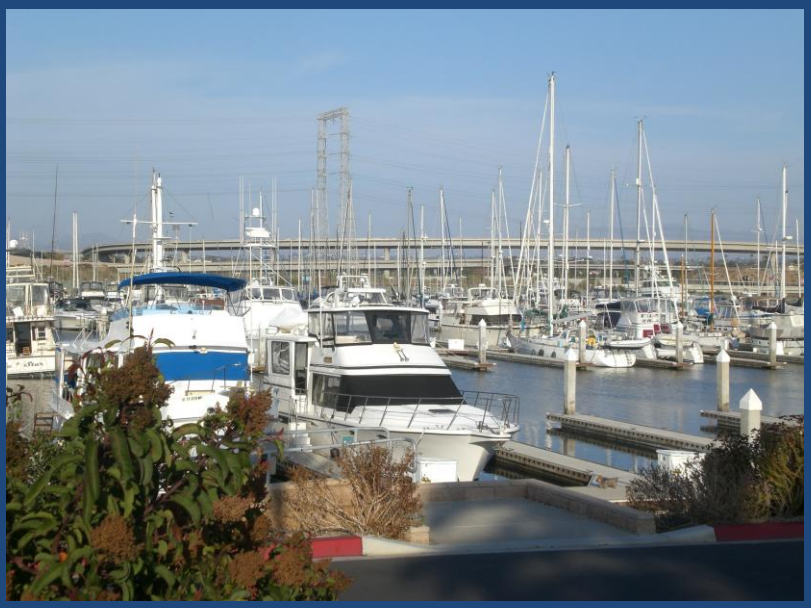
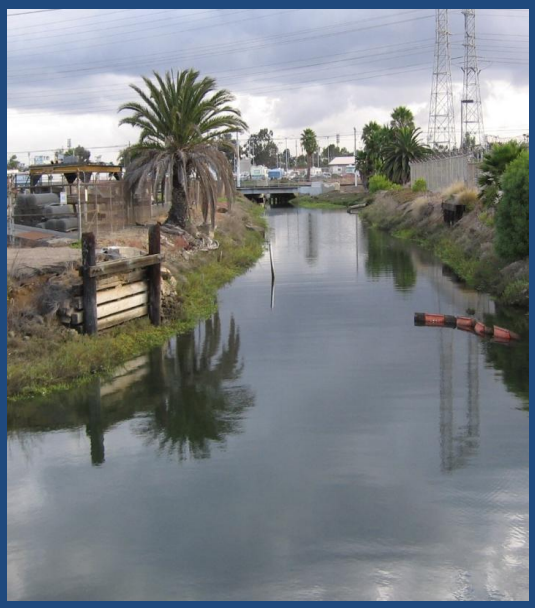
Jurisdictional Runoff Management Plan

June 2015





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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
303(d) list	Clean Water Act Section 303(d) List of Water Quality Limited Segments
ASBS	Areas of Special Biological Significance
BMP	Best management practice
CASQA	California Stormwater Quality Association
CFR	Code of Federal Regulations
CGP	NPDES General Construction Permit, Order No. 2012-0006-DWQ
CIA	Common Interest Area
CIP	Capital Improvement Project
City	City of National City
Copermittees	18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District
CUPA	Certified Unified Program Agency
CWA	Federal Water Pollution Control Act (also known as the Clean Water Act, or CWA)
DEH	County of San Diego Department of Environmental Health
ESA	Environmentally sensitive area
ESCP	Erosion and Sediment Control Plan
FOG	Fats, Oils, and Grease
FPWQC	Focused Priority Water Quality Condition
Grading Ordinance	National City Grading Ordinance (Chapter 15.70)
GIS	Geographic Information System
HHW	Household Hazardous Waste
HMP	Hydromodification Plan
HOA	Homeowners' Association

HPWQC	Highest Priority Water Quality Condition
HSA	Hydrologic subarea
IC/ID	Illegal connection and illegal discharge
IDDE	Illegal Discharge Detection and Elimination
IGP	NPDES General Industrial Permit, Order No. 2014-0057-DWQ
JRMP	Jurisdictional Runoff Management Plan/Program
JURMP	Jurisdictional Urban Runoff Management Plan/Program
LID	Low Impact Development
MEP	Maximum extent practicable
MS4	Municipal separate storm sewer system
MSCP	Multiple Species Conservation Program
MS4 Permit	San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001
NCMC or Municipal Code	National City Municipal Code
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
OES	State Office of Emergency Services
PDP	Priority Development Project
RARE	Rare, Threatened, or Endangered Species
RMA	Residential Management Area
RWQCB	San Diego Regional Water Quality Control Board,
SDP	Standard Development Project
SIC	Standard Industrial Classification
SSMP	Sewer System Management Plan
SSO	Sanitary sewer overflow

Storm Water Ordinance	National City Storm Water Management and Discharge Control Ordinance (Chapter 14.20)
SUSMP	Standard Urban Storm Water Mitigation Plan
SWA	Sweetwater Authority
SWQMP	Storm Water Quality Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TTWQ	Threat to water quality
USEPA	United States Environmental Protection Agency
WMA	Watershed Management Area
WMAA	Watershed Management Area Analysis
WQIP	Water Quality Improvement Plan

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Executive Summary

The Jurisdictional Runoff Management Program (JRMP) is the City of National City's approach to improving water quality in its creeks, rivers, and the ocean through reducing discharges of pollutants to the municipal separate storm sewer system (MS4). As the operator of a storm drain system, the City of National City (City) is subject to a National Pollutant Discharge Elimination System (NPDES) MS4 Permit issued by the Regional Water Quality Control Board, San Diego Region (RWQCB). The MS4 Permit requires the City to reduce pollutants in discharges from its storm drain system to water bodies.

The City's MS4, like that of most other jurisdictions across the United States, conveys runoff from rain, irrigation runoff, natural groundwater seepage, and other sources of water to receiving water bodies without first being directed to a treatment plant. To reduce pollutants in these MS4 discharges to water bodies, the City implements or requires its residents, businesses, municipal facilities, and land owners to implement a variety of pollutant-reducing measures commonly referred to as best management practices (BMPs). Some examples of BMPs include covering potential pollutant sources to prevent contact with rain, employing erosion reduction techniques at construction sites, adjusting sprinklers to eliminate over-irrigation, sweeping streets and parking lots, and building green infrastructure treatment controls such as bioretention planters along streets.

The most recent permit, RWQCB Order No. R9-2013-0001, as amended by R9-2015-0001 (MS4 Permit), requires the City of National City and the other 20 municipal agencies in San Diego County to prepare both jurisdictional and watershed scale plans that detail how they will comply with the new requirements. Each agency, including the City, prepares its own JRMP. The JRMP presented herein is an update to the City's 2008 Jurisdictional Urban Runoff Management Program (JURMP), which was prepared in response to the 2007 MS4 Permit. The watershed plans, known as Water Quality Improvement Plans (WQIP), are collaboratively prepared by the municipal agencies and each focus on a particular watershed. The Engineering and Public Works Department has led the City's efforts to update this JRMP and prepare the WQIP.

Permit-Required Plans:

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

Water Quality Improvement Plan

The City of National City is located within the San Diego Bay Watershed Management Area (WMA). The City has collaboratively developed a WQIP for the San Diego Bay WMA along with the other responsible agencies, which are listed below:

- San Diego Bay WMA: The Cities of Chula Vista, Coronado, Imperial Beach, Lemon Grove, San Diego, and the County of San Diego, San Diego Unified Port District, California Department of Transportation, and the San Diego County Regional Airport Authority.

The WQIP identifies specific water quality priorities, establishes numeric water quality goals and objectives, the schedules by which they will be achieved, and the implementation strategies to achieve them. The San Diego Bay WMA is different from other WMAs since it includes three separate and very distinct hydrologic units that are not interconnected, but instead has one final downstream water body, the San Diego Bay. This makes it difficult for all Copermittees to address the highest priority water quality conditions (HPWQCs) identified in the WQIP, which are indicator bacteria and metals in Chollas Creek. The City of National City does not have any jurisdictional area within the Chollas Creek drainage area. For this reason, the City has instead identified a "focused" priority water quality condition (FPWQC) in the WQIP: the riparian area habitat along Paradise Creek.

The City's JRMP has been developed in light of the water quality priorities and goals identified in the WQIP. The water quality improvement strategies selected for implementation in the WQIP have been incorporated into the City's JRMP and are summarized in JRMP Appendix A.

Jurisdictional Runoff Management Program (JRMP)

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

WQIP and JRMP Connection

The new MS4 Permit preserves some of the programmatic specificity of past permits, but it generally allows the City and other permitted jurisdictions more discretion in determining the details of how their day-to-day programs will be implemented. This approach is intended to allow the City and other regulated agencies more flexibility in directing efforts toward the issues identified as the highest priorities in each WMA, as identified in the WQIP. Addressing

these highest priorities, however, involves meeting numeric water quality targets. The targets are more stringent metrics than those established by previous storm water permits, which mostly used programmatic achievements to determine compliance.

Functionally, the WQIP serves as an overarching strategic planning document, setting watershed-scale water quality priorities, goals, schedules, and strategies for the City and the other responsible agencies in each WMA. The JRMP document describes the City's minimum program implementation standards in compliance with the MS4 Permit and integrates the strategies defined by the WQIP. WQIP strategy integration includes both modifying existing activities to target WQIP priorities more effectively and developing new activities.

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

JRMP Components

Introduction

The introduction includes a discussion of the general regulatory background leading up to the creation of this JRMP document and the general objectives of updating the JRMP document. City setting information and a report outline are included in this section.

Program Organization & Legal Authority

This section described the City's legal authority to implement its storm water program. It also identifies and describes the departments within the City that conduct and oversee runoff management activities. An organizational chart that illustrates the relationships between the various City departments is also included.

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

- Added detail about legal authority, as outlined by the MS4 Permit.
- Revised departmental roles and responsibilities to account for changes in departmental organization.
- Provided additional detail on roles and responsibilities of different departments and divisions.

Illegal Discharge Detection and Elimination

Newly updated prohibitions of various non-storm water discharges—that is, discharges of water that are not rain—and the City's approach to controlling such discharges are included in this section. These discharges can increase pollutant loads in the water that flows to the City's storm drain system and eventually to receiving waters. The categories of non-storm water

discharges the City has determined to be significant sources of pollutants are identified, and the appropriate control measures the City has identified to reduce the discharge of pollutants from such non-storm water discharges are discussed.

The processes by which illegal connections and illegal discharges (IC/ID) are detected by the City are described in this section. This includes the receipt and recording of violation reports made by both the general public and City personnel regarding storm water pollution and the MS4 Outfall Discharge Monitoring Program. The City's sanitary sewer overflow (SSO) and other spill response and prevention methods are also described.

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

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

Development Planning

The development of urban areas has the potential to negatively impact the surrounding environment. The addition of impervious surfaces can alter the natural drainage patterns of the area, and development can facilitate the introduction of pollutants to the environment resulting from human activities. The City has recently updated its BMP Manual, included in Appendix B, which establishes the specific post-construction BMP requirements for development projects. This section also discusses revisions made to the annual maintenance treatment control BMP verification process. Methods for maintaining a prioritized, watershed-based inventory of completed projects with treatment control BMPs and conducting associated maintenance inspections are also included in this section.

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

- Added more specific procedural information specifically outlining the roles and responsibilities of different departments and divisions.

- Updates to the BMP Manual have incorporated new, Priority Project Category definitions and storm water treatment and flow control requirements.
- Added a retrofit and rehabilitation program, as required by the MS4 Permit (Appendix E). This program identifies potential locations for BMP retrofits or stream restoration projects within areas that have already been developed. Projects from the overall list included in Appendix E may be undertaken as funding is identified. The retrofit and rehabilitation program applies to all areas of existing development: industrial, commercial, municipal, and residential.

Construction Management

Information and regulations applicable to construction activities and updates made to the City's watershed-based inventory of the construction sites within the City are described in this section. Construction site inspection frequencies and methods are presented. The City has also updated its BMP Manual to reflect the construction BMP requirements of the new Permit. The construction and grading permit approval process and storm water related contract specifications for Capital Improvement Projects (CIP) are also discussed. This section also discusses procedures for ensuring that both private development projects and Capital Improvement Program projects provide proper construction BMP plans and obtain coverage under the State Water Resources Control Board Construction General Permit, Order No. 2009-009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, when necessary.

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

- Modified program procedures with the goal of effectively reducing sediment discharges from construction sites.
- Developed revised minimum BMP requirements in the BMP Manual based on the most recent version of the California Stormwater Quality Association Standards.
- Required projects to prepare erosion control plans that address all applicable phases of development, and clarified that City inspectors have the authority to require additional BMPs in the field where necessary to maintain compliance with the MS4 Permit.
- Prepared more detailed workflows to clarify the roles of different departments and divisions in the plan review, inspection and enforcement processes for both private projects and City Capital Improvement Projects.
- Prepared a revised inspection form to emphasize the role of erosion control BMPs.

Industrial and Commercial

This section discusses how the City updates and maintains its watershed-based inventory of industrial and commercial facilities, including mobile businesses. The City utilizes a revised prioritization procedure for industrial and commercial facilities based off the experience and knowledge gained through the inspections conducted during the previous permit cycle.

Pollutants likely to be discharged from various types of industrial and commercial facilities have been identified. The minimum BMPs for industrial and commercial facilities have been updated and are included in the BMP Manual at the end of this JRMP document. This section also references a discussion of facility inspection frequencies and procedures.

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

- Revised threat to water quality prioritization procedures to target businesses identified though previous inspections as significant sources of pollutants and to those that have higher potential to discharge pollutants based on proximity and sensitivity of receiving water bodies.
- Updated minimum industrial and commercial BMPs to address updates to the MS4 Permit and Storm Water Management and Discharge Control Ordinance (National City Municipal Code Chapter 14.22) (Storm Water Ordinance), to address deficiencies commonly observed during inspections over the past Permit cycle, and to increase clarity. The updated BMPs are included in Appendix B.
- Added drive-by inspections as an optional approach for assessing compliance at businesses. Drive-by inspections are a patrolling style approach most useful for efficiently evaluating groups or areas of businesses, such as shopping centers, for the presence of non-storm water discharges.

Municipal Facilities

This section provides a discussion of the City's municipal properties and the process for maintaining its watershed-based inventory. The minimum BMPs for municipal properties, including special events, have been updated and are included within each of the departmental subsections within the municipal section. The municipal section also identifies inspection frequencies and procedures for municipal site inspections. The municipal BMP requirements have been updated to match the Industrial and Commercial business minimum BMPs and are included in the BMP Manual.

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

- Updated the minimum municipal BMPs to be consistent with the BMPs required for industrial and commercial businesses.

Municipal Infrastructure

The City's routine infrastructure maintenance and operations are presented in this section, which includes information on street sweeping frequencies and prioritization and the associated BMPs. This City's efforts to control litter and sewage spills from entering its MS4 are also discussed. Landscape maintenance operations and BMPs are presented in this section.

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

- Added more detail about the City's efforts to conserve water and prevent runoff during landscape irrigation. Reducing dry weather flows, especially from irrigation, will help meet WQIP goals.

Residential Areas

The new requirements that have been incorporated into the residential inventory are included in this section. This section also provides a description of the newly updated residential oversight program and the oversight methods the City staff will use to implement the program. An inventory of Resident Management Areas (RMAs) has been developed as part of the existing development inventory. Minimum BMPs required to be implemented for residential areas and activities are included in this section and in the BMP Manual.

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

- Developed minimum residential BMP requirements, which are included in the BMP Manual (Appendix B).
- Created an inventory of Residential Management Areas (RMAs), included in Section 9, and developed an associated inspection/oversight program.
- Provided more details on methods of residential area evaluations and oversight, including drive-through assessments and MS4 outfall field screening and upstream investigations.

Public Participation and Education

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

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

- In accordance with the WQIP emphasis on reducing dry weather flows, developed approach to reduce landscape irrigation runoff and conserve water, including programs targeting homeowners associations (HOA).
- Updated list of targeted audiences and applicable training topics.

Fiscal Analysis

The means by which the City funds its day-to-day storm water program, including JRMP activities and WQIP activities necessary to meet WQIP requirements, is discussed in this section.

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

- Revised the fiscal analysis approach presented to meet the revised fiscal reporting requirements specified in the 2013 MS4 Permit

Enforcement Response Plan

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

JRMP Implementation

Each City department is committed to implementing the relevant procedures and BMPs described in this JRMP. The goal of these actions is not only to meet regulatory requirements, but also to improve water quality for the City's residents. Results from the City's implementation of the JRMP will be documented and reported each year as part of the annual reporting process, similar to the approach in past years. Jurisdictional program data will be a significant part of the WQIP annual reports in the San Diego Bay watershed in which the City has jurisdiction, and annual assessments will be completed through the WQIP annual reporting process. As part of the adaptive management and iterative approach, the City will refine its programs accordingly as new lessons are learned. Modifications to the JRMP will be documented to ensure clear communication and transferability from one staff person to another. Modifications to the JRMP will be documented to ensure clear communication and transferability from one staff person to another.

Certification

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

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

Signature	Date
Name, Title	Phone Number

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1 Introduction

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

1.1 Regulatory Background

Storm drain system permits are a component of the National Pollutant Discharge Elimination System (NPDES) permitting program, which is authorized by the federal Clean Water Act (CWA). The State of California administers the NPDES program within the state, and the San Diego Regional Water Quality Control Board (RWQCB) oversees NPDES permits within San Diego County and the southern portions of Orange and Riverside Counties. The RWQCB issued the first regional NPDES storm water permit regulating all municipalities in San Diego County (collectively, "Copermittees") in 1990. Revised versions were issued in 2001 and 2008, with each successive permit including increasingly prescriptive requirements. The most recent permit, RWQCB Order No. R9-2013-0001, as amended by R9-2015-0001 (MS4 Permit), increases the focus on watershed-level planning and achieving water quality outcomes. The MS4 Permit preserves some of the programmatic specificity of past permits, but it generally allows Copermittees more discretion in determining the details of how their day-to-day programs will be implemented. This approach is intended to allow the City and other regulated agencies more flexibility in directing efforts toward the issues identified as the highest priorities in each Watershed Management Area (WMA). However, addressing these highest priorities involves meeting numeric water quality targets. These targets are more stringent metrics than those established by previous storm water permits, which mostly used programmatic achievements to determine compliance.

The MS4 Permit requires the City and the other 20 municipal agencies in San Diego County to prepare both jurisdictional (JRMP) and watershed (Watershed Quality Improvement Plan - WQIP) plans that identify actions they will take to improve water quality. The JRMP is

prepared individually by each agency and applies only to that agency's jurisdiction. Each WQIP focuses on one WMA and is collaboratively prepared by the municipal agencies within the WMA. The City is a responsible party for the WQIP for the San Diego Bay WMA. The WQIP for this WMA identifies the highest and focused priority water quality conditions, corresponding numeric goals, and strategies that the City and other responsible agencies will implement to meet the goals. The JRMP is described in more detail in Section 1.2, and the relationship between the JRMP and the WQIPs is described in Section 1.3.

1.2 Purpose and Objectives

The primary purpose of the JRMP is to outline the strategies and supporting activities the City will implement to reduce the discharge of pollutants from its municipal separate storm sewer system (MS4) to the maximum extent practicable (MEP). To present the full picture of all the activities the City performs to improve water quality and meet the requirements of the MS4 Permit, the strategies identified in the Water Quality Improvement Plan (WQIP) for the San Diego Bay WMA in which the City has jurisdiction are also included in the JRMP. Section 1.3 provides more information about the integration between the WQIPs and the JRMP.

The JRMP describes how the City implements or requires its residents and land owners to implement a variety of measures commonly referred to as best management practices (BMPs) to reduce pollutants in storm drain system discharges to water bodies. Some examples of BMPs include covering potential pollutant sources to prevent contact with rain, employing erosion reduction techniques at construction sites, adjusting sprinklers to eliminate irrigation runoff, sweeping streets and parking lots, and building green infrastructure techniques like planters that capture and treat runoff from new development projects. The City has developed minimum required BMPs for businesses, residents, construction sites, and development projects. In addition, the City's own activities meet BMP requirements to effectively prohibit non-storm water discharges and to reduce discharges of pollutants in storm water to the MEP. The Storm Water Management and Discharge Control Ordinance, codified in National City Municipal Code Chapter 14.22, provides legal authority for the required BMPs and discharge prohibitions.

Each major component of the City's storm water program, such as construction management and illegal discharge detection and elimination, has its own section within the JRMP. To increase usability for City staff who will implement these program components, each section has been written and formatted so that it is understandable on its own, without needing to reference a large number of other sections or external documents. For the same reason, acronyms and abbreviations have also been defined the first time they occur in each section. Each JRMP program component section also identifies the departments and sections that will be responsible for implementing the activities described in the section. While the Engineering

Department has led the effort to update the JRMP, all responsible departments been involved, and the updated JRMP reflects input from staff in all responsible departments.

1.3 Integration with Watershed Quality Improvement Plans

The City is a responsible party for and has helped develop the San Diego Bay WQIP. The San Diego Bay WMA is different from other WMAs since it includes three separate and very distinct hydrologic units that are not interconnected, but instead has one final downstream water body, the San Diego Bay. This makes it difficult for all Copermittees to address the sources of pollutants and/or stressors that contribute to the highest priority water quality conditions (HPWQCs) identified in the WQIP, which are indicator bacteria and metals in Chollas Creek. The City of National City does not have any jurisdictional area within the Chollas Creek drainage area. For this reason, the City has instead identified a "focused" priority water quality condition (FPWQC) for which numeric goals, strategies, and schedules will be established: the riparian area habitat along Paradise Creek. The City of National City and most other cities within the San Diego Bay WMA have designed programs that will reduce or eliminate non-storm water discharges. For example, irrigation runoff is prohibited by the MS4 Permit because it conveys pollutants to the storm drain system and nearby waterways. Reducing non-storm water discharges is expected to pollutant levels when it is not raining.

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

1.4 City Setting

The City of National City is located in southwest San Diego County, and is bordered by San Diego, Chula Vista, and unincorporated portions of San Diego County. The City itself includes approximately 4,257 acres and an estimated population of 55,000. Land use within the City is largely residential, though the largest land-use in the City is designated as single family residential. Land uses categories with the corresponding acreage and percentage of the total area are included in Table 1-1, and shown in Figure 1-1.

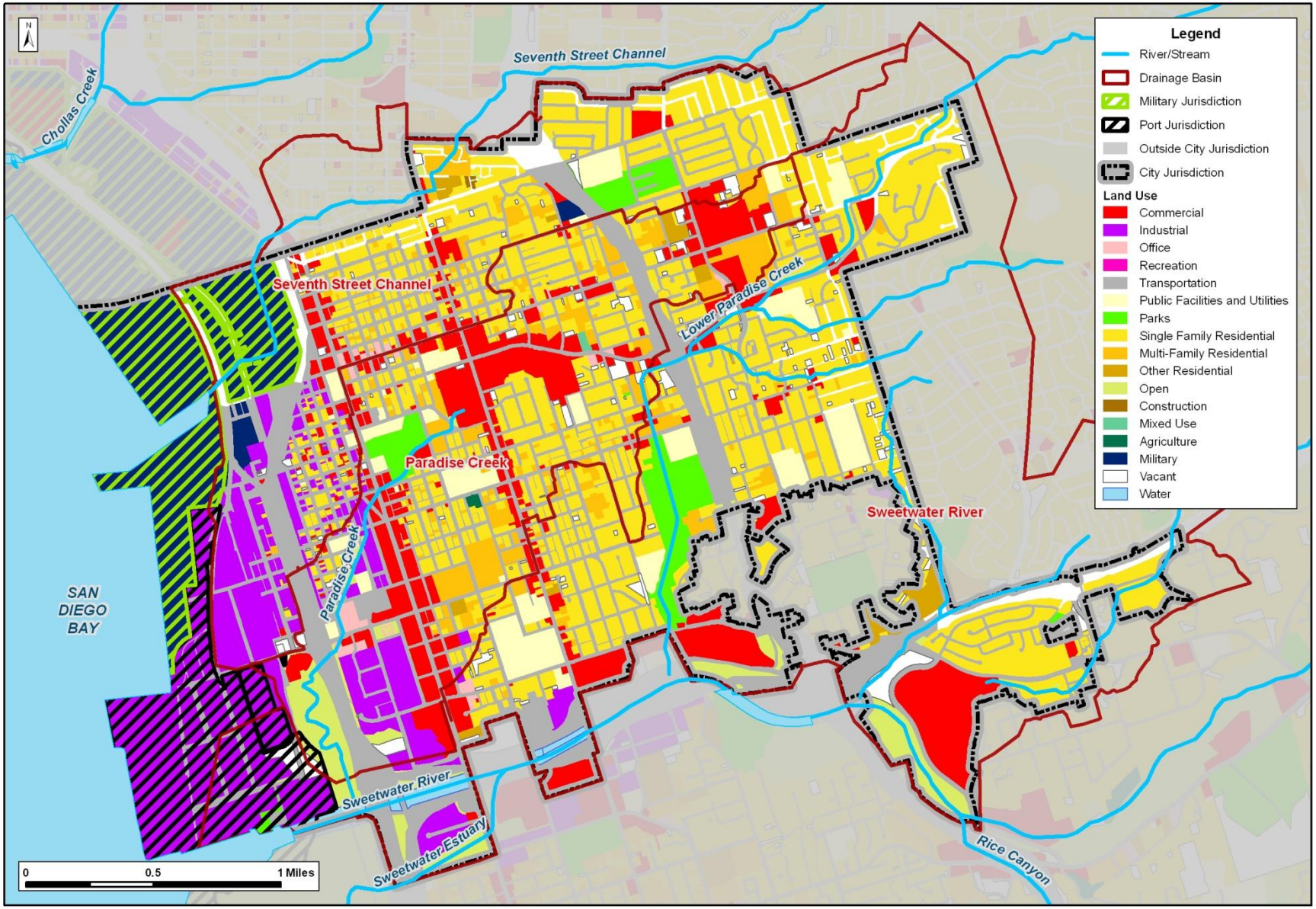
Table 1-1. City of National City Land Use Breakdown

Land Use	Total Area (Acres)	Percentage
Single Family Residential	1,488	35%
Transportation	822	19%
Commercial	525	12%
Industrial	503	12%
Multi-Family Residential	210	5%
Open	200	5%
Public Facilities and Utilities	176	4%
Vacant	111	3%
Parks	109	3%
Water	44	1%
Other Residential	42	1%
Office	20	<1%
Agriculture	4	<1%
Mixed Use	2	<1%
Construction	1	<1%
Total	**4,257**[1]	**100%**

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

1. Total does not include land within the City that is under Port of San Diego and military jurisdiction.

Figure 1-1. City of National City Land Use Areas



Base Data Sources: SANDAG, SANGIS, and City of National City.
Note: Paradise Creek and Sweetwater River are in the 909.1 HA, and Seventh Street Channel is located in the 908.3 HA.

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1.4.1 Watersheds

The City of National City lies entirely within the San Diego Bay Watershed and constitutes approximately 1.6 percent of the total area of the watershed. The majority of the southern portion of the City drains to Sweetwater River and the Sweetwater Marsh, which ultimately discharges into the San Diego Bay. The 7th Street Channel (La Paleta Creek) drains a small, northern portion of the City and also discharges directly to San Diego Bay. A very small western portion of the City drains directly to the San Diego Bay shoreline at the 24th Street Marine Terminal. Nearly all of the areas of the City that drain directly to the San Diego Bay are within the San Diego Unified Port District.

The central portion of the City drains to Paradise Creek, a small salt marsh creek, which eventually discharges into the Paradise Marsh, and ultimately to the Sweetwater River. The following major water bodies are located within the City: Paradise Creek, Sweetwater River, 7th Street Channel, and Lower Paradise Creek.

1.4.2 Storm Drain System

The City's MS4 consists of 19 miles of catch basins, inlets, pipes of varying materials, natural creeks and streams, natural channels, concrete channels, and culverts, which are included in Appendix D.

1.4.3 Environmentally Sensitive Areas

Environmentally sensitive areas (ESAs), as defined in the MS4 Permit, include the following:

- Clean Water Act Section 303(d) List of Water Quality Limited Segments.
- Areas designated as Areas of Special Biological Significance (ASBS) by the SWRCB and the RWQCB.
- State Water Quality Protected Areas.
- Water bodies designated with the Rare, Threatened, or Endangered Species (RARE) beneficial use by the SWRCB and the RWQCB.
- Any other equivalent ESAs which have been identified by the Copermittees.

Based on the criteria listed above, the City contains the following ESAs:

- 7th Street Channel (La Paleta Creek)
- Paradise Creek
- Paradise Marsh
- Lovett Marsh
- Sweetwater Marsh
- Sweetwater River

No RARE beneficial use water bodies, state water quality protected areas, or Multiple Species Conservation Program (MSCP) areas exist in the City. Sweetwater Marsh is part of the San Diego Bay National Wildlife Refuge, which is managed by the U.S. Fish and Wildlife Service and protects a diversity of endangered, threatened, migratory, and native species and their habitats. Lovett Marsh, a restored marshland located within Sweetwater River, is a mitigation site to compensate for the establishment of the San Diego Aircraft Carrier Museum in the San Diego Bay. The ESAs within the City are displayed in Figure 1-2. Table 1-2 lists pollutant categories associated with impaired water bodies within the City or farther downstream within the same hydrologic areas. This table is used as a reference when assessing whether various inventories sources, as described in later sections, may have the potential to contribute associated with 303(d) listed impairments.

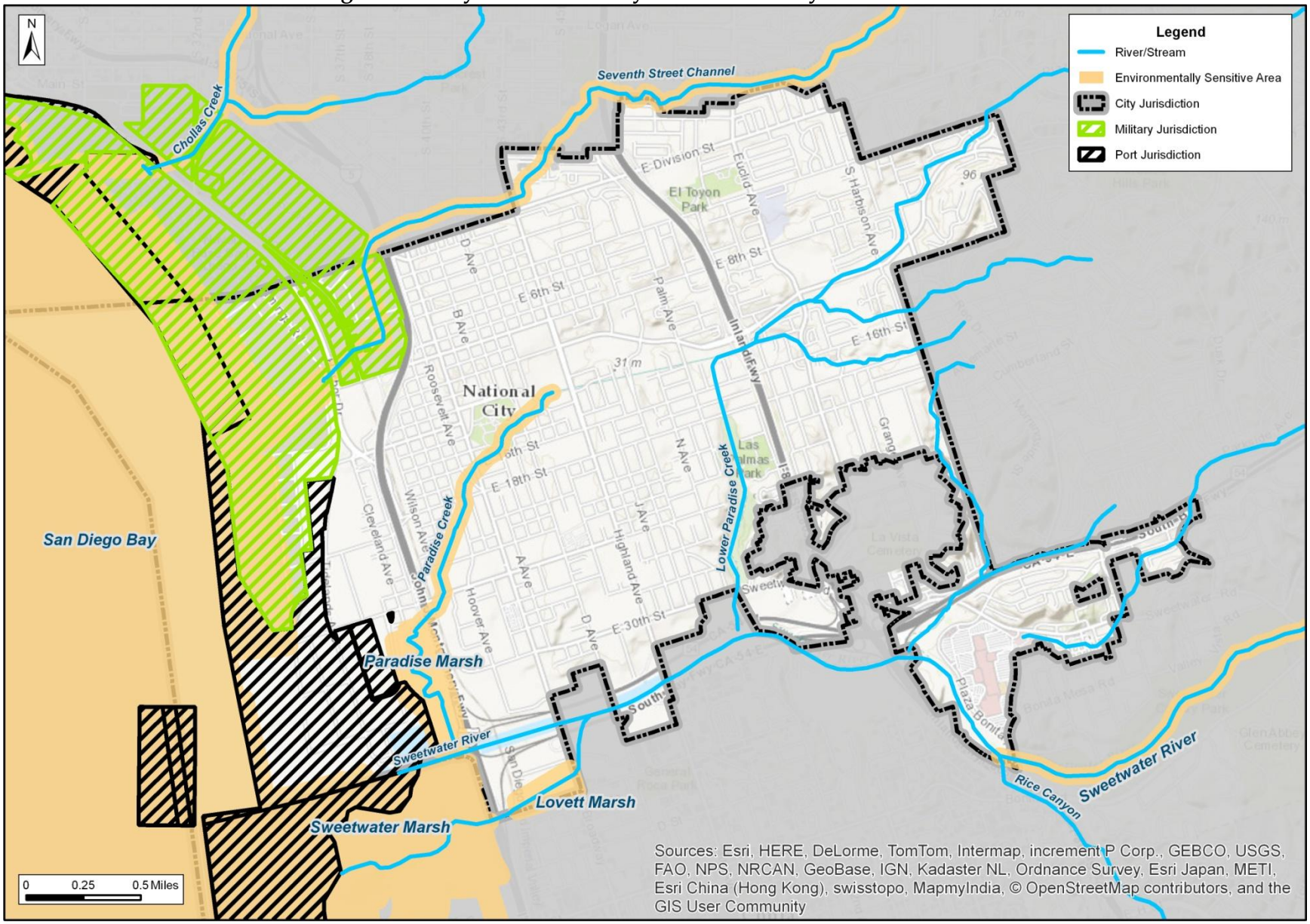
Table 1-2. 303(d) Listed Impairments for Receiving Waters

Water Body (HSA)	303(d) Listed Impairment	Pollutant Category
7th Street Channel (La Paleta Creek) (908.31)	Copper Lead	Heavy Metals
Paradise Creek (908.32)	Selenium[1]	None
Sweetwater River, Lower (909.12)	Indicator Bacteria Phosphorus Selenium[1] Total Dissolved Solids[1] Total Nitrogen as N Toxicity[2]	Bacteria/Viruses Nutrients

Notes:

1. There are no known classes of businesses identified as sources of these pollutants. If source is discovered during a site inspection, the business will be prioritized as a high threat to water quality.
2. Condition has not been specifically associated with any particular pollutant at this time.

Figure 1-2. City of National City Environmentally Sensitive Areas



Base Data Sources: City of National City, Regional Water Quality Control Board, and SanGIS

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1.5 Report Organization

Section 1 Introduction

The introduction includes a general regulatory background leading up to the creation of this JRMP document. Land use statistics, City information, and information about ESAs within the City are included in this section.

Section 2 Program Organization and Legal Authority

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

Section 3 Illegal Discharge Detection and Elimination

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

Section 4 Development Planning

This section addresses how the City will reduce discharge of pollutants from development projects. Information regarding the City's newly updated minimum BMPs and related implementation methods are also included.

Section 5 Construction Management

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

Section 6 Existing Development: Industrial and Commercial

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

Section 7 Existing Development: Municipal Facilities

This section provides a description on the updated prioritization of the City's watershed-based inventory of municipal facilities. A description of pollution

prevention methods and minimum BMPs to be implemented at specific municipal facilities and during specific municipal activities is included in this section. This section also includes a discussion of municipal inspection frequencies and procedures.

Section 8 Municipal Infrastructure

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

Section 9 Existing Development: Residential Areas

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

Section 10 Education and Public Participation

This section describes the education programs and activities that will be used by the City including content, form, and frequency for each target community as described by the MS4 Permit. This section describes the mechanisms that will be used to encourage public participation in the City's JRMP.

Section 11 Fiscal Analysis

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

Section 12 Reporting

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

Section 13 Conclusions and Recommendations

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

Section 14 References

Appendices

Appendix A Water Quality Improvement Plan Jurisdictional Strategies

Includes the City's jurisdictional strategies presented in the San Diego Bay Watershed Management Area WQIP.

Appendix B Storm Water Best Management Practice Manual

Provides BMPs for industrial, commercial, municipal, residential, construction, and post-construction activities.

Appendix C Enforcement Response Plan

Describes the enforcement mechanisms the City will utilize in order to ensure the implementation of its JRMP and to confirm its legal authority.

Appendix D Dry Weather Major MS4 Outfall Discharge Monitoring Program

Includes the City's MS4 map, Dry Weather Major MS4 Outfall Discharge Monitoring procedures, and field datasheet.

Appendix E Retrofit and Rehabilitation Projects

This section discusses how the City will identify, prioritize, and implement potential projects for retrofitting areas of existing development and for rehabilitation streams, channel, and habitats.

Appendix F Implementation Tools

Provides implementation tools and storm water quality inspection forms for treatment control BMP inspections, construction inspections, municipal inspections, and industrial/commercial inspections.

Appendix G Municipal Inventory

Includes the list of the City's municipal facilities and infrastructures.

Appendix H Ordinances

Updated Storm Water Management and Discharge Control (Chapter 14.22) and Grading (Chapter 15.70) Ordinances

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2 Program Organization and Legal Authority

2.1 Introduction

As specified in Provision E.1.a of the San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit), the City of National City (City) establishes, maintains, and enforces adequate legal authority within its jurisdiction to control pollutant discharges into and from its municipal separate storm sewer system (MS4). The City has established and updated local ordinances in the City's Municipal Code, which provide legal authority for enforcing storm water requirements. The major ordinances relating to storm water include the following:

- City of National City Storm Water Management and Discharge Control Program Ordinance (Storm Water Ordinance) (Ord. 2008-2308, Chapter 14.22).
- Grading and Erosion Control Ordinance (Ord. 2013-2385 , Chapter 15.70)

The above Ordinances reference the City's BMP Manual, which is not incorporated into the Municipal Code. The BMP Manual is included in Appendix B of this document.

Where violations of the Municipal Code or the MS4 Permit are observed, administrative and judicial procedures may be employed to enforce storm water requirements. This legal authority empowers the City to:

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

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

The City's Storm Water Ordinance also includes the City's updated minimum BMP requirements included in Appendix B of this document. The City's current minimum BMPs have been organized in a streamlined table format which has been updated to meet the new MS4 Permit requirements. The City also has litter and public nuisance ordinances which are not specific to storm water but may in some cases be used to support storm water program implementation.

2.2 Departmental Roles and Responsibilities

Personnel from various City departments are involved in the implementation of the City's storm water program. A diagram of the City departments within the City can be found in the City of National City Organizational Chart presented in Figure 2-1 at the end of this section. The following is a list of departments, divisions, and sections within the City of National City that conduct urban runoff related activities. Only those departmental responsibilities and activities directly related to compliance with the MS4 Permit are mentioned below.

City Attorney's Office

- Assists Storm Water Management Section with Cease and Desist Orders, Administrative Hearings, and other high-level enforcement action.
- Draft and approve ordinances and assist with enforcement as needed.
- Ensure and certify adequate legal authority.
- Approve changes in JRMP document.

Engineering & Public Works

- Issues grading permits
- Receives and reviews development and redevelopment applications including Storm Water Quality Management Plans (SWQMPs)
- Is responsible for LID and HMP development and implementation
- Is responsible for managing the industrial/commercial, municipal, construction, and structural BMP inventories

- Assists in writing storm water documents to be submitted to the RWQCB
- Designs Capital Improvement Projects (CIP) and incorporates BMPs as required
- Develops contract documents and administers contracts, including BMP requirements
- Responsible for storm water plan checks

❖ **Storm Water Discharge Program**

- Enforces the City's storm water regulations
- Coordinates MS4 Permit requirements
- Coordinates JRMP Annual Report preparation
- Assists in writing storm water documents to be submitted to the RWQCB
- Maintains inventory and conducts inspections and enforcement of industrial and commercial facilities, municipal facilities, and construction sites.
- Maintains the structural BMP inventory and oversees maintenance tracking activities
- Conducts monitoring programs including MS4 Outfall Monitoring Programs
- Develops and/or provides modifications for storm water-related ordinances
- Conducts education and outreach to municipal personnel as well as outside organizations/individuals
- Serves as liaison to City departments regarding implementation of the MS4 Permit and JRMP

❖ **Public Works Division**

- Facilities
  - Responsible for operations-related BMP implementation and maintenance
  - Provides general, routine, maintenance, and BMP implementation and maintenance to City –owned buildings
  - Contribute to education and outreach for municipal personnel
- Parks Maintenance Division
  - Responsible for inspection of City parks
  - Responsible for park-related BMP implementation and maintenance
- Streets Maintenance Division
  - Provide information for JRMP document updates and JRMP Annual Reports
  - Responsible for street sweeping
  - Responsible for street-related BMP implementation and maintenance
  - Responsible for installation and maintenance of flood control-related BMPs
  - Responsible for maintenance and repair of City MS4 and sanitary sewer system

Community Development

❖ **Neighborhood Services – Code Enforcement Division**

- Enforces the City's storm water regulations

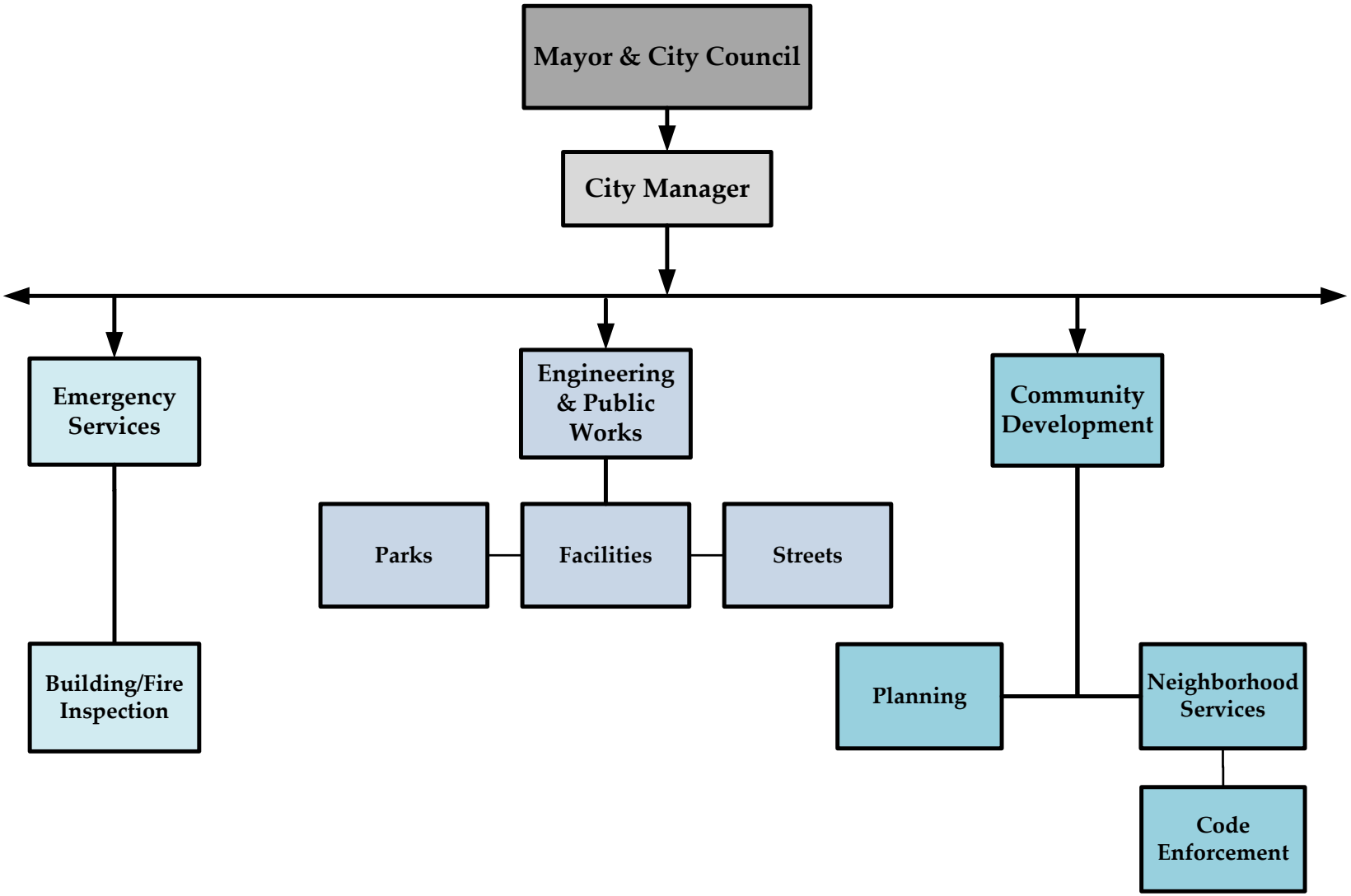
- Responds to storm water complaints received by the City
- Conducts IC/ID investigation and enforcement

- **Planning Division**
  - Review environmental documents including California Environmental Quality Act (CEQA) and Environmental Impact Reports
  - Review storm water plan proposals
  - Recommend site design BMPs including Low Impact Development (LID) concepts, Hydromodification Management Plan (HMP), and structural post-construction BMP requirements

Emergency Services

- **Building Division**
  - Reviews plans for development and redevelopment projects
  - Assist with data management and inventory of development and redevelopment projects

Figure 2-1. City of National City Organizational Chart



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3 Illegal Discharge Detection and Elimination

3.1 Introduction

The City of National City detects and eliminates illegal connections and illegal discharges (IC/IDs) and improper disposal of pollutants into the municipal separate storm sewer system (MS4) through the implementation the City's Illegal Discharge Detection and Elimination (IDDE) Program. The goal of the IDDE Program is to actively seek and eliminate IC/IDs to the MS4. This goal is achieved through the implementation of major MS4 outfall monitoring, enforcement, and public education programs. Unauthorized discharges or connections can result in illegal discharges of pollutants to the City's MS4 and ultimately receiving waters. IC/IDs can be defined as the following:

- An *illegal connection* is a pipe, facility, or other device connected to the MS4 or receiving waters, which has not been authorized by the City; or a permitted/authorized pipe, facility, or other device, which conveys illegal discharges.
- An *illegal discharge* is any discharge into the MS4 or receiving waters that is prohibited by the City's Storm Water Management and Discharge Control Ordinance (Municipal Code Chapter 14.22) (Storm Water Ordinance).

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

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

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

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

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

3.2 Non-Storm Water Discharges

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

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

3.2.1 Prohibited Discharges

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

The following discharges will be addressed as illegal unless covered by NPDES Permit No. CAG919002 RWQCB Order No. R9-2008-002 or subsequent order *(General Waste Discharge Requirements for Discharges From Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay (WDR))*, NPDES Permit No. CAG679001 RWQCB Order No. R9-2010-0003 or subsequent order *(General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region)*, or other NPDES permit as appropriate:

- Uncontaminated pumped ground water
- Discharges from foundation drains and footing drains, if the system is designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.
- Water from crawl space pumps
- Non-storm water from water line flushing and water main breaks

- Discharges from recycled or reclaimed water lines

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

3.2.2 Conditionally Allowed Discharges

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

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

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

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

3.2.3 Firefighting Discharges

In accordance with Section E.2.a.(5) of the MS4 Permit, non-storm water discharged to the MS4 as a result of firefighting activities, both emergency and non-emergency activities, is considered an illegal discharge if the City or the RWQCB identifies the discharge as a significant source of pollutants to receiving waters. Firefighting discharges to the MS4 not identified as a significant source of pollutants to receiving waters, must be addressed as follows, and in accordance with the minimum BMPs (Appendix B).

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

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

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

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

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

3.3.1 Reporting of Illegal Connections and Illegal Discharges

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

City of National City Storm Water Hotline
Phone: (619) 336-4389 (English and Spanish)
Email: Engineering@nationalcityca.gov
www.ci.national-city.ca.us

Calls made after hours, on holidays, and on weekends are answered through the National City Police Department at (619) 336-4411. The Public Works Division also accepts calls for sewage

discharges/spills at (619) 336-4580 during business hours and at (619) 336-4411 after business hours.

Additionally, a regional public reporting hotline is provided by the County of San Diego at (888) 846-0800. The hotline is answered Monday through Friday, 8:00 a.m. – 5:00 p.m. and provides a voicemail message for 24-hour public reporting in both English and Spanish. Complaints can also be submitted through the regional website, www.projectcleanwater.org.

3.3.2 Response to Storm Water-Related Complaints

When a complaint is received (e.g. hotline, email, or in person), it is logged by the City and tracked. Investigations are initiated by storm water staff for all complaints suggesting an actual or potential discharge to the MS4 or receiving waters. If investigators find evidence of a violation with the potential to release pollutants or an actual IC/ID, every effort is made to find the responsible party and inform them of the complaint or issue a Notice of Violation. Parties found to be responsible for a violation or IC/ID are required to immediately cease and abate the discharge. Additional corrective actions or escalated enforcement actions (e.g. Administrative Citation) may also be issued, depending on case-specific circumstances and consistent with the Enforcement Response Plan (Appendix C).

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

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

3.4 Spill Response and Reporting

The City coordinates spill prevention, containment, and response activities throughout appropriate departments, programs, and agencies so that maximum water quality protection is achieved at all times. Spills are prevented and mitigated through the implementation and

enforcement of minimum BMPs (Appendix B), which include the proper disposal of wash water, maintaining a spill cleanup kit, and employee training regarding spill cleanup and other related BMPs.

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

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

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

Spills that result in an illegal discharge to the City's storm drain system are reported annually in the City's JRMP Annual Report, which includes the number of discharges reported, detected, investigated, identified, and eliminated, and the number of associated enforcement actions. As required by the MS4 Permit, the City will provide verbal notification to the RWQCB of all instances of noncompliance within its jurisdiction that may pose a threat to human or environmental health within 24 hours from when the City is made aware of the situation. The specific information that must be reported within 24 hours of the incidence of noncompliance can be found in Section 1.l.(6) of Attachment B of the MS4 Permit.

3.5 IC/ID Investigation and Elimination

3.5.1 Dry Weather Major MS4 Outfall Discharge Monitoring

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

inches in diameter. These efforts contribute to detecting IC/IDs and non-storm water discharges from the storm drain system.

Under the 2007 MS4 Permit, the City conducted field screening at all monitoring sites and tested any water present at the sites for various common storm water pollutants. The 2013 MS4 Permit, on the other hand, emphasizes the identification and elimination of dry weather discharges from the City's outfalls. By working towards eliminating or reducing dry weather flows, the City is able to concentrate on reducing and eliminating a wide range of pollutants that may be transported to receiving waters.

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

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

3.5.2 MS4 Map

The City maintains a GIS-based map of its storm drain system which, along with other GIS data (e.g., addresses, land use, sewer infrastructure, contours, streets, etc.), is available to City staff. Storm drain structures are updated as needed, such as with completion of new projects or field corrections. Mapping of the storm drain system, and having access to other GIS data layers, can provide staff with useful information while investigating and responding to IC/IDs. Appendix D includes a map illustrating the storm drain system, along with the following features required by the MS4 Permit:

- All MS4 segments owned, operated, and maintained by the City, and that includes MS4 outfall monitoring locations and drainage basins.
- All known locations of inlets that discharge and/or collect runoff into the City's MS4.
- All known locations of connections with other MS4s not owned or operated by the City (e.g. Caltrans MS4s).
- All known locations of MS4 outfalls and private outfalls that discharge runoff collected from areas within the City's jurisdiction.
- All segments of receiving waters within the City's jurisdiction that receive and convey runoff discharged from the City's MS4 outfalls.

- Locations of the inventoried major MS4 outfalls within the City's jurisdiction, pursuant to Section D.2.a.(1) of the Permit.
- Locations of the non-storm water persistent flow MS4 outfall monitoring stations, identified pursuant to Section D.2.a.(1) of the Permit.

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

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

3.5.3 Investigating Illegal Connections and Illegal Discharges

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

Review of Plans

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

Video Monitoring

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

Confined Space Entry

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

Potential Sewage IC/IDs

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

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

3.5.4 Eliminating Illegal Connections and Illegal Discharges

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

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

If a responsible party has been identified during an illegal discharge investigation, the responsible party is required to take appropriate action to eliminate the illegal discharge and to perform any necessary clean-up or remediation in accordance with the City's minimum BMPs (Appendix B). Any refusal by the responsible party to perform necessary actions to eliminate the illegal discharge will be handled by Code Enforcement staff and appropriate enforcement action will be taken. If a responsible party is identified, but neglects to perform the necessary corrective action, the City may bill the responsible party for abatement costs.

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

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

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

- Plug sinks and drains that are discharging illegal materials to the storm drain system.

- Divert illegal discharges to the sanitary sewer if approved by the City, or treat on-site.

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

3.5.5 Record Keeping

The City will maintain records and a database of the following information for IC/ID investigations:

- Location of incident, including hydrologic subarea, portion of MS4 receiving the non-storm water or illegal discharge, and point of discharge or potential discharge from MS4 to receiving water.
- Source of information initiating the investigation (e.g., public reports, staff or contractor reports and notifications, field screening, etc.).
- Date the information used to initiate the investigation was received.
- Date the investigation was initiated.
- Dates of follow-up investigations.
- Identified or suspected source of the illegal discharge or connection, if determined.
- Known or suspected related incidents, if any.
- Result of the investigation.
- If a source cannot be identified and the investigation is not continued, document the response pursuant to the requirements of Permit Section E.2.d.(3).

3.6 Enforcement

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

The MS4 Permit requires that violations are corrected within no more than 30 days, where feasible. When compliance has not been achieved within 30 days of discovering the violation, storm water staff will document why the violation has not been corrected within the appropriate timeframe.

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

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Uncontaminated pumped ground water		X	X	X		X		
Water from crawl space pumps		X	X	X		X		
Discharges from foundation drains and footing drains[2]		X	X	X		X		
Discharges from foundation drains and footing drains[3]								X
Water line flushing and water main breaks						X		
Discharges from recycled or reclaimed water lines						X		
Diverted stream flows								X
Rising ground waters								X
Uncontaminated ground water infiltration to MS4								X
Springs								X
Flows from riparian habitats and wetlands								X

Table 3-1. Methods for Addressing Common Types of Non-Storm Water Discharges (continued)[1]

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Discharges from potable water sources								X
Air conditioning condensate		X	X	X			X[4]	
Residential vehicle washing		X	X		X		X[4]	
Dechlorinated swimming pool water		X	X				X[4]	
Saline swimming pool water	X	X	X					
Building fire suppression system maintenance discharges	X[5]	X					X[5]	
Non-emergency firefighting discharges	X	X	X				X[4]	
Emergency firefighting discharges							X[6]	
Irrigation runoff			X	X	X			
Non-residential vehicle washing	X	X	X[7,8]	X				
Cleaning water not containing added chemicals (e.g., from power washing, hosing, etc.)	X	X	X	X				

Table 3-1. Methods for Addressing Common Types of Non-Storm Water Discharges (continued)[1]

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Cleaning water containing added chemicals (e.g., mop water)	X	X						
Release of stored storm water from construction sites							X	

Notes: "X" indicates an acceptable discharge method.

1. The methods for addressing the discharges discussed in this table are based on the requirements of the MS4 Permit and the Municipal Code and present the more common types of discharges and associated disposal methods; however, the City maintains the legal authority to require a different disposal method of these discharges especially if the discharge has been identified as a significant source of pollutants.
2. If designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.
3. If designed to be located above the groundwater table at all times of the year and only expected to discharge non-storm water under unusual circumstances.
4. Only allowable if methods that would completely prevent the discharge have already been used to the extent feasible.
5. Discharges that include anticorrosion additives, antifreeze, or other sources of pollutants may not be discharged to the MS4, even if BMPs are implemented.
6. During emergency situations, priority of efforts should be directed toward life, property, and the environment (in descending order). BMPs should not interfere with immediate emergency response operations or impact public health and safety.
7. Only applies to discharges that do not include any additives that may contain pollutants.
8. Non-residential vehicle washing that occurs on an occasional basis may be discharged to landscaping. Designated vehicle wash areas and other facilities or activities that regularly wash higher volumes of vehicles may not discharge wash water to landscaping as the method of preventing discharge to the MS4

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4 Development Planning

4.1 Introduction

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

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

The City is almost completely developed, with limited natural areas remaining. Areas remaining in the City that provide scenic value and wildlife habitat include Paradise Marsh, Sweetwater River south of 35th Street, and a hillside along Paradise Valley Road, in addition to the riparian vegetation near Plaza Bonita Mall and several scattered canyons. Preserving these natural areas and limiting the impact of surrounding development is important to the City. With limited land available for new development, most of the development projects within the City are redevelopment projects. Redevelopment projects provide the City with an opportunity to improve the site design of already developed areas and potentially reduce the amount of runoff from urban areas and improve the quality of the City's receiving waterbodies.

The City addresses storm water management and discharge control through implementation of its Storm Water Management and Discharge Control Ordinance (National City Municipal Code Chapter 14.22) (Storm Water Ordinance), which includes reference to the BMP Design Manual. Note that the BMP Design Manual is currently being developed and is anticipated to replace the City's existing Standard Urban Storm Water Mitigation Plan (SUSMP) in December 2015. Once it is adopted, the BMP Design Manual will list the specific post-construction best management practice (BMP) requirements developed by the City for development projects. Overall, the City requires these post-construction BMPs through its development review process, and later verifies BMP installation at the completion of construction. The City then continues to track

and enforce structural post-construction BMPs (hereinafter, "structural BMPs") following project completion.

4.2 Development Project Requirements

Development projects are defined by San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001, (MS4 Permit) as new development or redevelopment with land disturbing activities, structural development including construction or installation of a building or structure, the creation of impervious surfaces, public agency projects, and land subdivision. Through the implementation of the development planning process the City will reduce the discharge of pollutants from development projects to the Maximum Extent Practicable (MEP), protect receiving water bodies, and manage increases in runoff from development projects that have the potential to increase erosion in streams or rivers.

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

The Copermittees are currently developing a revised set of post-construction BMP requirements, the BMP Design Manual, to address the requirements in the MS4 Permit. The new BMP Design Manual is expected to replace the existing SUSMP post-construction BMP requirements by December 2015. Until then, the existing requirements in the SUSMP remain in effect.

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

4.2.1 Types of Development

The City requires project applicants to complete and submit the "Priority Development Project (PDP) Determination Form" to assess what level of post-construction storm water requirements apply. Based on information provided in the form, projects are classified as Priority Development Projects (PDP), Standard Development Projects (SDP), or projects that are not considered "development projects" under the MS4 Permit. Not all site improvements are considered development projects since not all improvement work involves activities that have

the potential to come in contact with storm water. For example, work that occurs only on the interior of a building is not considered a development project for storm water purposes.

Projects with an elevated potential impact on storm water quality are considered PDPs. This determination is based on a number of factors, such as the project size, the amount of impervious area created or replaced, and the proposed land use. The City's "Priority Development Project (PDP) Determination Form", the Storm Water Ordinance, and the SUSMP provide more detailed information on how projects are classified.

4.2.2 BMP Requirements for Development Projects

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

During the process of replacing the SUSMP with the new BMP Design Manual requirements, the City will develop standards for PDPs designed to prevent them from having a negative net impact on critical coarse sediment discharges to receiving waters, as required by the MS4 Permit. The regional Watershed Management Area Analysis (WMAA) has identified critical coarse sediment areas and developed a geodatabase that shows their locations. The WMAA report and geodatabase have been provided to the City. Complete guidelines for hydromodification management BMPs are also provided in the SUSMP.

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

4.2.3 Alternative Compliance

As noted earlier, the existing SUSMP will continue to apply until the new BMP Design Manual, which incorporates the requirements of the 2013 MS4 Permit, goes into effect. Under the 2013 MS4 Permit requirements, each Copermittee, including the City of National City, has the option

to develop an alternative compliance program. An alternative compliance program would allow project proponents that cannot meet the requirements solely through onsite BMPs to satisfy the requirements by implementing additional BMPs offsite. All Copermittees, including the City of National City, are currently funding a study to collect technical information on approaches to evaluate water quality equivalency among multiple BMPs. Additional work to develop a crediting system based on the water quality equivalency study results is also expected to be necessary to support the creation of an alternative compliance program.

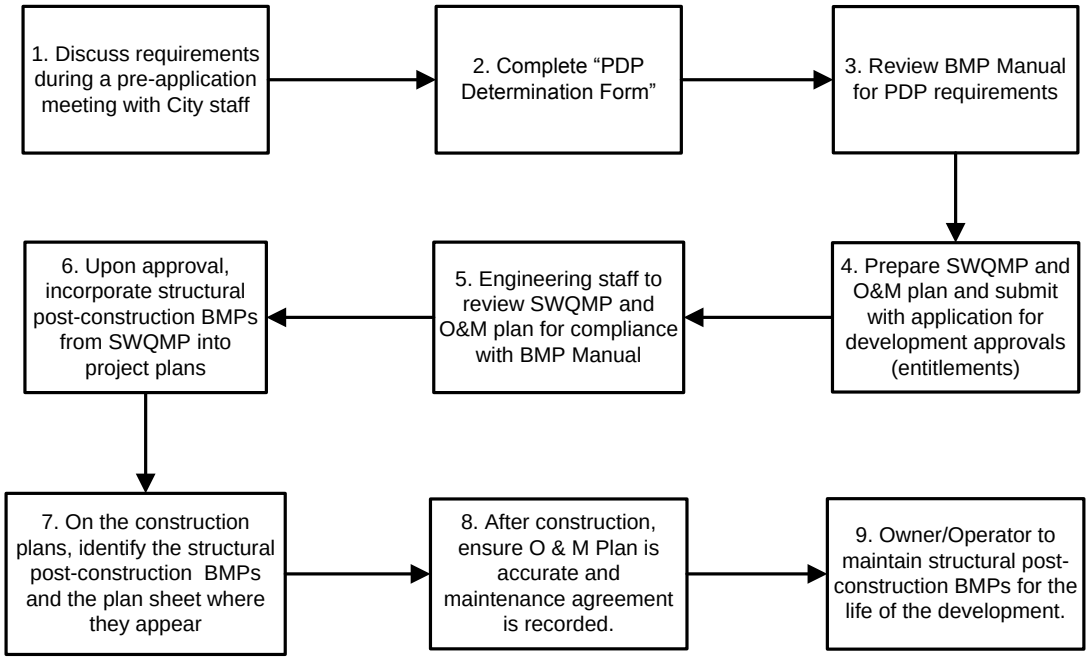
Once the studies of water quality equivalency and crediting approaches have been finalized, the City will evaluate the feasibility of establishing an alternative compliance program. In the meantime, the City will reserve the right to consider proposals to satisfy post-construction BMP requirements through an alternative to the standard onsite compliance approach. Private project developers and current or future land owners will be responsible for all expenses for preparing documentation and analyses to show how the proposed approach meets MS4 Permit requirements and for all expenses related to BMP construction and long-term operation and maintenance. The City will also require the project proponent to obtain approval from the RWQCB for the proposed design before the City will approve it.

Additional details regarding retrofit and rehabilitation projects are included in Appendix E.

4.3 Project Review and Approval

The City has an established multi-departmental review and verification process for all new development and redevelopment projects, which includes both private and public projects. Through the implementation of development project requirements in the current SUSMP and application of the procedures detailed below, the City will mitigate the negative impacts of urban runoff from development projects to the Maximum Extent Practicable (MEP). Note that applicable staff will be trained on LID regulatory changes and the LID Design Manual. An overview of the PDP review and compliance process is shown below in Figure 4-1.

Figure 4-1. PDP Planning, Approval, and Compliance Overview



During the planning phase, development project proponents may request a pre-application meeting with City staff to discuss requirements, prior to submitting a project application. All projects are required to complete and submit the City's "Priority Development Project Determination Form". These forms are available at all City counters. As described in Section 4.2 above, this form is used to determine whether the project is a PDP, a SDP, or if it is not considered a "development project" under the MS4 Permit. Once project type is determined, the form then directs project proponents on the required storm water documentation that must be prepared and submitted with a project application. All "Priority Development Project Determination Forms" must be reviewed and signed off by the Engineering Division.

Development projects determined to be PDPs must submit a post-construction BMP plan, called the Storm Water Quality Management Plan (SWQMP), which documents how all required site design, source control and structural post-construction BMPs have been incorporated into the project design. The City's SUSMP provides more detail on what is required to be included in a post-construction BMP plan (SWQMP) and with project plans. City staff use the CalTrans LID BMP Manual to incorporate LID concepts into Capital Improvement Program (CIP) projects and to discuss LID with private development project proponents early in the permitting and design process. Operation and Maintenance (O&M) Plans are also required for all PDPs as part of the SWQMP. All private PDPs are required to submit a completed Storm Water Facilities Maintenance Agreement (SWFMA) to assure ongoing long-term maintenance of all structural

BMPs. The SWFMA for each project is recorded with the County Recorder and runs with the land, which means maintenance responsibility is transferred with sale of the property.

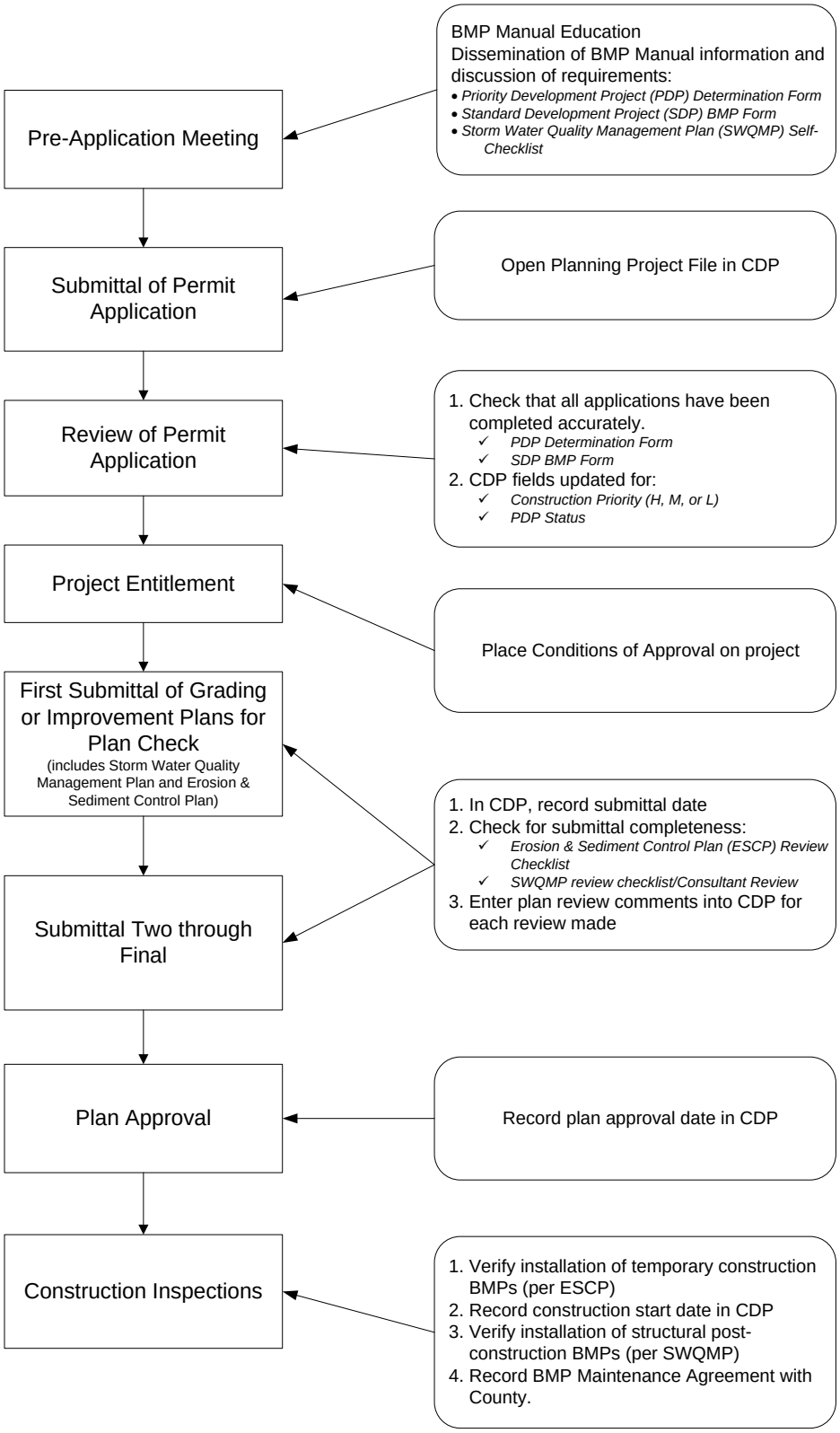
The Engineering Division reviews the SWQMP, including O&M plan, to verify that it meets the BMP Manual requirements. The project proponent is notified of any deficiencies and required to resubmit a revised SWQMP as necessary for additional review(s). This process continues until the final SQWMP meets post-construction BMP requirements. Reviewers also check that all proposed structural post-construction BMPs are clearly shown on applicable plan sheets and that cross sections are included where necessary. This provides clear direction to the contractor and also helps City staff verify structural post-construction BMPs have been constructed per plans during the verification inspection at the end of project construction (Section 4.4).

Development projects determined to be SDPs that still require permits and/or approvals for significant exterior construction must complete a Standard Development Project BMP Form which documents how site design and source control BMPs have been incorporated into the project design. The Engineering Division reviews the SDP BMP form to verify that it meets the storm water requirements. The project proponent is notified of any deficiencies and required to resubmit a revised BMP form as necessary for additional review(s).

Figure 4-2 outlines the project approval process by which city staff review development projects for post-construction BMP requirements. Permits are not issued and construction is not allowed to begin until all applicable storm water post-construction BMP requirements have been met. The City applies the same review process to CIPs subject to post-construction BMP requirements, except that project submittals are prepared by the City rather than by an external developer.

Once the plan check process is complete and the project plans are approved for all of the applicable permits, the permits are issued, and construction may begin. If there are any changes during construction that affect proposed BMPs, a revised SQWMP is required to be submitted and approved by the Engineering Division. At the conclusion of project construction, before occupancy permits are granted or construction securities are returned, a City inspector will make a final inspection of the site to verify installation of all required structural post-construction BMPs for the project, as described in more detail in Section 4.4. After BMP installation has been verified, but before final occupancy has been granted, the SWFMA for each project is required to be recorded with the County Recorder.

Figure 4-2. Development Project Review and Approval Process



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4.4 Verification of New Structural Post-Construction BMPs

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

Prior to certifying a project ready for occupancy or returning the applicant's bonds, City staff verify that post-construction BMPs have been constructed consistent with approved development plans. The Certificate of Occupancy will not be issued to private projects unless the proposed structural post-construction BMPs have been inspected and signed off as being constructed properly. In the case of CIPs, the City may withhold operational acceptance or notification of completion until structural post-construction BMPs installation is verified.

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

4.5 Structural Post-Construction BMP Tracking and Maintenance Verification

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

4.5.1 Structural Post-Construction BMP Inventory and Prioritization

The City maintains a GIS-based Microsoft Access database inventory of post-construction BMPs. The database is regularly updated as Priority Development Projects with structural post-construction BMPs are completed and as site details change (e.g., property sale, contact change). This database includes the following information:

- Project address and hydrologic subarea (HSA)
- Structural BMP type(s)
- Structural BMP location(s)
- Approximate project size
- Date of construction (as-built plans date)
- Contact information for responsible parties of BMP maintenance

- Inspection results, enforcement actions, and resolutions

The City also logs parcel owner and APN(s), inspection priority, and SQWMP completion date. Site plan graphics showing the locations of structural BMPs may be kept on file as a reference for inspectors.

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

Table 4-1 summarizes the criteria that were incorporated into the prioritization procedure and how they satisfy the MS4 Permit requirements. The City may also consider additional site-specific information beyond those included in Table 4-1 and Figure 4-2 when assigning priorities where applicable.

Table 4-1. Structural BMP Prioritization Factors

Flow Chart Prioritization Factor	Corresponding MS4 Permit Prioritization Criteria	Rationale/Notes
Project Size (> 5 acres or > 2 acres)	• Number and size of structural BMPs • Likelihood of operational and maintenance issues associated with BMP(s)	Larger sites with more BMPs and BMPs with larger drainage areas have a larger potential positive impact on water quality if properly maintained.
Industrial/commercial land use	• Land use and expected pollutants generated	Businesses are expected to be more concentrated sources of various pollutants.
Located within the Paradise Creek HSA	• Highest priority water quality conditions identified in Water Quality Improvement Plans • Receiving water quality	National City has identified the riparian area quality along Paradise Creek as a Focused Priority Condition in the WQIP.
Directly discharging to or located within 200 feet of an ESA	• Receiving water quality	Sites next to an ESA may have a disproportionate impact on ESAs if BMPs are not properly maintained
Site-specific factors (see footnote in Figure 4-2)	• Compliance record • Likelihood of operational and maintenance issues associated with BMP(s) • Recommended maintenance frequency of the BMP(s)	City staff may adjust priorities based on results from inspections and review of submitted maintenance verification information.

4.5.2 Structural Post-Construction BMP Maintenance Verification and Inspection

4.5.2.1 Annual Maintenance Verification

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

4.5.2.2 Maintenance Inspections

Structural post-construction BMPs installed at development projects will be subject to inspection by City inspectors to ensure the BMPs are being maintained and operating as designed. Each year, all high priority sites will be inspected prior to the start of the rainy season (i.e., prior to October 1). In addition to inspecting all high priority sites before the start of the rainy season, any projects that do not provide sufficient documentation to verify that appropriate maintenance work has been performed through the annual maintenance verification program described above will also be inspected before the end of the fiscal year. Additional standard priority sites may be inspected based on site compliance history and City staff professional judgment.

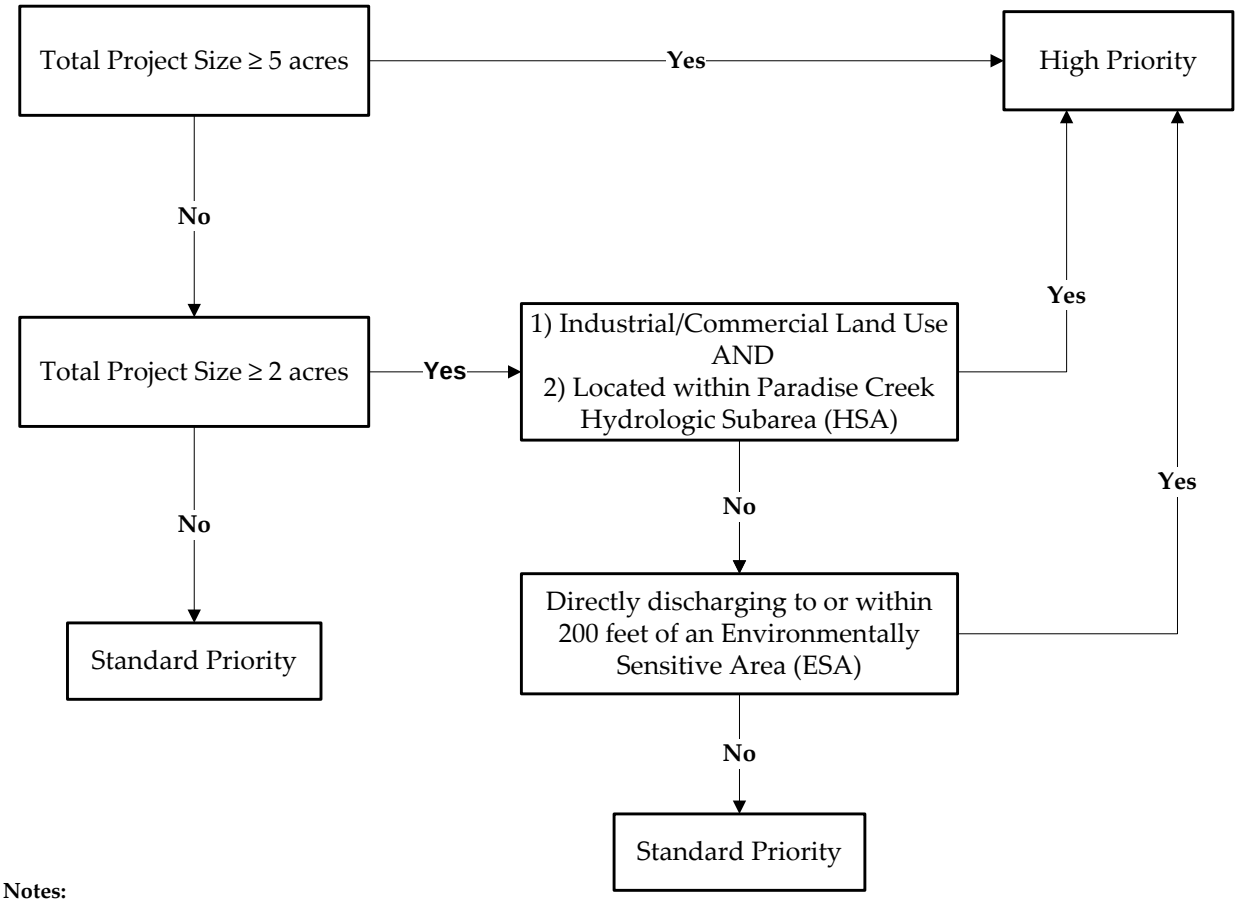
Inspections will include examination of all structural BMPs at the site to verify that each structural BMP is being maintained in accordance with the operation and maintenance plan agreement and is in compliance with all applicable City ordinances and permits. The City's Access database is used to print out site specific inspection forms that contain information directly from the database. The form also lists the GIS coordinates and location descriptions of each site's structural post-construction BMPs, which can be obtained during the initial BMP inspection to help in locating the BMPs during subsequent inspections. Inspection findings will be documented by the inspector using the inspection form in Appendix F. If any deficiencies in structural BMP operation and maintenance are noted during the inspection, the responsible party will be notified, and follow-up action (including enforcement if necessary) will be taken as described in the following section.

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

4.6 Enforcement

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

Figure 4-3. Prioritization Process for Projects with Structural BMPs



Notes:

- Industrial/Commercial Land Use – any project for which any of the following Priority Development Project categories applies: Industrial Development, Heavy Industry, Commercial Development, Automotive Repair, Restaurant, or Retail Gasoline Station.
- Projects in the Paradise Creek Watershed are assigned higher priorities because Paradise Creek has been established as a Focused Priority Condition in the WQIP.
- The City may adjust assigned priorities based additional site-specific conditions or factors, such as maintenance history or inspection compliance history.

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5 Construction

5.1 Introduction

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

The cooperation of various responsible parties, such as construction site owners and developers, is key to the continued success of the City's construction program in complying with San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit). To secure their cooperation, the City has reviewed and/or updated its local ordinances and guidance documents as an authorized form of legal enforcement. The following sections detail how the City will meet the minimum requirements outlined in Section E.4 of the MS4 Permit to eliminate or reduce the release of pollutants into the storm drain system and adjacent water bodies to the Maximum Extent Practicable (MEP).

5.2 Best Management Practice Requirements

5.2.1 Minimum BMP Requirements

Construction sites within the City's jurisdiction are required to implement and maintain BMPs in the following categories, where applicable, as required by the MS4 Permit:

- Project Planning
- Erosion Control
- Sediment Control
- Run-on and Runoff Control
- Good Site Management ("Housekeeping"), including Waste Management
- Non-Storm Water Management
- Active/passive sediment treatment systems

The City uses the California Stormwater Quality Association (CASQA) BMP fact sheets as its standards. The City's BMP Manual (Appendix B) provides more detail on the BMP requirements, including identifying how the CASQA BMPs align with the MS4 Permit BMP categories listed above. The City's BMP requirements are based on three major phases of construction, as defined below:

- **Grading**: Demolition, ROW work, site preparation and earthmoving, earthwork, construction or relocation of above ground and below ground utilities, construction or relocation of below ground structures, work associated with construction of above ground structures more than five feet from the structures, dewatering, and hydrostatic testing of utilities and fire systems
- **Vertical:** Construction of above ground structures in the area within five feet from structures, stucco, framing, mechanical, roofing, painting, drain flushing, and fire system testing (hydrants, sprinklers)
- **Finish:** Roadways, slurry seal, asphalt, concrete, walkways, parking Lots, landscaping, painting, striping, traffic and lighting facilities, architectural

The City requires a complete set of BMPs at all sites, with an emphasis on an effective combination of both erosion control BMPs and sediment control BMPs to reduce discharges of sediment. The City emphasizes erosion control BMPs as the primary approach to reducing pollution in discharges from construction sites. Sediment control BMPs alone are not considered acceptable. All implemented BMPs must be properly maintained until they are removed. The BMPs selected for each project must be appropriate to the types of work proposed, including the different phases of construction.

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

5.3 Project Approval Process

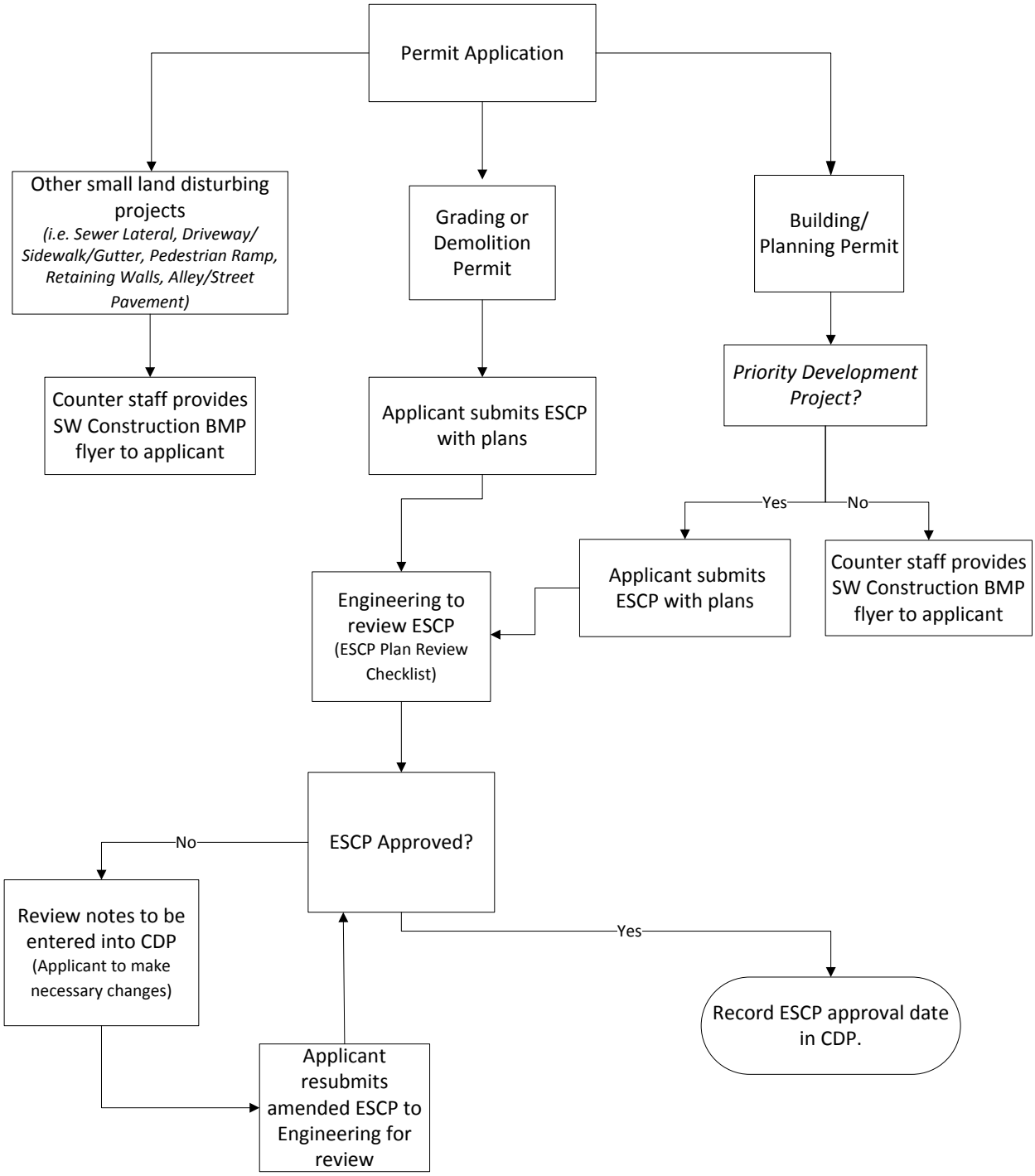
The City requires all projects that involve ground disturbance or soil disturbing activities that can potentially generate pollutants in storm water runoff to submit an Erosion and Sediment Control Plan (ESCP) prior to the issuance of a permit. Figure 5-1 shows which projects are required to develop and implement an ESCP. The ESCP is checked by the Engineering Division for compliance with the City's BMP Manual and the MS4 Permit using the Erosion and Sediment Control Plan Checklist included in Appendix F. The ESCP is reviewed for seasonally appropriate and effective BMPs and management measures before approval. The City has the

authority to require different plan sheets for different phases of construction for more complex projects if deemed necessary.

The City also requires projects subject to the CGP to provide proof of coverage before construction work may begin. Note that the CGP requires projects to complete Storm Water Pollution Prevention Plans (SWPPP), which include components similar to the Erosion Control Plan. When a project is subject to the CGP, the City reviews the Erosion Control Plan rather than the SWPPP. The City reviews the Erosion Control Plan rather than the SWPPP because the Erosion Control Plan specifically addresses the City's BMP requirements, while the SWPPP is a much longer document including both BMPs and a significant amount of additional information required by the CGP. The City does review SWPPPs for Capital Improvement Projects (CIP) since the City is the legally responsible party under the CGP. Aside from this difference, both CIP projects and private projects go through the same review and approval steps. The City also focuses its review on the Erosion Control Plan because the required erosion control bond is based on the Erosion Control Plan. The erosion control bond creates a maintenance funding mechanism that assures funds will be available to repair or construct BMPs in the event of default by the responsible party.

Projects too small to require grading permits generally disturb minimal soil and are short in duration. These projects are notified of their obligation to implement BMPs via the City's Construction BMP Sheet included in Appendix F, which is provided to them during the permitting process.

Figure 5-1. BMP Plan Requirements & Review Process for Construction Projects



5.4 Construction Site Inventory and Tracking

5.4.1 Site Inventory

The City of National City maintains a watershed-based inventory of all construction sites within its jurisdiction. The inventory includes all construction projects issued a permit that allows ground disturbance or soil disturbing activities that can potentially generate pollutants in storm water runoff. As a result, construction sites on the City's inventory generally include projects that involve grading, the construction of new buildings and residences, and demolition work.

Privately-owned development projects are added to the City's construction inventory when grading permits are approved. Capital Improvement Program projects are added to the construction inventory when a project begins construction. Completed projects are removed from the inventory upon finalization, as reported by City inspectors. While the City's construction inventory is updated on an ongoing basis, the City reviews the inventory on a quarterly basis, at a minimum, to ensure the inventory is current and accurate.

The City uses an electronic database to maintain its inventory, which includes:

- Contact information for each site (e.g., name, address, phone, and email for the owner and contractor).
- Basic site information including location (address and hydrologic subarea), Waste Discharge Identification (WDID) number (if applicable), size of the site, and approximate area of disturbance.
- Threat to Water Quality (TTWQ) priority (see Section 5.4.2).
- Project start and completion dates.
- Required inspection frequency (see Section 5.6.1).
- Date of acceptance or approval of the project's ESCP.
- Ongoing enforcement actions administered to the site.

5.4.2 Construction Site Prioritization

All construction sites within the City's jurisdiction are assigned a priority of high, medium, or low TTWQ. The MS4 Permit only includes required criteria that must be considered for those sites that are designated as a high TTWQ. The City uses a one acre construction site size as the distinction between medium and low TTWQ projects.

5.4.2.1 High Threat to Water Quality

Sites that meet any of the criteria listed in Table 5-1 below are considered a high TTWQ in accordance with MS4 Permit Section E.4.b.(2).

Table 5-1. Criteria to Identify High Threat to Water Quality Construction Projects

Criterion	Applicability to National City
Located within an HSA where sediment is known or suspected to contribute to the HPWQCs identified in the San Diego Bay WQIP.	Sediment is not known or suspected to contribute to any of the HPWQCs that apply to the City of National City.
Located within the same HSA and tributary to any water body listed as impaired for sediment on the 303(d) list.	Currently no water bodies in National City or downstream of National City are impaired for sediment.
Located within, directly adjacent to (within 200 feet), or discharging directly to a receiving water body within an ESA.	See JRMP Section 1 and Appendix D for a list and a map of ESAs within the City's jurisdiction.
Other sites that have been determined by the City or the RWQCB as a high threat to water quality.	Determined on a case-by-case basis, either before or after construction has started.

5.4.2.2 Medium and Low Threats to Water Quality

Sites greater than one acre in size that do not meet any of the above criteria will be assigned a medium TTWQ. Sites equal to or less than one acre that are not considered to be a significant TTWQ will be assigned a low TTWQ. Sites equal to or less than one acre that are considered to be a significant TTWQ will either be assigned a medium or high TTWQ. The City will also consider the following factors when evaluating a construction site's TTWQ:

- Soil erosion potential
- Site slope
- Project type (e.g. street improvements, building development, demolition)
- Sensitivity of receiving waterbodies
- Proximity to receiving waterbodies
- Non-storm water discharge potential
- Past records of non-compliance at the construction site
- Other site-specific factors, including prior land use

The City maintains the right to re-prioritize a construction site's assigned TTWQ if any of the prioritization factors change throughout the course of construction.

5.5 Construction Site Inspections

The City has an established inspection program to evaluate proper BMP implementation at construction sites within the City's jurisdiction. The inspection program is designed to confirm BMPs are implemented to reduce the discharge of pollutants to the MS4 and receiving waters to the MEP and effectively prohibit non-storm water discharges as consistent with the project's

Erosion and Sediment Control Plan and the City's minimum BMP requirements during each stage of construction.

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

Inspection findings are documented on the City's Storm Water Quality Inspection for Construction Activities Inspection Form included in Appendix F. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in the City's Enforcement Response Plan (Appendix C), will be taken. Details of the City's inspection procedures are described in the following sections.

5.5.1 Inspection Frequency

The MS4 Permit does not specifically define inspection frequencies for construction sites but rather indicates that inspections must be conducted at all inventoried sites at an appropriate frequency for each phase of construction. The City has reviewed the existing construction inspection program and is confident that the construction site inspection frequency listed below is adequate to ensure that all sites reduce the discharge of pollutants from construction sites to the MEP and to prohibit non-storm water discharges from entering the MS4. The following table presents the inspection frequencies corresponding to high, medium, and low TTWQ projects.

Table 5-2. Construction Site Inspection Frequency

Construction Site TTWQ	Wet Season Inspection Frequency	Dry Season Inspection Frequency
High	Twice per month	As needed
Medium	Monthly	As needed
Low	As needed	As needed

Note

[1] Low priority projects are generally inspected at least once over the life of the project. Since many low priority projects are very small projects, the construction duration may be too short for a storm water inspection to occur.

The City recognizes that the best time to inspect a construction site is before a rain event. Therefore, whenever possible, inspections will be scheduled at times when there is a 50% or greater chance of rain according to the National Weather Service Forecast Office (http://www.srh.noaa.gov/forecast). As a result, high priority inspections will likely not happen

at defined intervals (i.e., every two weeks exactly within a month); however, performing inspections when there is a 50% or greater chance of rain will ensure that sites are in compliance at the most critical time. Regardless, inspections will still meet the minimum frequency criteria outlined above.

The City reevaluates a construction site's TTWQ and inspection frequency on a regular basis, particularly when grading activities are conducted during the wet season. The City maintains the right to inspect a site more often than the minimum frequencies where deemed necessary. The need for additional inspections can vary depending on site conditions (i.e., topography, construction activity, characteristics of soils, etc.), previous violations, and/or weather patterns. The number of inspections performed at each construction site is tracked in an electronic database to ensure all construction sites in the City's inventory are inspected at the appropriate frequency and is reported in the City's JRMP Annual Report.

Based upon the inspection findings, the City will implement all necessary follow-up actions (e.g. re-inspection or administrative enforcement) to confirm site compliance.

5.5.2 Inspection Content

Site inspections evaluate compliance with the City's minimum BMP requirements, as required through applicable ordinances and permits. Inspection findings are documented on the City's Storm Water Quality Inspection for Construction Activities Form (Appendix F).

Inspections will include the following, at a minimum:

- Verification of coverage under the CGP (NOI and/or WDID number) during initial inspections, when applicable.
- Assessment of compliance with the City's local permits and applicable local ordinances. This assessment includes evaluating the adequacy and effectiveness of implemented BMPs, including how they are maintained.
- Visual observations to evaluate presence of 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 illegal connections.
- Education of project proponents on storm water pollution prevention as needed.

If any violations are found and BMP corrections are needed, City inspectors take and document appropriate enforcement actions in accordance with the City's Enforcement Response Plan (Appendix C).

5.5.3 Inspection Tracking and Records

All inspections and re-inspections are documented on the City's Storm Water Quality Inspection for Construction Activities Form, included in Appendix F, and retained in an electronic database. Inspection records include:

- Site name, location (address and HSA), and WDID number (if applicable).
- Inspection date(s) (including any re-inspections).
- 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.
- Resolution of problems noted and date problems fixed.
- Descriptions of any other specific inspection comments which must, at a minimum, include rationales for longer compliance time.
- Description of enforcement actions issued in accordance with the City's Enforcement Response Plan.

Inspection records and related documentation will be made available to RWQCB staff upon request. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions will be taken, as described in the following section.

5.6 Enforcement

The City enforces its construction BMP requirements at all construction sites in its jurisdiction. When violations are observed and documented during a site inspection, City staff will take appropriate enforcement measures discussed in the City's Enforcement Response Plan (Appendix C). City inspectors will typically seek to resolve incidents of observed noncompliance within 72 hours, or before the next rain event, whichever is sooner. Additional enforcement actions will be taken as necessary to bring about compliance when the required corrections are not made within the initial 72 hour timeline. In cases where the violation cannot be resolved within 30 days, the reason additional time was needed for case resolution will be documented and kept in the project's file.

Enforcement actions are based on the severity of the violation and can range from written warnings to more severe enforcement such as stop work notices. The RWQCB will be notified within five days whenever a stop work order or other escalated enforcement action is taken. See the Enforcement Response Plan (Appendix C) for additional details on escalated enforcement actions. When a site is subject to the CGP, City staff may also collaborate with RWQCB staff on enforcement actions.

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6 Existing Development: Industrial and Commercial Facilities

6.1 Introduction

Approximately 24% of the land area in the City of National City (City) is classified as industrial or commercial. Figure 6-1 shows where industrial and commercial areas are located. The City requires industrial and commercial sites or sources to implement pollution prevention methods, also known as best management practices (BMPs), to reduce discharges of pollutants to the storm drain system. The required BMPs are listed in the City's BMP Manual found in Appendix B and have been developed based on the requirements of San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit). The City inventories businesses subject to these requirements and facilitates BMP implementation through education, inspections, and enforcement. The City has also incorporated strategies identified in the San Diego Bay Water Quality Improvement Plan (WQIP), including a concentration on the focused priority water quality condition (FPWQC).

6.2 Industrial and Commercial Facility Inventory

6.2.1 Background

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

6.2.2 Data Sources and Management

The City uses business license data, Geographic Information Systems (GIS), and an electronic database to regularly maintain and update a watershed-based inventory of industrial and commercial facilities within its jurisdiction. The purpose of the industrial and commercial inventory is to assist in identifying pollutants that may be associated with these facilities, and to prioritize according to their potential impacts to the storm water conveyance system and receiving waters. Initial information used to update the inventory is gathered from the following sources and merged into one electronic database:

- City of National City business license listings
- City of National City list of businesses operating on leased municipal property

- RWQCB list of businesses with individual National Pollutant Discharge Elimination System (NPDES) permits
- State Water Resources Control Board (SWRCB) list of facilities covered under the NPDES Industrial General Permit (IGP)
- Complaints filed for unregistered businesses

6.2.3 Inventoried Facilities

Businesses identified from the data sources described above are classified as inventoried or not inventoried based on their Standard Industrial Classification (SIC) code or North American Industrial Classification System (NAICS) code. The City maintains a list of codes associated with the types of activities listed below; businesses with those SIC or NAICS codes are included on the inventory. The City maintains the data to produce an annually updated map showing the location of inventoried industrial and commercial facilities.

Facilities are inventoried on the property level, where possible. A property is defined as a grouping of land parcels, or a single parcel, on which more than one business is intended to operate, and whose common areas are generally managed by a single entity, such as a property owner, manager, or owner's association.

Industrial Facilities

- Industrial facilities, as defined at 40 CFR § 122.26(b)(14)
- Facilities subject to the IGP or other individual National Pollutant Discharge Elimination System (NPDES) permits
- Facilities subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986

Commercial Facilities

- Automobile repair, maintenance, fueling, or cleaning
- Airplane repair, maintenance, fueling, or cleaning
- Boat repair, maintenance, fueling, or cleaning
- Equipment repair, maintenance, fueling, or cleaning
- Automobile and other vehicle body repair, or painting
- Automobile (or other vehicle) parking lots and storage facilities
- Retail or wholesale fueling
- Contractors with storage yards
    - Painting and coating

    - Cement mixing or cutting
    - Masonry
    - Landscaping
    - Pest-control services
    - Other contractors
- Eating or drinking establishments, including food markets
- Botanical or zoological gardens and exhibits
- Nurseries and greenhouses
- Golf courses, parks and other recreational areas/facilities
- Cemeteries
- Marinas
- Building material retailers and storage
- Animal facilities
- Portable sanitary services

Mobile businesses known to operate within the City's jurisdiction are tracked on the City's inventory. A field in the City's business license inventory indicates whether a new business is mobile. Unlicensed mobile businesses are identified and added to the inventory based on incidents reported to the Storm Water Hotline and violations directly observed by City or contract staff. The following business types are the more common types of mobile business in the City:

- Mobile vehicle washing
- Mobile carpet, drape or furniture cleaning
- Other contractors
- Pool and fountain cleaning
- Power washing services

Other industrial or commercial facilities that the City determines may contribute significant pollutant load to the MS4 may also be inventoried.

6.2.4 Inventory Data Management

Inventoried facilities are tracked via GIS and through the City's industrial and commercial electronic database in accordance with the MS4 Permit Section E.5.a. At a minimum, the inventory includes, where applicable, the following information for industrial and commercial facilities within its jurisdiction:

1. Name and location (hydrologic subarea (HSA) and address)
2. Classification as commercial or industrial
3. Status of facility or area as active or inactive
4. Identification of whether a business is a mobile business
5. SIC and/or NAICS code(s)
6. IGP Notice of Intent (NOI) and/or Waste Discharger Identification number
7. Identification of pollutants generated and potentially generated by the facility or area
8. Whether the facility or area is adjacent to an environmentally sensitive area (ESA). "Adjacent" is defined as being within 200 feet of an ESA. This is in accordance with past procedure and with the most recent definition provided by the RWQCB, which is found in Order No. R9-2007-0001. A map of ESAs is included in Figure 1-2.
9. Whether the facility or area is tributary to and within the same HSA as a water body segment listed as impaired on the Clean Water Act Section 303(d) List of Water Quality Limited Segments (303(d) list) and generates pollutants for which the water body segment is impaired. This process is described in Section 6.2.5 below.

The City maintains its inventory in a GIS-based database and therefore has the ability to map the locations of inventoried industrial and commercial facilities, watershed boundaries, and water bodies, as required by the MS4 Permit.

6.2.5 Inventory Prioritization

Section E.5.c.(1)(a) of the MS4 Permit requires that inspections are performed at an appropriate frequency to confirm that BMPs are implemented to reduce the discharge of pollutants to the MS4 to the maximum extent practicable and are effective in reducing non-storm water discharges. The inspection frequencies are required to take into consideration the potential for a facility or area to discharge non-storm water and pollutants and reflect the priorities set forth in the WQIP. The City prioritizes facilities for inspections as having either a "high" or "standard" priority, with high priority facilities generally subject to more frequent inspections, as discussed in Section 6.4.1. The City focuses on the following when assigning a high inspection priority:

1. History of non-compliance
2. Identified as a potential source of pollutants associated with a FPWQC or downstream impairment

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

History of non-compliance

Facilities with a history of poor compliance with the City's minimum BMP requirements, which has not been resolved through structural changes, are considered high priority. Compliance is based on the results of a facility's most recent inspection, and poor compliance means one or more significant BMP deficiencies or illegal discharges were identified during the inspection and required the City to take follow-up action to resolve the deficiencies. If in future inspections these facilities develop a satisfactory pattern of compliance, a standard priority may be assigned.

Identified as a potential source of pollutants associated with a FPWQC or downstream impairment

Facilities located in the Paradise Creek HSA that have not been previously inspected are classified as high priority if they are identified as likely to discharge pollutants, particularly trash. The riparian habitat along Paradise Creek has been identified as the FPWQC for the City in the WQIP. After a facility is inspected, the pollutant discharge potential ratings will be updated to reflect observed site conditions, and inspection compliance history will be considered to prioritize the facility going forward.

Additionally, facilities that have not been previously inspected are classified as high priority if they are identified as likely to discharge pollutants for which a facility's receiving water body is 303(d) listed. See Table 1-2 below for applicable 303(d) listings and the associated pollutant categories. Common potential pollutants that may be generated at typical industrial and commercial facilities are listed in Table 6-2, at the end of this section. Again, after a facility is inspected, the pollutant discharge potential ratings will be updated to reflect observed site conditions, and inspection compliance history will be considered to prioritize the facility going forward.

City staff have the authority to classify other businesses that may contribute significant pollutant loads or non-storm water discharges to the City's storm drain system as high priority. The remaining businesses on the inventory are classified as standard priority.

6.3 Best Management Practice Requirements

The City requires commercial and industrial businesses to implement and maintain BMPs to prevent pollutants from entering its storm drain system. The City has updated its minimum BMPs specific to industrial and commercial facilities, which are detailed in the BMP Manual (Appendix B). The City's Storm Water Ordinance also gives authorized enforcement staff the authority to require additional BMPs beyond the minimum BMPs where necessary to reduce discharges of pollutants to the maximum extent practicable. Businesses may also be required to develop and implement site-specific BMP plans.

In accordance with the San Diego Bay WQIP strategies, the City will require used cooking oil to be either stored indoors or under a structural canopy to prevent contact with storm water. The City has updated its minimum BMPs (Appendix B) to require grease bins to be stored in covered areas since they are a potential source of bacteria. The City will work with grease rendering companies to provide education about indoor grease containers to commercial facilities where feasible. Inspections will also note whether grease bins are stored in covered areas to track progress toward the WQIP performance-based goal.

Additionally, the City will work with property managers of large commercial parking lots in the Paradise Creek watershed to determine existing sweeping frequencies. If sweeping frequencies are less than the City's standards for publicly-maintained streets and parking lots, then the City will provide outreach and encourage sweeping of commercial parking lots in the targeted areas to reduce pollutants from entering the MS4.

6.4 Best Management Practice Implementation

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

6.4.1 Inspection Frequency

The inspection program is designed to meet the following MS4 Permit objectives:

- Inspect all inventoried industrial and commercial facilities at least once within a five-year period. These inspections may be either onsite individual business inspections, property-based, or drive-by inspections.
- Annually complete a number of onsite inspections, which includes individual business and property-based inspections, equal to 20 percent of the total number of inventoried facilities. If multiple onsite inspections are completed at a facility in a given year, including follow-up inspections or inspections in response to a hotline call, those inspections may be counted toward the 20 percent requirement. Drive-by inspections are not counted toward the 20 percent requirement.

All inventoried facilities will be inspected at least once within the MS4 Permit term. It is expected that high priority facilities will be inspected more than once within the MS4 Permit term; generally they will be inspected annually. The City will complete property inspections where applicable. Facilities will also be inspected in response to valid public complaints.

Based upon inspection findings, the City will implement all follow-up actions (i.e., education and outreach, follow-up inspections, enforcement) necessary to require and confirm a facility's

compliance with the City's minimum BMP requirements. Enforcement actions are discussed in Section 6.5 and in the City's Enforcement Response Plan in Appendix C.

6.4.2 Inspection Data Management

All inspection data for inventoried industrial and commercial facilities are tracked in an electronic database.

Inspection records will include the following, at a minimum:

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

For onsite inspections, the records will also include the following:

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

6.4.3 Inspection Methods Overview

Inspections of industrial and commercial facilities are performed by designated storm water compliance inspection staff or contractors. Note that while contract staff may be used to complete inspections, only City staff may issue enforcement actions like Notices of Violation (NOVs) and citations. Inspections of facilities include onsite individual business, property-based, or drive-by inspections which are summarized in the following sections. Inspectors use a Storm Water Compliance Inspection Form, to record either business or property inspection data, which is included in Appendix D.

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

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

Previous facility inspection results are archived and available for research prior to conducting new inspections.

6.4.3.1 Onsite Individual Business & Property-based Inspections

Both individual business and property inspections are completed as part of the City's industrial and commercial inspection program, as appropriate. Businesses operating on a single parcel, or several parcels, without sharing responsibility for any areas with other businesses, will only receive a business inspection. A grouping of parcels, or a single parcel, on which more than one business is intended to operate, and whose common areas are generally managed by a single entity, such as a property owner, manager, or owner's association, may be inspected as a property using the Storm Water Compliance Inspection Form (Appendix D). Additionally, if there are multiple businesses within one building and it is clear that there are no shared areas (i.e. there is a public alley behind the building and a sidewalk in front of the building), but they are all managed by one party, then a property inspection may be completed.

Where property inspections are conducted, individual business inspections are also conducted if contact with the business is required to determine BMP compliance or resolve deficiencies. This method ensures that all responsible parties are notified of the required corrections.

Onsite inspections include the following components:

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

Often, the inspector will obtain information from the facility representative or other responsible individual while on site. If the information requested is not available for verification at the time of the inspection, the inspector may verify the information via telephone or email after the inspection. During the site walkthrough, areas in which pollutant sources and pollutant-generating activities are exposed to direct precipitation, storm water run-on, or non-storm water discharges will be assessed. Inspectors will evaluate the effectiveness of the business' actions to determine if they comply with the City's BMP requirements. Inspectors also look for evidence of illegal discharges, such as ongoing leaks or recent spills, or discharges/connections not authorized under an NPDES permit.

After the inspection, the facility representative and/or the responsible party is emailed an inspection summary for their records. If an email address is not available, a hard copy inspection summary report will be mailed to the facility.

See Section 6.4.3.4 for additional details regarding follow-up activities, and Section 6.5 for enforcement details.

6.4.3.2 Drive-by Inspections

Drive-by inspections will include the following components:

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

Drive-by inspections are generally more time-efficient than onsite inspections. Their use can allow the City to oversee a large area in a comparatively short amount of time. They may be used at lower priority businesses to satisfy the MS4 Permit requirement that all businesses are inspected at least once every five years.

These inspections will include the assessment of observable pollutants, exposed areas of the facility, and discharge points. The main focus for drive-by inspections is inspecting the discharge points of a facility or property for evidence of non-storm water discharges by driving through the area. Identified non-storm water discharges are further investigated to determine if they are illegal discharges. If an inspector determines more extensive investigation is needed, an onsite inspection may be completed. Whenever an illegal discharge is identified, the responsible party is contacted, and the illegal discharge is required to be eliminated.

6.4.3.3 Mobile Business Inspections

Mobile businesses are subject to the same prohibitions and enforcement mechanisms as stationary industrial and commercial facilities. Through business licensing, the City is able to identify "mobile water users" such as mobile detailers, power washers, window cleaners, or similar businesses that use water in their regular business activities. These businesses' activities have the potential to discharge pollutants to the storm drain system. Mobile businesses are inspected by the City on an as-needed basis. Triggers for these inspections are expected to be in response to incident reports received via the Storm Water Hotline and direct visual observations by City staff or members of the public. Mobile businesses are subject to the same minimum BMP requirements and enforcement mechanisms as stationary industrial and commercial facilities.

6.5 Enforcement

Through legal authority in National City's Municipal Code Chapter 14.22 and procedures outlined in the Enforcement Response Plan (Appendix C), the City has the ability to issue enforcement actions for industrial and commercial facilities that are out of compliance with the City's storm water requirements. If BMP deficiencies or other violations of Chapter 14.22 are observed during an inspection, industrial and commercial facilities are typically provided the opportunity to correct BMP deficiencies or violations prior to initiating escalated enforcement action, such as issuing a NOV or an administrative citation. The Enforcement Response Plan (Appendix C) provides more details about the City's enforcement tools and process.

Consistent with MS4 Permit requirements, corrective actions for violations observed at industrial and commercial facilities are intended to be resolved within 30 calendar days from the date of the violation, or prior to the next rain event, whichever is sooner. An electronic database is used to track each step of the inspection and enforcement process, including routine and follow up inspections, inspector notes, photos of BMP deficiencies and corrections, and other related records. The electronic database will also be used to document the rationale when violations are not corrected within 30 days, as required by the MS4 Permit.

6.5.1 Identification of Industrial Non-filers

When an inspector finds that a facility that is potentially subject to the IGP has not filed the appropriate documentation with the State Water Resources Control Board, City staff notifies the RWQCB within five calendar days. Such "non-filers" may be identified based on comparing the City's list of industrial facilities, as identified by SIC codes listed in the IGP, with the facilities listed on the State's Storm Water Multiple Application and Reporting System (SMARTS) website (https://smarts.waterboards.ca.gov) as having filed for coverage or exemption. Non-filers also may be identified in the field based on inspection results; for example, if a facility that had filed for a no exposure exemption is found to have significant BMP implementation violations. Written notification is typically provided by email to Nonfilers_R9@waterboards.ca.gov.

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

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

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

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

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

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

Notes: L = Likely, PO = Possible, UL= Unlikely

[1] This table is based on tables in the Copermittees' Baseline Long-Term Effectiveness Assessment and on the field experience of D-MAX Engineering, Inc. D-MAX Engineering, Inc. has conducted more than 24,000 industrial and commercial facility inspections during which pollutant discharge potentials were assessed.

[2] Discharge of heavy metals and oil and grease is possible if the facility has on-site parking.

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7 Existing Development: Municipal Facilities

7.1 Introduction

Municipal facilities within the City include public parks, community centers (e.g. Kimball Recreation Center, Martin Luther King Community Center, and the Senior Services Center), an administration building (i.e. City Hall), fire stations, public works yards, and other City-operated properties. This section discusses storm water best management practices (BMP) and programs associated with these facilities. An inventory of these facilities is included in Appendix H of this document. Additionally, the City conducts municipal activities and operations, including street and sidewalk repair, municipal separate storm sewer system (MS4) maintenance, and regular upkeep of the sanitary sewer system. Storm water BMPs and programs associated with these activities and operations are described in Section 8 (Municipal Infrastructure).

7.2 Municipal Inventory

The City maintains and updates, at least annually, a watershed-based inventory of the municipal facilities within its jurisdiction that has the potential to contribute pollutants and non-storm water discharges to the City's MS4. The inventory will include the following information, where applicable:

1. Name and location (hydrologic subarea (HSA) and address).
2. Status of facility or area as active or inactive.
3. Industrial General Permit (IGP) Notice of Intent (NOI) and/or Wastewater Discharge Identification (WDID) number.
4. Identification of pollutants generated and potentially generated by the facility or area.
5. Whether the facility or area is adjacent to, within 200 feet of, an Environmentally Sensitive Area (ESA)
6. Whether the facility or area is tributary to and within the same HSA as a water body segment listed as impaired on the Clean Water Act (CWA) Section 303(d) list of Water Quality Limited Segments and generates pollutants for which the water body segment is impaired.

The City has the data to map the locations of inventoried existing development, including inventoried municipal facilities or properties, watershed boundaries, and water bodies. The locations of municipal facilities on the map are reviewed annually and updated as needed.

Further information regarding fixed municipal facilities is included in the following sections.

7.2.1 Stationary Facilities

Parks and Recreational Facilities

The City's Public Works Department maintains community parks, landscaped areas, a municipal pool, and other recreational areas for use by the general public. Recreational facilities are defined as those facilities that are used for outdoor activities, such as sports fields. City staff, or contractors under staff supervision, are typically responsible for park maintenance activities such as landscaping, waste removal and control, and maintenance of any other facilities on the grounds (e.g. restrooms or concession stands). Structural post-construction BMPs located at City parks are typically maintained by Public Works staff.

Public Works Operational Facilities

The Public Works Yard consists of equipment and materials to support maintenance activities, including street, wastewater, storm water facilities, and fleet maintenance. A second Public Works Material Yard is utilized primarily for material storage (e.g. green waste and stockpiles), as well as decanting of street sweeping material. Each location keeps a site-specific detailed storm water management plan that is available to City staff. The plan contains a number of California Stormwater Quality Association (CASQA) municipal BMP fact sheets as an appendix. The plan is reviewed at least annually and updated as needed.

Wastewater Facilities

The City's collection system includes a network of approximately 97 miles of sanitary sewer mains. There are two sewer pump stations and several metering stations within the City. The City's Public Works staff is responsible for cleaning and maintaining the system on a daily basis. The sewage from the City is conveyed to the Point Loma Wastewater Treatment Plant.

Fire Station Facilities

There are two fire stations within the City. Fire fighting training is conducted at the Fire Department headquarters and BMPs for training activities are implemented at that location. Other activities include truck washing and day to day equipment maintenance. Heavy vehicle and equipment maintenance is done at the Public Works Yard. Fire department staff are trained to implement BMPs, as feasible, during non-emergency and emergency fire fighting activities in the field.

Other Stationary Facilities

The City maintains other public buildings such as an administrative building, community centers, library, and leased facilities and/or properties that do not fall into any of the aforementioned categories. These facilities are evaluated for potential to discharge storm water pollutants, and are inspected at a frequency determined by the facility's priority. Minimum

BMPs are applicable to all facilities within the City to prevent and reduce storm water pollution. These BMPs are implemented throughout the year at all facilities regardless if the facility is due for an inspection.

7.2.2 Special Events

The City receives requests to allow special events to occur on City property, streets, and facilities. The City requires organizers to apply for Temporary Use Permits, which allow City staff (including storm water staff) to review proposed activities and identify any potential concerns. Depending on the type and size of event, the City may require pre-event meetings with event coordinators to discuss concerns identified by staff.

Potential pollutants associated with special events may include the following:

- Trash and debris
- Bacteria and oxygen demanding substances from food preparation and consumption
- Oil and grease from vehicles and/or equipment
- Chemicals and bacteria from portable restrooms

7.2.3 Inventory Prioritization

Unlike the 2007 Permit, the 2013 MS4 Permit does not specifically require the prioritization of municipal facilities. However, Section E.5.c.(1)(a) of the MS4 Permit requires that inspections are performed at an appropriate frequency to confirm that BMPs are implemented. Inspections should evaluate that BMPs are designed to reduce the discharge of pollutants to the MS4 to the maximum extent practicable (MEP) and are effective in reducing non-storm water discharges to the storm water conveyance system. The inspection frequencies are required to take into consideration the potential for a facility or area to discharge non-storm water and pollutants and should reflect the priorities set forth in the San Diego Bay Water Quality Improvement Plan (WQIP).

In order to ensure municipal facilities are inspected at an appropriate frequency in accordance with the Municipal Permit, the City will prioritize municipal facilities for inspections as either "high" or "standard" priority. The priority assigned to each facility considers the factors listed below. The specific frequencies at which facilities receive inspections are discussed in Section 7.4.1.

Focused Priority Water Quality Condition

Municipal facilities that are found to be, or are likely to be, a significant stressor to the riparian area quality along Paradise Creek will be considered a high priority for inspection. Riparian area quality along Paradise Creek has been identified as the focused priority water quality

condition (FPWQC) in the City, as identified in the San Diego Bay WQIP. The FPWQC considers various potential pollutants, particularly trash, to the area. Appendix H presents the municipal facilities inventory which indicates each facility's pollutant discharge potential.

Sensitivity of and proximity to receiving water body

If a facility is tributary to and within the same HSA as a 303(d) listed water body and generates pollutants for which the water body is impaired, it may be considered high priority. Table 6-1 in Section 6 (Industrial and Commercial Facilities) summarizes the 303(d) listed impairments that are applicable to receiving waters in the City and the pollutants associated with the impairments. Additionally, whether or not a facility directly discharging to, or is within 200 feet of an Environmentally Sensitive Area (ESA) is considered. Appendix H lists the municipal facilities and indicates each facility's pollutant discharge potential.

Compliance history

Facilities that are known to have a poor compliance history are classified as high priority. If during future inspections these sites develop a satisfactory pattern of compliance, a standard priority may be assigned.

Non-storm water discharges

Non-storm water discharges may themselves be sources of pollutants or may transport pollutants into the City's storm drain system. Results from dry weather field screening at the City's major MS4 outfalls, calls to the City's storm water hotline, and data from previous municipal facility inspections can aid in identifying facilities that contribute non-storm water dischargers and/or pollutants to the storm drain system.

Change in activities

If there have been significant changes to a facility's activities and operations, it may be considered a high priority for inspection so that City staff can reassess BMP implementation.

Best professional judgment

City staff may prioritize other municipal facilities as a high priority based on institutional knowledge and best professional judgment.

7.3 Best Management Practice Requirements

7.3.1 Stationary Facilities

The implementation, operation, and maintenance of BMPs at municipal facilities are requirements of the City in order to prevent pollutants from entering its MS4. The City has designated a list of minimum BMP requirements for all municipal facilities and activities; collectively, the BMPs are identified in the City's BMP Manual found in Appendix B of this document, which also applies to special event venues.

If a facility is found to be a significant source of other pollutants of concern and the City's minimum BMPs are not adequate, the City may require additional structural or non-structural BMPs so that discharges of pollutants of concern are reduced to the MEP. The City may also elect to prepare a written BMP plan for the facility.

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

7.3.2 Special Events

Temporary Use Permits are required for special events that will take place on City property. Applications are available to the public on the City's website. Pre-Event and Post-Event BMP inspection forms will be included in the application packet. The event coordinator is required to complete the forms to ensure the appropriate BMPs are implemented. The following BMPs are commonly applicable to special events:

Storm Drain Protection: If storm drain inlets are within the event area, and there is risk for a spill of liquid materials or other pollutant discharges to the storm drain system, inlet protection shall be provided (e.g., bag barriers or secured visqueen cover). Catch basin cleaning may be done following the special event, if needed.

Spill Cleanup Kit: Event organizers shall have spill cleanup readily available. Kit materials will vary by event type, and may include towels, absorbent, dust pan, broom, shop-vac, and personal safety equipment (gloves, eyewear, bags, etc.). Spilled materials shall be prevented from entering storm drain inlets. Containment and removal by is done using dry-methods.

Public Area Craft/Art Removal: All craft/art creative areas must have spill cleanup materials on hand (see above). Post event clean-up of these areas includes removal of temporary public art, such as chalk, paint, charcoal, or clay. Consistent with minimum BMP requirements, dry-methods of cleaning should be used. Wet-methods require proper containment, collection, and disposal.

Trash and Debris: Adequate trash receptacles must be provided and regular collection of renegade trash and debris is required during the event. Recycling containers for plastic, cardboard, glass, and aluminum, must be placed near trash receptacles throughout the site. Post-event area "walkthroughs" must also be conducted by event organizers. Clean-up by removing trash, debris, and liquid spills must occur throughout and at the end of each event (or at the end of each day).

Portable Toilets and Hand Washing Facilities: Portable toilets and hand washing facilities should be placed on pervious surfaces, where feasible. Portable toilets must have secondary containment bins or berms.

7.4 Best Management Practice Implementation

The City conducts routine inspections of its inventoried municipal facilities to ensure compliance with the established minimum BMPs and applicable local ordinances and permits and to reduce the discharge of pollutants in storm water. Appendix H provides a list of municipal facilities and the associated potential pollutants.

7.4.1 Inspection Frequency

7.4.1.1 Stationary Facility Inspections

Stationary municipal facility inspections will be conducted annually at all facilities determined to be a high priority based on the factors discussed in Section 7.2.3. At least 20 percent of the inventory will be inspected annually. These inspections may be either onsite or drive-by inspections. Some facilities, such as the Public Works Yards, are anticipated to remain indefinitely on the schedule for annual inspections. However, standard priority facilities, such as low-use or low-pollution risk facilities (e.g., some recreational facilities), will be inspected no less than once during the five-year MS4 Permit cycle.

7.4.1.2 Special Event Inspections

Event Coordinators of special events are informed of their responsibility to implement the BMPs. They will be required to complete pre-event and post-event BMP inspection forms that will be provided during the permit application process. Inspections may be conducted before, during, or after a special event, at the discretion of City staff and considering event activities. Examples of events more likely to be inspected include new events with coordinators that have not previously organized events in the City or events expected to draw an especially large amount of people. Any violations of the City's requirements are addressed through the enforcement process as described in Section 7.5.

7.4.2 Inspection Procedures

Inspections of facilities will include, at minimum, visual inspections for the presence of non-storm water discharges, actual or potential discharges of pollutants, actual or potential illicit connections, and verification that the description of the facility or area in the inventory has not changed. Onsite inspections will include, at a minimum:

- Assessment of compliance with applicable local ordinances (National City Municipal Code Chapter 14.22) and permits related to non-storm water and storm water discharges and runoff.
- Assessment of the implementation of the City's minimum BMPs and any other required BMPs identified in the BMP Manual (Appendix B).
- Verification of coverage under the State Industrial General Permit (IGP), if the facility's IGSP subjectivity has not already been evaluated. To date, no City municipal facilities have been identified as subject to the IGP. If new facilities are added to the inventory in the future, storm water staff will evaluate them to determine if they may require coverage under the IGP.

If any violations or concerns are found as a result of the inspection, inspectors will initiate appropriate actions in accordance with the Enforcement Response Plan. As with results from any existing facility inspection, municipal facility operators with noted BMP deficiencies are typically provided an opportunity to implement timely corrective actions prior to consideration of escalated enforcement action.

7.4.3 Inspection Content

Inspections of stationary municipal facilities will typically be conducted by designated Storm water staff or contractors under staff supervision. Inspections may be onsite or drive-by and are tracked using the City's database. Facility inspections are the primary means of verifying that designated BMPs are being implemented at municipal facilities. The inspections, typically coordinated with City staff from other departments, also provide an opportunity to educate and reinforce the importance of storm water pollution prevention. Inspections are conducted for the following reasons:

- To ensure that BMPs are properly implemented and functioning effectively;
- To identify maintenance (e.g., material removal) and repair needs;
- To ensure the proper implementation of storm water management plans, and;
- To make sure that staff is aware of the storm water management requirements.

Inspection information, including any corrective actions, is maintained in the database. When deficiencies in BMP implementation are found during inspections, the inspector will document corrective actions required to bring the site/activity into compliance. The corrective actions will be given to appropriate staff and the inspection/corrective action documentation will be updated to demonstrate resolution once the corrective actions have been addressed.

7.4.3.1 Onsite Inspections

Onsite municipal facility inspections may be conducted unannounced or pre-scheduled. The inspector will obtain information from the facility representative. If the information requested is not available for verification at the time of the inspection, the inspector will verify the information via telephone or email after the inspection.

Inspectors will perform the following tasks at the time of the inspection, if applicable:

- Obtain updated information.
- Verify the NAICS and/or SIC codes and other descriptions of the facility.
- Clarify observations made before entering the facility (i.e., any changes in activities, materials, or physical structures).
- Identify which general BMP requirements apply to the facilities.
- Interview the facility representative about which non-structural BMPs are implemented and how the various BMP requirements are met, since a majority of these BMPs may be incorporated into operations and may not be evident in a walkthrough.

7.4.3.2 Drive-by Inspections

Drive-by inspections of municipal facilities include, at a minimum, making observations at all discharge points of the facility. Results of drive-by inspections will be documented in the City's database. Note that during a drive-by inspection some of the BMP assessment questions on the inspection form will not be completed. This is because the main focus of the drive-by inspection is making observations for discharges and noting any other clearly observable BMP deficiencies. The inspection is not intended to be an in-depth evaluation of all activities that may occur at the site, and will not provide enough information to assess compliance with all required BMPs.

7.4.4 Inspection Data Management

As with all existing facility inspections, inspectors track all inspections and re-inspection data from municipal facility inspections in the database.

Inspection records will include, at a minimum:

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

For onsite inspections of existing development the records will also include, as applicable:

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

7.5 Enforcement

Through legal authority in National City Municipal Code Chapter 14.22 and procedures outlined in the Enforcement Response Plan, the City has the ability to issue enforcement actions for municipal facilities that are deficient in BMP implementation or demonstrating compliance with the MS4 Permit. If BMP deficiencies or violations are observed during an inspection, municipal facilities are typically provided the opportunity to correct BMP deficiencies or violations prior to initiating escalated enforcement action (such as issuing verbal and written warnings) and the procedure described in the Enforcement Response Plan (Appendix C) will be followed.

Consistent with MS4 Permit requirements, corrective actions for violations observed at municipal facilities are intended to be resolved within 30 calendar days from the date of the violation, or prior to the next rain event (whichever is sooner). The City's database is used to track each step of the inspection and enforcement process, including routine and follow-up inspections, inspector notes, photos of BMP deficiencies and corrections, and other related records. It will also be used to document situations where violations are not corrected within 30 days.

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8 Municipal Infrastructure

8.1 Introduction

This section, in accordance with Section E.5.b.(1)(c) of the MS4 Permit, describes municipal infrastructure-related pollution prevention activities. Storm water pollution prevention activities for existing municipal facilities were discussed in Section 7. The City implements pollution prevention measures and BMPs to reduce or potentially eliminate the discharge of storm water pollutants from municipal areas and activities. Municipal activities with potential to introduce pollutants to storm water include sidewalk repair, painting, and graffiti removal. In contrast, some municipal activities can directly prevent or reduce storm water pollution, such as street sweeping, inspections, storm drain system maintenance, and regular upkeep of the sanitary sewer system (maintenance and repairs to prevent overflow events). Inspections of BMPs implemented during high priority mobile municipal activities are conducted annually by City Storm Water staff. Other mobile municipal activities are inspected as needed to ensure compliance with the City's minimum BMPs (Appendix B). In accordance with Section E.5.b.(1)(c) of the San Diego Regional Water Quality Control Board Order No. R9-2013-0001, as amended by R9-2015-0001 (MS4 Permit), the City of National City (City) has developed a comprehensive program designed to reduce the amount of pollutants that are transported in runoff from municipal activities.

8.2 Roads, Streets, and Parking Facilities

8.2.1 Background

Roads, streets, and parking facilities are an integral part of any functional City. The City maintains approximately 110 miles of streets. Existing street facilities throughout the City can collect a variety of pollutants due to routine vehicle traffic and have a tendency to collect litter and debris from surrounding areas. These street facilities also act as part of the MS4, due to the presence of roadside ditch or curb and gutter. Regular maintenance is necessary to control the level of pollutants, such as sediment, heavy metals, litter, and debris on streets. The City also conducts roadway activities which include building new streets and repairing or resurfacing existing streets. All construction projects conducted by the City are conducted in accordance with the requirements discussed in Section 5 (Construction Management) of this document. Streets within the City's jurisdiction are included in the City's municipal inventory included in Appendix G. There are no highways within the City's jurisdiction.

8.2.2 Street Sweeping

The City continues to maintain a revolving sweeping schedule to reduce the pollutant load for streets in the City to the maximum extent practicable (MEP). The street sweeping program and schedule has been adjusted to coordinate street sweeping with trash and recycling pick-up schedules and to meet the target sweeping frequencies in the City as discussed below.

In accordance with the City's jurisdictional strategies listed in the San Diego Bay Watershed Quality Improvement Plan (WQIP), major arterials (Highland Avenue, National City Boulevard, Plaza Boulevard, and 8th Street) are swept five days a week, Monday through Friday. All other public streets are swept once per week. A mechanical Mobil sweeper is used west of Highland Avenue from Tuesday through Friday, and an A700 Schwarze vacuum sweeper is used east of Highland Avenue from Monday through Thursday.

Parking facilities that are associated with municipal facilities are maintained and swept during regular maintenance activities at the respective municipal facility, and are considered part of the municipal facility on the inventory.

Debris collected from street sweeping is contained in a temporary storage area and protected from storm water runoff at the Public Works Material storage yard. The material is then disposed of through an approved disposal facility.

The City's Streets Division is responsible for conducting street sweeping activities as well as other street-related maintenance and repairs. Street sweeping personnel are trained to identify and report obvious illegal connections and illegal discharges (IC/IDs) to the City's MS4. Since street sweeping is conducted every week, it provides the City with further means to observe, respond to, and potentially prevent IC/IDs.

8.2.3 Best Management Practices

Similar to fixed municipal facilities, the City implements minimum BMPs (Appendix B) when conducting maintenance of roads, streets and parking facilities within the City. Presently, streets within the City are not known to be source of any of the constituents for which San Diego Bay or San Diego Bay shoreline areas are on the Clean Water Act Section 303(d) List of Water Quality Limited Segments (303(d) list), regardless, the City continues to implement a street sweeping program to reduce the amount of pollutants discharged from streets.

The City will also maintain unpaved roads and apply the appropriate BMPs to prevent the transportation of sediment into the MS4. Unpaved roads will be stabilized utilizing vegetation, gravel, structural containment such as curbs, or other equivalent measures. In the event that any pervious areas are disturbed or otherwise become destabilized, temporary erosion control measures will be installed. Erosion control BMPs will be maintained until the area can be more permanently stabilized. If negative impacts to receiving waters associated with runoff from

roads, streets and parking facilities are noted, the City will take the measures necessary to mitigate the negative impacts.

8.3 MS4 Maintenance and Operations

8.3.1 Background

The primary function of the MS4 is to collect and transport surface runoff to receiving waters during storms in order to prevent flooding. In order to reduce the transportation of pollutants into receiving waters, the City regularly maintains its MS4 to ensure that it remains fully functional and free of pollutants to the MEP. The City's MS4 consists of 19 miles of streets, curbs, catch basins, inlets, pipes of varying materials, natural creeks and streams, concrete channels, and culverts. The City's Public Works Division maintains a number of post-construction structural BMPs such as filter inserts. Other post-construction structural BMPs are maintained by responsible staff at the particular location (e.g. Fire Department maintains BMPs onsite). The City's MS4, as one complete entity, is included on the municipal inventory (Appendix G).

The City's MS4 management program includes responding to complaints received by the City's Storm Water Hotline, detecting and eliminating IC/IDs, inspecting and maintaining MS4s by cleaning, removing sediment, debris, and excessive vegetation, by repairing and/or replacing damaged or failing MS4 structures, and by stenciling signs on storm drain inlets warning of effects of illegal dumping. The City trains field staff on implementing BMPs, equipment inspection, and the action plan that is followed for regular maintenance and emergency maintenance and/or discharge control. Temporary BMPs are used during routine and emergency maintenance, where applicable. The City utilizes a Vactor truck during MS4 maintenance to collect both dry and liquid debris from catch basins and inlets.

8.3.2 Maintenance

The City maintains a comprehensive MS4 maintenance schedule and will continue to continually assess the MS4 maintenance procedures and results to ensure it is being sufficiently maintained. The City's MS4 maintenance schedule, in accordance with the City's jurisdictional strategies listed in the San Diego Bay WQIP, is as follows:

- All MS4 facilities are inspected at least annually and cleaned when inspections find trash, debris, or other material that should be removed.
- Storm drain inlets, catch basins, and other MS4 facilities that City personnel have identified as gathering a greater amount of trash and debris as compared to other areas of the City are re-inspected throughout the year and cleaned if necessary. Cleaning and

inspection schedules are subject to change based on observations and records of City personnel.

- Open channels and creeks are inspected and cleaned, if needed, once per month. Trash is removed from channels by hand.
- Drains with filter inserts at the following locations are inspected and cleaned at least four times per year:
    - 19th Street and Harding Avenue
    - 12th Street and A Avenue
    - R Avenue between 7th Street and 8th Street
    - Bay Marina Way and Marina Way (north and south of the street)
    - National City Library
- Non-emergency and emergency repair, maintenance, and construction of storm drain system facilities are conducted on an as needed basis.

The City will continue to respond to reports made by citizens or municipal personnel regarding MS4 facilities that require inspection/cleaning that is beyond regular maintenance activities. City personnel handle materials and wastes removed during maintenance activities in a manner that will not release the material to the MS4, or in any other way contaminate storm water runoff. The City keeps records to document all MS4 maintenance activities and inspections. Recordkeeping for preventative maintenance, cleaning, and inspections contain the following information:

- Dates and time inspection was performed
- Name and title of inspector
- Items inspected
- Locations of facilities inspected or cleaned
- IC/IDs detected
- Overall amount of material removed (estimated in either volume or dry weight)
- Disposal site
- Corrective action required
- Date corrective action was taken

Additional means to document and record inspection results may include field notes, timed and dated photographs, videotapes, drawings, and maps. All records are retained for at least one year after the expiration of the Municipal Permit.

8.3.3 Best Management Practices

The City trains field staff on implementing the City's established minimum BMPs, equipment inspection, and the action plan that is followed for regular maintenance and emergency maintenance and/or discharge control. Temporary structural BMPs are also used as necessary during routine and emergency maintenance, where applicable. City personnel use backhoes, excavators, and a Vactor truck to collect both dry and liquid debris from catch basins and inlets, along with a vacuum capture system to prevent the transport of material within the MS4.

If the City finds that certain portions of the MS4 itself are contributing pollutants of concern to 303(d) listed water bodies or ESAs, additional BMPs will be implemented as necessary. For example, as part of the City's jurisdictional strategies listed in the San Diego Bay Watershed Quality Improvement Plan (WQIP), the City has installed grates over the entrances to six box culvert locations along Lower Paradise Creek to prevent unauthorized persons from entering and occupying the drainage ways in order to prevent the discharge of pollutants to the creek. The City is looking to expand the program to cover additional culverts in the future.

8.4 Sanitary Sewer System

8.4.1 Background

Sanitary sewer overflows (SSOs) caused by a defect or failure of a component of the City' sanitary sewer system have the potential to introduce untreated sewage into receiving water bodies. Untreated sewage can contain high concentrations of bacteria, viruses, and parasites, all of which have the potential to negatively impact the environment and pose a significant threat to human health. The City responds to SSOs to eliminate or reduce the amount of untreated sewage that reaches the storm drain system. If a discharge does enter the storm drain system, the City will clean up and properly dispose of the SSO overflow residue as described in Section 3 of this JRMP.

The Public Works Department conducts routine inspections and maintenance of the sanitary sewer system to prevent SSOs that may occur due to defects in the sanitary sewer system. Routine inspections and maintenance of the sanitary sewer system reduces the potential for an SSO and helps prevent and eliminate sewage from entering the storm drain system. The City's sanitary sewer system, as one complete entity, is included in the municipal inventory in Appendix G and is inventoried using GIS.

The City's sanitary sewer maintenance program is discussed in the City's Sewer System Management Plan (SSMP), which is briefly described below.

8.4.2 Preventative Maintenance and Monitoring Activities

The City implements the following preventative maintenance and monitoring measures to prevent wastewater from entering the MS4:

- Routine sanitary sewer closed circuit television inspections and storm drain system surveys.
- Routine sewer line cleaning is conducted at least annually. Targeted sewer lines are cleaned monthly or more frequently, if needed. Other targeted sewer lines are cleaned quarterly.
- Conduct flow metering throughout the City's sanitary sewer system to monitor potential capacity concerns.
- Major MS4 outfall monitoring.
- Recording and responding to reports of potential SSOs from the public and City staff.

In accordance with the SSMP, the City maintains a Fats, Oils, and Grease (FOG) program for food service establishments to prevent FOG from entering the sanitary sewer system and causing sanitary sewer overflows.

8.4.3 Best Management Practices

The City's SSMP includes BMPs to minimize and prevent SSOs. The City will continue to maintain and implement a SSMP in response to the SWRCB Order No. 2006-003-DWQ and San Diego Regional Water Quality Control Board (RWQCB) Order R9-2007-0005. The SSMP provides a documented plan that describes all sewer collection system activities and programs to ensure proper management of all sewer collection system assets. Implementing the SSMP will ensure proper management, operation, and maintenance of all parts of the sanitary sewer system, ultimately helping reduce and prevent SSOs. The SSMP includes the following components:

- GIS mapping of sewer assets
- Preventative Maintenance Program
- Rehabilitation and Replacement Plan
- Training Program for Operation & Maintenance Staff
- Equipment and Parts Inventory
- Design and Performance Provisions
- Overflow Emergency Response Plan
- Fats, Oils, and Grease Control Program

- System Evaluation and Capacity Assurance Plan

Details of these BMPs are located in the City's SSMP.

8.5 Landscape Maintenance

8.5.1 Background

The City has developed and continues to implement a program aimed at preventing or reducing pesticides, herbicides, and fertilizers from entering the MS4. The City implements a variety of BMPs to reduce or eliminate the amount of pollutants entering the MS4 from municipal parks and recreation facilities, as listed in Appendix B. City personnel implement general waste management BMPs, and patrons of the facility are encouraged to properly dispose of trash and pet waste.

8.5.2 Best Management Practices

The City regularly checks landscape irrigation systems and maintains them as needed. Runoff is reduced by proper irrigation programming, including using shorter irrigation cycle times at a higher frequency instead of single long cycles. Irrigation systems at City parks are manually shut off when rain is forecasted and sprinklers are adjusted to eliminate overspray. In the last five years, the City has reduced water waste at City facilities and has achieved an overall reduction of water use by 20%. In addition, an underground 30,000 gallon cistern will be installed at Kimball Park as part of the "A" Avenue Green Street Improvement Project to harvest storm water from upstream areas for irrigation.

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

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

- City personnel who participate in the application of pesticides are trained and licensed (Qualified Applicator License) and follow guidelines set by the California Department of Pesticide Regulations and the County Agricultural Commission.
- Agricultural pest control businesses working for the City are supervised by a Qualified Applicator Licensee who has a current Qualified Applicator Certificate.
- Every two years, Qualified Applicator Certificate holders must show proof that they have secured a minimum of 20 hours of continuing education. Agricultural Pest Control Advisors must have secured a minimum of 40 hours continuing education.
- City staff record the applications of all chemical agents by noting the locations, type, and quantity of chemicals used. Monthly reports of pesticide usage are prepared and submitted to the Department of Agriculture.
- The Qualified Applicator Certificate holder conducts monthly inspections to monitor storage, handling, and disposal of the pesticides.
- Written recommendations prepared by a State Pesticide Advisor should be followed during the pesticide application.
- Personnel who participate in the application of herbicides for the City are trained and follow guidelines set by the County Agricultural Commission.
- Employees are trained to follow pesticide, herbicide and fertilizer labels, and the material safety data sheet(s).
- All federal, state and local regulations are followed in the use of pesticides, herbicides and fertilizers.
- Pesticides, herbicides and fertilizers are not applied during or directly prior to storm events or irrigation, unless the fertilizer is pre-emergence and needs irrigation to enter the top layer of soil. If pre-emergence fertilizer is used, a controlled amount of irrigation is used to ensure no fertilizer runs off.
- Only pesticides that are quickly absorbed into the soil or plants are used.
- Whenever practicable, integrated pest management techniques are implemented.
- Whenever practicable, native vegetation is used.
- Alternative products to control insects, fungi, and weeds are considered for use to minimize the use of pesticides/herbicides.
- Pesticides are not to be sprayed when there is a high possibility of the spray drifting into non-target areas or onto non-target vegetation, insects, or animals.

- Unused portions of chemicals are disposed of in accordance with the pesticide and fertilizer labels and applicable regulations.

8.6 Mobile Maintenance Activities

8.6.1 Background

The City conducts a number of mobile maintenance activities, which are not designated to a specific location. Because such activities are not confined to a fixed municipal facility, where BMPs may be permanently implemented, BMPs are actively implemented during mobile activities. Typical routine mobile maintenance activities include the following:

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

8.6.2 Best Management Practices

City field crews are routinely trained to implement the City's minimum BMPs (Appendix B) during all mobile activities. City personnel involved in mobile maintenance activities are trained to identify and eliminate IC/IDs and to report them to the appropriate persons without delay.

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

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9 Existing Development: Residential Areas

9.1 Introduction

Approximately 40 percent of the City of National City (City) has a residential land use designation, which includes single-family residences, multi-family residences, and a small portion of other residential areas. Since residential land use comprises such a large area of the City, residential activities can have a considerable effect on the quality of receiving waters in and around the City. As a result, the City will implement a number of activities to reduce storm water pollutants from residential areas.

9.2 Residential Inventory

In accordance with the San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit), the City has identified designated Residential Management Areas (RMAs) as part of the existing development inventory. The RMAs are based on drainage basins delineated as part of a drainage master plan. The basins were edited to remove portions of the City in which no residential development exists and then further delineated based on existing school district boundaries. The type of evaluation method that applies to each RMA is discussed in more detail in Section 9.4. Inventoried RMAs are managed and tracked through the use of an electronic database and Geographic Information System (GIS). The residential inventory Table 9-1 and Figure 9-1 has been formatted to capture the following information, as required by the MS4 Permit:

1. Name and location (HSA and address).
2. Status of area as active or inactive.
3. Whether the area is or includes a Common Interest Area (CIA); Homeowners' Association (HOA), or mobile home park.
4. Pollutants generated and potentially generated by the area.
5. Whether the area is adjacent to an environmentally sensitive area (ESA). "Adjacent to" is defined as being within 200 feet of an ESA. This is in accordance with past procedure and with the most recent definition provided by the RWQCB, which is found in Order No. R9-2007-0001.
6. Whether the area is tributary to and within the same HSA as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired.

The City maintains a map showing the location of inventoried residential areas, watershed boundaries, and water bodies (Figure 9-1). Since National City is almost entirely built out, the RMA boundaries are not expected to change over the life of the MS4 Permit. If boundaries do change, the map will be updated to reflect the changes. The potential pollutants generated listed in the residential inventory are based on the Copermittee's 2011 Long Term Effectiveness Assessment (County of San Diego), which is an extensive analysis of existing pollutant sources, program activities, and water quality monitoring results. Potential pollutants associated with each RMA may be adjusted in the future based on data collected during field evaluations. The presence or absence of CIA, HOA, or mobile businesses will also be updated based on future evaluations.

9.3 Best Management Practice Requirements

The City has updated the minimum best management practices (BMPs) required for residents. Residents are required to eliminate or reduce a number of different types of non-storm water discharges and to take other actions, such as proper use of pesticides and fertilizers and to reduce discharges of pollution. Notably, consistent with the MS4 Permit, irrigation runoff, which was previously an allowable discharge under the 2007 MS4 Permit, is now considered an illegal discharge. The full list of required residential BMPs is included in the BMP Manual (Appendix B). In accordance with the San Diego Bay WQIP strategies, the City will work with HOAs to determine existing sweeping frequencies of private roads within HOAs. Based on this information, the City will provide outreach and encourage sweeping of private roads in the targeted areas to reduce pollutants from entering the MS4.

9.4 Program Implementation

The City's residential program focuses primarily on addressing the City's focused priority water quality conditions (FPWQC) established within the San Diego Bay Water Quality Improvement Plan (WQIP). Since the FPWQC for the City is riparian area quality for Paradise Creek, the City will concentrate its residential outreach, education, inspection, and enforcement in residential areas within the Paradise Creek drainage area. The City's residential program will aim to reduce non-storm water discharges, and, therefore, reduce discharges of potential pollutants from the City's storm drain system to downstream water bodies. This is consistent with the 2013 MS4 Permit's increased emphasis on eliminating non-storm water discharges, including irrigation runoff, and with water conservation efforts being taken in response to the State's ongoing drought.

The City's residential program is a new effort initiated to meet 2013 MS4 Permit requirements, and as the program matures and as regulatory drivers change, the program itself also may change through an adaptive management process. Inspection, monitoring, hotline calls, and

enforcement data collected will be used to evaluate the effectiveness of the City's residential oversight program in reducing non-storm water discharges to the City's storm drain system. To ensure the required inspection frequencies are being met, City staff routinely evaluates collected data. Regular evaluation will also assist in identifying potential gaps in the City's residential oversight program, which will allow the City to focus or adjust efforts and resources as needed.

9.4.1 Residential Education

Education and outreach is a key mechanism used to increase residents' rates of BMP implementation. Using the existing school district boundaries to define RMAs provides an efficient and effective way to provide education and outreach to residents. In addition to its own programs, the City contributes to regional education programs run collectively by all municipal agencies in San Diego County. This coordination helps provide more uniform messaging across the region. Consistent with the overall residential program emphasis described above, the City's residential outreach efforts will focus on reducing non-storm water discharges, such as irrigation runoff. Other topics, such as stabilizing slopes on residential properties to prevent erosion, using fertilizers and pesticides appropriately, managing pet waste, and eliminating yard waste from entering the storm drain system, may also be covered. Section 10 of the JRMP, Education and Public Participation, provides more detail on outreach efforts.

In accordance with the San Diego Bay WQIP, the City will collaborate with Sweetwater Authority (SWA) to encourage and provide incentives to HOA and property managers to reduce irrigation runoff. Such measures may include adjusting property landscaping, maintaining irrigation systems, and converting landscaped areas to drought tolerant plants. Additionally, the City will also implement an outreach program that encourages HOAs and property managers within the Paradise Creek drainage area to sweep private roads and private parking areas.

9.4.2 Oversight Programs and Procedures

The primary methods through which BMP implementation in RMAs is assessed are outfall monitoring and property-based or patrolling evaluations, as further described in subsections 9.4.2.1. and 9.4.2.2. below. These two primary methods will be used to meet the MS4 Permit requirements to inspect each RMA to evaluate compliance with the City's requirements at least once per five year period. Table 9-1 and Figure 9-1 at the end of the section identify which oversight methods(s) will be used for each other City's RMAs. Several additional residential oversight mechanisms will be used to supplement these two primary approaches. The supplemental oversight methods are described in subsection 9.4.2.3.

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

9.4.2.1 Dry Weather MS4 Outfall Monitoring

Routine MS4 outfall monitoring and identification of the presence of non-storm water discharges by City staff is a primary mechanism for overseeing RMAs. When non-storm water flow is observed at an outfall during routine monitoring for the Dry Weather Major MS4 Outfall Monitoring Program, monitoring staff will investigate upstream areas to see if a flow source can be identified. During these investigations, staff often evaluate upstream residential areas, and these investigations are considered RMA inspections as defined by the MS4 Permit. If an illegal discharge is discovered, it will be addressed through the enforcement process described in Section 9.5. Outfalls will be monitored once or twice per year, while those with persistent non-storm water flow will be monitored most frequently. Samples will also be collected for laboratory analyses at selected outfalls with persistent flow. In turn, a larger share of upstream investigation resources will be directed towards identifying and reducing sources of non-storm water flow in areas upstream of these outfalls, including residential areas. When outfalls are dry, indicating no non-storm water discharge, the corresponding RMA is considered inspected. More information about outfall monitoring procedures is included in Section 3 and in Appendix D.

9.4.2.2 Property-Based Inspections and Patrolling

Property-based inspections or patrols consist of making observations for actual or potential illegal discharges and illegal connections while driving through neighborhoods or complexes. Such inspections will be completed for the RMAs that do not have associated major outfall monitoring locations. Observed illegal discharges, illegal connections, and other violations of the City's Storm Water Ordinance will be recorded in an electronic database. Where possible, staff will directly engage residents while in the field, explaining applicable requirements and alternative methods that are acceptable under the City's requirements and working with residents to eliminate illegal discharges. When the responsible party may be a property manager or an HOA, City staff will typically reach out to the responsible party. Obvious illegal discharges that may pose a threat to human or environmental health will be addressed immediately.

City staff will complete property-based or patrolling assessments for all RMAs not assessed through outfall monitoring at least once per five year period, as required by the MS4 Permit. Additional focused inspections may be performed in residential areas within the Paradise Creek drainage area to reflect the water quality priorities established in the San Diego Bay WQIP. City staff also may elect to complete additional inspections for particular areas if higher frequencies

of illegal discharges are observed in those areas or they otherwise establish a history of repeated noncompliance. Occasionally, onsite inspections, or assessments, may also be completed at multi-family residential complexes. In addition to assessing for the presence of illegal discharges or illegal connections, onsite assessments also include a full assessment of the implementation of the City's designated residential minimum BMPs (Appendix B).

9.4.2.3 Supplemental Oversight Mechanism

The City's Storm Water Hotline, described in Section 3, is another mechanism for overseeing RMAs and for reporting residential violations of the City's Storm Water Ordinance. The hotline number and email address are advertised through various media as part of the City's storm water education program.

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

Residential management areas are also assessed for the presence of non-storm water discharges by other City departments or programs during routine field work. Some examples of other coordinated efforts that contribute to identifying non-storm water discharges in residential areas are listed below.

- ***Street Sweeping*** – Street sweepers cover a large portion of the City during routine sweeping activities, which provides an opportunity for substantial oversight of the City's RMAs. Additionally, City Parking Enforcement accompanies street sweepers to address cars or equipment clocking sweeping routes. Street sweeping has been identified as an opportunity for reporting of discharges to the Storm Water Hotline. The City is in the process of developing reporting procedures for Parking Enforcement officers present during street sweeping activities.
- ***Public Works Department*** – Staff in the Public Works Department (including Parks, Sewer, and Streets) frequent residential areas during their routine activities. Staff are encouraged to report discharges to their supervisors, who then deliver the information to the appropriate City staff.
- ***Sweetwater Authority*** – In accordance with the San Diego Bay WQIP, the City plans to coordinate with SWA staff to promote and encourage water conservation and irrigation run-off reduction programs, including utility-funded rebate or other incentive programs.

9.5 Enforcement

When storm water violations traced to residential areas are discovered, the procedure described in the City's Enforcement Response Plan in Appendix C will be followed to ensure compliance. Where possible, the City will work to achieve voluntary compliance through engaging and educating residents. If residents are unaware of new requirements, the City will initially take an educational approach to build an effective partnership toward resolving the violation(s). When education is not sufficient to achieve compliance, escalated enforcement actions, such as Notices of Violation or Administrative Citations, may be issued.

The City will typically seek to resolve violations within 30 calendar days of their first observed occurrence, or prior to the next rain event, whichever is sooner. Obvious illegal discharges that may present an immediate threat to human or environmental health do not have 30 days to attain compliance and must be eliminated as soon as possible, as described in Section 3. Violations, their date of resolution, and enforcement actions taken are documented. Whenever a violation cannot be resolved within 30 days, the rationale for why a longer period was needed to attain compliance will also be recorded, as required by the MS4 Permit.

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

RMA	Receiving Water	CIA, HOA, or Mobile Home[1]	Adjacent to ESA	Pollutants Potentially Generated[2]							Evaluation Method		School District(s)
				Metals	Oil & Grease	Sediment	Nutrients	Bacteria	Dissolved Minerals	Organics	Major Outfall Monitoring	Drive Through Patrolling	
1	SSC		✓	L	L	L	L	L	L	L	433		El Toyon, Ira Harbison, Rancho Del La Nacion
2	SSC			L	L	L	L	L	L	L	469		Central
3	PC			L	L	L	L	L	L	L	13A		Central
4	PC			L	L	L	L	L	L	L	762		Central, John Otis, Las Palmas, Palmer Way, Rancho Del La Nacion
5	SWR			L	L	L	L	L	L	L	755		Ira Harbison, Las Palmas, Lincoln Acres, Palmer Way
6	SWR			L	L	L	L	L	L	L	757		Ira Harbison, Palmer Way
7	SWR			L	L	L	L	L	L	L	761		Ira Harbison
8	SWR			L	L	L	L	L	L	L	510		Lincoln Acres, Palmer Way
9	SWR			L	L	L	L	L	L	L	32		Lincoln Acres, Palmer Way
10	SWR			L	L	L	L	L	L	L	752		Lincoln Acres
11	SWR			L	L	L	L	L	L	L	745		Olivewood
12	SWR			L	L	L	L	L	L	L	746		Olivewood
13	SWR			L	L	L	L	L	L	L	744		Olivewood
14	SWR			L	L	L	L	L	L	L	735		Olivewood
15	SWR			L	L	L	L	L	L	L		✓	Lincoln Acres
16	SWR			L	L	L	L	L	L	L	43B		Las Palmas, Olivewood
17	SWR			L	L	L	L	L	L	L		✓	Las Palmas
18	PC			L	L	L	L	L	L	L	779		Kimball

Table 9-1. City of National City Residential Management Areas and Evaluation Methods (continued)

RMA	Receiving Water	CIA, HOA, or Mobile Home[1]	Adjacent to ESA	Pollutants Potentially Generated[2]							Evaluation Method		School District(s)
				Metals	Oil & Grease	Sediment	Nutrients	Bacteria	Dissolved Minerals	Organics	Major Outfall Monitoring	Drive Through Patrolling	
19	PC			L	L	L	L	L	L	L	775		John Otis, Kimball, Olivewood
20	PC			L	L	L	L	L	L	L	770		John Otis, Kimball
21	SSC		✓	L	L	L	L	L	L	L		✓	Kimball
22	SSC			L	L	L	L	L	L	L		✓	Central
23	SSC			L	L	L	L	L	L	L		✓	Central
24	SSC		✓	L	L	L	L	L	L	L		✓	El Toyon
25	SSC		✓	L	L	L	L	L	L	L		✓	Kimball
26	PC		✓	L	L	L	L	L	L	L		✓	Kimball, John Otis
27	SSC		✓	L	L	L	L	L	L	L		✓	El Toyon
28	SWR			L	L	L	L	L	L	L		✓	Las Palmas, Olivewood, Palmer Way
29	SWR			L	L	L	L	L	L	L		✓	Palmer Way
30	SWR			L	L	L	L	L	L	L		✓	Lincoln Acres
31	SWR			L	L	L	L	L	L	L		✓	Lincoln Acres
32	SWR			L	L	L	L	L	L	L		✓	Ira Harbison
33	SWR			L	L	L	L	L	L	L		✓	Lincoln Acres, Palmer Way
34	SSC			L	L	L	L	L	L	L	436		Rancho Del La Nacion

Notes: CIA= Common interest area, ESA = environmentally sensitive area; L= Likely source; PC = Paradise Creek; RMA = Residential Management Area; SSC= Seventh Street Channel, SWR= Sweetwater River.

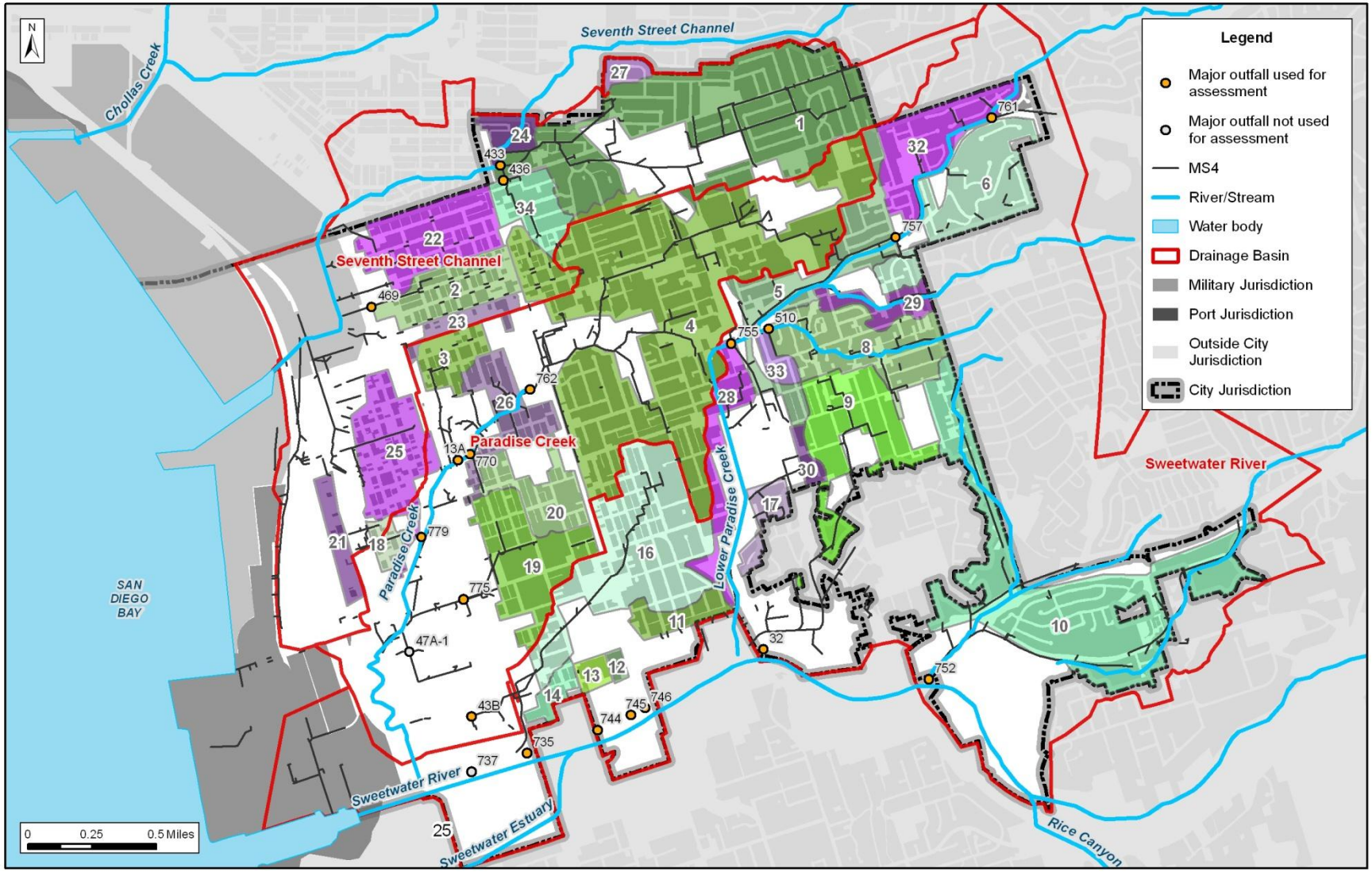
-All RMAs are within the San Diego Bay Watershed Management Area and are considered active.

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

[1] Presence of any CIAs, HOAs, and mobile home parks within each RMA will be determined in the future as RMA evaluations progress.

[2] Based on the 2011 Long Term Effectiveness Assessment (County of San Diego).

Figure 9-1. City of National City Residential Management Areas Map



Notes: The drainage basins included on this map, delineated by the City of National City, are displayed instead of the hydrologic subarea boundaries since they are more representative of the actual drainage of the City.

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

Data sources: City of National City and SanGIS

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10 Education and Public Participation

10.1 Introduction

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

10.2 Education

In accordance with Section E.7 of the MS4 Permit[1] and the strategies described in the San Diego Bay WQIP, the City will provide a comprehensive storm water education program that will promote and encourage behaviors that reduce storm water pollution. The City aspires to increase the knowledge of its target audiences. By increasing public awareness and encouraging a change in both the attitude and the behavior of the general public and the regulated community, the City of National City (City) may reduce or eliminate storm water pollution caused by common daily activities. The City will employ the efforts discussed in this section in an effort to develop sustainable behavior changes in target communities and activities that may contribute watershed pollutants of concern. The overall goal of the education component is to provide an education program that will:

- Provide the public with opportunities to participate in educational activities, public information activities, and other outreach activities intended to reduce pollutants of concern, such as pesticides, herbicides, fertilizers, oil and other toxic materials, and eliminate non-storm water discharges, such as irrigation runoff, in storm water discharges to and from the City's municipal separate storm sewer system (MS4) to the maximum extent practicable, and in accordance with the strategies in the Watershed Quality Improvement Plan (WQIP).

Many education outreach efforts are conducted on an ongoing basis, such as direct interaction during inspections, pre-construction meetings, or when taking calls from the City's Storm

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

Water Hotline. Educational materials are also available throughout the year at special events and at City Hall. Targeted mailings, focused training sessions, and other educational efforts are provided when found to be necessary through monitoring programs, records of complaints, and other similar factors.

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

- Municipal departments and personnel
- Construction site operators
- Industrial and commercial owners and operators
- Residential community, general public, and school children
- "Targeted" audiences, where applicable

Educational messages are communicated to target audiences during staff training events, outreach events, inspections, during complaint investigations, and during enforcement. Key target audiences and topics that may be are summarized in Table 10-1 at the end of this section.

10.3 Municipal Staff Training

The City will educate and train City employees and contractors on applicable storm water regulations to assure that proper storm water management practices are applied to all municipal projects and activities. It is important for all City staff and contractors to be aware of storm water regulations so that their knowledge can be shared with citizens throughout the community. Educational opportunities include annual training sessions, on the job training, weekly and monthly staff meetings, and citywide emails and newsletters. Municipal personnel are also made aware of any storm water related workshops or additional training seminars that are available.

10.3.1 Development Planning, & Construction Activities

The City will offer education and training to planning and development review personnel, construction and maintenance crews, building department, code enforcement, grading review

personnel, inspectors, and other responsible construction personnel. Personnel may also attend outside workshops and trainings pertinent to their job duties.

10.3.2 Municipal, Industrial, Commercial Activities

The City will provide training for its municipal personnel responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities at least once per year, and other staff involved in the industrial/commercial program are trained as needed. Training and educational programs are included in Table 10-1 and also include the following topics:

- How to conduct storm water inspections and to identify problems or violations
- Reviewing monitoring data for facilities subject to the IGP

10.3.3 Other Municipal Activities

The City will provide annual training to City departments, including the Fire Department and other contracted companies/employees that may perform activities within the City where pollutants might be generated.

10.4 Private Operators and Other Targeted Audiences

10.4.1 Construction Site Operators

Construction site operators can alter the landscape and natural flow of storm water runoff and generally create increased amounts of impervious surface. During such activities, construction site owners, developers, and employees could potentially discharge a number of different types of pollutants to receiving waters. It is important that this sector be educated to ensure that BMPs are incorporated during the site design stage, throughout the construction process, and during the post-construction phase to reduce impacts from construction and development.

Education will be distributed to contractors and developers through the following methods:

- Notice/Information in planning package
- Notice/information in grading/building permit application
- Information/instructions with grading/building permit
- Announcements at mandatory pre-construction meetings
- Activity-specific brochures given out by inspectors
- Individual communication during inspections
- Fact sheets

- Special mailings

10.4.2 Industrial and Commercial Facility Operators

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

Commercial sites include a wide range of businesses including, but not limited to, restaurants, gas stations, automotive businesses, landscapers, and mobile businesses. Pollutants may be generated from day to day operations, and have the potential to enter storm water runoff if business activities are not conducted properly or without the use of BMPs.

The City will continue to provide an educational program for industrial owners and operators through the use of print media and printed materials, and workshops targeted to specific facilities. The City may distribute educational brochures to business license applicants upon issuance and/or re-issuance of a business license, distribute educational material during inspections and/or complaint investigations, and may conduct workshops as needed. The brochure informs businesses that they are required to prevent runoff pollution by implementing BMPs. The Storm Water Compliance Inspector will continue to provide copies of this brochure to businesses during industrial inspections and during public-complaint response investigations. Municipal storm water personnel will keep educational material in their City vehicles and distribute as necessary to industrial and commercial facilities.

10.4.3 Residential Community, General Public, and School Children

Residential areas make up a large portion of the land use in the City, and therefore even small pollutant discharges can be magnified significantly and have the potential to affect the quality of the receiving waters. Activities such as residential car washing and over-irrigation have the potential to contribute pollutants such as heavy metals, detergents, and nutrients to receiving water bodies. Providing residents with appropriate educational materials may help to increase overall awareness, and encourage residents to change harmful behaviors and subsequently reduce the potential for pollutants to enter the storm drain system and reach receiving water bodies.

10.5 Educational Outreach

Community Events and Outreach

Community events and outreach, such as informational booths at fairs, flyers, brochures, website postings, advertisements, and other educational materials are an important part of

disseminating storm water information. Community events and outreach programs raise awareness of storm water issues that exist in the City and encourage the public to improve local water quality by making a few simple changes to regular routines. The City will provide educational information and training to residents through the following media, where appropriate:

- Educational factsheets which describe storm drain protection measures and BMPs for the specific activity and the types of pollutants that the activity may generate
- Distribution of promotional materials (e.g., door hangers, etc.)
- Flyers and calendars (targeting different groups with varying themes and messages each year) provided to Neighborhood Councils when available
- Brochures provided to residents during public complaint response investigations
- Booths at public events
- Mass media (through partnerships with other Copermittees or with other organizations)
- Website postings

School Education

Educating the City's youngest residents is important in two ways: ideally, the good habits/behaviors learned will be carried into adulthood, and secondly, children may educate their families and friends around them with the information they have learned. Children are impressionable at a young age, and are therefore more likely to act upon the knowledge given to them. The City will educate school children through classroom education and printed media. Potential storm water related topics may include the following, where appropriate:

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

In accordance with the WQIP strategies, the City partners with National School District to put on a storm water quality themed art contest for elementary students, with a theme of keeping the community clean. Winners' artwork is displayed in a storm water educational calendar distributed throughout the City. Winners are also recognized by the City Council.

Media

The City will utilize the City website and social media platforms, such as Facebook and Twitter, to inform the public of clean up events and storm water issues. The City E-Newsletter, which is released every other month on the City's website, will provide a way to educate and inform citizens of storm water concerns and regulations.

10.5.1 Targeted Education

Targeted communities include communities or activities the City has determined may require increased educational efforts. The following factors contribute to the determination and evaluation of targeted communities:

Activities generating pollutants of concern

Some water bodies within the City are on the current 303(d) list for a variety of pollutants. Specifically, heavy metals, bacteria/viruses, and nutrients are pollutants of concern within the City's watersheds, which can be transported through both non-storm water and storm water runoff. Activities commonly associated with these pollutants, such as landscaping activities and pet waste disposal, will be targeted by the City educational outreach.

Non-storm water flows

Consistent with the goals of the MS4 Permit, the City will focus on communities and activities that may, or are known to, contribute non-storm water flows to the City's MS4 in order to prevent pollutants from being transported downstream. Some categories of non-storm water discharges were previously allowed under the 2007 MS4 Permit. The City will focus on providing education regarding newly prohibited non-storm water discharges, such as irrigation runoff, to audiences affected by the Permit changes.

Over-Irrigation

The City will develop educational materials and an outreach program that target irrigation runoff. In accordance with the WQIP strategies, any reports of over-irrigation to the City are referred to Code Compliance Officers and the Sweetwater Water Authority, which works with facilities and residents to reduce over-irrigation as a means to conserve water. Information regarding water conservation, reporting water waste, receiving monetary incentives and rebates for fixing water leaks, and installing smart irrigation controllers are included on the Sweetwater Authority's website: http://www.sweetwater.org.

Home Owners Associations and Property Managers

The City will implement an education and outreach program that encourages and/or incentivizes HOAs and business property managers in the Paradise Creek drainage area to implement measures to reduce pollutants leaving their properties, as discussed in the San Diego Bay WQIP. Practices could include adjusting property landscaping, maintenance of irrigation systems, conversion to drought tolerant landscaping to prevent non-storm water discharges from their properties, utilizing water-conservation techniques, and sweeping of driveways and private roadways. City inspections of industrial and commercial properties have shown that the involvement of property managers/owners can also be an efficient way to target a large audience since managers/owners often educate their tenants on the City's BMP requirements and may enforce the use of BMPs on the property.

Individual Residential Car Washing

As discussed in Section 3 of this JRMP document, residents are required to implement BMPs, as feasible, and must minimize the amount of pollutants from entering the City's storm drain system, which includes City streets. Residents are encouraged to use professional car washes or implement BMPs at their homes to prevent water produced by residential car washing from entering the MS4. Incidents of individual residential car washing are typically identified during residential inspections and during the MS4 outfall monitoring program. The City will target residential areas that continue to be a problem with additional educational materials and any necessary enforcement measures.

Mobile Businesses

The City will provide information and outreach regarding storm water quality to mobile business owners and operators. As necessary, mobile businesses will be given educational materials outlining pollution prevention methods and other BMPs related to their activities.

Public Participation Programs

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

Storm Drain Stenciling

High school, middle school, and elementary school students and any interested volunteers are encouraged to participate in a storm drain stenciling program that improves public awareness about the storm drain system. The program focuses on stenciling all major storm drains within public view and updating stenciling on previously stenciled drains. The City plans to work with the non-profit environmental organization "I Love A Clean San Diego" for this program.

Creek Cleanups

In accordance with the WQIP, the City partners with local organizations which regularly conduct cleanups. Paradise Creek Educational Park, Inc. (PCEPI) completes regular cleanups in Paradise Creek. The City also regularly works with "I Love a Clean San Diego" to complete creek cleanups.

Park and Residential Cleanups

Organizations such as the Boy Scouts of America or the Girls Scouts are encouraged to organize cleanups of local parks and residential areas. The cleanups, like the Harbison Canyon Clean-up, help remove trash and debris that may otherwise contaminate storm water or receiving waters.

Neighborhood Cleanups

The City arranges neighborhood cleanups through the Community Services Department, whereby trash is cleaned up from City property.

Neighborhood Council Meetings

The City will utilize Neighborhood Council Meetings to inform residents of storm water topics and requirements.

Public Reporting

The City encourages citizens to report any observed illegal connections, illegal discharges, or any other activity that contributes pollutants to the City's MS4 to the City's Storm Water Hotline at (619) 336-4389. The City advertises the Storm Water Hotline and regional hotline numbers on various educational materials targeted at residents, commercial businesses, and industrial businesses; the City's website also provides information about how to report storm water-related concerns. There are also two regional storm water hotline numbers widely advertised within San Diego County: a toll-free Regional Storm Water Hotline (1-888-846-0800), and the Think Blue Hotline (1-888-THINK BLUE or 1-888-844-6525). The County of San Diego staffs both of these hotlines Monday through Friday, 8:00 a.m. - 5:00 p.m. In addition to personal service at these hotlines during regular business hours, the hotlines provide a voicemail message for 24-hour public access.

Household Hazardous Waste Collection and Used Oil Recycling

Residents of the City are required to dispose of Household Hazardous Waste (HHW) and used oil properly. Citizens may dispose of HHW and used oil at the City of Chula Vista HHW Collection Facility, and many local used oil certified collection centers are present across the City. Used oil may also be disposed of at a number of certified used oil collection centers in the City. Education programs are often focused on informing the public of waste collection facilities and used oil recycling centers. HHW events may be advertised through various media, including mailers, booths at public events, workshops, and on the City's website. Information about HHW and used oil disposal can be found on the City's website or through www.earth911.com.

Materials accepted at the Chula Vista HHW Collection Facility include:

- Automotive Products: Fuels and motor oil
- Home Maintenance and Improvement Products: paints
- Lawn and Garden Products: Fertilizers
- Miscellaneous: Dry cell batteries and photo chemicals
- Home-generated sharps
- Fluorescent light bulbs
- Cooking oil

Encourage Responsible Cleanup

Residents are encouraged to take responsibility to keep the community clean by properly disposing of all waste. Pet waste bags are supplied at one park in the City to encourage residents to clean up after their pets, and trashcans are available throughout all City parks for waste disposal. The City also promotes responsible cleanup through the posting of "No Littering" signs at City parks. During special events, the City will provide extra trash receptacles and recycling containers, and City employees will provide a good example to the public by also picking up trash.

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

A meeting to discuss the JRMP update may be set up if there is a sufficient response, and any written comments provided will also be considered. Once the JRMP is adopted, the City will encourage public participation in the implementation and any future updates to the JRMP by encouraging the public to provide comments. To promote participation, the City will notify the public of opportunities to provide recommendations on and to participate in updating the City's highest priority water quality conditions, numeric goals, and water quality improvement strategies and their effectiveness set forth in the WQIP.

Table 10-1. Training Topics by Target Audience

Training Topic	Municipal staff	Municipal Development Planning & Construction Activities	Municipal, Industrial, and Commercial Activities	Construction Site Operators	Industrial Facility Operators	Commercial Facility Operators	Residential Community and General Public
Laws, Regulations, Permits, & Requirements							
Federal, state, and local water quality laws and regulations	x	x	x	x	x	x	x
MS4 Permit	x	x	x	x	x	x	
Statewide General Construction Permit		x		x			
Statewide General Industrial Permit		x	x		x		
Regional Board's General NPDES Permit for Ground Water Dewatering		x		x	x		
Regional Board 401 Water Quality Certification Program		x		x			
Statewide General NPDES Utility Vault Permit		x		x			
General Urban Runoff Concepts							
Impacts of urban runoff on receiving waters	x	x	x	x	x	x	x
Distinction between MS4s and sanitary sewers	x	x	x	x	x	x	x
Methods to reduce irrigation runoff of landscapes	x	x	x	x	x	x	x
Proper use of fertilizer and pesticides	x	x	x		x	x	x
Use of Native and drought tolerant landscaping	x						x
Proper pet waste disposal	x						x
Methods to reduce the impact of residential and charity car-washing	x						x
Short- and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development)	x						x
Integration of Low Impact Development (LID) BMP requirements into the local regulatory program(s) and requirements		x		x			

Table 10-1. Training Topics by Target Audience (continued)

Training Topic	Municipal staff	Municipal Development Planning & Construction Activities	Municipal, Industrial, and Commercial Activities	Construction Site Operators	Industrial Facility Operators	Commercial Facility Operators	Residential Community and General Public
BMP types: facility or activity specific, LID, source control, and treatment control		x					
Best Management Practices (BMP)							
Pollution prevention and safe alternatives	x	x	x	x	x	x	x
Reduction of pollutants associated with pesticides, herbicides, and fertilizers	x	x	x	x	x	x	x
Good housekeeping practices (e.g., sweeping impervious surfaces instead of hosing)	x	x	x	x	x	x	x
Proper waste disposal (e.g., garbage, pet/animal waste, green waste, household hazardous waste (HHW), appliances, tires, furniture, vehicles, boat/recreational vehicle waste, catch basin/MS4 cleanout waste)	x	x	x	x	x	x	x
Non-storm water disposal alternatives (e.g., all wash waters)	x	x	x	x	x	x	x
Preventative maintenance	x	x	x	x	x	x	x
Equipment/vehicle maintenance and repair	x	x	x	x	x	x	x
Spill response, containment, and recovery	x	x	x	x	x	x	x
Recycling	x	x	x	x	x	x	x
BMP maintenance	x	x	x	x	x	x	x
Erosion prevention	x	x	x	x	x	x	x
Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities		x		x			
Methods of minimizing impacts to receiving water		x		x			

Table 10-1. Training Topics by Target Audience (continued)

Training Topic	Municipal staff	Municipal Development Planning & Construction Activities	Municipal, Industrial, and Commercial Activities	Construction Site Operators	Industrial Facility Operators	Commercial Facility Operators	Residential Community and General Public
quality resulting from development, including the following:							
▪ Storm water management plan development and review		x		x			
▪ Methods to control downstream erosion impacts		x		x			
▪ Identification of pollutants of concern		x		x			
▪ LID BMP techniques		x		x			
▪ Source control BMPs		x		x			
▪ Selection of the most effective treatment control BMPs for the pollutants of concern		x		x			
Other Topics							
Water quality awareness for emergency/first responders	x	x		x			
Illegal Discharge Detection and Elimination observations and follow-up during daily work activities		x		x			
Inspection, plan review, and enforcement policies and procedures to verify consistent application		x		x			
Hydrostatic testing		x		x			
Development Planning requirements including treatment options, LID BMPs, source control, and applicable tracking mechanisms		x		x			
Public reporting mechanisms	x	x	x	x	x	x	x

Table 10-1. Training Topics by Target Audience (continued)

Training Topic	Municipal staff	Municipal Development Planning & Construction Activities	Municipal, Industrial, and Commercial Activities	Construction Site Operators	Industrial Facility Operators	Commercial Facility Operators	Residential Community and General Public
Potable water discharges to the MS4	x	x	x	x	x	x	x
Integrated Pest Management techniques	x	x	x	x	x	x	x
Benefits of native vegetation	x	x		x			x
Drought awareness and water conservation	x	x	x	x			x
Dechlorination techniques		x					x
Proper disposal of HHW		x	x	x	x	x	x

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11 Fiscal Analysis

11.1 Introduction

San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001, (MS4 Permit) requires the City of National City (City) to secure the resources necessary to implement its Jurisdictional Runoff Management Plan (JRMP). This includes the actions the City has committed to in the Water Quality Improvement Plans (WQIP) for the San Diego Bay Watershed Management Areas (WMA). Those actions, referred to as "strategies" in the WQIPs, are summarized in Appendix A of the JRMP.

The City is also responsible for reporting a storm water program fiscal analysis, including information about expenditures and funding sources, to the RWQCB each year. To satisfy this requirement, each department or division involved in the storm water program compiles financial information and provides it to the Engineering Department, which analyzes the fiscal information and reports the findings to the RWQCB.

11.2 MS4 Permit Compliance Funding Needs and Sources

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

11.2.1 Funding Needs

The storm water program funding needs are primarily driven by the following:

- The MS4 Permit, including the JRMP requirements of Section E and the WQIP requirements of Section B.

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

11.2.2 Funding Sources

Through the budgeting process, the City identifies sources of funding to comply with storm water requirements. Specific funding sources are set during each budget process and are subject to change over time. The main sources of funding in the past, which are also anticipated to be the main funding sources in future years, are discussed below.

The City's General Fund has been and is expected to continue to be the main source of funding for the City's Storm Water Program. Plan check fees collected through the developmental review process are a minor funding source. Additional funding has also come from grants, including the State of California Proposition 84 and Urban Greening grants. The City has secured Proposition 84 grant funds for the "A" Avenue Green Street and Pedestrian Pathway project as well as the Kimball Park LID and Paradise Creek Restoration Project. An Urban Greening grant was awarded to the City for the Paradise Creek Educational Park Low Impact Development (LID) project The City will continue to pursue opportunities for grant funding in the future.

11.3 Fiscal Analysis Reporting

As part of the required annual reporting process each year, the City will prepare a summary of expenditures from the reporting period and a list of funding sources for both the current and upcoming fiscal years. The list of funding sources will identify legal restrictions that apply to proposed funding sources where applicable.

Information necessary to complete the fiscal analysis each year will be collected from each responsible department or division. In accordance with MS4 Permit Provision E.8 (Fiscal Analysis), the City will report storm water expenditures for capital projects, operation and maintenance, and staffing. Staffing and operation and maintenance costs mainly relate to day to day program activities, such as storm drain cleaning, reviewing plan submittals for development projects, and enforcing compliance with the storm water requirements in the Municipal Code. Capital project expenditures commonly include the cost of installing LID features or other structural water treatment devices.

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

The City will report its fiscal analysis information in its JRMP annual reports until the RWQCB approves the WQIP. The deadline for JRMP annual report submittal during the transitional period is October 31 following the end of the fiscal year. For example, FY 2015 ends on July 1, 2015, and the FY 2015 JRMP annual report is due to the RWQCB on October 31, 2015. After the WQIP is approved, the JRMP annual report forms and fiscal analysis data will not be provided directly to the RWQCB on their own. Instead, they will be included as part of the WQIP annual report. The City's fiscal analysis data will be included in the WQIP annual report for the San Diego Bay WMA WQIP to which the City is a party. The WQIP annual report for each reporting period is due January 31 of the following year. For example, the FY 2018 WQIP

annual report will be due on January 31, 2019. It is anticipated that the WQIP will be approved during FY 2016 and that the first WQIP annual report will be due in January 2017.

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12 Reporting

12.1 JRMP Annual Reports

Section F.3.b.(1) of the MS4 Permit requires the City of National City (City) to document and demonstrate compliance with the Permit by completing an annual report. The report provides an opportunity to communicate the status of the Jurisdictional Runoff Management Plan (JRMP) activities to the San Diego Regional Water Quality Control Board (RWQCB). Annual reports completed by the City will utilize the JRMP Annual Report Form (Appendix F) specified in the MS4 Permit, and will be completed for the San Diego Bay Watershed Management Area (WMA). Annual reports will be completed prior to October 31 each year and will cover the previous reporting period (July1 – June 30).

During the period before the Water Quality Improvement Plan (WQIP) for the San Diego Bay is approved, referred to as the "transitional period" in the MS4 Permit, the City will submit its JRMP annual reports directly to the RWQCB. Once the WQIPs are approved, JRMP annual reports will be submitted to the RWQCB through the WQIP annual reporting process. It is anticipated that the WQIPs will be approved during the 2015-2016 fiscal year and that the first WQIP annual reports will be due in January 2017.

The JRMP and annual reporting process involves a range of staff from different departments, such as Public Works and Code Enforcement, who are responsible for implementing and collecting data for their storm water program component. Although Engineering staff facilitate and monitor the overall program throughout the year, they rely on several key departments and divisions to achieve compliance and accurately document it for the annual report. Discussion for each of the subsections that follow is in order of sections on the Jurisdictional Runoff Management Program Annual Report Form.

12.1.1 Legal Authority

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

12.1.2 JRMP Document Update

It will be reported in the JRMP annual report if any updates to the JRMP document were required or recommended by the RWQCB during the reporting period. The City must confirm

that the JRMP document was in fact updated accordingly and made available, within the reporting period, on the Regional Clearinghouse, a website used for the collection and distribution of information developed and maintained by the Copermittees. If an update was required or recommended, and was not made available on the Regional Clearinghouse within the reporting period, the City will attach a schedule for the completion of the update and/or posting of the updated document on the Regional Clearinghouse with the JRMP Annual Report.

12.1.3 IDDE Program

The total number of non-storm water discharges that were reported by the public, detected by the City or contract staff, investigated, and/or eliminated in each of the City's WMAs within the reporting period will be documented in the Annual Report Form (Appendix F). The City will list sources of discharges to the City's MS4, including sources outside the City's jurisdiction, that were identified during the reporting year and recorded in the City's databases. Additionally, the total number of identified sources of non-storm water discharges and illegal discharges, the number of illegal connections and illegal discharges identified and/or eliminated, and the number of associated enforcement and escalated enforcement actions taken will be reported.

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

12.1.4 Development Planning Program

The City will report whether an update to its BMP Design Manual was required or recommended by the RWQCB during the reporting period. When an update has been required or recommended, the City's annual report will state whether the update was completed and posted on the Regional Clearinghouse. If the required or recommended update was not completed and made available on the Regional Clearinghouse, the City will attach a schedule for completing the update and posting the updated document on the Regional Clearinghouse and a rationale for why the update and posting were not completed during the reporting period.

Program implementation numbers will also be reported, including the total number of development projects submitted for review during the reporting period. Of these projects, the number that are Priority Development Projects (PDPs), and the number of PDPs that were approved and/or granted occupancy during the reporting year will be reported. Any projects approved during the fiscal year that were granted any exemptions from the BMP Design

Manual requirements and/or allowed to implement alternative compliance options in accordance with Permit Section E.3.c.(3) will be reported.

The numbers of completed PDPs in the City's inventory, high priority PDP structural BMP inspections, PDP structural BMP violations, and associated enforcement and escalated enforcement actions taken will also be included in the annual report form.

12.1.5 Construction Management Program

In accordance with the MS4 Permit specified annual report form, the numbers of active and inactive construction sites , construction sites closed/completed, construction site inspections and violations, enforcement and escalated enforcement actions issued will be reported.

12.1.6 Existing Development Management Program

The City must also report on its Existing Development Program, which includes the following components: municipal, commercial, industrial, and residential. The numbers of inventoried facilities or areas in the inventory, routine and follow-up inspections, violations, and enforcement and escalated enforcement actions taken will be reported for each of these four components.

12.1.7 Fiscal Analysis and Supplemental Data

Each year the City prepares a fiscal analysis summary, as described in JRMP Section 11 (Fiscal Analysis), and submits it along with the JRMP Annual Report Form. In addition to the JRMP Annual Report Form and fiscal analysis data, where applicable, the City may include supplemental tables, data, and narrative as part of its annual report submittals to provide further insight to JRMP activities. The reporting form provides an overview of JRMP activities; however, additional information may be provided to further document program successes and challenges during the reporting period.

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13 Conclusions and Recommendations

The City has updated its Jurisdictional Runoff Management Program (JRMP) based on priorities, goals, and schedules identified in the Water Quality Improvement Plan (WQIP) for the San Diego Bay Watershed Management Area (WMA). In addition, this process has relied on experience gained through developing and implementing programs during the previous permit cycle. The updates include adjusting existing programs and developing new programs to target WQIP priorities and to meet Municipal Separate Storm Sewer System (MS4) Permit [1] requirements.

As the JRMP is implemented, the City will continue to assess and refine its program. Program implementation is an evolving process, and the City will adjust its strategies and activities according to assessment results. This adaptive management approach is expected to more effectively reduce discharges of pollutants and non-storm water flow rates in the City's MS4, which should ultimately benefit local water bodies. To foster and sustain watershed and regional water quality improvements, the City will continue to work with the other agencies in San Diego County and in the San Diego Bay Watershed.

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

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14 References

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

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

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

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

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

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

Caltrans Stormwater Quality Handbooks, 2003. *Construction Site Best Management Practices Manual.*

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

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Appendix A

Summary of City of National City Water Quality Improvement Plan Strategies

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National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Jurisdictional Strategies									
Development Planning									
All Development Projects									
NC-1	For all development projects, administer a program to ensure implementation of source control BMPs to minimize pollutant generation at each project and implement LID BMPs to maintain or restore hydrology of the area, where applicable and feasible.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets, Plan Review Fees	Engineering/Public Works, Planning & Building	4
NC-2	Amend municipal code and ordinances to facilitate and encourage LID opportunities.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Planning & Building	4
NC-3	Trash area standards for new development and redevelopment: require full four-sided enclosure, siting away from storm drains, and structural overhead cover.	National City will require through permitting process for new development and redevelopment.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Planning & Building	4, Appendix E
NC-4	Train staff on LID regulatory changes and LID Design Manual.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Planning & Building	4
Priority Development Projects (PDPs)									
NC-5	For PDPs, administer a program requiring implementation of structural BMPs to control pollutants and manage hydromodification. Includes confirmation of design, construction, and maintenance of PDP structural BMPs.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets, Plan Review Fees	Engineering/Public Works, Planning & Building	4
NC-6	Administer self-certification program for treatment control BMP compliance.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	4
NC-7	Update BMP Design Manual procedures to determine nature and extent of storm water requirements applicable to development projects and to identify conditions of concern for selecting, designing, and maintaining appropriate structural BMPs.	Refer to JRMP and BMP Design Manual.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Planning & Building	4 , Appendix B
Construction Management									
NC-8	Administer a program to oversee implementation of BMPs during the construction phase of land development. Includes inspections at an appropriate frequency and enforcement of requirements.	The City will inspect sites at the frequencies specified in its JRMP. Refer to JRMP for details.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	5

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Existing Development									
Commercial, Industrial, Municipal, and Residential Facilities and Areas									
NC-9	Administer a program to require implementation of minimum BMPs for existing development (commercial, industrial, municipal, and residential) that are specific to the facility, area types, and PGAs, as appropriate. Includes inspection of existing development at appropriate frequencies and using appropriate methods.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	6, 7, 8, 9
NC-10	Update minimum BMPs for existing residential, commercial, and industrial development.	Municipal Code update to be completed in FY15. Refer to JRMP for more information.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works	6, 9, Appendix B
NC-12	Require minimum BMPs for mobile businesses.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	6, Appendix B
NC-13	Analyze and encourage sweeping of private roads and parking lots in targeted area.	National City will gather more information about existing sweeping frequency for larger commercial parking lots and for private roads within HOAs, and provide outreach to larger commercial properties and HOAs.	Paradise Creek watershed	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works	6, 9, 10
NC-15	Implement Water Efficient Landscape Ordinance.	The City will implement through permitting process for development projects.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Planning & Building	6, 10
NC-16	Implement pet waste program.	The City will provide pet waste bags via dispensers in City parks.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budgets	Engineering/Public Works, Community Services	9, 10

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Existing Development									
Commercial, Industrial, Municipal, and Residential Facilities and Areas (continued)									
NC-17	Promote and encourage implementation of designated BMPs at residential areas.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Community Services	9, 10, Appendix B
NC-18	Collaborate with local water authority to promote and encourage water conservation and irrigation runoff reduction programs, including utility-funded rebate or other incentive programs.	National City will collaborate with Sweetwater Water Authority.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget, Water District Incentive Programs	Community Services, Sweetwater Water Authority	9, 10
NC-19	Promote and encourage implementation of designated BMPs in non-residential areas.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	10
NC-20	Require used cooking oil to be either stored indoors or under a structural canopy.	The City will incorporate as part of BMP requirement updates. National City also will work with grease rendering services to educate businesses on availability and benefits of indoor grease storage containers.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	6, Appendix B
NC-21	Notify Regional Board of industrial businesses subject to the Industrial General Permit so that the businesses may obtain coverage as required.	National City will share inspection results with Regional Board staff and notify of non-filers or potential non-compliance with other IGP requirements.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works, Regional Board	6
MS4 Infrastructure									
NC-22	Implement operation and maintenance activities (inspection and cleaning) for MS4 and related structures (catch basins, storm drain inlets, channels, detention basins, etc.) for water quality improvement.	Channels and creeks will be cleaned once per month. Trash will be removed from channels by hand. Catch basins will be cleaned to remove trash and debris once per year. Drains with filter inserts (19th Street & Harding, 12th Street & A Avenue, R Avenue between 7th Street & 8th Street, National City library, Bay Marina Way & Marina Way north & south of the street) will be cleaned four times per year.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	8
NC-23	Proactively repair and replace MS4 components to provide source control from MS4 infrastructure.	National City will repair and replace per standard maintenance schedule.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works	8

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Existing Development									
MS4 Infrastructure (Continued)									
NC-24	Install structural BMPs to prevent unauthorized persons from entering the MS4.	Grates will be placed over the entrances to six box culvert locations along Lower Paradise Creek to prevent unauthorized persons from entering and occupying the drainage ways.	Lower Paradise Creek	Jurisdictional	FY16	FY 16, ongoing maintenance following completion	Departmental Budget	Engineering/Public Works	8
NC-25	Implement controls to prevent infiltration of sewage into the MS4 from leaking sanitary sewers.	National City will repair and replace per standard maintenance schedule and where leaks are identified.	City-wide	Jurisdictional	FY15	Ongoing	Sewer fund	Engineering/Public Works	*8*
NC-26	Identify sewer leaks and areas for sewer pipe replacement prioritization.	National City will repair and replace per standard maintenance schedule and where leaks are identified.	City-wide	Jurisdictional	FY15	Ongoing	Sewer fund	Engineering/Public Works	8
Roads, Street, and Parking Lots									
NC-27	Sweep City streets using sweepers and vacuums.	Major arterials are swept daily during the work week. All other streets are swept once per week. The City uses both mechanical and vacuum sweepers. Refer to the JRMP for details.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works	8
Pesticide, Herbicides, and Fertilizer BMP Program									
NC-28	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties. Includes education, permits, and certifications.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	6, 7, 8, Appendix B
Retrofit and Rehabilitation in Areas of Existing Development									
NC-29	Develop and implement a strategy to identify candidate areas of existing development appropriate for retrofitting projects and facilitate the implementation of such projects.	See multiple retrofit projects described later on down in this list. Also refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	Appendix E
NC-30	Develop and implement a strategy to identify candidate areas of existing development for stream, channel, or habitat rehabilitation projects and facilitate implementation of such projects.	See creek restoration project described later on down in this list. Also refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	Appendix E

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Illicit Discharge, Detection, and Elimination (IDDE) Program									
NC-31	Implement Illicit Discharge, Detection, and Elimination (IDDE) Program per the JRMP. Requirements include: maintaining an MS4 map, using municipal personnel and contractors to identify and report illicit discharges, maintaining a hotline for public reporting of illicit discharges, monitoring MS4 outfalls, and investigating and addressing any illicit discharges.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	3, Appendix D
Public Education and Participation									
NC-32	Implement a public education and participation program to promote and encourage development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water prioritized by high-risk behaviors, pollutants of concern, and target audiences.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Community Services	10
NC-33	Conduct trash cleanups through community-based organizations involving target audiences.	Local organizations regularly conduct cleanups, both on their own and in direct partnership with the City. Paradise Creek Educational Park, Inc. (PCEPI) completes regular cleanups in Paradise Creek. The City also regularly works with "I Love a Clean San Diego" to complete creek cleanups.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets, Assistance from Volunteers	Engineering/Public Works, Community Services, PCEPI, ILACSD	10
NC-34	Review City storm water website and identify and implement required updates to reflect WQIP and JRMP revisions.	Website will be updated to reflect new requirements.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works, Community Services	10
NC-35	Enhance school and recreation-based education and outreach.	The City partners with National School District to put on a storm water quality themed art contest for elementary students, with a theme of keeping the community clean. Winners' artwork is displayed in a storm water educational calendar distributed throughout the City. Winners are also recognized by the City Council.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works, National School District	10
NC-36	Collaborate with regional education and outreach efforts.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Community Services	10

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Public Education and Participation (Continued)									
NC-37	Develop education and outreach to reduce over-irrigation, including partnering with the local water utility to publicize incentive and rebate programs.	Refer to JRMP. The City will also work with local water district (Sweetwater Water Authority).	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget, Partnership with SWA	Engineering/Public Works, Community Services, SWA	10
NC-38	Provide municipal staff training.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budget	Engineering/Public Works	7, 8, 10
Enforcement Response Plan									
NC-39	Implement escalating enforcement responses to compel compliance with statutes, ordinances, permits, contracts, orders, and other requirements for IDDE, development planning, construction management, and existing development in the Enforcement Response Plan.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Neighborhood Services	Appendix C
NC-40	Enforce minimum BMPs for existing residential, commercial, and industrial development.	Refer to JRMP.	City-wide	Jurisdictional	FY16	Ongoing	Departmental Budgets	Engineering/Public Works, Neighborhood Services	Appendix C
Additional Nonstructural Strategies									
NC-41	Work toward Paradise Creek 303(d) delisting study and removal from 303(d) list.	National City will complete monitoring necessary to support removal of Paradise Creek from 303(d) list for selenium, which relates to habitat beneficial use.	Paradise Creek watershed	Jurisdictional	FY15	Complete in FY15. Removal from 303(d) list dependent on SWRCB timeline.	Departmental Budget	Engineering/Public Works, Regional Board, SWRCB	N/A
NC-42	Participate in regional reference study.	National City contributes through cost-share agreement.	Region-wide	Jurisdictional	FY14	Until study completion	Departmental Budget	Regional Study (All Copermittees)	N/A
NC-43	Develop a program to address and capture trash and debris.	Refer to JRMP.	City-wide	Jurisdictional	FY15	Ongoing	Departmental Budget	Engineering/Public Works	8, Appendix E

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Green Infrastructure									
Green Streets									
NC-46	8th Street Smart Growth.	National City is installing bioretention areas along 8th Street from approximately Highland Avenue to National City Boulevard.	Paleta Creek watershed	Jurisdictional	FY14	Until completed (estimated FY15), ongoing maintenance following completion	CIP Funding	Engineering/Public Works	N/A
NC-47	4th Street Corridor.	The City installed infiltration areas along 4th Street at Clairemont Drive and Belmont Drive.	Paradise Creek watershed	Jurisdictional	FY14	Completed in FY14, ongoing maintenance to be provided	CIP Funding	Engineering/Public Works	N/A
NC-48	"A" Avenue Green Street and Pedestrian Pathway project.	National City is performing green street retrofits for a 49 acre drainage area. Bioretention, infiltration, water harvesting/reuse for irrigation in Kimball Park, and a trash removal device will be installed.	Paradise Creek watershed	Jurisdictional	FY14	Until completed (estimated FY16), ongoing maintenance following completion	Prop. 84 Grant, City Match	Engineering/Public Works, SWRCB	Appendix E
Multiuse Treatment Areas									
Stream, Channel and Habitat Rehabilitation Projects									
NC-49	Kimball Park LID and Paradise Creek Restoration project.	The City will restore approximately 1,000 linear feet of channelized stream with concrete bottom. The concrete bottom will be removed to restore wetland habitat. Approximately 30,000 sq. ft. of native vegetation will be planted along the Creek. The project will also include LID features along streets in the neighborhood to the south of the park and within the park. These LID features will treat an approximately 73 acre tributary drainage area.	Paradise Creek watershed	Jurisdictional	FY15	Until completed (estimated FY17), ongoing maintenance following completion	Prop. 84 Grant, City Match	Engineering/Public Works, SWRCB	Appendix E

National City WQIP Jurisdictional Strategies

SDB ID	Strategy	Implementation Approach/Level of Effort	Location (Subwatershed, Trib, Outfall, etc.)	Jurisdictional or Optional	Implementation Year (or Trigger if Optional)	Frequency of Implementation	Cost or Funding Strategy	Responsible City Department and Other Collaborating Departments or Agencies	JRMP Section
Stream, Channel and Habitat Rehabilitation Projects (Continued)									
NC-50	Paradise Creek Educational Park.	Paradise Creek Educational Park is located along Hoover Avenue south of 18th Street and continues south along Paradise Creek to 22nd Street. The project includes removing impervious area, constructing an LID feature and a cistern to treat tributary urbanized area, and establishing native vegetation along Paradise Creek.	Paradise Creek watershed	Jurisdictional	FY15	Until completed (estimated FY16), ongoing maintenance following completion	State Urban Greening Grant, City Match	Engineering/Public Works, State Council for Strategic Growth, PCEPI	Appendix E
Water Quality Improvement BMPs									
Proprietary BMPs									
NC-51	Coolidge Avenue Pedestrian Improvements.	High-rate biofilters (Filterra or equivalent) were installed at Civic Center & Harding, 14th Street & Wilson, and 18th Street & Hoover.	Paradise Creek watershed	Jurisdictional	FY14	Completed in FY14, ongoing maintenance will be completed	CIP Funding	Engineering/Public Works	N/A

Appendix B

Storm Water Best Management Practices Manual

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City of National City

Storm Water Best Management Practice (BMP) Manual

June 2015

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1 Introduction

1.1 Storm Water Best Management Practices (BMPs) Manual

This Storm Water BMP Manual (hereafter, "Manual") is to be used in conjunction with the City of National City (City) Storm Water Management and Discharge Control Ordinance (Storm Water Ordinance), codified as National City Municipal Code (NCMC) Chapter 14.22 and the water quality protection provisions of the Grading Ordinance, codified as NCMC Chapter 15.70. This Manual is not a stand-alone document, but must be read in conjunction with other parts of the Storm Water Ordinance and the Grading Ordinance (collectively, "Ordinances"). In general, this Manual sets out in more detail, by project category, what Dischargers must do to comply with the Ordinances and to receive permits for projects and activities that are subject to the Ordinances. The Manual and the Ordinances have been prepared to provide the City with the legal authority necessary to comply with the requirements of Regional Water Quality Control Board (RWQCB), San Diego Region Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit).

1.2 Purposes

The purposes of this Manual are to establish clear minimum storm water management requirements and controls, and to support the following objectives stated in Section 14.22.020 of the Storm Water Ordinance:

- To establish requirements for discharges into the Municipal Separate Storm System (MS4), receiving waters, and the environment;
- To protect, to the maximum extent practicable (MEP), life, property, receiving waters, aquatic life, and the environment from loss, injury, degradation, or damage by discharges from within the City's jurisdiction;
- To protect the MS4 from damage; and
- To meet the requirements of state and federal law and the MS4 Permit.

The requirements described in the Manual are primarily in the form of best management practices (BMP) to be used to reduce the amount of pollutants discharged to the City's MS4 (hereafter, "storm drain system"). The Manual is intended to provide direction to residents, businesses, contractors, developers, and City staff about what is necessary to meet the City's storm water requirements. All terms used in the Manual have the same meaning as defined in NCMC Chapter 14.22, unless otherwise noted.

1.3 Other Potentially Applicable Regulations

The Manual provides direction on storm water BMPs required by the City of National City. In some cases, actions that have applicable storm water BMPs may also be subject to requirements of other City programs or to requirements established by other agencies. The legally responsible person taking any action is responsible for identifying all other applicable requirements and obtaining the necessary permits or approvals. A list of other requirements that commonly apply is provided below. Other requirements beyond those listed below may also apply in certain circumstances.

1.3.1 Other City of National City Requirements

Discharges to the sanitary sewer system may require approval from the City's Engineering Department. Call (619)336-4380 for more information.

Structural improvements to properties, such as building an overhead canopy, may require City permits. Contact the Building Department at (619)336-4210 for more information.

1.3.2 Requirements of Other Agencies

Work in and around natural drainages, wetlands, and other water resources may require permits from the US Army Corps of Engineers (USACE), the California Department of Fish and Wildlife, the US Fish and Wildlife Service, and the RWQCB. The most common permits required are Section 404 permits from the USACE, Lake or Streambed Alteration Agreements from the California Department of Fish and Wildlife, and Section 401 Water Quality Certifications from the RWQCB.

A number of additional permits or other approvals overseen by the State Water Resources Control Board (SWRCB) or the RWQCB may also apply. Potentially applicable regulations include, but are not necessarily limited to, those listed below.

- State of California Industrial General Permit, SWRCB Order No. 2014-0057-DWQ
- State of California Construction General Permit, SWRCB Order No. 2009-0009-DWQ
- Groundwater Dewatering Permit, RWQCB Order No. R9-2010-003[1]
- Permit for Discharges of Hydrostatic Test Water or Potable Water, RWQCB Order No. R9-2010-003
- Utility Vault Dewatering Permit, SWRCB Order No. 2014-0174-DWQ
- Conditional Waiver No. 1, Discharges from On-site Disposal Systems

[1] This order is expected to be replaced by a new order in 2015. The most recent version is Tentative Order No. R9-2015-0013. The RWQCB's proposed schedule would result in the new order going into effect on October 1, 2015.

- Conditional Waiver No. 2, "Low Threat" Discharges to Land
- Conditional Waiver No. 3, Discharges from Animal Operations
- Conditional Waiver No. 4, Discharges from Agricultural and Nursery Operations
- Conditional Waiver No. 5, Discharges from Silvicultural Operations
- Conditional Waiver No. 6, Discharges of Dredged or Fill Materials Nearby or Within Surface Waters
- Conditional Waiver No. 7, Discharges of Solid Wastes to Land
- Conditional Waiver No. 8, Discharges of Solid Wastes to Land
- Conditional Waiver No. 9, Discharges of Slurries to Land
- Conditional Waiver No. 10, Discharges of Emergency/Disaster Related Wastes
- Conditional Waiver No. 11, Aerially Discharged Wastes Over Land

Information on the most current requirements for RWQCB and SWRCB permitting and waivers can be obtained from the following website: http://www.waterboards.ca.gov/sandiego/

2 Minimum BMP Requirements

This section presents minimum BMP requirements for the following types of properties and activities:

- Construction sites;
- Post-construction sites;
- Industrial, commercial and municipal facilities; and residential properties

Wherever BMP requirements reference "where applicable," "where feasible," or similar terms that involve discretion, the final determination shall be made by Authorized Enforcement Staff. National City Municipal Code Chapter 14.22 defines "Authorized Enforcement Staff" as follows: "any City employee or contractor hired by the City who is assigned to duties involving permits and other City approvals, inspections, or enforcement related to this chapter." Authorized Enforcement Staff also have the authority to require additional BMPs beyond the minimum BMPs listed in this Manual, if necessary, to comply with Municipal Code Chapter 14.22, 15.70 or the MS4 Permit. References to "CASQA Factsheets" refer to factsheets in manuals prepared by the California Storm water Quality Association (CASQA). CASQA materials can be accessed at www.casqa.org. Some materials may not be viewable without a paid subscription.

2.1 Construction

Table 1 below presents the minimum BMPs required for construction sites within the City's jurisdiction. The City's BMP standards are based on the California Stormwater Quality Association (CASQA) BMP factsheets. Where any conflict may exist between CASQA factsheets and requirements in the Manual or the Municipal Code, the requirements of the Manual and the Municipal Code shall prevail. Complying with the BMPs described in the

Manual does not ensure compliance with all other regulatory requirements, including requirements of other agencies. See Section 1 for more information about other potentially applicable requirements. Types of BMPs include project planning, erosion control, sediment control, and waste management and good site management ("housekeeping"). Following Table 1 are additional BMP requirements for sediment and erosion control, maximum disturbed area and advanced treatment methods.

Construction site BMPs are required to be site specific, seasonally appropriate, and construction phase appropriate. Construction sites are required to show the BMPs they plan to implement on their Erosion Control Plans, which shall be prepared in accordance with the BMP standards in this Manual, NCMC Chapter 14.22, and NCMC Chapter 15.70. Every construction site within the City's jurisdiction is required to select, install, and maintain BMPs that address project planning, erosion control, sediment control, and waste management and good housekeeping to reduce, retain, and manage pollutant discharges to the MEP. BMPs must be implemented at each construction site year round. Construction activity during the dry season (May 1st through September 30th) must plan for and address unseasonal rain events that may occur in the dry season. Non-storm water discharges from construction sites into the City's storm drain system are prohibited year-round. City inspectors have the authority to require additional BMPs to prevent discharges of pollutants and to prevent non-storm water discharges to the City's storm drain system from construction sites year round. Construction sites also must adhere to the requirements of all applicable additional SWRCB or RWQCB general or site specific NPDES permits for construction activities (see Section 1) at the time of construction.

Table 1. Minimum BMPs for Construction Sites

BMP Categories	Required, where applicable[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Municipal Permit BMP Categories							CASQA BMP Objectives (P = Primary, S= Secondary)					
				Project Planning	Erosion Control	Run-on & Runoff Control	Sediment Control	House-keeping	Non-Storm Water Management	Active/ Passive Sediment Treatment	Erosion Control	Sediment Control	Tracking Control	Wind Erosion	Non-Storm Water Management	Waste Management
Project Planning	Yes	EC-1	Scheduling	x							P	S	S	S		
Erosion Control	Yes, Select Effective Combination[2, 3]	EC-2	Preservation of Existing Vegetation[3]	x	x						P					
		EC-3	Hydraulic Mulch[3]		x						P			S		
		EC-4	Hydroseeding		x						P			S		
		EC-5	Soil Binders[3]		x						P			S		
		EC-6	Straw Mulch[3]		x						P			S		
		EC-7	Geotextiles and Mats[3]		x						P			S		
		EC-8	Wood Mulching[3]		x						P			S		
		EC-14	Compost Blankets[3]		x						P					
	Yes, Select Effective Combination[2]	EC-9	Earth Dikes and Drainage Swales			x					P					
		EC-10	Velocity Dissipation Devices			x					P					
		EC-11	Slope Drains			x					P					
	Yes	EC-12	Stream Bank Stabilization		x						P	S			S	
	Potential Alternative[4]	EC-15	Soil Preparation Roughening[3]		x						P	S				
		EC-16	Non-Vegetative Stabilization[3]		x						P	S			S	

Table 1. Minimum BMPs for Construction Sites (continued)

BMP Categories	Required[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Municipal Permit BMP Categories							CASQA BMP Objectives (P = Primary, S= Secondary)					
				Project Planning	Erosion Control	Run-on & Runoff Control	Sediment Control	House-keeping	Non-Storm Water Management	Active/ Passive Sediment Treatment	Erosion Control	Sediment Control	Tracking Control	Wind Erosion	Non-Storm Water Management	Waste Management
Sediment Control	Yes, Select Effective Combination[2, 5]	SE-1	Silt Fence[6]				x					P				
		SE-2	Sediment Basin[7]				x					P				
		SE-3	Sediment Traps[7]				x					P				
		SE-4	Check Dam				x				S	P				
		SE-5	Fiber Rolls[6]				x				S	P				
		SE-6	Gravel Bag Berm				x				S	P				
	Yes	SE-7	Street Sweeping and Vacuuming				x	x				S	P			
	Yes	TC-1	Stabilized Construction Entrance/Exit				x				S	S	P			
	At Discretion of City[8]	TC-2	Stabilized Construction Roadway				x				S	S	P			
	At Discretion of City[8]	TC-3	Tire Wash				x					S	P			
	Yes	SE-10	Storm Drain Inlet Protection				x					P				
	Potential Alternative[9]	SE-12	Manufactured Linear Sediment Controls				x				S	P				P
		SE-13	Compost Socks and Berms				x				S	P				
		SE-14	Biofilter Bags				x					P				
	At Discretion of City[8]	WE-1	Wind Erosion Control				x					S		P		
	At Discretion of City[8, 10]	SE-11	Active Treatment Systems[10]							x	P					

Table 1. Minimum BMPs for Construction Sites (continued)

BMP Categories	Required[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Municipal Permit BMP Categories							CASQA BMP Objectives (P = Primary, S= Secondary)					
				Project Planning	Erosion Control	Run-on & Runoff Control	Sediment Control	House-keeping	Non-Storm Water Management	Active/ Passive Sediment Treatment	Erosion Control	Sediment Control	Tracking Control	Wind Erosion	Non-Storm Water Management	Waste Management
Waste Management and Good Housekeeping	Yes	NS-1	Water Conservation Practices						x		S	S			P	
	Yes	NS-2	Dewatering Operations						x			S			P	
	Yes	NS-3	Paving and Grinding Operations						x						P	S
	Yes	NS-4	Temporary Stream Crossing						x		S	S	S		P	
	Yes	NS-5	Clear Water Diversion						x						P	
	Yes	NS-6	Illicit Connection/Discharge						x						P	
	Yes	NS-7	Potable Water/Irrigation[11]						x						P	
	Yes	NS-8	Vehicle and Equipment Cleaning					x	x						P	
	Yes	NS-9	Vehicle and Equipment Fueling					x	x						P	
	Yes	NS-10	Vehicle and Equipment Maintenance					x	x						P	
	Yes	NS-11	Pile Driving Operations						x						P	
	Yes	NS-12	Concrete Curing						x						P	P
	Yes	NS-13	Concrete Finishing						x						P	P
	Yes	NS-14	Material Over Water						x						P	P
	Yes	NS-15	Demolition Adjacent to Water						x							P
	Yes	NS-16	Temporary Batch Plants						x							P
	Yes	WM-1	Material Delivery & Storage					x								P
	Yes	WM-2	Material Use					x								P
	Yes	WM-3	Stockpile Management					x			S	S				P
	Yes	WM-4	Spill Prevention & Control					x								P
	Yes	WM-5	Solid Waste Management					x								P

Table 1. Minimum BMPs for Construction Sites (continued)

BMP Categories	Required[1]	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Municipal Permit BMP Categories							CASQA BMP Objectives (P = Primary, S= Secondary)					
				Project Planning	Erosion Control	Run-on & Runoff Control	Sediment Control	House-keeping	Non-Storm Water Management	Active/ Passive Sediment Treatment	Erosion Control	Sediment Control	Tracking Control	Wind Erosion	Non-Storm Water Management	Waste Management
Waste Management and Good Housekeeping (continued)	Yes	WM-6	Hazardous Waste Management					x								P
	Yes	WM-7	Contaminated Soil Management					x								P
	Yes	WM-8	Concrete Waste Management					x	x						S	P
	Yes	WM-9	Sanitary/ Septic Waste Management					x	x							P
	Yes	WM-10	Liquid Waste Management					x	x							P

Notes

1. BMPs marked as required do not need to included in plans or implemented if demonstrated not to be applicable satisfactory to City staff.
2. A combination of the BMPs within these categories that will be effective, as determined by City staff, must be proposed. Typically not all BMPs within the category will be necessary to provide an effective combination.
3. The City requires erosion control BMPs to be applied to areas that have been inactive for at least 14 days.
4. These BMPs may be included as part of the overall effective combination of erosion control BMPs if approved by City staff.
5. An effective combination of sediment control BMPs includes both full perimeter protection and sediment control within the boundaries of the site.
6. Silt fence and fiber rolls must be staked into the ground as shown in the CASQA factsheet[2] to be effective. Therefore, they may not be used in paved areas or other areas where staking is not possible; gravel bags (SE-6) or compost socks (SE-13) must be used instead.
7. Sediment basins and traps must be sized per CASQA and City standards. Due to site drainage patterns, sediment basins and traps are often located where permanent post-construction BMPs will eventually be installed. All accumulated sediment from the construction phase must be removed prior to final installation of permanent post-construction BMPs to maintain the as-designed percolation rate.
8. These BMPs are not required to be included in plans or implemented unless specifically directed to be included by City staff.
9. These BMPs may be included as part of the overall effective combination of erosion control BMPs if approved by City staff.
10. Active treatment systems are required for Construction General Permit Risk Level 3 sites. They may also be required for other sites at the discretion of City staff.
11. The CASQA factsheet[2] implies some irrigation runoff may be acceptable. However, irrigation runoff discharges are considered illegal discharges and are prohibited per the City's Municipal Code.

[2] Available via www.casqa.org. The initial version of the manual was prepared in 2009, but it is regularly updated, and the City requires compliance with the most recent version available online. Accessing the BMP handbook requires a subscription.

2.1.1 Additional Erosion and Sediment Control Requirements

In addition to the minimum BMPs listed in the table above, construction projects are also required to comply with the requirements of National City's Municipal Code Chapter 15.70 (Grading and Erosion Control) and the following BMPs:

- All removable protective devices shown shall be in place at the end of each working day when there is a fifty percent chance of rain within a forty-eight hour period.
    - Per NCMC 15.70.140, If erosion control BMPs are not installed or maintained within two hours of notification at the twenty-four hour number on the plans, the City Engineer may order City crews to do the work or may issue contracts for such work and charge the cost of this work along with reasonable overhead charges to the cash deposits or other instruments implemented for this work without further notification to the owner. No additional work on the project except erosion control work may be performed until the Permittee restores the full amount drawn from the deposit.

- At any time of year, an inactive area shall be fully protected from erosion and discharges of sediment. An area is considered inactive if construction activities have ceased for a period of 14 or more consecutive days.

- No grading shall be allowed from October 1st through the following April 30th on any site if the City Engineer determines that erosion, mudflow or sediment of silt discharge may adversely affect water quality, downstream properties, drainage courses, storm drains, streets, easements, or public or private facilities or improvements unless an approved erosion and sediment control system has been implemented on the site.
    - If the City determines that it is necessary for the City to cause erosion and sediment control measures to be installed or cleanup to be done, the Permittee shall pay all of the City's direct and indirect costs including extra inspection, supervision, and reasonable overhead charges.

2.1.2 Advanced Treatment Methods

For the majority of the construction sites within the City's jurisdiction, the minimum required BMPs, if correctly installed and maintained, should adequately control sediment discharges from the site. However, if it is determined that a site possesses characteristics that could result in standard construction BMPs being ineffective in the treatment of sediment, thus resulting in an exceptional threat to water quality, advanced treatment will be required. A site is considered to be an exceptional threat to water quality if it meets ALL of the following criteria:

- The site, or a portion of the site, is located within or adjacent to (within 200 feet) a receiving water body listed on the Clean Water Act Section 303(d) List of Water Quality Limited Segments as impaired for sedimentation or turbidity;
- Disturbance is greater than five acres, including all phases of the development;

- Disturbed slopes are steeper than 4:1 (horizontal: vertical) and higher than 10 feet that drain toward the 303(d) listed receiving water body;
- Contains a predominance of soils with U.S. Department of Agriculture – Natural Resources Conservation Service Erosion factors *K* greater than or equal to 0.4.

Alternatively, applicants may perform a Revised Universal Soil Loss Equation or Modified Universal Soil Loss Equation analysis to prove to the City Engineer's satisfaction that advanced treatment is not required.

Treatment effluent water quality shall meet or exceed the water quality objectives for turbidity and any other parameter deemed necessary by the City as listed in the *Water Quality Control Plan for the San Diego Basin for Inland Surface Water and Lagoons and Estuaries (2007)* for the appropriate hydrologic unit.

Additionally, the City may require advanced treatment for sites that have a record of noncompliance with the City's construction BMP requirements, regardless of if they meet the above criteria. For projects where advance treatment is required, the applicant must submit the design, operations and maintenance schedule, monitoring plan, and certification of training of staff to the satisfaction of the City.

2.1.3 Responsibility for Training

Construction site owners and operators are responsible for training all applicable field personnel such that all construction BMPs required by the City are implemented consistently and effectively.

2.2 Post-Construction

This section includes post-construction minimum BMP requirements. These BMPs include, but are not limited to, site design, source control, and treatment control BMPs.

2.2.1 Notice Regarding Upcoming Changes to Requirements

The City will be adopting updated post-construction BMP requirements for development projects to meet the requirements of the Municipal Permit. Those new requirements are anticipated to go into effect in December 2015. All projects that do not have prior lawful approval at the time the new requirements become effective must be designed to meet the new requirements. Portions of a plan that, at the time a complete application is submitted, is subject to further environmental review pursuant to Section 15162 of the California Environmental Quality Act, are considered not to have prior lawful approval. Please consult with City Engineering staff if you believe your project may be subject to the new requirements.

2.2.2 Current Requirements

The following post-construction minimum BMPs are required for all land development and redevelopment projects. For projects that are Priority Development Projects (PDPs), as defined in National City Municipal Code 14.22.020, the requirements of the Standard Urban Stormwater Mitigation Plan (SUSMP) Manual must also be met.

Whether a permit or approval is required or not, and whether a post-construction storm water management plan is required to be submitted or not, all dischargers engaged in land development or significant redevelopment activities in the City shall implement post-construction BMPs in the following areas if applicable to the project:

1. BMPs for permanent control of erosion from slopes. These BMPs can include structures to convey runoff safely from the tops of slopes, vegetation or alternative stabilization of all disturbed slopes, the use of natural drainage systems to the MEP, flow and velocity controls upstream of sites; and stabilization or permanent channel crossings, unless the crossing is not publicly accessible and is not frequently used.

2. BMPs to control flows, velocity and erosion. These BMPs can include but are not limited to the use of energy dissipaters, such as riprap, at the outlets of storm drains, culverts, conduits or lined channels that enter unlined channels to minimize erosion; installation of retention or equalization basins, or other measures. Flow control and downstream erosion protection measures shall prevent any significant increase in downstream erosion as a result of the new development, but shall not prevent flows needed to sustain downstream riparian habitats or wetlands.

3. Pollution prevention and source control BMPs, to minimize the release of pollutants into storm water.

4. Site design BMPs, such as impervious surface minimization; and appropriate use of buffer areas to protect natural water bodies.

5. Site planning BMPs, such as siting and clustering of development to conserve natural areas to the extent practicable.

6. The installation of storm drain tiles or concrete stamping, and appropriate signage to discourage illegal discharges.

7. BMPs for trash storage and disposal and materials storage areas.

8. Structural BMPs to treat and/or to infiltrate storm water where a development project would otherwise cause or contribute to a violation of water quality standards in receiving waters. Offsite structural BMPs may be used for treatment and infiltration necessary to meet water quality standards only if the conveyance of runoff to those facilities prior to treatment will not cause or contribute to an exceedance of water quality standards, or deprive wetlands or riparian habitats of needed flows. Offsite facilities shall not substitute for the use of any onsite source control BMPs required by this BMP Manual.

9. When an infiltration BMP is used, related BMPs set out in this BMP Manual (including but not limited to siting constraints), to protect present uses of groundwater, and future uses of that groundwater as currently designated in the applicable RWQCB basin plan. (Discharges to infiltration BMPs may also require an RWQCB permit, and additional State requirements may also be applicable to these discharges).

10. Other applicable BMPs required by this BMP Manual.

11. Natural BMPs, such as constructed wetlands, grassed swales, biofilters, wet ponds, and vegetated filter strips, shall be utilized whenever practicable for post-construction BMPs that are proposed by a discharger.

2.3 Industrial, Commercial, and Municipal

Table 2 presents the minimum required BMPs for industrial, commercial, and municipal sites and sources. BMP categories include Discharge Control, Erosion and Sediment Control, Good Housekeeping, Material Storage and Handling, Pesticide and Fertilizer Management, Outdoor Work Areas, Spill Prevention and Response, and Waste Management.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
These BMPs are applicable to all municipal, and industrial and commercial properties and activities, regardless of whether the activity is conducted by the property owner, lessee, contractor, or other persons. For additional storm water educational resources and BMP fact sheets, see the City's storm water website: http://www.ci.national-city.ca.us.			
Discharge Control			
1	Eliminate illegal connections to the municipal separate storm sewer system (MS4; Hereafter, "storm drain system").	Find and abate all illegal connections to the storm drain system through properly approved procedures, permits, and protocols.	Illegal connections are man-made physical connections to the storm drain system that convey discharges that are not composed entirely of storm water. Illegal discharges include grey water (i.e., laundry rinse water); waste water; or irrigation water, including recycled or reclaimed water, that are effectively prohibited from being discharged to the storm drain system under National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R9-2013-0001 (storm drain system Permit). Any suspected unpermitted physical connections to the City's storm drain system shall be reported to the City's Storm Water Hotline at (619) 336-4389. Illegal connections to the storm drain system shall be removed immediately.
2	Eliminate illegal non-storm water discharges.	Non-storm water (water other than rain) shall not be discharged to the City's storm drain system. Limited exceptions may apply.	To eliminate illegal discharges, do not allow any solid or liquid material except uncontaminated storm water to enter City storm drains, curb gutters along City streets, or any other part of the City's storm drain system. Connections that convey illegal discharges to the City's storm drain system are illegal connections and shall be eliminated. Additional guidance about how to manage common types of discharges is provided in minimum BMPs 3 through 12 below. Report any suspected illegal discharges to the Storm Water Hotline at (619) 336-4389.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Discharge Control (continued)			
3	Properly dispose of process and wash water.	All process* water and wash water shall be contained, captured, and reused or properly disposed of to the sanitary sewer or an appropriate waste hauler, or to landscaping or other pervious surfaces.	Waste water, from processes such as, stone/tile cutting, cement mixing, industrial rinsing, or water used to detect tire leaks, and wash water from activities such as mopping, hosing, pressure washing, or any other commercial or industrial applications, contains pollutants and shall not be disposed of to City storm drains, curbs and gutters, or any other part of the City's storm drain system. All process* and wash water must be contained, captured, and disposed of appropriately. Permanent or temporary containment/collection measures should be used to direct or pump process or wash water to the sanitary sewer, collection container, or onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. If wastewater contains powders or solids (e.g., stone- or tile-cutting water, concrete slurry), pretreatment may be necessary to settle out solids before water may be reused or pumped to the sanitary sewer. Contact the Engineering Division at (619) 336-4380 for approval to discharge to the sanitary sewer system, as an industrial pretreatment permit may be required. **Process water is defined as "any water which, during manufacturing or processing, comes into direct contact or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product. Environmental Protection Agency, 40 CFR 122.2.*

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Discharge Control (continued)			
4	Eliminate the discharge of vehicle and equipment wash water.	Discharge of vehicle, boat, and equipment wash water to the storm drain system shall be contained, captured, and reused, or disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces. No drains within wash areas shall be connected to the storm drain system.	This BMP is applicable to all industrial and commercial properties and activities, regardless of whether the activity is conducted by the property owner, lessee, contractor, or other persons. Water associated with washing activities shall not be allowed to enter City storm drains, curbs and gutters, or any other part of the City's storm drain system. Wash areas shall not include any drains that connect to the storm drain system. Sewer drains within wash areas are allowable if appropriate permits have been obtained from the Engineering Division which may be contacted at (619) 336-4380 for details. Drains connected to dead sumps are allowable if proof of appropriate waste water disposal can be provided promptly upon City request. Construction of any new drains or rerouting of existing drainage systems will generally require a permit from the Building Division (619) 336-4210). When washing is conducted outside permanent designated wash areas, all wash water must be contained, captured, and disposed of appropriately. Designated washing areas may consist of a container, a berm, or a liner to collect and contain liquids and prevent runoff. Use of a control nozzle or similar mechanism is required to maximize control over the quantity of water used. Discharge to the City's storm drain system is strictly prohibited. Contained water shall be collected and captured using a wet vacuum or equivalent. Allowing contained water to evaporate is an acceptable method of disposal only if any remaining residue is removed to prevent future pollutant discharges. Captured wash water may be disposed through the sanitary sewer system with the approval of the Engineering Division which can be contacted at (619) 336-4380. Businesses are responsible for obtaining necessary permits. Wash water containing oil, paint, or other hazardous waste should be disposed of properly in accordance with applicable regulations. If only biodegradable soaps and uncontaminated water are used, wash water may be directed to onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. This can be accomplished by washing the vehicle on a landscaped area or using a berm to direct wash water to a landscaped area.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Discharge Control (continued)			
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges containing corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer system, not the storm drain system. Fire sprinkler system discharges without corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer, if practicable. When not practicable to discharge to the sanitary sewer system, the water shall not be discharged unless adequate precautions have been taken to prevent the transport of pollutants to the storm drain system.	Water discharged from fire sprinkler systems can be a source of chemical pollutants, or may transport pollutants already on the ground. Fire sprinkler systems containing corrosion inhibitors, fire suppressants, or antifreeze shall be discharged to the sanitary sewer system (sewer). Contact the Engineering Division at (619) 336-4380 for approval to discharge to the sewer. Fire sprinkler systems without corrosion inhibitors, fire suppressants, or antifreeze should discharge to the sewer. Where connection to the sewer cannot occur, perform one or a combination of the following to prevent any discharge: • do not drain system on days forecasted for rain in your area; • direct flows to onsite landscaped or pervious area to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property; • direct flows to a contained, paved area in order to collect water using a wet vacuum or equivalent and dispose of collected water properly. Any remaining residue on pavement shall be removed to prevent future pollutant discharges. Allowing contained water to evaporate is an acceptable method of disposal only if remaining residues are removed. For any portion of the flows that cannot be managed with the above methods, clean trash and debris from the flow path to the discharge point, and mechanically filter remaining flow with an appropriate filter fabric or other equivalent media prior to the discharge entering the storm drain system as a clear, odorless, pH neutral liquid.
6	Eliminate irrigation runoff.	Irrigation runoff to the storm drain system shall be eliminated through proper landscape maintenance and watering practices.	Irrigation runoff may contain pollutants or serve as a transport mechanism for pollutants already on the ground. Irrigation runoff entering the storm drain system is an illegal discharge. Where irrigation systems are used, regular maintenance and visual observation of the system shall be performed to prevent overspray, leaks, and other problems that result in runoff to City storm drains, curbs and gutters, or any other part of the City's storm drain system. If the weather forecast predicts rain, sprinklers shall be temporarily shut off to prevent water waste and runoff. Installing automatic rain shutoff devices or smart controllers, using micro-irrigation systems (e.g., drip irrigation), or implementing low water use landscaping may also help eliminate irrigation runoff. It is recommended to avoid runoff by using a control nozzle or similar mechanism when watering by hand.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Discharge Control (continued)			
7	Eliminate nursery irrigation discharges.	All irrigation water and associated pollutants from nurseries, garden centers, and similar facilities shall be prevented from reaching City storm drains, curbs and gutters, or any other part of the City's storm drain system.	Irrigation runoff from nurseries, garden centers, and other businesses that grow plants typically contains nutrients, pesticides and sediment and may serve as a transport mechanism for other pollutants located on the ground. Measures to prevent or retain irrigation runoff shall be implemented. In some cases it may be possible to retain and reuse excess irrigation water, which conserves water, and can also reduce water charges. Containers, berms, or liners may be used to collect and contain irrigation water and prevent runoff. When watering by hand, use of a control nozzle or similar mechanism is required to control the quantity of water used. Contained water should be collected and captured using a wet vacuum or equivalent. Allowing contained water to evaporate is an acceptable method of disposal only if any remaining residue is removed to prevent future pollutant discharges. Discharge to the City's storm drain system is prohibited.
8	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, and filter backwash.	Swimming pools, spas, fountains, reflective pools, and filter backwash water shall be properly disposed of to prevent pollutants from entering the storm drain system.	Swimming pool, spa, fountain, reflective pool, pond, and filter backwash water shall be properly disposed of to prevent pollutants from entering the storm drain system. Discharges from swimming pools and spas to the storm drain system are allowed only if the water is dechlorinated, has a pH level in the 7-8 range, is within ambient temperature, has no algae or suspended solids, and is not saline. The surface flow path shall be cleared of trash, debris, and sediment prior to discharge. Other discharges, such as from filter backwash, fountains, reflective pools, ponds, saline swimming pools, or other sources, are prohibited from entering the storm drain system. Prior to discharging large quantities of water to the sanitary sewer system, contact the Engineering Division at (619) 336-4380 to determine whether the discharge is allowed and applicable permitting requirements.
9	Control air conditioning condensation discharges.	Air conditioning condensation discharges shall be controlled to prevent them from reaching City storm drains, curbs and gutters, or any other part of the City's storm drain system.	Air conditioning condensation discharges have been identified as a source of pollutants, including copper, based on monitoring completed by the City, and are prohibited from entering the City's storm drain system unless the following BMPs are followed in order. (1) Air conditioning condensation should be directed to the sanitary sewer if allowed. Contact the Building Division at (619) 336-4210 to obtain a building permit to direct the condensation to the sanitary sewer system. (2) Air conditioning condensation discharges should be directed to onsite landscaped or pervious area to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. Directing discharges to landscaping close to a building foundation is not recommended.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Discharge Control (continued)			
10	Eliminate pumped groundwater, foundation and footing drain discharges.	Pumped groundwater, including water from crawl space pumps is prohibited unless a separate NPDES permit has been obtained to cover the discharge, or the Regional Water Quality Control Board, San Diego Region (RWQCB) has determined in writing that no permit is needed. Discharges from foundation and footing drains that are at or below the groundwater table are also prohibited, unless covered by an NPDES permit, or if the RWQCB has determined in writing that no permit is needed.	Examples of acceptable methods to discharge uncontaminated groundwater include discharging to the sanitary sewer system or discharging to the storm drain system after obtaining an individual NPDES permit from the RWQCB. The RWQCB can be contacted at (619) 516-1990 If a sanitary sewer discharge is desired, contact the Engineering Division at (619) 336-4380 to determine whether the discharge is allowed and applicable permitting requirements.
11	Eliminate floor mat cleaning discharges.	Floor mats shall be cleaned in a manner such that there is no discharge to City storm drains, curbs and gutters, or any other part of the City's storm drain system.	Examples of floor mats are kitchen floor mats or entry/exit door mats. Indoor wash areas, mop sinks, or indoor floor drains may be designated as wash areas for floor mats if these areas drain to the sanitary sewer system. Alternatively, floor mats may be sent to an off-site cleaning service. Floor mats soiled with oily materials, such as kitchen floor mats shall only be cleaned where drains direct water through a grease trap, interceptor or clarifier before entering the City's sanitary sewer system. If no acceptable indoor wash area exists, outdoor washing should be conducted such that wash water is fully captured and disposed of to the sanitary sewer system. Alternatively, mats may be washed with potable water and biodegradable detergent such that the water drains to onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. If dry cleaning techniques are used, including shaking out mats outdoors, the areas in which mats are shaken shall be cleaned by vacuuming or sweeping to prevent material shaken off mats from eventually being transported to the storm drain system. Mats may also be cleaned by vacuuming them directly, which does not release pollutants.
12	Regularly clean and maintain structural BMPs and LID installations to ensure proper performance.	BMPs installed, including Low Impact Development (LID) and other structural BMPs, must be inspected as often as necessary to ensure they perform as intended, and properly operated and maintained. BMPs must also be maintained in accordance with recorded maintenance agreements where applicable.	All installed LID and structural BMPs shall be inspected at a minimum of once annually for proper function and regularly cleaned and maintained to confirm the BMP is serving the purpose for which it was intended.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Erosion and Sediment Control			
13	Protect unpaved areas, including landscaping, from erosion using vegetation or physical stabilization.	Exposed soils that are actively eroding, or prone to erosion due to disturbance, shall be protected from erosion. Significant accumulations of eroded soil shall be removed or contained to prevent sediment transport in runoff to the storm drain system.	Soil erosion and sediment transport in runoff shall be reduced using vegetative or gravel cover, erosion control measures, sediment containment, or other equivalent measures. Examples include are but not limited to: temporary cover and containment such as erosion control blankets, gravel bags, fiber rolls, and silt fences. Such temporary measures shall be maintained and replaced as needed to maintain their effectiveness. This does not apply to natural, undeveloped areas, except where erosion is occurring as a direct result of onsite human activity, such as paving, land disturbance, or vegetation removal.
Good Housekeeping			
14	Regularly clean parking lots.	Paved parking areas, roads, and driveways located on the property shall be swept at least once per year. During each annual cleaning the entire paved area shall be cleaned. Sweeping is the preferred method. Wet cleaning methods, such as power washing, may be substituted for sweeping if all wash water is contained, captured, and disposed of appropriately.	Parking lots, roads, and driveways can be a source of pollutants, including metals, sediment, and oil and grease. Impervious pavement such as parking lots, private roads, and private driveways shall be swept, at a minimum, annually using street sweeping equipment or by hand. Build up of pollutants may require more frequent sweeping. The entire impervious area of the parking lots, roads and driveways must be cleaned at least once per year. It is recommended that the annual cleaning occur in the dry season (May 1st – September 30th) of each year. Spot cleaning and/or sweeping shall occur as needed. Cleaning using wet methods such as power washing may be substituted for sweeping provided that all wash water is contained, captured, and disposed of properly. See BMP 3 for additional details on disposal of wash water. Only areas of covered parking structures exposed to rainfall are required to be cleaned according to this BMP. This includes any exposed parking spaces and entrance/exit areas. Any paved area that drains to a bioretention area, infiltration area, or other high efficiency BMP, sized in accordance with the City's BMP Manual requirements for Priority Development Projects, is not subject to the annual sweeping requirement. Any area paved with pervious pavement (e.g., porous concrete, porous asphalt, ungrouted pavers, or gravel) is not subject to the annual sweeping requirement and instead must follow maintenance plans specific to that surface.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Good Housekeeping (continued)			
15	Keep storm drain free of sediment, trash, and debris.	Accumulated materials shall be removed from on-site storm drains at least once per year. Storm drains and under drains shall be kept free of significant amounts of sediment, trash, and debris.	On-site storm drains shall be cleaned using dry methods such as sweeping, scraping or use of a vacuum truck. Any discharge to the City's storm drain system associated with storm drain cleaning is an illegal discharge. Storm drains shall be cleaned by onsite staff or outside contractors at least once per year. It is recommended that cleaning should be performed during the dry season (May 1st – September 30th). Build up of materials may require more frequent cleaning. Storm drains shall be cleaned if more than half of the bottom of the catch basin is covered with materials, or if the enforcement officer directs it. Storm water has the potential to become a source of pollutants, or create a vector control problem, if permitted to stagnate. Maintain storm drains such that storm water is not permitted to collect within inlets or surrounding areas for more than 72 hours following a rain event. Maintenance of all storm drain systems, including private channels, is the responsibility of the property owner and should be conducted as dictated by the type of storm drain system. Inlets must be cleaned at least once per year as described in this BMP. Note: Bodily entry into storm drains is considered "confined space entry," and should not be performed without adherence to applicable regulations. See the Occupational Safety and Health Administration (OSHA) website for more information about confined space entry. http://www.osha.gov.
16	Implement good housekeeping to keep site free of trash and debris.	Outdoor areas shall be cleaned as needed to keep them free of accumulations of trash, sediment, litter, and other debris.	Regular housekeeping of outdoor areas removes pollutants that would likely be transported to storm drains by storm water or urban runoff. Any accumulated trash or litter shall be picked up, and areas of sediment or debris accumulation shall be swept up. Wet cleanup methods are not necessary in most cases. If wet cleanup methods are used, all water used must be contained, collected, and disposed of properly. No discharge to the storm drain system is allowed. See BMP 3 for additional details on disposal of wash water.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Material Storage and Handling			
17	Provide and maintain secondary containment to catch spills when storing potential liquid pollutants in outdoor areas.	Effective secondary containment shall be provided and maintained for all containers of liquid stored in outdoor areas to prevent leaks or spills from discharging pollutants to the storm drain system. Containers shall be kept in good condition and securely closed when not in use. Secondary containment shall also be provided for all liquids during transport to prevent spills due to leaks or punctures.	Secondary containment shall be used for liquid storage in outdoor areas. Secondary containment consists of a container, curb or leak-proof structure outside of the primary container, designed to prevent accidental releases of materials from the storage area. To maintain the effectiveness of secondary containment, regularly remove and appropriately dispose of spills, precipitation, or other liquids that accumulate in the secondary containment. Provide liquid storage containers with covers to prevent precipitation from accumulating in or causing overflows from the secondary containment. Materials stored indoors and at least 5 feet away from entrances/exits do not require secondary containment. If evidence of spills due to inadequate containment is observed, the City enforcement official may specify a minimum required containment capacity. Other applicable regulations may apply to the use of secondary containment, especially for hazardous materials, which are regulated by the County of San Diego Department of Environmental Health at (858) 505-6880.
18	Properly store and dispose of hazardous substances.	Hazardous materials and wastes shall be stored, managed, and disposed in accordance with federal, state, and local laws and regulations. Hazardous materials and wastes shall also be stored such that they will not come into contact with storm water or other non-storm water flows, if leaks or spills occur.	Proper storage and disposal of all hazardous materials and wastes is required. Hazardous materials and wastes generated by business activities are additionally regulated by the County of San Diego Department of Environmental Health. Disposal of hazardous wastes using an authorized hazardous waste collection service is required. Store hazardous materials and wastes, and their primary storage containers, with sufficient cover and/or containment to prevent contact with storm water.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Material Storage and Handling			
19	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in storm water or non-storm water.	Materials stored outdoors shall be covered, contained, and/or elevated to prevent storm water and non-storm water from contacting and transporting materials and pollutants to the storm drain system.	When runoff from precipitation, over-irrigation, or water from other sources moves along the ground it can pick up pollutants and convey them to the storm drain system. Covering, containing, and/or elevating materials off of the ground prevents pollutants from contaminating storm water by preventing run-on from directly contacting materials, and by preventing materials from being transported by water or wind. Outdoor materials that are not a potential source of pollutants do not require coverage. Some examples of cover include roofs, awnings, and tarps. Where coverage is not feasible or is cost prohibitive, alternative approaches such as installing berms around the stored materials, directing runoff to pervious areas, or installing treatment devices may be allowed. Elevate materials off the ground using pallets or other shelving and do not store them in the path of storm water run-off. Note that installing structural coverage will usually require obtaining permits from the City prior to installation. To determine applicable regulations and whether a permit would be required, contact the Building Division at (619) 336-4210.
Pesticide and Fertilizer Management			
20	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be applied in strict accordance with the manufacturer's label, as authorized by the U.S. Environmental Protection Agency to minimize the introduction of pollutants to the storm drain system. Chemicals shall be stored safely in covered and contained areas. Waste products shall be disposed of in accordance with the manufacturer's label and applicable hazardous waste regulations. The use of integrated pest management principles is encouraged to reduce or eliminate use of chemicals.	Apply pesticides and fertilizers carefully according to the requirements on the manufacturer's label. If outdoor pesticide or fertilizer use is necessary, carefully use only the needed amount and clean up afterwards to prevent irrigation water or other runoff from carrying chemicals to storm drains. Be sure to check the label to verify if the product can be used on exterior impervious surfaces, such as driveways and building foundations. Reduce the risk of pesticide use by using less toxic alternatives and Integrated Pest Management (IPM). For more information about IPM, see the University of California Statewide IPM Program at http://www.ipm.ucdavis.edu.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
		Outdoor Work Areas	
21	Implement controls to prevent pollution from exposed outdoor work areas.	Activities that may generate pollutants shall be conducted in covered, contained areas. When these activities are conducted outside, the work areas shall be cleaned at least once a day to prevent pollutant accumulation, and the activities shall not be conducted when it is raining. Work areas that are not covered and contained shall also be located such that runoff flowing through the work areas is minimized. Work areas shall be designed such that concentrated flows are not directed through the work areas.	This BMP applies to all activities conducted outdoors that may generate pollutants. Some common examples are loading/unloading operations, waste disposal, vehicle or equipment repair, cutting, grinding, sanding, painting, processing of wood, plastics, metals and concrete. Outdoor activities often generate debris or waste liquids that have an increased risk of outdoor spills. In order to avoid contaminating storm water runoff, the following precautions shall be taken as appropriate: (1) move activities indoors; (2) cover areas where outdoor activities are performed, including building canopies; (3) protect areas where outdoor activities are performed from runoff from upstream areas, including building berms; (4) prevent spills or by-products from escaping contained areas; (5) do not conduct outdoor activities that may generate pollutants when it is raining; (6) protect storm drain inlets and ensure adequate spill response materials are readily available; and, (7) thoroughly clean outdoor work areas at least daily to remove accumulated sediment, debris, oil and grease, particulate matter, and other pollutants. Structural treatment devices shall also be installed to remove pollutants from contaminated runoff if source control BMPs are not effective.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
		Spill Prevention and Response	
22	Prevent or capture liquid leaks from vehicles and equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks of oil and other fluids from vehicles awaiting maintenance and during maintenance activities. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	Maintain vehicles and equipment to prevent leaks and spills. This can be achieved by maintenance to prevent leaks from operative vehicles or by draining fluids if a vehicle is not intended to be used (see BMP 24 for additional details). Prevent storm water, ground water, and soil contamination by capturing leaks and spills before they contact the ground. Collect fluid leaks using drip pans or sealable containers and prevent spills using funnels, rags, and/or drop cloths when performing maintenance. Used automotive fluids, such as oil or antifreeze, are considered hazardous wastes and shall be disposed of according to current regulations. Contact the County of San Diego Department of Environmental Health at http:/www.sdcounty.ca.gov/deh.
23	Maintain a readily accessible spill cleanup kit that is appropriate for the type of material stored.	Materials and equipment appropriate for the type and quantity of potential spills shall be kept on-site and with any mobile activities, in order to serve as a spill cleanup kit. Keep cleanup materials in close proximity to locations where spills may occur, with instructions for their use clearly displayed.	The type of spill kit necessary will depend on the materials that could potentially spill at the site or mobile activity. Special attention should be paid to liquids, hazardous materials and waste storage and handling. Adequate materials shall be kept on location to respond to the largest potential spill. Examples of spill kit materials include granular absorbents, absorbent pads, absorbent rolls, or rags. If a site or activity poses the risk of large or hazardous spills, emergency phone numbers shall be posted in a visible place with the spill kit. For information regarding proper handling and cleanup of business-related hazardous materials contact the County of San Diego Department of Environmental Health. http://www.sdcounty.ca.gov/deh.
24	Drain fluids from inoperable vehicles and store or dispose of appropriately.	Oil, antifreeze, and other fluids shall be drained from inoperable vehicles intended for recycling or long-term outdoor storage. Drained fluids shall be disposed of in accordance with applicable hazardous materials regulations.	Non-operational vehicles pose a high risk of fluid leaks. Fluids shall be drained prior to storage on site to prevent spills and leaks that could contaminate soil, stain pavement, or contaminate runoff to the storm drain system. Drained materials shall be handled, stored, and disposed of in accordance with other applicable minimum BMPs, and applicable state and local requirements for hazardous materials.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Spill Prevention and Response (continued)			
25	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the storm drain system. Spills that enter a storm drain and cannot be fully recovered shall be reported promptly to the City's Storm Water Hotline at (619) 336-4389.	Spills shall be cleaned using dry methods primarily. Examples of dry cleanup methods include applying dry absorbent and removing and disposing of the absorbent properly, and absorbing spilled materials with rags. Materials used to clean up hazardous wastes shall be disposed of in accordance with applicable regulations. If spills cannot be cleaned effectively using dry methods only, wet methods such as pressure washing or mopping may be used provided all wash water is contained, captured, and disposed of appropriately. Any nearby storm drains shall be protected to prevent an illegal discharge. Any discharge of water from a spill clean up to the City's storm drain system is illegal and prohibited. Allowing water to evaporate is an acceptable method of disposal only if remaining residue is removed. Contained water shall be collected and captured using a wet vacuum or equivalent. Any remaining residue on pavement or other impervious areas shall also be removed to prevent future pollutant discharges. Captured wash water may be directed to the sanitary sewer system with the approval of the Engineering Division which can be contacted at (619) 336-4380. Wash water containing oil, paint, or other hazardous waste must be disposed of properly in accordance with applicable regulations. If only biodegradable soaps and uncontaminated water are used, wash water may be directed to onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property.
26	Temporarily protect storm drains from non-storm water discharges while conducting activities that have the potential to result in a discharge.	If activities cannot be fully contained, or minor failures in containment would potentially result in discharges of non-storm water to the storm drain system, temporary measures shall be used to protect storm drains. Any activity-related materials that enter the storm drain system shall be removed promptly and disposed of appropriately (in accordance with other minimum BMPs).	Activities such as construction, pressure washing, vehicle or equipment maintenance or cutting, grinding, sanding, painting or processing of wood, plastics, metals and concrete may generate pollutants that have the potential to result in a discharge to the storm drain system. Temporary measures may include temporary covers, sand bags, vendor products, etc., that are effective at blocking spills, debris, or contaminated runoff from reaching the storm drain system. Examples of activity-related materials that might accidentally enter storm water conveyances include fluid leaks or spills, sawdust, metal shavings, litter, or other debris. If material enters the storm drain inlet, the material shall be immediately removed by using a shop vacuum, broom and pan, mop, or other tool. Materials must be disposed of properly in accordance with applicable regulations. Note that bodily entry into storm drains is considered "confined space entry," and is not recommended without adherence to applicable regulations. See the Occupational Safety and Health Administration (OSHA) for more information about confined space entry. http://www.osha.gov

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
		Waste Management	
27	Provide pollution prevention signage for storm drains.	Pollution prevention signage shall be provided for all on-site storm drain inlets and catch basins with prohibitive language (e.g., "No Dumping – Drains to Ocean").	Examples of storm drain prohibitive signage include concrete stamping, paint stenciling, signage posting, and the installation of ceramic or plastic tiles.
28	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	Disposal areas for trash and other wastes shall be cleaned as frequently as necessary to keep these areas free of loose trash, litter, debris, liquids, powders, and sediment. Liquid waste, hazardous waste, medical waste, universal waste, and other items prohibited by current regulations shall not be placed in solid waste dumpsters.	All trash containers shall be covered and free of holes or cracks that allow liquid or solid wastes to spill onto the ground. Areas where trash or other wastes are stored shall be cleaned as necessary to prevent debris from entering the storm drain system. All trash, sediment and debris shall be removed using dry cleaning methods such as sweeping as needed. If wet cleaning methods are used to clean up liquid spills, all wash water must be contained, captured, and disposed of appropriately using one or more of the following methods: • Contained water should be collected and captured using a wet vacuum or equivalent. Allowing contained water to evaporate is an acceptable method of disposal only if remaining residues are removed. Any remaining residue on pavement or other impervious areas shall also be removed to prevent future pollutant discharges. • Captured wash water may be directed to onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property. • Captured wash water that does not contain hazardous wastes may also be disposed of to the sanitary sewer system if allowed by the Engineering Division which can be contacted at (619) 336-4380. • Wash water containing hazardous wastes will require disposal by an appropriate contractor. Wash water containing hazardous materials will require disposal by an appropriate contractor. Additional information about hazardous material disposal can be obtained from the County of San Diego Department of Environmental Health. More information regarding what types of items may be placed in trash receptacles can be obtained from your waste disposal company (refer to billing statement for contact number or if waste disposal is contracted through a property manager or association, from your property manager or association contact).

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Waste Management (continued)			
29	Properly store and dispose of green waste.	Green waste shall be properly stored and disposed of such that it will not be transported to the storm drain system by storm water or non-storm water runoff.	Green waste shall not be left or dumped in areas where it may enter a storm drain or be exposed to storm water flows including curbs, gutters and streets. It shall be contained and covered to prevent transport by rain or wind if stored on pavement or other impervious areas. Green waste shall be collected and used appropriately on-site, or disposed of properly to the green waste section of the landfill. Specific information regarding green waste collection can be obtained from your waste disposal company (refer to billing statement for contact number or if waste disposal is contracted through a property manager or association, from your property manager or association contact).
30	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	Animals and animal waste shall be managed and stored in a manner that prevents animal supplies, waste, and wash water from entering the storm drain system. Collect and dispose of animal waste through trash receptacles or the sanitary sewer, as appropriate.	Animal waste can be a source of bacteria, viruses, and other pollutants. Animal waste shall be collected promptly to avoid the spread of disease and the contamination of runoff. If animal waste must be kept on-site, cover and contain such storage areas to prevent pollutants from being transported in runoff. Any water used to clean animals or animal housing shall be disposed of to the sanitary sewer or allowed to infiltrate into landscaping without runoff. If animal wash areas exist on site, they shall be designed to prevent discharges to the storm drain system. Animal wash areas shall not be established near storm drains. Sewer or septic system drains within animal wash areas are subject to permitting requirements; call the Building Division at (619) 336-4210 for additional details.
31	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	Stored trash and other wastes shall be protected from contact with storm water and non-storm water flows. Trash and other wastes shall be contained to prevent transport of trash off site, and to keep surrounding areas and on site storm drains free of trash and other wastes.	To protect materials, supplies, trash, or other wastes contact from storm water and non-storm water flows, those materials and wastes shall be kept in either: (1) covered storage areas that are solidly screened to eliminate contact with precipitation and to prevent run-on from adjoining areas and off site transport of wastes and pollutants; or, (2) containers with closed lids that exclude precipitation and do not allow run-on. It is recommended to locate mobile trash receptacles (dumpsters and trash cans) away from storm drains and storm water flows. Also see BMP 32 for additional requirements for waste cooking oil storage.

Table 2. Minimum BMPs for Industrial, Commercial, and Municipal Sites (continued)

No.	BMP Title	BMP Description	Industrial, Commercial, and Municipal Implementation
Waste Management (continued)			
32	Cooking oil waste shall be managed to prevent illegal discharges.	Waste cooking oil shall be managed in a manner that prevents discharges.	Waste containers for oils, grease, fats, or tallow shall be kept indoors where appropriate facilities exist to maintain compliance with health, fire, and other applicable codes. Most grease rendering services will now provide containers to store used cooking oil indoors free of charge. Contact your grease rendering service provider for additional details. Where indoor facilities are incompatible with such codes, waste containers shall be kept within a covered and/or contained area to prevent residual waste transport in runoff. The chosen storage option (cover, containment, or both) shall be sufficient to prevent the discharge of any storm water that has contacted any residual waste oil on the bin or surrounding areas. This means that overhead cover is sufficient to prevent any storm water contact with the bin and any residue in the surrounding area, the containment is of a high enough capacity to retain all storm water that has contacted the bin and any residue in the surrounding area, or both in conjunction will prevent any discharge of residual waste oil, even during heavy rains and/or windy conditions. Areas surrounding the waste container that are not covered or contained shall be kept free of residual pollutants.

2.4 Residential

Table 3 presents the minimum required BMPs for residential. BMP categories include Discharge Control, Erosion and Sediment Control, Good Housekeeping, Material Storage and Handling, Pesticide and Fertilizer Management, Spill Prevention and Response, and Waste Management.

Table 3. Minimum BMPs for Residential Sites

No.	BMP Title	BMP Description	Residential Implementation
		Discharge Control	
1	Eliminate illegal connections to the municipal separate storm sewer system (MS4; Hereafter, "storm drain system").	Find and abate all illegal connections to the storm drain system through properly approved procedures, permits, and protocols.	Illegal connections are man-made physical connections to the storm drain system that convey discharges that are not composed entirely of storm water. Illegal discharges include grey water (i.e., laundry rinse water); waste water; or irrigation water, including recycled or reclaimed water, that are effectively prohibited from being discharged to the storm drain system under National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R9-2013-0001 (Municipal Permit). Any suspected unpermitted physical connections to the City's storm drain system shall be reported to the City's Storm Water Hotline at (619) 336-4389. Illegal connections to the storm drain system shall be removed immediately.
2	Eliminate illegal non-storm water discharges.	Non-storm water (water other than rain) shall not be discharged to the City's storm drain system. Limited exceptions may apply.	To eliminate illegal discharges, do not allow any solid or liquid material except uncontaminated storm water to enter City storm drains, curb gutters along City streets, or any other part of the City's storm drain system. Connections that convey illegal discharges to the City's storm drain system are illegal connections and shall be eliminated. Additional guidance about how to manage common types of discharges is provided in minimum BMPs 3 through 10 below. Report any suspected illegal discharges to the Storm Water Hotline at (619) 336-4389.

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
		Discharge Control (continued)	
3	Properly dispose of process* and wash water.	All process* water and wash water shall be contained, captured, and reused or properly disposed of to the sanitary sewer or an appropriate waste hauler, or to landscaping or other pervious surfaces.	All process* and wash water must be contained, captured, and reused, or properly disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces without resulting in erosion or runoff to the storm drain system or any adjacent property. **Process water is defined as "any water which, during manufacturing or processing, comes into direct contact or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product. Environmental Protection Agency, 40 CFR 122.2.*
4	Properly dispose of vehicle and equipment wash water.	Discharge of vehicle, boat, and equipment wash water to the storm drain system should be contained, captured, and reused, or disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces.	Minimizing use of water, detergents, and other vehicle wash products is encouraged. Non-commercial car washes, such as fundraisers and other similar activities, are not considered individual residential vehicle washing. Discharges to the storm drain system from these activities are prohibited.
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges containing corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer system, not the storm drain system. When not practicable to discharge to the sanitary sewer system, the water shall not be discharged unless adequate precautions have been taken to prevent the transport of pollutants to the storm drain system.	Water discharged from fire sprinkler systems can be a source of chemical pollutants, or may transport pollutants already on the ground. Fire sprinkler systems containing corrosion inhibitors, fire suppressants, or antifreeze shall be discharged to the sanitary sewer system (sewer). Contact the Engineering Division at (619) 336-4380 for approval to discharge to the sewer. Fire sprinkler systems without corrosion inhibitors, fire suppressants, or antifreeze should discharge to the sewer.

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
		Discharge Control (continued)	
6	Eliminate irrigation runoff.	Irrigation runoff to the storm drain system shall be eliminated through proper landscape maintenance and watering practices.	Irrigation runoff may contain pollutants or serve as a transport mechanism for pollutants already on the ground. Irrigation runoff entering the storm drain system is an illegal discharge. Where irrigation systems are used, regular maintenance and visual observation of the system shall be performed to prevent overspray, leaks, and other problems that result in runoff to City storm drains, curbs and gutters, or any other part of the City's storm drain system. If the weather forecast predicts rain, sprinklers shall be temporarily shut off to prevent water waste and runoff. Installing automatic rain shutoff devices or smart controllers, using micro-irrigation systems (e.g., drip irrigation), or implementing low water use landscaping may also help eliminate irrigation runoff. It is recommended to avoid runoff by using a control nozzle or similar mechanism when watering by hand.
7	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, and filter backwash.	Swimming pools, spas, fountains, reflective pools, and filter backwash water shall be properly disposed of to prevent pollutants from entering the storm drain system.	Swimming pool, spa, fountain, reflective pool, pond, and filter backwash water shall be properly disposed of to prevent pollutants from entering the storm drain system. Discharges from swimming pools and spas to the storm drain system are allowed only if the water is dechlorinated, has a pH level in the 7-8 range, is within ambient temperature, has no algae or suspended solids, and is not saline. The surface flow path shall be cleared of trash, debris, and sediment prior to discharge.
8	Control air conditioning condensation discharges.	Air conditioning condensation discharges shall be controlled to prevent them from reaching City storm drains, curbs and gutters, or any other part of the City's storm drain system.	Air conditioning condensation shall be directed to landscaped areas or other pervious surfaces, or to the sanitary sewer, where feasible.

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
		Discharge Control (continued)	
9	Eliminate pumped groundwater, foundation and footing drain discharges.	Pumped groundwater, including water from crawl space pumps is prohibited unless a separate NPDES permit has been obtained to cover the discharge, or the Regional Water Quality Control Board, San Diego Region (RWQCB) has determined in writing that no permit is needed. Discharges from foundation and footing drains that are at or below the groundwater table are also prohibited, unless covered by an NPDES permit, or if the RWQCB has determined in writing that no permit is needed.	Examples of acceptable methods to discharge uncontaminated groundwater include discharging to the sanitary sewer system or discharging to the storm drain system after obtaining an individual NPDES permit from the RWQCB. The RWQCB can be contacted at (619) 516-1990. If a sanitary sewer discharge is desired, contact the City Engineering Division at (619) 336-4380 to determine whether the discharge is allowed and applicable permitting requirements.
10	Regularly clean and maintain structural BMPs and LID installations to ensure proper performance.	BMPs installed, including Low Impact Development (LID) and other structural BMPs, must be inspected as often as necessary to ensure they perform as intended, and properly operated and maintained. BMPs must also be maintained in accordance with recorded maintenance agreements where applicable.	All installed LID and structural BMPs shall be inspected at a minimum of once annually for proper function and regularly cleaned and maintained to confirm the BMP is serving the purpose for which it was intended.
		Erosion and Sediment Control	
11	Protect unpaved areas, including landscaping, from erosion using vegetation or physical stabilization.	Exposed soils that are actively eroding, or prone to erosion due to disturbance, shall be protected from erosion. Significant accumulations of eroded soil shall be removed or contained to prevent sediment transport in runoff to the storm drain system.	Soil erosion and sediment transport in runoff shall be reduced using vegetative or gravel cover, erosion control measures, sediment containment, or other equivalent measures. Examples include but are not limited to: temporary cover and containment such as erosion control blankets, gravel bags, fiber rolls, and silt fences. Such temporary measures shall be maintained and replaced as needed to maintain their effectiveness. This does not apply to natural, undeveloped areas, except where erosion is occurring as a direct result of onsite human activity, such as paving, land disturbance, or vegetation removal.
		Good Housekeeping	
12	Regularly clean parking lots.	Paved parking areas, roads, and driveways located on the property shall be kept free of trash, sediment, and debris.	Parking lots, roads, and driveways can be a source of pollutants, including metals, sediment, and oil and grease. Sweeping is the preferred method. Wet cleaning methods, such as power washing, may be substituted for sweeping if all wash water is contained, captured, and disposed of appropriately.

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
		Good Housekeeping (continued)	
13	Keep storm drain free of sediment, trash, and debris.	Accumulated materials shall be removed from on-site storm drains at least once per year. Storm drains and under drains shall be kept free of significant amounts of sediment, trash, and debris.	On-site storm drains shall be cleaned using dry methods such as sweeping or scraping. Any discharge to the City's storm drain system associated with storm drain cleaning is an illegal discharge. Storm water has the potential to become a source of pollutants, or create a vector control problem, if permitted to stagnate. Maintain storm drains such that storm water is not permitted to collect within inlets or surrounding areas for more than 72 hours following a rain event. Maintenance of all storm drain systems, including private channels, is the responsibility of the property owner and should be conducted as dictated by the type of storm drain system. Note: Bodily entry into storm drains is considered "confined space entry," and should not be performed without adherence to applicable regulations. See the Occupational Safety and Health Administration (OSHA) website for more information about confined space entry. http://www.osha.gov.
14	Implement good housekeeping to keep site free of trash and debris.	Outdoor areas shall be cleaned as needed to keep them free of accumulations of trash, sediment, litter, and other debris.	Regular housekeeping of outdoor areas removes pollutants that would likely be transported to storm drains by storm water or urban runoff. Any accumulated trash or litter shall be picked up, and areas of sediment or debris accumulation shall be swept up. Wet cleanup methods are not necessary in most cases. If wet cleanup methods are used, all water used must be contained, collected, and disposed of properly.
		Material Storage and Handling	
15	Properly store and dispose of hazardous substances.	Hazardous materials and wastes shall be stored, managed, and disposed in accordance with federal, state, and local laws and regulations. Hazardous materials and wastes shall also be stored such that they will not come into contact with storm water or other non-storm water flows, if leaks or spills occur.	Proper storage and disposal of all hazardous materials and wastes is required. City of National City residents may contact the South Bay Household Hazardous Waste collection facility regarding proper disposal at (619) 691-5122.

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
		Pesticide and Fertilizer Management	
16	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be applied in strict accordance with the manufacturer's label, as authorized by the U.S. Environmental Protection Agency to minimize the introduction of pollutants to the storm drain system. Chemicals shall be stored safely in covered and contained areas. Waste products shall be disposed of in accordance with the manufacturer's label and applicable hazardous waste regulations. The use of integrated pest management principles is encouraged to reduce or eliminate use of chemicals.	Apply pesticides and fertilizers carefully according to the requirements on the manufacturer's label. If outdoor pesticide or fertilizer use is necessary, carefully use only the needed amount and clean up afterwards to prevent irrigation water or other runoff from carrying chemicals to storm drains. Be sure to check the label to verify if the product can be used on exterior impervious surfaces, such as driveways and building foundations. Reduce the risk of pesticide use by using less toxic alternatives and Integrated Pest Management (IPM). For more information about IPM, see the University of California Statewide IPM Program at http://www.ipm.ucdavis.edu.
		Spill Prevention and Response	
17	Prevent or capture liquid leaks from vehicles and equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks of oil and other fluids from vehicles awaiting maintenance and during maintenance activities. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	Maintain vehicles and equipment to prevent leaks and spills. This can be achieved by maintenance to prevent leaks from operative vehicles or by draining fluids if a vehicle is not intended to be used. Prevent storm water, ground water, and soil contamination by capturing leaks and spills before they contact the ground. Collect fluid leaks using drip pans or sealable containers and prevent spills using funnels, rags, and/or drop cloths when performing maintenance.
18	Drain fluids from inoperable vehicles and store or dispose of appropriately.	Oil, antifreeze, and other fluids shall be drained from inoperable vehicles intended for recycling or long-term outdoor storage. Drained fluids shall be disposed of in accordance with applicable hazardous materials regulations.	Non-operational vehicles pose a high risk of fluid leaks. Fluids shall be drained prior to storage on site to prevent spills and leaks that could contaminate soil, stain pavement, or contaminate runoff to the storm drain system.

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
Spill Prevention and Response (continued)			
19	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the storm drain system. Spills that enter a storm drain and cannot be fully recovered shall be reported promptly to the City's Storm Water Hotline at (619) 336-4389.	Spills shall be cleaned using dry methods primarily. Examples of dry cleanup methods include applying dry absorbent and removing and disposing of the absorbent properly, and absorbing spilled materials with rags. Materials used to clean up hazardous wastes shall be disposed of in accordance with applicable regulations. If spills cannot be cleaned effectively using dry methods only, wet methods such as pressure washing or mopping may be used provided all wash water is contained, captured, and disposed of appropriately. Wash water containing oil, paint, or other hazardous waste must be disposed of properly in accordance with applicable regulations. If only biodegradable soaps and uncontaminated water are used, wash water may be directed to onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the storm drain system or any adjacent property.
Waste Management			
20	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	Disposal areas for trash and other wastes shall be cleaned as frequently as necessary to keep these areas free of loose trash, litter, debris, liquids, powders, and sediment.	All trash containers shall be covered and free of holes or cracks that allow liquid or solid wastes to spill onto the ground. Areas where trash or other wastes are stored shall be cleaned as necessary to prevent debris from entering the storm drain system. More information regarding what types of items may be placed in trash receptacles can be obtained from your waste disposal company (refer to billing statement for contact number or if waste disposal is contracted through a property manager or association, from your property manager or association contact).

Table 3. Minimum BMPs for Residential Sites (continued)

No.	BMP Title	BMP Description	Residential Implementation
		Waste Management (continued)	
21	Properly store and dispose of green waste.	Green waste shall be properly stored and disposed of such that it will not be transported to the storm drain system by storm water or non-storm water runoff.	Green waste shall be contained and covered to prevent transport by rain or wind if stored on pavement or other impervious areas. Green waste shall be collected and used appropriately on-site, or disposed of properly to the green waste section of the landfill. Specific information regarding green waste collection can be obtained from your waste disposal company (refer to billing statement for contact number or if waste disposal is contracted through a property manager or association, from your property manager or association contact).
22	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	Animals and animal waste shall be managed and stored in a manner that prevents animal supplies, waste, and wash water from entering the storm drain system. Collect and dispose of animal waste through trash receptacles or the sanitary sewer, as appropriate.	Animal waste can be a source of bacteria, viruses, and other pollutants. Animal waste shall be collected promptly to avoid the spread of disease and the contamination of runoff. If animal waste must be kept on-site, cover and contain such storage areas to prevent pollutants from being transported in runoff. Any water used to clean animals or animal housing shall be disposed of to the sanitary sewer or allowed to infiltrate into landscaping without runoff. If animal wash areas exist on site, they shall be designed to prevent discharges to the storm drain system. Animal wash areas shall not be established near storm drains. Sewer or septic system drains within animal wash areas are subject to permitting requirements; call the Building Division at (619) 336-4210 for additional details.
23	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	Stored trash and other wastes shall be protected from contact with storm water and non-storm water flows. Trash and other wastes shall be contained to prevent transport of trash off site, and to keep surrounding areas and on site storm drains free of trash and other wastes.	To protect materials, supplies, trash, or other wastes contact from storm water and non-storm water flows, those materials and wastes shall be kept in either: (1) covered storage areas that are solidly screened to eliminate contact with precipitation and to prevent run-on from adjoining areas and off site transport of wastes and pollutants; or, (2) containers with closed lids that exclude precipitation and do not allow run-on. It is recommended to locate mobile trash receptacles (dumpsters and trash cans) away from storm drains and storm water flows.

Appendix C

Enforcement Response Plan

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City of National City Enforcement Response Plan

The City of National City (City) enforces compliance with pollution prevention measures by enforcing its Municipal Code (NCMC), including Chapters 1.12, 1.36, 1.44, as well as the Storm Water Management and Discharge Control Ordinance (Chapter 14.22) and the Grading Ordinance (Chapter 15.70). In accordance with Section E.6 of the California Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001 (Municipal Permit), compliance with the City's ordinances will be assessed through a variety of means, including inspections, responses to hotline calls, and the routine municipal separate storm sewer system (MS4) outfall monitoring. Where violations are observed, the enforcement actions and procedures described in this section will be employed to enforce the requirements.

The City typically employs a tiered, escalating enforcement system. However, the City reserves the right to use whatever tools the enforcement official deems most appropriate for a given situation, as dictated by the specifics of each case.

Enforcement actions, including escalated enforcement actions, are described in the following sections. It should be noted that experience and professional judgment of City staff are important in guiding the appropriate response to a violation. Escalated enforcement actions will continue to increase in severity, as necessary, to compel compliance as soon as possible.

1 Administrative Enforcement Actions

The various administrative enforcement measures employed by the City are discussed below.

1.1 Written and Verbal Warnings (NCMC § 14.22.140)

A written or verbal warning is typically the City's first level of enforcement when a violation of the City's Storm Water Ordinance is observed, such as a prohibited non-storm water discharge or an illegal connection. Written warnings can be issued using a variety of methods, including Notice of Violations (NOVs), which include cease and desist orders and notice and order to clean, test, or abate.

If it is determined by an authorized enforcement official that the public interest requires the posting of bond or other security to assure the violation is corrected, such bond or security may be required by the authorized enforcement staff official. NOVs may be issued by City staff for violations of the City's Municipal Code. When written warnings are issued, the violation is noted, a time frame to correct the violation is given, and a follow-up date is scheduled. City staff will follow up with violations as necessary to determine whether or not compliance has been achieved.

1.2 Administrative Citations and Penalties (NCMC § 14.22.140)

The City's authorized enforcement staff may issue storm water field citations for violations of the City's Municipal Code or the Municipal Permit. The penalty for a storm water infraction will typically be a small fine for a first offense, but repeated violations will result in escalating fines and/or misdemeanor charges.

Administrative penalties are assessed pursuant to National City Municipal Code Chapter 1.44 and shall be enforced at a maximum rate of $100 for a first violation. For a second violation of the same code section within one year of the initial violation, the fine shall not exceed $200. For each additional violation of the same code section within one year, the fine shall not exceed $500. The maximum rate shall not exceed $1,000 for misdemeanor penalties. The fine amounts shall be cumulative where multiple citations are issued. Administrative citations may be appealed in accordance with National City Municipal Code Section 1.42.020.

When an administrative citation is issued, the responsible party may request a hearing to contest the enforcement official's determination that a violation of the City's storm water requirements has occurred. Details on the City's hearing and appeals process can be found in Chapter 1.42 of the National City Municipal Code.

1.3 Public Nuisance Abatement (NCMC § 1.36.120)

Violations that are deemed to be a threat to public health, safety, and welfare may be identified as a public nuisance. City costs for pollution detection and abatement, if not paid in full by the discharger in addition to any other penalties, may be made a lien against the property in accordance with the abatement procedure (National City Municipal Code Section 1.36.120). Costs for pollution detection and abatement may be recovered from the discharger in addition to any other penalties.

1.4 Stop Orders (NCMC § 14.22.140)

Whenever any work is being done contrary to the City's Municipal Code, an authorized enforcement official may order the work stopped by issuing a Stop Order in writing to any person engaged in doing or causing such work to be done (National City Municipal Section 1.12.030). Any person receiving a Stop Order is required to immediately stop such work until approved by the authorized enforcement official or to proceed with the work.

For enforcement of required BMPs at construction or industrial/commercial sites, the City can issue a Stop Order. Stop Orders are typically given if written warnings have been issued and the violation has not been corrected, or if an observed violation poses a significant threat to water quality. Stop Orders prohibit further activity until the violation is resolved. The Stop Order will describe the infraction and specify what corrective actions must be taken. A copy of the Stop Order will be given to the owner or contractor and placed in the site's active inspection

file. To restart work once a Stop Order has been issued, the responsible party must request that a City inspector re-inspect the site to verify that the deficiencies have been satisfactorily corrected. Once the authorized enforcement staff verifies that the required corrective actions have been taken, site activities may resume.

1.5 Permit Suspension or Revocation (NCMC § 14.22.140)

Violations of the City's Municipal Code may be grounds for permit and/or other city license suspension or revocation. City permits, licenses, or other approvals may be suspended or revoked after notice and an opportunity for a hearing have been given. For instance, in severe cases of non-compliance, or significant discharges relating to development and/or construction activities, the City may revoke the building or grading permits that a contractor is working under for the project or deny future permits on the project. The responsible party will then need to re-apply for permits and meet the City requirements for the project before resuming.

1.6 Enforcement of Contracts

If a contractor is performing work for the City, then the City may use the provisions within the contract for enforcement of non-compliance. Such contract provisions may allow the City to refuse payment, stop work (without time penalties), and/or revoke contracts if contractors performing activities do not comply with all appropriate permits, laws, regulations, and ordinances.

2 Judicial Enforcement Actions

In addition to administrative enforcement procedures, the City also may take the judicial enforcement actions described below (National City Municipal Code 14.22.200).

2.1 Civil Penalties and Remedies (NCMC § 14.22.140.B.1)

The City Attorney is authorized to file civil actions and to seek civil penalties and/or other remedies to enforce the City's ordinances. The penalty for a storm water infraction will typically be a small fine for a first offense, but repeated violations will result in escalating fines and/or misdemeanor charges. There is no requirement that administrative enforcement procedures be pursued before such actions are filed.

2.2 Injunctive Relief (NCMC § 14.22.140.B.2)

The City may pursue enforcement by judicial action for injunctive relief for any violation of the Storm Water Ordinance.

2.3 Arrest or Issue Citations (NCMC § 14.22.140.B.3)

The assistance of a peace officer may be enlisted to arrest violators as provided in California Penal Code and/or a citation and notice to appear as prescribed in the Penal Code, including Section 853.6, may be issued.

2.4 Criminal Violations – Misdemeanors and Infractions (NCMC § 14.22.160)

It is unlawful for any person, firm, corporation, or other responsible entity to violate any provision or fail to comply with any of the restrictions or requirements of the Municipal Code, including the Storm Water Ordinance. A violation of any of the provisions or failure to comply with any of the mandatory requirements of the Municipal Code shall constitute a misdemeanor; except that notwithstanding any other provision of the Municipal Code.

3 Enforcement Documentation

During each investigation, all observed non-compliance activity is documented. The following information is recorded for use in administrative and judicial enforcement actions, where applicable:

- Chronology of events
- Case summary
- Time and expense log
- Inspection reports
- Complaints
- Phone conversation records
- Correspondence
- Maps and diagrams
- Photographs
- Witness list
- Explanation of the violations
- Request-to-file form
- Field notes
- Emergency incident reports
- Lab results
- Chain-of-custody for samples
- Permit applications
- Sampling plans
- Other supporting documents
- Reports from regulatory agencies

4 Municipal Enforcement

During routine municipal facility inspections, City or contract staff will assess facility areas and activities to ensure they are maintained in accordance with City regulations, ordinances, and BMP requirements. If BMPs are found to be deficient or otherwise ineffective, the responsible party or department will be provided in writing with required corrective actions. If the inspector notes that specific areas of a leased facility require additional BMPs, the City can require the implementation of those BMPs in addition to the minimum BMPs required for the specific area/activity. If a leased facility continues to be out of compliance, the City may decide to terminate the lease, which would remove the tenant from that particular site.

If the responsible City staff member or department/division does not perform the necessary corrective actions, escalated enforcement action will be taken by upper management staff within the responsible department or division, who may follow internal disciplinary procedures, until the deficiencies are resolved.

As required by the Municipal Permit, City staff will seek to resolve observed non-compliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

5 Industrial and Commercial Enforcement

5.1 Fixed Facility Enforcement

The City ensures that pollution prevention methods and BMPs are implemented by enforcing its ordinances. City staff and inspectors document each observed violation at industrial and commercial facilities that fail to comply with storm water requirements, and enforcement action is taken where necessary in order to achieve full compliance.

Depending on the nature and severity of the violation, enforcement may consist of any of the following typical enforcement actions. Escalated enforcement actions are marked with an asterisk (*):

- Verbal warnings
- Written warnings
- Administrative citations*
- Public nuisance abatement*
- Revocation of permits or licenses*

Inspectors seek to resolve non-compliance promptly and establish appropriate compliance time frames according to the types of BMP deficiencies observed. Escalated enforcement measures are used as needed to ensure compliance. Typically an administrative citation will be issued following initial verbal and written warnings (including NOVs). Note that the City maintains the authority to require facilities to prepare a BMP plan or to conduct sampling and analysis where deemed necessary by the City.

If the City inspector observes a significant and/or immediate threat to water quality, action will be taken to require the facility owner and/or operator to immediately stop and correct the discharge or activity. Conditions that would warrant such action may include observations of runoff from an industrial site that are not sufficiently controlled by the protective measures or observation of a failure in BMPs resulting in or potentially resulting in a release of pollutants to a degree that may substantially degrade water quality. Discharges related to non-compliance deemed to pose a threat to human or environmental health will be reported to the RWQCB verbally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Section 3.4.5 of the City's Jurisdictional Runoff Management Program (JRMP) document provides more information on reporting requirements.

Events of non-compliance are evaluated according to the following criteria to determine whether the events pose a threat to human or environmental health:

- The event of non-compliance resulted in a spill or discharge of hazardous materials, pollutants, or runoff containing pollutants that had an effect on a receiving water body.
- The quantity and/or concentration of the pollutants in the spill or discharge affecting the receiving water was such that it may cause or contribute to an exceedance in water quality objectives as specified in the Water Quality Control Plan for the San Diego Basin Plan.

As required by the Municipal Permit, City inspectors will seek to resolve observed non-compliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

5.2 Mobile Business Enforcement

Most violations associated with mobile businesses are expected to be related to illegal discharges. The City's enforcement approach to such discharges will require that the discharge be stopped and the area cleaned of discharged materials when applicable and feasible. Education may also be provided to operators who are not aware of the City's storm water requirements. Businesses that do not have the materials necessary to implement the required BMPs will be required to demonstrate to the City that they have obtained such materials and can properly use them before

the City allows such businesses to resume operations in the City. Mobile businesses that do not have current City business licenses will be required to get them. Discharges related to non-compliance deemed to pose a threat to human or environmental health will be reported to the RWQCB verbally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Section 3.4.5 of the City's JRMP document provides more information on reporting requirements.

As required by the Municipal Permit, City inspectors will seek to resolve observed non-compliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

6 Residential Enforcement

The following mechanisms will be used by the City to determine residential areas where enforcement actions may be necessary, where appropriate:

- Public reporting hotline
- Analysis of field screening and analytical monitoring results
- Observations from City staff

Violations to the City's Municipal Code will be investigated by City staff. Violations are documented and depending on the nature and severity of the violation, enforcement may consist of any of the enforcement measures described in Sections 1 and 2 of this Enforcement Response Plan.

There are two methods to determine where residential activities are contributing to runoff. One is through the complaint/referral process. Complaints may be received directly by City or contract staff or through calls to the City's Storm Water Hotline. The other is by observations made by City staff during residential area inspections, during scheduled MS4 outfall monitoring, and during routine City activities such as MS4 maintenance. Additional, focused investigations of areas upstream of outfalls with obvious pollutants present during the MS4 Outfall Monitoring Program and complaint response investigations provide more information about potential problem areas. The City has determined that the combination of monitoring, public reporting, direct observations by City staff that are routinely in the field, and targeted additional investigations where necessary provide sufficient oversight of residential areas and activities.

During investigations of violations reported to the hotline or discovered during routine MS4 outfall monitoring, that are associated with a residential source, City staff will address the storm water issues where feasible, and provide education where appropriate. The City will work with residents to achieve voluntary compliance and implement escalating enforcement mechanisms as

necessary to immediately stop an illegal connection and illegal discharge (IC/ID) once the source has been identified. Additional details of enforcement mechanisms related to IC/IDs can be found in Section 10 of this Enforcement Response Plan.

Follow-up inspections will be performed as necessary when residential BMP deficiencies are observed. Violations will continue to be investigated by City staff within a reasonable timeframe. Depending on the nature and severity of the violation, typical enforcement actions are listed below; escalated enforcement actions are marked with an asterisk (*):

- Verbal warnings
- Written warnings
- Administrative citations*
- Public nuisance abatement*

Discharges related to non-compliance deemed to pose a threat to human or environmental health will be reported to the RWQCB verbally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Section 3.4.5 of the City's JRMP document provides more information on reporting requirements.

As required by the Municipal Permit, City inspectors will seek to resolve observed noncompliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

7 Development Planning Enforcement

The City will use various enforcement methods to ensure storm water requirements for all development projects within the City's jurisdiction are met. Enforcement measures will escalate with continued violations as necessary.

The City's current plan check process includes steps to enforce the development requirements during construction. Since all structural post-construction BMPs are required to be shown on the project's plans, inspectors verify that these BMPs have been correctly installed during their construction inspections. If any issues with BMP installation are noted during inspections, the City requires the project to promptly address the issues until BMP installation is consistent with the specifications on the project's approved plans.

Once a project has been completed, ongoing operation and maintenance is verified through on-site inspections or through review of submitted annual maintenance verification certifications. If a project is not maintaining BMPs as required, depending on the nature and severity of the violation, enforcement may consist of any of the actions listed in Sections 1 or 2. Typical

enforcement actions are listed below; escalated enforcement actions are marked with an asterisk (*):

- Verbal warnings
- Written warnings
- Administrative citations*
- Public nuisance abatement, which may include placing a lien against the property*

If an inspector finds maintenance deficiencies with any structural post-construction BMPs at a site, he or she first attempts to explain the deficiencies and necessary corrective actions to the responsible party. If the responsible party performs all necessary corrective actions promptly in response to the verbal explanation from the inspector, the case is closed, and the resolution is documented. Otherwise, a written notice is issued to the responsible party. The notice indicates the type and location of each BMP and describes the deficiencies observed by the inspector as well as the required corrective actions. Responsible parties are required to perform the corrective actions and demonstrate that all necessary maintenance activities were completed through a re-inspection with the City inspector or by submitting photographs of corrections. The inspector may also request additional documentation or perform a re-inspection at their discretion.

The maintenance condition of structural post-construction BMPs is determined through an annual self-certification program where the City requires documentation from the responsible parties that demonstrates proper maintenance and operation of BMPs. If the responsible party fails to provide the annual certification, the City will issue a written notice requiring the responsible party to provide the report within a given timeframe.

If a responsible party fails to respond to a written notice from the City by the response deadline, the inspector may issue a Notice of Violation. If the responsible party still fails to perform the necessary corrective actions, the inspector may issue an Administrative Citation.

Follow-up inspections will be performed as necessary for sites with structural post-construction BMP deficiencies. All enforcement actions will be documented in the development project's database file. If a development site receives several citations or is not responsive to issued enforcement actions, more severe actions, such as court actions, will be used as necessary.

As required by the Municipal Permit, City inspectors will seek to resolve observed non-compliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept in the project's file.

8 Construction Management Enforcement

The City is responsible for enforcement of applicable local ordinances and permits at all construction sites in its jurisdiction. When violations are observed and documented during a site inspection, the City will implement appropriate enforcement measures based on the severity of the violation. Enforcement can range from written warnings to more severe enforcement such as Stop Orders. Escalated enforcement measures will be used as necessary if corrective actions are not implemented during the appropriate time frame or if the severity of the violation warrants stricter enforcement.

Typical enforcement actions that the City will implement include the following; actions considered escalated enforcement are marked with an asterisk (*):

- Written warnings, including inspection reports, correct work notices, and NOVs
- Stop Orders
- Enforcement of contracts (City projects)
- First administrative citation ($100)
- Additional administrative citations ($200 to $500)*
- BMP implementation by City-hired contractor, with cost reimbursement to the City*
- Revocation of permits*
- Civil and/or criminal court action*

Escalated enforcement actions will be reported to the RWQCB within five (5) days, as required by the Municipal Permit.

The City works closely with all development projects prior to the commencement of construction activities. All construction sites are expected to meet the City's BMP requirements. If a violation is observed at a construction site, a written warning will typically be the first enforcement step, and additional enforcement actions will be taken if necessary to achieve compliance. The City seeks to resolve violations as quickly as possible, including prior to rain events where feasible. In cases of significant or repeated non-compliance, the City may hire an outside contractor to implement required BMPs at a construction site when there is at least a 50% chance of rain within the next 72 hours. The City will require cost recovery from the responsible party (private projects) or contractor (City projects) for the costs of BMP implementation in this case. In cases where a violation cannot be resolved within 30 days, the reason additional time was needed for case resolution will be documented and kept in the project's file, as required by the Municipal Permit.

When a site is subject to the Construction General Permit (CGP), City staff may also collaborate with RWQCB staff on enforcement actions. The City will notify the RWQCB in writing within five calendar days of issuing escalated enforcement to a construction site that poses a significant

threat to water quality as a result of violations or other non-compliance. Written notification may be provided to the appropriate RWQCB staff member by email. The City will also notify the RWQCB of any construction sites required to obtain coverage under the CGP that, to the City's knowledge, have not filed NOIs, within five calendar days from the time the City became aware of the circumstances. At minimum, the construction project location and name of owner or operator will be provided to the RWQCB. Written notification may be provided electronically by email to Nonfilers_R9@waterboards.ca.gov.

Any non-compliance that may endanger human health or the environment will be reported to the RWQCB verbally within 24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Below are the criteria listed in Section 3.4.5 of the City's JRMP used to determine the threats to human health or the environment associated with a non-compliance event, whether from storm water or non-storm water discharges, where applicable:

- Estimated area of erosion caused by discharge
- Total suspended solids concentration and turbidity of discharge
- Other materials discharged that pose a threat (concrete washout, sanitary washes, etc.)

9 Illegal Discharge Detection and Elimination Enforcement

The City implements and enforces its legal authority to prevent illegal discharges and connections to its MS4. If the City identifies the source as a controllable source of non-storm water or as an illegal connection or an illegal discharge (IC/ID), the administrative and judicial enforcement measures previously discussed will be used, as necessary, to eliminate IC/IDs.

If a complaint is received that indicates an IC/ID, City staff will conduct a field investigation to evaluate the actual or potential discharge to the storm water conveyance system or receiving water body. If City staff find evidence of an actual IC/ID or a violation with the potential to release pollutants, every effort is made to identify and locate the responsible party and directly inform them of the IC/ID or issue a written warning. Responsible parties are required to clean up or remove pollutants to the maximum extent practicable. Any refusal by the responsible party to perform the necessary clean up will be directed to Code Compliance staff and escalated enforcement actions will be taken.

The City's general enforcement approach may be modified on a case-by-case basis and is based on factors such as the severity of the violation, the threat to human or environmental health, site-specific circumstances, and past compliance history. If the situation is determined to pose an immediate risk to public health or the environment, the City may coordinate with other agencies or teams that are specially trained to assess and mitigate emergency situations as necessary (e.g., those involving hazardous wastes/materials, etc.). Any non-compliance that may endanger public health or the environment will be reported to the RWQCB verbally within

24 hours and in writing within five days, as required by Attachment B of the Municipal Permit. Criteria listed below will be used to determine the threats to human health or the environment associated with a non-compliance event, whether from storm water or non-storm water discharges, where applicable:

- Estimated pollutant load discharged from site
- Estimated volume of discharge
- Types of pollutants discharged, including if toxic materials were discharged
- Sensitivity of the receiving water body, including if it is 303(d) listed for any of the pollutants in the discharge
- Proximity of site to sensitive habitat/endangered species
- Proximity of site to public water supply (well head, monitoring wells)
- Quantity, if any of the discharge reached the receiving water body
- Beneficial uses for affected water bodies

Additionally, water observed at major MS4 outfalls and traced to an anthropogenic source(s) is considered an illegal discharge. If the anthropogenic source(s) is/are found to be from an industrial/commercial site, an inspection of the industrial/commercial facility will be performed in a timely manner to investigate the discharge. The inspection report will include a note describing that the inspection was conducted in response to a recent IC/ID observed during MS4 outfall monitoring.

If the anthropogenic source of an IC/ID is determined to be from a residential area, City staff may provide educational and/or a written notification to the responsible party indicating their responsibility to stop it and prevent future discharges. Follow-up inspections will be conducted as necessary to ensure the discharge has been eliminated.

If the anthropogenic source of an IC/ID is traced to a municipal source, then the enforcement actions discussed in Section 4 of the JRMP document are taken.

Any IC/ID observed to have the potential to immediately impact human health or the environment is immediately reported to Code Compliance staff and the Fire department, if necessary, and associated enforcement action(s) will be handled by Code Compliance staff.

As required by the Municipal Permit, City staff will seek to resolve observed non-compliance within 30 calendar days, or prior to the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept on file.

Appendix D

Dry Weather MS4 Outfall Monitoring Procedures and MS4 Map

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Dry Weather Major MS4 Outfall Discharge Monitoring Procedures

1 Introduction

In accordance with the San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit), the City of National City (City), along with 18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District (collectively referred to as "Copermittees"), is required to monitor discharges from its major municipal separate storm sewer system (MS4) outfalls during dry weather. Weather is considered dry if the preceding 72 hours has been without measurable precipitation (> 0.1 inch).

The MS4 Permit defines a major MS4 outfall as a single pipe with an inside diameter of at least 36 inches or its equivalent (i.e., discharge from a single conveyance other than a circular pipe which is associated with a drainage area of more than 50 acres); or, as any outfall that discharges from a single pipe with an inside diameter of at least 12 inches or its equivalent (i.e., discharge from other than a circular pipe associated with a drainage area of at least 2 acres) that receives runoff from an area zoned for industrial activity (based on comprehensive zoning plans or equivalent).

This procedural document describes field protocols for conducting routine dry weather MS4 outfall monitoring and for investigations to identify sources of water observed during monitoring.

2 Major MS4 Outfall Inventory

The City has identified the major outfalls within its jurisdiction and maintains an inventory of them as required by the MS4 Permit. In cases where a major outfall is permanently inaccessible (e.g., due to private property constraints, safety concerns, etc.), the nearest accessible upstream location within the MS4 is designated as a proxy for the monitoring site. The major MS4 outfall inventory includes the following information for each monitoring location:

- Latitude and longitude of major MS4 outfall (or the upstream proxy site)
- Watershed Management Area (WMA)
- Hydrologic subarea (HSA)
- Outfall size (inches)
- Accessibility (i.e. safety and without disturbance of critical habitat)
- Approximate drainage area (acres)
- Classification of whether the outfall is known to have persistent, transient, or no dry weather discharges. Persistent flow is defined in the MS4 Permit as the presence of

flowing, pooled, or ponded water more than 72 hours after a measureable rainfall event of 0.1 inch or greater during three consecutive monitoring and/or inspection events. All other flowing, pooled, or ponded water is considered transient.

3 Routine Dry Weather Major MS4 Outfall Site Visits

During each site visit, a field datasheet (Attachment 3) is completed. The steps involved in obtaining the information to complete the datasheet are listed in the following sections.

3.1 Site Location and Documentation

The first task in conducting a routine site visit is locating the site. This is achieved by using GPS coordinates and the location description provided by the major outfall monitoring site inventory. A hand-held GPS device is used in the field to verify or update coordinates. Once the site has been located and verified, photos are taken to document the condition of the site. Photos are taken facing upstream and downstream of the site and are taken such that they sufficiently display any water present and notable landmarks when possible.

3.2 Atmospheric Conditions

Weather conditions and rainfall information are recorded on the field datasheet. It is important to record the nature of the tide (i.e., incoming, outgoing, high) and its height if the outfall may be tidally influenced. Since monitoring is only permitted to be conducted during dry weather, it is important to document that the monitoring is being completed during dry weather conditions: >72 hours since the last rain, or <72 hours since the last ran and ≤0.1 inches of precipitation. If neither of those conditions are met, then dry weather monitoring cannot be conducted. The field team should then stop work until dry weather conditions apply again.

3.3 Flow Measurements

At each site, the outfall is assessed for the presence of water. If a site has flowing or ponded water, sampling staff will observe whether the flow reaches the receiving water body. If the sampling site is upstream of the outfall due to accessibility constraints, it is usually not possible to visually observe whether the flow reaches the receiving water body. In these cases, the "Unknown" option is selected on the datasheet.

At sites with flowing water, the flow rate is also measured and recorded on the field datasheet in gallons per minute (gpm). If the site location is within a manhole, width, depth and velocity measurements cannot be precisely determined and the flow rate must be estimated. If an outfall has ponded water, the flow is recorded as zero gpm. If an outfall is dry, the flow rate is recorded as "Dry".

The three methods used to measure flow rate and a description of each are included below:

Velocity-area method ("leaf float") - The most common method for measuring the discharge of a channel is the velocity-area method. This method requires the physical measurement of the cross-sectional area and the velocity of the flowing water. Discharge is determined as the product of the area times the velocity:

Flow rate (ft^3/sec, or cfs) = Velocity (ft/sec) x Depth (ft) x Width (ft)

The leaf float method involves using a stop watch to measure the time (in seconds) it takes for a leaf or similar object to float across a pre-measured distance (in feet) of the surface of the flowing water. The flow rate can then be calculated by using the equation above. A correction factor between 0.5 and 0.8 should be applied to the flow rate calculation while in the field, based on the width and depth of the flow, as well as the roughness of the conveyance surface material. In general, the rougher the conveyance surface material, the lower the correction factor that must be applied to the flow rate.

Filling a bottle or known volume method - The rate can be determined by measuring the diameter of the outfall and the length of time it takes to fill a 1 liter bottle or any other container with a known volume. Dividing the volume by the time gives a flow rate. Appropriate conversion factors are then applied to convert that flow rate to gpm or cfs if needed. For example, 1 liter per second is equal to 15.85 gpm.

Partially filled pipe method - This method is applicable to discharges from circular pipes. All measurements should be converted to ft before calculation so that the final flow rate is given in cfs. The water depth and inside pipe diameter are measured, then the following approach is applied using the partially filled pipe formula chart in Table 1.

- Calculate D/d
  - D = water depth (ft) and d = inside pipe diameter (ft)
- Find the tabulated (Ta) value on the partially filled pipe formula chart below using the D/d value (e.g., If D/d = 0.26 then Ta =0.1623)
- Find the area using the formula $a = Ta*d^2$
- Calculate flow: Q (flow, cfs) = a (ft^2) x Velocity (ft/sec)
  Convert to gpm as follows: 1 cfs = 448.8 gpm

Table 1. Calculating the Area of the Cross Section of a Circular Pipe Flowing Partially Full

D/d	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0013	0.0037	0.0069	0.0105	0.0147	0.0192	0.0242	0.0294	0.0350
0.1	0.0409	0.0470	0.0534	0.0600	0.0668	0.0739	0.0817	0.0885	0.0951	0.1039
0.2	0.1118	0.1199	0.1281	0.1365	0.1440	0.1535	0.1623	0.1711	0.1800	0.1890
0.3	0.1982	0.2074	0.2187	0.2280	0.2355	0.2450	0.2540	0.2642	0.2780	0.2836
0.4	0.2934	0.3032	0.3130	0.3220	0.3328	0.3428	0.3527	0.3627	0.3727	0.3827
0.5	0.3980	0.4030	0.4130	0.4230	0.4330	0.4430	0.4520	0.4620	0.4720	0.4820
0.6	0.4920	0.5020	0.5120	0.5210	0.5310	0.5400	0.5500	0.5590	0.5690	0.5780
0.7	0.5870	0.5960	0.6050	0.6140	0.6230	0.6320	0.6400	0.6490	0.6570	0.6660
0.8	0.6740	0.6810	0.6890	0.6970	0.7040	0.7120	0.7190	0.7250	0.7320	0.7360
0.9	0.7450	0.7500	0.7560	0.7610	0.7660	0.7710	0.7750	0.7790	0.7820	0.7840
D = Depth of water			a = area of water in partially filled pipe							
d = diameter of the pipe			Ta = Tabulated Value					Then a = Ta*d^2		

Source: County of San Diego, May 2011. *Dry Weather and MS4 Analytical and Field Screening Monitoring Procedures Manual*

3.4 Observations

Observations for odor, color, clarity, and floatables are assessed and recorded on a field datasheet. When the site is dry, the option "na (dry)" is marked, meaning "not analyzed" and/or "dry site".

Odor: Choose any of the following options that is most representative of the site conditions: none, sewage, sulfides, petroleum, manure, other. Note that "sulfides" indicates the distinct rotten egg smell associated with hydrogen sulfide gas. A petroleum odor usually refers to a smell of gasoline/diesel. Any time a sewage or petroleum odors are noted, some additional source investigation should be completed and/or the appropriate authorities (sewer agency or County of San Diego Department of Environmental Health) should be notified.

Color: Choose one of the following options most representative of the water when viewed *in situ*: none, yellow, brown (silty), white (milky), gray, other.

Clarity: If the water has minimal or no turbidity, mark "Clear." For more turbid water, the clarity options "Cloudy" and "Murky" are distinguished as follows:

- If the field team views the water at the site and can see more than 4" below the surface of the water, the clarity field is marked as "Cloudy (> 4" vis)." When visibility is limited to less than 4" below the surface of the water, it is marked as "Murky (<4" vis)."

Floatables: Select one or more of the following: none, trash, bubbles/foam, sheen, algae, biofilms, other. Only materials present on or very close to the surface of the water shall be included for this observation. For example, if trash is observed well below the water

surface or at a dry site, trash should not be marked as a floatable. However, trash would still be recorded in the trash assessment section in these cases.

Observations of deposits, vegetation, and biology noted at the site, and the structural condition of the outfall, are recorded for all sites, even if the site is dry.

Deposits: Select one or more of the following: none, coarse particulate, fine particulate, stains/minerals, oily deposit, other. Coarse particulates include particles such as sand or gravel and fine particulates include any particulates that are smaller than the coarse particulates, such as from the presence of clay sediment. Stains or oily deposits, if observed, may require upstream source investigations if they appear recent. Mineral deposits can result in orange/red deposits and oil deposits are black in color.

Vegetation: Sites within manholes will almost always have no vegetation, so "none" should be marked on the datasheet. If the vegetation is observed as less than what is typical for the site, due to excessive erosion or plant removal for instance, the site is considered to have "Limited" vegetation. Sites with vegetation that is overgrown and is impeding, or may impede, flow from the site, or that may contribute to other water quality issues, are considered to have "Excessive" vegetation. Sites observed with typical vegetation for the site are marked as "Normal".

Biology: Select all applicable options (more than one can be selected). Note that additional categories of organisms can also be notes by writing them in next to the "Other" option.

Structural Condition: "Damaged" means that the outfall structure is cracked, has partially collapsed, or is otherwise in need of repair. "Scour Pond" means an unpaved area just downstream of the outfall has been eroded by outfall discharges such that a depression that allows water to collect and pond has formed. Scour ponds may be sources of bacteria. "Erosion" means there is evidence of erosion at or downstream of an outfall that could either result in a blockage or to water quality issues. "Blockage" means the flow path through the outfall is significantly obstructed. Outfalls to which none of the above apply and that are in good structural condition are marked as "Normal".

3.5 Trash Assessments

Trash assessments are performed for a designated area around each outfall visited for field screening. The area of assessment is determined using the best professional judgment of the field team, and usually includes an area with a length and width of approximately five to fifteen feet. If observed trash, or other observed pollutants, at the site is determined to pose a threat to human health or the environment, the reporting and response procedures described in the

Section 3 of the City's Jurisdictional Runoff Management Program (JRMP) document will be followed. Site trash assessment is conducted utilizing the trash rating system summarized in Table 2, which was adopted by the Copermittees' Regional Monitoring Workgroup in 2013.

Table 2. Trash Assessment Ratings

Copermittee Data Sharing Format Trash Assessment Ratings
None (0 pieces observed)
Low (<50 pieces observed)
Medium (50-400 pieces observed)
High (>400 pieces observed)

4 Discharge Source Investigation

The discharge source is assessed for all sites that have ponded or flowing water. If a site has flowing water, an upstream investigation may be necessary to determine the source of the discharge. The discharge source is traced upstream with the assistance of the City's MS4 map. While the MS4 Permit requires source investigations for sites with ponded water, sources usually cannot be located since the upstream MS4 line is typically dry at the time of the upstream investigation. Observations and notes are recorded on the field datasheet for evidence of an illegal connection or an illegal discharge, discharge source, basis for source identification, and source elimination.

4.1 Evidence of Obvious Illegal Connections and Illegal Discharges

Evidence of illegal connections and illegal discharges (IC/ID) is documented on the field datasheet by listing physical characteristics of the discharge, such as odor, color, clarity, floatables, deposits, high flow rate, non-standard connection, or anything else that may indicate an IC/ID. For example, murky water may indicate washing activity or discharge from a construction site upstream. Follow up investigations are conducted immediately in cases where obvious IC/IDs are observed.

4.2 Discharge Sources

Potential sources of non-storm water discharges include groundwater, seepage, irrigation runoff, vehicle washing, wet cleaning or power washing, construction, pool or spa discharge, tidal, water line break, NPDES permitted discharge, other, or unable to determine. Examples of NPDES permitted discharges include line flushing by local water utilities and groundwater dewatering conducted after obtaining a discharge permit from the Regional Water Quality Control Board, San Diego Region (RWQCB). More than one source may be recorded if observed during the upstream investigation. If the site is dry, then "na" (not applicable) should be checked on the field datasheet.

If the field crew identifies the source as a controllable source of non-storm water or illegal discharge or connection, the City's Enforcement Response Plan will be implemented to prohibit and eliminate the discharge or connection to the MS4. If the City suspects the source of the non-storm water discharge as natural in origin (i.e. non-anthropogenically influenced) and in conveyance into the MS4, then the City will document and provide the data and evidence necessary to demonstrate to the RWQCB that it is natural in origin and does not require further investigation.

4.3 Basis for Source Identification

The basis for source identification is noted on the datasheet as an observed discharge, indirect evidence, historical data, or other. A definition of each basis is included below. If the site is dry, or the source is unable to be determined, "na" should be marked on the datasheet.

- Observed Discharge: During the upstream investigation, water is seen discharging to a structure which drains to the site. An example is irrigation runoff from landscaping flowing to a curb inlet upstream from the site.
- Indirect Evidence: An active discharge is not observed, but there is evidence of a recent discharge that may have contributed to water observed at the site. An example is a wet vehicle in a driveway and some ponded water with soap bubbles in a nearby gutter upstream from the site.
- Historical Data: Results of previous monitoring efforts can sometimes be useful in determining the source of the discharge, even when no direct (observed) or indirect evidence of discharge is noted at the time of the present site visit. Other useful historical data may include local groundwater monitoring well data or results from complaint investigations or inspections.

4.4 Discharge Elimination

If the source of the discharge is identified, the source elimination status on the datasheet is recorded as "Yes" if it was eliminated, "No" if it was not eliminated, or "na" if the site was dry. An example of discharge elimination includes discontinued washing activities from a business or resident after speaking with the responsible party. If multiple discharge sources were identified, and some, but not all sources were eliminated, "No" should be marked, and a full explanation of actions taken to eliminate any sources should be described in the comments.

4.5 Discharge Prioritization for Follow-Up Investigation

As part of the field screening, when flowing or ponded water is observed, the field team will review historical data and make observations in the immediate upstream vicinity of the site to see if the primary source or sources of water can be identified. Any identified or suspected specific sources of a discharge will be recorded and placed into one of the categories listed

below. These categories differ slightly from the ones described in the County's *San Diego County Permittees Draft Investigation Procedures* manual. However, the categories listed below can be used to prioritize sources for follow-up and are listed in descending order of priority, with Category I being the highest priority.

1. **Category I**: Observed illegal discharges or illegal connections. Discharges in this category may also pose a threat to human or aquatic health.
2. **Category II**: Discharge type prohibited in 2013 MS4 Permit but allowed in the 2007 MS4 Permit. Examples include irrigation runoff and discharges from foundation or footing drains.
3. **Category III**: Source of discharge is unknown or unable to be determined. For instance, if seepage is observed but it is unknown if the water is from interflow or groundwater.
4. **Category IV**: Conditionally exempt discharges, such as individual residential car washing and air conditioning condensate. Note that if observation data, such as high turbidity or sewage smell, indicates that these discharges are significant sources of pollutants, they are classified under Category I instead.
5. **Category V**: Discharges from natural sources or NPDES permitted discharges, such as groundwater infiltration.

Whenever evidence of a Category I discharge is observed, the City's project manager is contacted immediately for direction about whether additional upstream investigation should be completed. Category V sources do not require any follow-up investigation, although detailed documentation should be collected directly or from past studies to prove that water observed in the MS4 is in fact a Category V discharge. For sources classified as Categories II, III, or IV, the following will also be considered, in order of importance and in combination with staff's best professional judgment, when prioritizing for further investigation:

1. **Flow rate:** Higher flow rates are typically placed at a higher priority.
2. **Flow reaches receiving water:** Discharges observed to reach a receiving water body or highly likely to reach a receiving water body should be higher priority than discharges that do not reach the receiving water body.
3. **Historical data:** Sites with that consistently have flowing water should usually be higher priority than sites that sometimes are flowing but sometimes are dry or ponded.

4.6 Additional Investigation Methods

If a discharge source cannot be identified using the typical investigation methods described above, and there is persistent flow or it is possible an IC/ID may be contributing flow to the site, the field team may use alternate methods for identifying the discharge source. Further details

regarding different source constituents and follow-up procedures for each source category can be found in the County of San Diego's *San Diego County Permittees Draft Investigation Procedures* manual. A few of the more common alternate source investigation methods are summarized on the following page.

Review of Plans

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

Dye Testing

Dye testing is useful to confirm hydraulic connections between the potential source and the location downstream. Fluorescent dye is discharged at the source of the potential IC/ID and is monitored downstream. This method is used only when necessary because the public and appropriate regulatory agencies in the surrounding area need to be informed of the cause of the water discoloration.

Smoke Testing

Smoke testing can be used only on underground storm water conveyance facilities, to determine potential hydraulic connections between the source and downstream location. Again, the public and appropriate agencies need to be informed of the cause for smoke coming from the MS4.

Video Monitoring

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

Confined Space Entry

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

Potential Sewage IC/IDs

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

- Ammonia - Sewage frequently contains ammonia levels of 30 mg/L or greater. This can be measured with an inexpensive field screening kit.

- Bacteria - Sewage generally has high levels of total and fecal coliforms and *Enterococci*. Sewage treatment plants and many laboratories routinely conduct these indicator analyses.
- When the discharge source is traced to a private property or other public entity, the City may require the responsible party to engage in their own additional investigation and report the findings to the City. Alternatively, the City may choose to perform a joint investigation with the responsible party or other public entities in order to identify the discharge source.

Additional Field or Laboratory Testing

- Measuring the chlorine concentration and conductivity to assess whether a water line break or leak may be contributing to flow at the site.
- Measuring the conductivity at the site. Higher conductivity values may indicate the infiltration of groundwater into the MS4 pipe, and further investigation may be necessary to confirm this conclusion (e.g. analyzing local ground water monitoring well data if available, sending a camera through the MS4 line, etc).

5 Persistent Flow Outfall Monitoring

Pursuant to Section D.2.b.(2) of the MS4 Permit, if during transitional and routine MS4 outfall discharge monitoring, sites are found to have persistent flow, the City will determine which persistent non-storm water discharges contain pollutant concentrations in excess of the respective non-storm water action level (NAL) at a minimum of five of these sites within its jurisdiction and within each WMA.

The NALs for non-storm water discharges are included in Attachment 4 of this document. If there are less than five persistently flowing sites in a WMA, the City will monitor all of its major MS4 outfalls with persistent flows.

The highest priority sites will be monitored during dry weather at least semi-annually until one of the following occurs:

- The non-storm water discharges have been effectively eliminated (i.e. no flowing, pooled, or ponded water) for three consecutive dry weather monitoring events.
- The source(s) of the persistent flows has been identified as a category of non-storm water discharges that does not require an NPDES permit and does not have to be addressed as an illegal discharge because it was not identified as a source of pollutants (i.e. constituents in non-storm water discharge do not exceed NALs), and the persistent flow can be re-prioritized to a lower priority.

- The constituents in the persistent flow non-storm water discharge do not exceed NALs, and the persistent flow can be re-prioritized to a lower priority.
- The source(s) of the persistent flows has been identified as a non-storm water discharge authorized by a separate NPDES permit.

If none of the conditions listed on the following page are not met, but threat to water quality has been reduced, the site can be reprioritized as a lower priority. The City records removal or re-prioritization of the highest priority persistently flowing MS4 outfalls in the Water Quality Improvement Plan Annual Report.

5.1 Persistent Flow Outfall Discharge Analytical Monitoring

During each semi-annual monitoring event in which measurable flow is present, each Copermittee must collect and analyze samples from each of the highest priority persistent flow MS4 outfall monitoring stations within its jurisdiction. Analytes that are field measured are not required to be analyzed by a laboratory. Grab or composite samples are analyzed at a qualified laboratory for the following constituents:

- Constituents contributing to the highest priority water quality conditions identified in the Water Quality Improvement Plan.
- Constituents listed as a cause for impairment of receiving waters in the WMA listed on the 303(d) list.
- Constituents for implementation plans or load reduction plans (e.g. Bacteria Load Reduction Plans, Comprehensive Load Reduction Plans, etc.) developed for watersheds where the Copermittees are listed responsible parties under the Total Maximum Daily Loads in Attachment E of the MS4 Permit.
- Applicable NAL constituents.
- Constituents listed in Table D-7 of the MS4 Permit (and included in the bulleted list below). The Copermittees may adjust the list of constituents for the WMA if historical data or supporting information can be provided that demonstrates or justifies the analysis of a constituent is not necessary.

Based on the criteria listed above, the City's non-storm water persistent flow outfalls will be monitored semi-annually for the constituents listed in the San Diego Bay WMA Water Quality Improvement Plan Monitoring and Assessment Program. Sampling, analysis and quality assurance/quality control are conducted in accordance with the Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program, adopted by the State Water Resources Control Board. All chemical, bacteriological, and toxicity analyses will

be conducted at a laboratory certified for such analyses by the California Department of Public Health or a laboratory approved by the RWQCB.

6 Enforcement

If the source of a discharge is identified as a category of non-exempt non-storm water discharges, and the discharge is in exceedance of NALs listed in the Water Quality Improvement Plan, then the City will determine if it is an isolated incident or a set of circumstances that will be addressed through its Enforcement Response Plan, or the category of discharge must be addressed and classified as a prohibited discharge.

7 Reporting

All field datasheets, reports, and data associated with the City's MS4 outfall monitoring program will be made available to the RWQCB in a standardized and compatible format. The City's JRMP Annual Report will also include the number of IC/IDs detected, identified, and eliminated within the reporting period. Reporting IC/IDs to other agencies such as the RWQCB and the County of San Diego Department of Environmental Health is discussed in the City's JRMP document.

8 References

California Regional Water Quality Control Board, San Diego Region. May 8, 2013. *Order No. R9-2013-0001.*

County of San Diego. May 2011. *Dry Weather and MS4 Analytical and Field Screening Monitoring Procedures Manual.*

County of San Diego. June 2013. *San Diego County Permittees Draft Investigation Procedures.*

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Attachment 1

MS4 and Monitoring Locations Map

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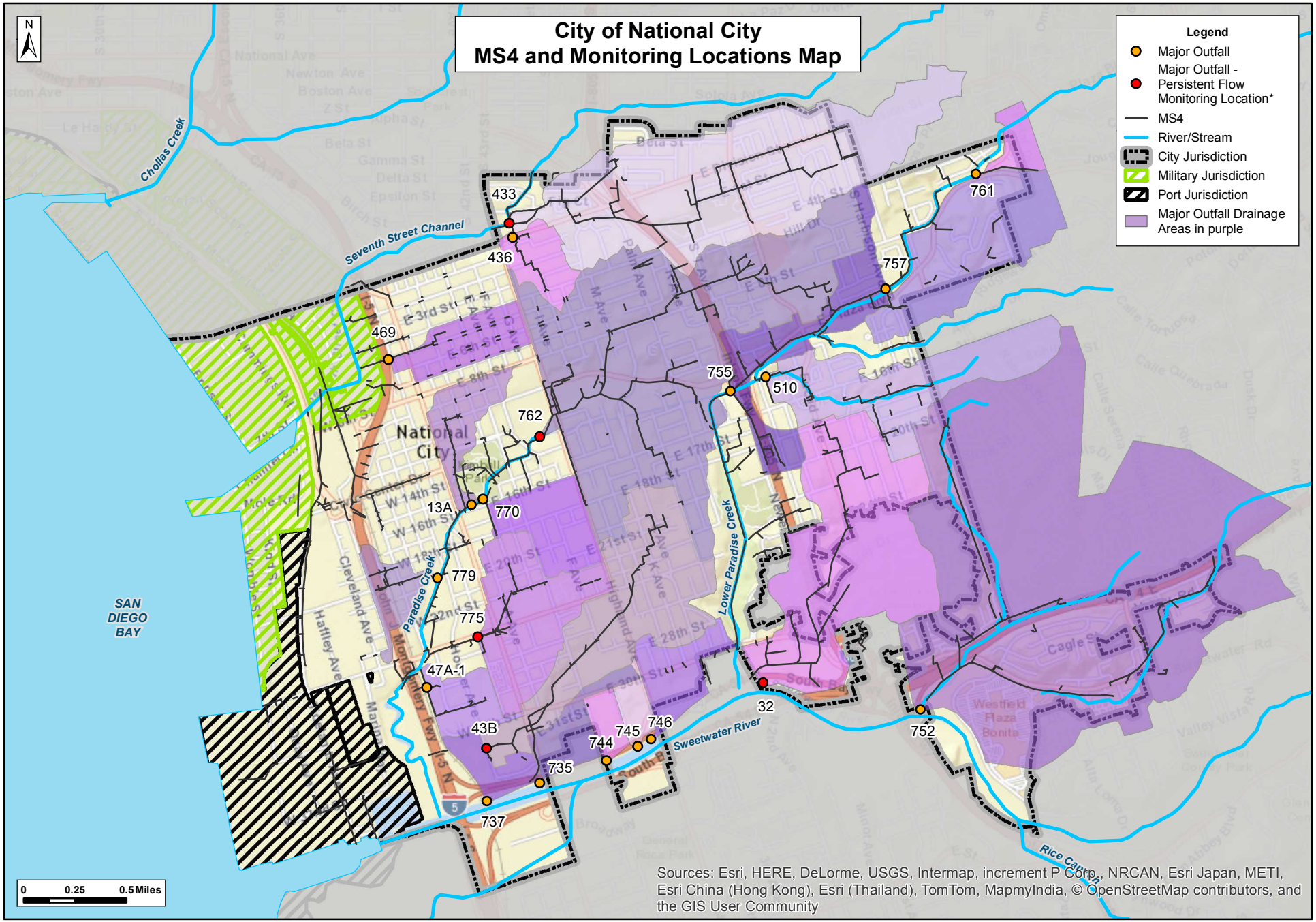

Base Data Sources: City of National City, Port of San Diego, and SanGIS

Note: The drainage basins included on this map, delineated by the City of National City, are displayed instead of the hydrologic subarea boundaries since they are more representative of the actual drainage of the City.

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

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Attachment 2

Drainage Basins Map

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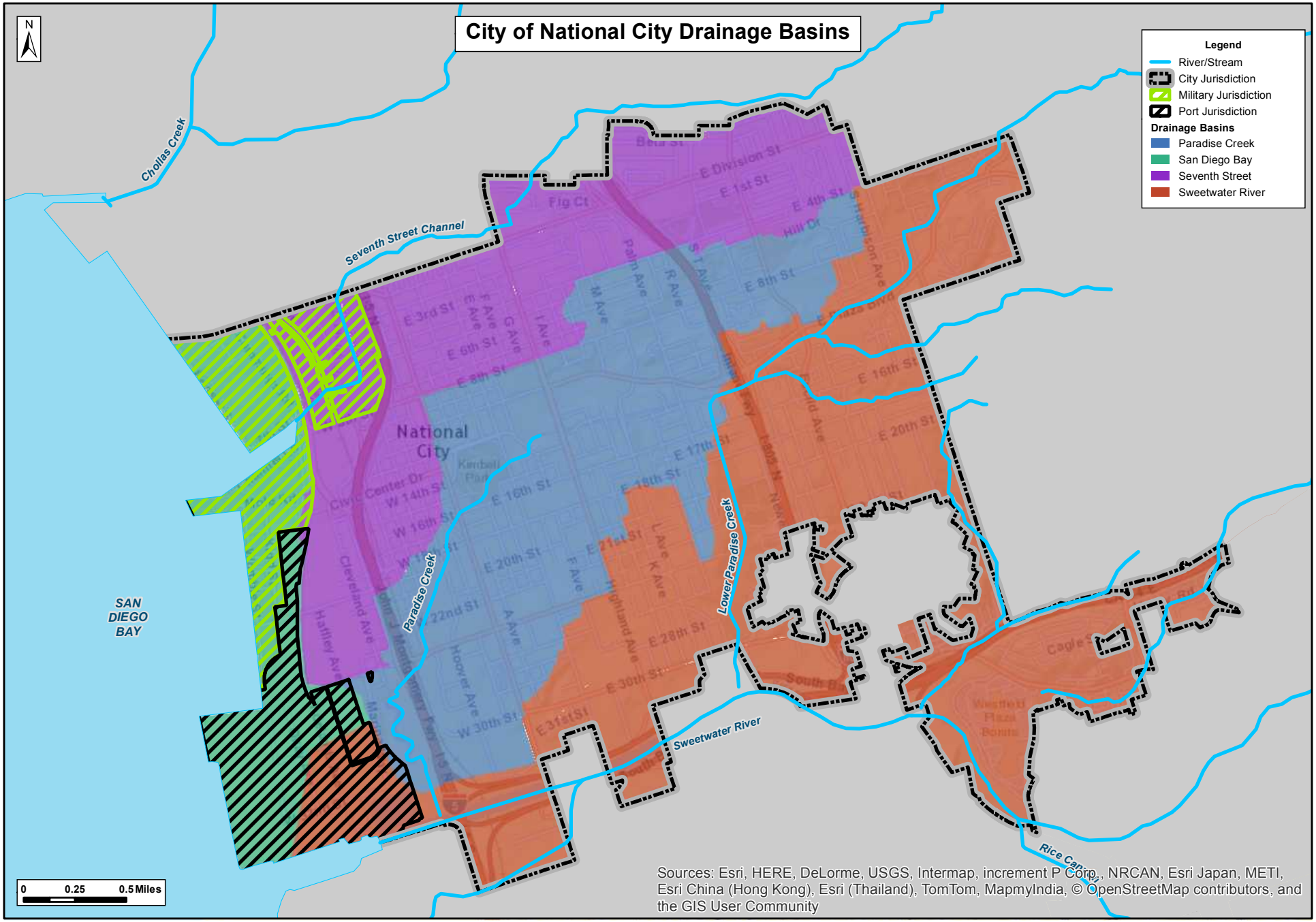

Base Data Sources: City of National City, Port of San Diego, and SanGIS

Note: The drainage basins included on this map, delineated by the City of National City, are displayed instead of the hydrologic subarea boundaries since they are more representative of the actual drainage of the City. The City of National City lies entirely in the San Diego Bay Watershed Management Area.

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Attachment 3

MS4 Outfall Monitoring Field Datasheet

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City of National City
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☐ Removed,_____

Site ID:		**Latitude:**	**Outfall Size:**
Location:		**Longitude:**	
		HSA:	
		Observer(s):	
Date:	**Time:**		

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☐ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☐ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: _____ ☐ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☐ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☐ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☐ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☐ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☐ Other	
Structural Condition (select only one)	☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☐ Blockage	☐ Other	

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☐ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☐ Aquatic Health

Comments: _____

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☐ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☐ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☐ Observed Discharge ☐ Indirect Evidence ☐ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☐ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☐ Yes ☐ No **Analytical Lab Samples Collected?** ☐ Yes ☐ No

Water Temp (°C)		NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

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Attachment 4

Non-Storm Water Action Levels (NALs)

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C. ACTION LEVELS

The purpose of this provision is for the Copermittees to incorporate numeric action levels in the Water Quality Improvement Plans. The goal of the action levels is to guide Water Quality Improvement Plan implementation efforts and measure progress towards the protection of water quality and designated beneficial uses of waters of the state from adverse impacts caused or contributed to by MS4 discharges. This goal will be accomplished through monitoring and assessing the quality of the MS4 discharges during the implementation of the Water Quality Improvement Plans.

1. Non-Storm Water Action Levels[7]

The Copermittees must develop and incorporate numeric non-storm water action levels (NALs) into the Water Quality Improvement Plan to: 1) support the development and prioritization of water quality improvement strategies for effectively prohibiting non-storm water discharges to the MS4s, 2) assess the effectiveness of the water quality improvement strategies toward addressing MS4 non-storm water discharges, required pursuant to Provision D.4.b.(1), and 3) support the detection and elimination of non-storm water and illicit discharges to the MS4, required pursuant to Provision E.2.[8]

a. The following NALs must be incorporated:

(1) Non-Storm Water Discharges from MS4s to Ocean Surf Zone

Table C-1. Non-Storm Water Action Levels for Discharges from MS4s to Ocean Surf Zone

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Total Coliform	MPN/100 ml	1,000	-	10,000/1,000[1]	OP
Fecal Coliform	MPN/100 ml	200[2]	-	400	OP
Enterococci	MPN/100 ml	35	-	104[3]	OP

Abbreviations/Acronyms
AMAL – average monthly action level
OP – Ocean Plan water quality objective
MDAL – maximum daily action level
MPN/100 ml – most probable number per 100 milliliters

Notes:
1. Total coliform density NAL is 1,000 MPN/100 ml when the fecal/total coliform ratio exceeds 0.1.
2. Fecal coliform density NAL is 200 MPN per 100 ml during any 30 day period.
3. This value has been set to the Basin Plan water quality objective for saltwater "designated beach areas."

[7] NALs incorporated into the Water Quality Improvement Plans are not considered by the San Diego Water Board to be enforceable effluent limitations, unless the NAL is based on a WQBEL expressed as an interim or final effluent limitation for a TMDL in Attachment E and the interim or final compliance date has passed.
[8] The Copermittees may utilize NALs or other benchmarks currently established by the Copermittees as interim NALs until the Water Quality Improvement Plans are accepted by the San Diego Water Board Executive Officer.

(2) Non-Storm Water Discharges from MS4s to Bays, Harbors, and Lagoons/Estuaries

Table C-2. Non-Storm Water Action Levels for Discharges from MS4s to Bays, Harbors, and Lagoons/Estuaries

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Turbidity	NTU	75	-	225	OP
pH	Units	Within limit of 6.0 to 9.0 at all times			OP
Fecal Coliform	MPN/100 ml	200[1]	-	400[2]	BP
Enterococci	MPN/100 ml	35	-	104[3]	BP
Priority Pollutants	µg/L	See Table C-3			

Abbreviations/Acronyms:
AMAL – average monthly action level
OP – Ocean Plan water quality objective
NTU – Nephelometric Turbidity Units
µg/L – micrograms per liter
MDAL – maximum daily action level
BP – Basin Plan water quality objective
MPN/100 ml – most probable number per 100 milliliters

Notes:
1. Based on a minimum of not less than five samples for any 30-day period.
2. The NAL is reached if more than 10 percent of total samples exceed 400 MPN per 100 ml during any 30 day period.
3. This value has been set to the Basin Plan water quality objective for saltwater "designated beach areas" and is not applicable to water bodies that are not designated with the water contact recreation (REC-1) beneficial use.

Table C-3. Non-Storm Water Action Levels for Priority Pollutants

Parameter	Units	Freshwater (CTR)		Saltwater (CTR)	
		MDAL	AMAL	MDAL	AMAL
Cadmium	µg/L	**	**	16	8
Copper	µg/L	*	*	5.8	2.9
Chromium III	µg/L	**	**	-	-
Chromium VI	µg/L	16	8.1	83	41
Lead	µg/L	*	*	14	2.9
Nickel	µg/L	**	**	14	6.8
Silver	µg/L	*	*	2.2	1.1
Zinc	µg/L	*	*	95	47

Abbreviations/Acronyms:
CTR – California Toxic Rule
AMAL – average monthly action level
µg/L – micrograms per liter
MDAL – maximum daily action level

Notes:
* Action levels developed on a case-by-case basis (see below)
** Action levels developed on a case-by-case basis (see below), but calculated criteria are not to exceed Maximum Contaminant Levels (MCLs) under the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431

The Cadmium, Copper, Chromium (III), Lead, Nickel, Silver and Zinc NALs for MS4 discharges to freshwater receiving waters will be developed on a case-by-case basis based on site-specific water quality data (receiving water hardness). For these priority pollutants, refer to 40 CFR 131.38(b)(2).

(3) Non-Storm Water Discharges from MS4s to Inland Surface Waters

Table C-4. Non-Storm Water Action Levels for Discharges from MS4s to Inland Surface Waters

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Dissolved Oxygen	mg/L	Not less than 5.0 in WARM waters and not less than 6.0 in COLD waters			BP
Turbidity	NTU	-	20	See MDAL	BP
pH	Units	Within limit of 6.5 to 8.5 at all times			BP
Fecal Coliform	MPN/100 ml	200[1]	-	400[2]	BP
Enterococci	MPN/100 ml	33	-	61[3]	BP
Total Nitrogen	mg/L	-	1.0	See MDAL	BP
Total Phosphorus	mg/L	-	0.1	See MDAL	BP
MBAS	mg/L	-	0.5	See MDAL	BP
Iron	mg/L	-	0.3	See MDAL	BP
Manganese	mg/L	-	0.05	See MDAL	BP
Priority Pollutants	µg/L	See Table C-3			

Abbreviations/Acronyms:
AMAL – average monthly action level
BP – Basin Plan water quality objective
COLD – cold freshwater habitat beneficial use
NTU – Nephelometric Turbidity Units
mg/L – milligrams per liter
MDAL – maximum daily action level
WARM – warm freshwater habitat beneficial use
MBAS – Methylene Blue Active Substances
MPN/100 ml – most probable number per 100 milliliters
µg/L – micrograms per liter

Notes:
1. Based on a minimum of not less than five samples for any 30-day period.
2. The NAL is reached if more than 10 percent of total samples exceed 400 MPN per 100 ml during any 30 day period.
3. This value has been set to the Basin Plan water quality objective for freshwater "designated beach areas" and is not applicable to water bodies that are not designated with the water contact recreation (REC-1) beneficial use.

b. If not identified in Provision C.1.a, NALs must be identified, developed and incorporated in the Water Quality Improvement Plan for any pollutants or waste constituents that cause or contribute, or are threatening to cause or contribute to a condition of pollution or nuisance in receiving waters associated with the highest priority water quality conditions related to non-storm water discharges from the MS4s. NALs must be based on:

(1) Applicable water quality standards which may be dependent upon site-specific or receiving water-specific conditions or assumptions to be identified by the Copermittees; or

(2) Applicable numeric WQBELs required to meet the WLAs established for the TMDLs in Attachment E to this Order.

c. For the NALs incorporated into the Water Quality Improvement Plan, the Copermittees may develop and incorporate secondary NALs specific to the Watershed Management Area at levels greater than the NALs required by Provisions C.1.a and C.1.b which can be utilized to further refine the prioritization and assessment of water quality improvement strategies for effectively prohibiting non-storm water discharges to the MS4s, as well as the detection and elimination of non-storm water and illicit discharges to and from the MS4. The

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Appendix E

Retrofit and Rehabilitation Projects

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Retrofit and Rehabilitation Projects

1 Introduction

The Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001 (Municipal Permit) requires the 18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District, including the City of National City (City) (collectively referred to as "Copermittees") to develop a program that will retrofit areas of existing development and a program to rehabilitate streams, channels, and/or habitats in the City's jurisdiction within the San Diego Bay Watershed Management Area (WMA).

The San Diego Bay WMA is different from other WMAs since it comprises of three separate and very distinct hydrologic units that are not interconnected, but have one final downstream waterbody, the San Diego Bay. This makes it difficult for all Copermittees to address the sources of pollutants and/or stressors that contribute to the highest priority water quality conditions (HPWQCs) identified in the San Diego Bay Water Quality Improvement Plan (WQIP): indicator bacteria and metals in Chollas Creek. Since the City does not have any jurisdictional area within the drainage area to Chollas Creek, the City's Jurisdictional Runoff Management Program (JRMP) activities will not influence the water quality of Chollas Creek.

As a result, the Copermittees in the San Diego Bay WMA have identified focused priority water quality conditions (FPWQCs), in addition to the HPWQCs, for which numeric goals, strategies, and schedules will be established. For National City, the FPWQC is riparian area quality of Paradise Creek which drains to the Sweetwater River and ultimately to the San Diego Bay. The following sections discuss the strategies the City will utilize to identify, prioritize, and implement potential projects that will address this FPWQC.

2 Program Organization

The City does not maintain one overarching retrofit and rehabilitation program. Rather, the City has several different programs that contribute to retrofits or stream, channel, and/or habitat rehabilitation efforts within areas of existing development, as summarized below:

- Alternative compliance provisions for development projects, which allow offsite retrofit or rehabilitation projects in lieu of meeting the relevant storm water requirements solely through onsite practices. Because this effort is currently under development, the processes for approving, implementing, maintaining, and reporting on such projects and the associated responsible departments will be identified in the future.

- Obtaining grants for storm water retrofits or stream, channel, and/or habitat rehabilitation projects, led by the Engineering Division.
- Implementing projects, typically green infrastructure or other structural water quality improvement best management practices (BMPs).

3 Retrofitting Areas of Existing Development

As defined by the Municipal Permit, a retrofit is a "storm water management practice put into place after development has occurred in watersheds where the practices previously did not exist or are ineffective." Potential projects, or "candidate projects," can include, for example, disconnecting roof downspouts and impervious surfaces and redirecting them to pervious areas, installing rain barrels, or implementing "green streets." The following factors are considered when identifying candidate projects.

- **Directly targets the City's FPWQCs and helps make progress toward WQIP numeric goals.**
- **Feasibility of project.** The feasibility of the project is an important consideration that takes into account a project's likelihood of obtaining funding, constructability, ease of implementation and operation, and any potential impediments. The project's viability takes into account the amount of resources City staff are able to commit to the project. Candidates that may place a considerable administrative burden on City staff, or that may require significant City resources to maintain and operate are generally less desirable projects and may be entirely infeasible.
- **Total area of high threat to water quality (TTWQ) properties.** The total area of inventoried existing development (industrial, commercial, municipal, and residential) classified as having a high TTWQ draining to a candidate project will be considered. The facility's or area's TTWQ is based on the prioritization processes discussed in sections 6, 7, and 9 of the JRMP document which takes into account the facility's compliance history and proximity to and sensitivity of the water body in which the area drains to.
- **Land use.** Land use of the area tributary to a potential retrofit project is an important consideration when selecting retrofit project candidates. Land uses commonly associated with the FPWQCs described above will be considered before other land uses.
- **Multiple benefits of project.** Candidate projects with the potential to contribute to the overall enhancement of the local environment are preferred. Other benefits of retrofit projects can include, but are not limited to, the following:
    - Enhanced walkability or pedestrian safety and access

    - Community beautification, such as streetscape aesthetics or incorporating murals other features with significant artistic value.
    - Improved flood protection
    - Improved access to green spaces or recreational opportunities
    - Environmental justice

- **Land availability.** If there is development bordering a potential stream segment on both sides of the stream, it would be difficult to complete a retrofit project. Similarly, land ownership is another factor to consider when identifying areas for potential projects. If the City owns the property where a project is being considered, that is the best case scenario. If another public agency, like a school district, owns the property, then that is second best, whereas, if the land is privately owned, especially if there are many land owners, the project could become more complicated to execute.
- **Amount of impervious area.** Projects that have the potential to treat a large area of impervious surfaces are ideal project candidates. Impervious surfaces are generally recognized as sources of common storm water pollutants such as oil and grease, heavy metals, and sediment (CASQA, 2003).
- **Cost effectiveness.** Projects that are able to remove the greatest unit of pollution for the lowest cost are preferred. Long term BMP maintenance cost will also be considered.
- **Opportunities for infiltration or retention.** Ideal candidates will incorporate structural BMPs suitable for infiltration or retention. The project's suitability is primarily determined by the soil type for the proposed project area, but also by depth to groundwater and proximity to neighboring buildings and infrastructure. Infiltration is the most effective BMP, since it has close to 100 percent pollutant removal efficiency and also reduces runoff volume, and requires relatively low maintenance (CASQA, 2003). Since there are few areas within San Diego County where infiltration is feasible, if a project is able to incorporate infiltration BMPs, it should be considered.
- **New development or redevelopment projects.** Through the City's permitting approval process, the following retrofits for new development or redevelopment projects will be required, if applicable:
    - Structural roofs for trash enclosures
    - Water efficient landscaping

    As of this writing, the following retrofit projects, partially funded by grants awarded to the City, are underway:

- **"A" Avenue Green Street and Pedestrian Pathway**
  Green street retrofits are being performed for a 49 acre drainage area upstream of Kimball Park. Bioretention, infiltration, water harvesting/reuse for irrigation in Kimball Park, and a trash removal device will be installed.
- **Kimball Park Low Impact Development and Paradise Creek Restoration**
  This project includes the installation of Low Impact Development (LID) features along streets in the neighborhood to the south of Kimball Park and within the park, which will treat an approximately 73 acre tributary drainage area.
- **Paradise Creek Educational Park**
  The Paradise Creek Educational Park is located along Hoover Avenue south of 18th Street and continues south along Paradise Creek to 22nd Street. The project includes removing impervious area, constructing an LID feature and a cistern to treat runoff from a tributary urbanized area, and establishing native vegetation along Paradise Creek.

4 Stream, Channel, and Habitat Rehabilitation in Areas of Existing Development

The Municipal Permit states that rehabilitation methods may include in-stream restoration, off-line storm water management practices installed in the system corridor or upland areas, or a combination of in-stream and out-of-stream techniques. Some of these techniques may include riparian zone restoration, constructed wetlands, channel modifications, and daylighting of drainage systems. The following factors are considered when identifying candidate projects:

- **Directly targets the City's FPWQCs and helps make progress toward WQIP numeric goals.**
- **Feasibility of project.** The feasibility of the project is an important consideration that takes into account a project's likelihood of obtaining funding, constructability, ease of implementation and operation, and any potential impediments. The project's viability takes into account the amount of resources City staff are able to commit to the project. Candidates that may place a considerable administrative burden on City staff, or that may require significant City resources to maintain and operate are generally less desirable projects and may be entirely infeasible.
- **Multiple benefits of project.** Candidate projects with the potential to contribute to the overall enhancement of the local environment are preferred. Other benefits of rehabilitation projects can include, but are not limited to, the following:
  - Enhanced walkability or pedestrian safety and access

- Community beautification, such as streetscape aesthetics or incorporating murals other features with significant artistic value
- Improved flood protection
- Improved access to green spaces or recreational opportunities
- Environmental justice

- **Beneficial uses.** Stream segments with the following beneficial uses should be considered for rehabilitation before others. All beneficial use abbreviations and definitions are taken from the *Water Quality Control Plan for the San Diego Basin* (RWQCB, 2011).
  - Biological Habitats of Special Significance (BIOL) – Includes uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance), where the preservation or enhancement of natural resources requires special protection.
  - Cold Freshwater Habitat (COLD) – Includes uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.
  - Estuarine Habitat (EST) – Includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).
  - Freshwater Replenishment (FRSH) – Includes uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).
  - Rare, Threatened or Endangered Species (RARE) – Includes uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
  - Inland Saline Water Habitat (SAL) – Includes uses of water that support inland saline water ecosystems including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish or wildlife, including invertebrates.
  - Spawning, Reproduction, and/or Early Development (SPWN) – Includes uses of water that support high quality habitats suitable for reproduction, early development, and sustenance of marine fish and/or cold freshwater fish.

- Warm Freshwater Habitat (WARM) – Includes uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.

Stream or channel segments with multiple beneficial uses are desirable candidates.

- **Land availability.** If there is development bordering a potential stream segment on both sides of the stream, it would be difficult to complete a restoration project. Similarly, land ownership is another factor to consider when identifying candidate projects. If the City owns the property where a project is being considered, that is the best case scenario. If another public agency, like a school district, owns the property, then that is second best. Whereas, if the land is privately owned, especially if there are many land owners, the project could become more complicated to execute.
- **Amount of impervious area.** Projects that have the potential to treat a large area of impervious surfaces are ideal project candidates. Impervious surfaces are generally recognized as sources of common storm water pollutants such as oil and grease, heavy metals, and sediment (CASQA, 2003).

As of this writing, the following stream and habitat restoration projects, partially funded by grants awarded to the City, are underway:

- **Kimball Park Low Impact Development and Paradise Creek Restoration**
  The City will restore approximately 1,000 linear feet of the portion of Paradise Creek that has been channelized with concrete bottom. The concrete bottom will be removed to restore wetland habitat. Approximately 30,000 sq. ft. of native vegetation will be planted along the creek.
- **Paradise Creek Educational Park**
  The Paradise Creek Educational Park is located along Hoover Avenue south of 18th Street and continues south along Paradise Creek to 22nd Street. The project includes removing impervious area, constructing an LID feature and a cistern to treat runoff from a tributary urbanized area, and establishing native vegetation along Paradise Creek.

5 Program Implementation

The Municipal Permit requires the City to identify candidate retrofit and stream, channel, and habitat rehabilitation projects. When resources to complete a project become available, having a list of candidate projects can be a useful resource. In developing a candidate project list, the City may consider projects proposed by Priority Development Project applicants. If proposed projects are accepted by the City, the City may develop and implement an in-lieu fee structure for the offsite alternative compliance project. The City may also consider the development of an

alternative compliance water quality credit system option, which would be submitted to the RWQCB for review as part of the WQIP. Additionally, partnering with other neighboring jurisdictions to install regional BMPs where retrofit projects are deemed to provide a greater net benefit to the City than projects implemented only by the City is also considered.

References

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

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

California Storm Water Quality Association, 2003. *California Storm Water BMP Handbook – New Development &Redevelopment.*

Appendix F

Program Implementation Tools

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Contents

- **Development Planning Implementation Tools (JRMP Section 4)**
  - Structural BMP Inventory Format
  - Structural BMP Inspection Form
- **Construction Management Implementation Tools (JRMP Section 5)**
  - Erosion Control Plan Review Checklist
  - Construction Inventory Format
  - Construction Site Information Form
  - Construction Inspection Form
  - Construction BMP Handout
- **Industrial/Commercial Implementation Tools (JRMP Section 6)**
  - Industrial/Commercial Inventory Format
  - Storm Water Quality Inspection for Industrial/Commercial Facilities
- **Municipal Facilities Implementation Tools (JRMP Section 7)**
  - Storm Water Quality Inspection for Municipal Facilities
  - Special Events Pre-Event Inspection Form
  - Special Events Post-Event Inspection Form
- **Reporting Implementation Tool (JRMP Section 12)**
  - JRMP Annual Reporting Form

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Format for Inventory of Priority Projects with Approved Structural BMPs

No.	Project Name/Address	Contact Information	Development Type	Approx. Size (Acres)	BMPs	Fiscal Yr. Completed	HSA	Inspection Priority	Letter	Self-Cert Form	LG Insp. Form	Corr. Action	Enf. Action	Resolved

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City of National City
Structural BMP Inspection Program

Inspected by D-Max Engineering, Inc.

Project Name:_____

Project Street Address:_____

Project City, State, ZIP:_____

RESPONSIBLE PARTY INFORMATION	**ADDITIONAL CONTACT INFORMATION** (optional)
Name: _____	**Name:** _____
Person:_____	**Person:**_____
Address:_____	**Address:**_____
_____	_____
Phone: (____) ____-_____ ext.____	**Phone:** (____) ____-_____ ext.____
Fax: (____) ____-_____	**Fax:** (____) ____-_____
Email:_____	**Email:**_____

INSPECTION INFORMATION

Inspector Name:_____**Date:**____/____/_____**Time:**_____:____AM/PM

Inspector Firm: D-MAX Engineering, Inc. **Inspection Type:** ☐ Routine ☐ Follow-Up ☐ Complaint

Inspection Result: ☐ Full inspection ☐ Could not Access ☐ Other:_____

Site Personnel Present:_____**Title:**_____

Project Notes:_____

_____

BMP OPERATION AND MAINTENANCE

BMPID No.: _____ **BMP Type:** _____ (filter insert, hydrodynamic separator, vegetated swale/strip, detention, bioretention, infiltration, media filter)

BMP Status: ☐ Operational ☐ Missing ☐ Unverified Modification ☐ Unverified ☐ Construction

Location: _____

MAINTENANCE ASSESSMENT QUESTIONS	Yes	No	NA	Comments
1. Is the BMP accessible for inspection?				
2. Is the BMP free of damage?				
3. Is the BMP free of significant trash and debris?				
4. Is the BMP free of excessive sediment?				
5. Is the BMP free of other visual pollutants?				
6. Is the BMP free of unpleasant odors?				
7. Is the BMP free of standing water?				
8. Is the irrigation system working correctly?				
9. Is the BMP free of erosion/scouring?				
10. Is the BMP well vegetated?				
11. Is the BMP free of excessive vegetation?				
12. Are the BMP inlets/outlets free of obstructions?				
13. Is the filter media in working condition?				☐ Not Accessible

Follow up Priority: ☐ Priority 1 ☐ Priority 2 ☐ Priority 3 ☐ None

Inspection Notes: _____

City of National City
Structural BMP Inspection Program

Inspected by D-Max Engineering, Inc.

BMP OPERATION AND MAINTENANCE

BMPID No.: _____ **BMP Type:** _____ (filter insert, hydrodynamic separator, vegetated swale/strip, detention, bioretention, infiltration, media filter)

BMP Status: ☐ Operational ☐ Missing ☐ Unverified Modification ☐ Unverified ☐ Construction

Location: _____

MAINTENANCE ASSESSMENT QUESTIONS	Yes	No	NA	Comments
1. Is the BMP accessible for inspection?				
2. Is the BMP free of damage?				
3. Is the BMP free of significant trash and debris?				
4. Is the BMP free of excessive sediment?				
5. Is the BMP free of other visual pollutants?				
6. Is the BMP free of unpleasant odors?				
7. Is the BMP free of standing water?				
8. Is the irrigation system working correctly?				
9. Is the BMP free of erosion/scouring?				
10. Is the BMP well vegetated?				
11. Is the BMP free of excessive vegetation?				
12. Are the BMP inlets/outlets free of obstructions?				
13. Is the filter media in working condition?				☐ Not Accessible

Follow up Priority: ☐ Priority 1 ☐ Priority 2 ☐ Priority 3 ☐ None

Inspection Notes: _____

BMPID No.: _____ **BMP Type:** _____ (filter insert, hydrodynamic separator, vegetated swale/strip, detention, bioretention, infiltration, media filter)

BMP Status: ☐ Operational ☐ Missing ☐ Unverified Modification ☐ Unverified ☐ Construction

Location: _____

MAINTENANCE ASSESSMENT QUESTIONS	Yes	No	NA	Comments
1. Is the BMP accessible for inspection?				
2. Is the BMP free of damage?				
3. Is the BMP free of significant trash and debris?				
4. Is the BMP free of excessive sediment?				
5. Is the BMP free of other visual pollutants?				
6. Is the BMP free of unpleasant odors?				
7. Is the BMP free of standing water?				
8. Is the irrigation system working correctly?				
9. Is the BMP free of erosion/scouring?				
10. Is the BMP well vegetated?				
11. Is the BMP free of excessive vegetation?				
12. Are the BMP inlets/outlets free of obstructions?				
13. Is the filter media in working condition?				☐ Not Accessible

Follow up Priority: ☐ Priority 1 ☐ Priority 2 ☐ Priority 3 ☐ None

Inspection Notes: _____

City of National City

Erosion and Sediment Control Plan Review Checklist

Date:_____ Reviewer:_____

Project:_____

If an item below is marked "No", the Erosion and Sediment Control Plan (Plan) either does not provide the required information or that item is deficient and a correction must be made. When BMPs are proposed, ensure appropriate CASQA/Caltrans BMP sheets are referenced if detail is not provided in Plan. See also Standard Erosion Notes List.

	Meets Requirements?			
Site Characteristics	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Provides ***name, address, and signature of Civil Engineer*** or person who prepared the Plan.	❒	❒		
Shows ***project limits*** and ***outlines disturbed areas***.	❒	❒		
Details ***direction of runoff flows*** within the project site and ***run-on flows*** from adjacent areas OR contour before and after development - may use separate plan sheets for clarity.	❒	❒		
Includes location of existing and proposed ***drainage ways, channels, swales, creeks, streams, streets, easements or other structures*** on or near the site (i.e. sidewalks, gutters, utilities, etc.)	❒	❒		

	Meets Requirements?			
Site Management	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Indicates that ***removable BMPs*** are in place at the end of each working day when there is a fifty percent (50%) chance of rain within a forty-eight hour period in Plan notes (see Standard Note 1). ▪ Also states that ***125% of standby BMP materials*** necessary to completely protect exposed areas are stored on site at all times (see Standard Notes 2, 3).	❒	❒		
States daily ***housekeeping practices*** in Plan notes (see Standard Note 4).	❒	❒		
States practices for ***maintenance of erosion/sediment control BMPs*** during construction in Plan notes (see Standard Notes 5,6)	❒	❒		
Erosion and Sediment Controls				
Provides location and/or indicates proposed ***erosion controls for disturbed areas***. Must include one or more of the following: soil binders, mulch, geotextiles, blankets, plastic covers, or other approved ground cover (see Standard Note 7; Caltrans SS-3 thru 9; CASQA EC-3 thru 8). ▪ States that disturbed areas and soil stockpiles left ***inactive for 10 days or more*** will be stabilized using erosion controls in Plan notes (see Standard Note 8).	❒	❒		

	Meets Requirements?			
Site Management	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Indicates that ***removable BMPs*** are in place at the end of each working day when there is a fifty percent (50%) chance of rain within a forty-eight hour period in Plan notes (see Standard Note 1). ▪ Also states that ***125% of standby BMP materials*** necessary to completely protect exposed areas are stored on site at all times (see Standard Notes 2, 3).	❒	❒		
States daily ***housekeeping practices*** in Plan notes (see Standard Note 4).	❒	❒		
States practices for ***maintenance of erosion/sediment control BMPs*** during construction in Plan notes (see Standard Notes 5,6)	❒	❒		
Erosion and Sediment Controls				
Provides location and/or indicates proposed ***erosion controls for disturbed areas***. Must include one or more of the following: soil binders, mulch, geotextiles, blankets, plastic covers, or other approved ground cover (see Standard Note 7; Caltrans SS-3 thru 9; CASQA EC-3 thru 8). ▪ States that disturbed areas and soil stockpiles left ***inactive for 10 days or more*** will be stabilized using erosion controls in Plan notes (see Standard Note 8).	❒	❒		
Provides proposed ***erosion control BMPs for steep slopes***.(see Standard Note 9 & 10; Caltrans SS-3 thru 9; CASQA EC-3 thru 9).If applicable: ▪ States that face of all cut-and-fill slopes, in excess of 3 feet in vertical height, will have ground cover or other BMPs to protect against erosion and instability in Plan notes ▪ Includes timeframe of exposure and means of stabilization for slopes in Plan notes.	❒	❒	❒	

	Meets Requirements?			
Site Management	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Indicates that ***removable BMPs*** are in place at the end of each working day when there is a fifty percent (50%) chance of rain within a forty-eight hour period in Plan notes (see Standard Note 1). ▪ Also states that ***125% of standby BMP materials*** necessary to completely protect exposed areas are stored on site at all times (see Standard Notes 2, 3).	❒	❒		
States daily ***housekeeping practices*** in Plan notes (see Standard Note 4).	❒	❒		
States practices for ***maintenance of erosion/sediment control BMPs*** during construction in Plan notes (see Standard Notes 5,6)	❒	❒		
Erosion and Sediment Controls				
Provides location and/or indicates proposed ***erosion controls for disturbed areas***. Must include one or more of the following: soil binders, mulch, geotextiles, blankets, plastic covers, or other approved ground cover (see Standard Note 7; Caltrans SS-3 thru 9; CASQA EC-3 thru 8). ▪ States that disturbed areas and soil stockpiles left ***inactive for 10 days or more*** will be stabilized using erosion controls in Plan notes (see Standard Note 8).	❒	❒		
Provides location of proposed ***sediment control BMPs*** (e.g., silt fence, fiber rolls, gravel bags, etc.). Shows that sediment control BMPs are installed around the entire ***project perimeter*** (see Caltrans SC-1,5,6; CASQA SE-1,5,6,9).	❒	❒		
Provides location and detail of proposed BMPs for ***storm drain inlets and catch basins*** within and downstream of site (see Caltrans SC-10; CASQA SE-10).	❒	❒	❒	

	Meets Requirements?			
Site Management	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Indicates that ***removable BMPs*** are in place at the end of each working day when there is a fifty percent (50%) chance of rain within a forty-eight hour period in Plan notes (see Standard Note 1). ▪ Also states that ***125% of standby BMP materials*** necessary to completely protect exposed areas are stored on site at all times (see Standard Notes 2, 3).	❒	❒		
States daily ***housekeeping practices*** in Plan notes (see Standard Note 4).	❒	❒		
States practices for ***maintenance of erosion/sediment control BMPs*** during construction in Plan notes (see Standard Notes 5,6)	❒	❒		
Erosion and Sediment Controls				
Provides location and/or indicates proposed ***erosion controls for disturbed areas***. Must include one or more of the following: soil binders, mulch, geotextiles, blankets, plastic covers, or other approved ground cover (see Standard Note 7; Caltrans SS-3 thru 9; CASQA EC-3 thru 8). ▪ States that disturbed areas and soil stockpiles left ***inactive for 10 days or more*** will be stabilized using erosion controls in Plan notes (see Standard Note 8).	❒	❒		
Provides plans for proposed ***permanent stabilization of disturbed areas*** by re-vegetation or other means upon completion (see Standard Note 7) ▪ Indicates stabilization/re-vegetation method: Seed ____ Sod ____ Other____ ▪ Is temporary seeding or mulching planned if site not seeded by September 1st or sodded by October 1st? Yes____ No____	❒	❒	❒	

	Meets Requirements?			
Site Management	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Indicates that ***removable BMPs*** are in place at the end of each working day when there is a fifty percent (50%) chance of rain within a forty-eight hour period in Plan notes (see Standard Note 1). ▪ Also states that ***125% of standby BMP materials*** necessary to completely protect exposed areas are stored on site at all times (see Standard Notes 2, 3).	❒	❒		
States daily ***housekeeping practices*** in Plan notes (see Standard Note 4).	❒	❒		
States practices for ***maintenance of erosion/sediment control BMPs*** during construction in Plan notes (see Standard Notes 5,6)	❒	❒		
Erosion and Sediment Controls				
Provides location and/or indicates proposed ***erosion controls for disturbed areas***. Must include one or more of the following: soil binders, mulch, geotextiles, blankets, plastic covers, or other approved ground cover (see Standard Note 7; Caltrans SS-3 thru 9; CASQA EC-3 thru 8). ▪ States that disturbed areas and soil stockpiles left ***inactive for 10 days or more*** will be stabilized using erosion controls in Plan notes (see Standard Note 8).	❒	❒		
Shows location and proposed ***tracking controls*** (shaker plates, gravel areas) for trucks and other equipment at the entrance/exit of the project site (Caltrans /CASQA TC-1 thru 3).	❒	❒	❒	
Provides a description on how ***adjacent public and private roadways*** will be kept clean in Plan notes (see Standard Note 4; Caltrans SC-7; CASQA SE-7).	❒	❒	❒	
Provides details with dimensions for ***structural BMPs*** (Caltrans SC-2,3; CASQA SE-2,3).	❒	❒	❒	

	Meets Requirements?			
Materials and Waste Management	**Yes**	**No**	**N/A**	**Comments/Notes** (All "N/A" items should have note)
Includes appropriate ***waste disposal areas*** and proper protection (e.g., containers with plastic cover) for construction/building wastes (see Standard Note 10; Caltrans/CASQA WM-1 thru 8)	❒	❒	❒	
Includes proposed BMPs for ***stockpiles*** and how each will be protected against erosion by wind and rain (Caltrans/.CASQA WM-3).	❒	❒	❒	
Provides location for ***storage/staging area*** and states that ***construction/building materials and equipment*** will be stored and handled to minimize storm water pollution (see Standard Notes 11-13; Caltrans /CASQA WM-1 thru 10 and NS-8 thru 10)	❒	❒	❒	
Provides location and detail of ***concrete washout area(s)*** (see Caltrans/CASQA WM-8)**.**	❒	❒	❒	

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City of National City Inventory of Construction Projects

Project Name	Project Address	APN(s)	TTWQ	Inspection Frequency	Hydrologic Subarea (HSA)	WDID # (if applicable)	Site Area	Area of Disturbed Soil	Start Date	Completion Date	Date Storm Water BMP Plan (e.g., SWPPP, Erosion & Sediment Control Plan, etc.)	Ongoing Enforcement Actions? (Y/N)	Owner Name	Owner Address	Owner Phone	Owner Email	Contractor Name	Contractor Address	Contractor Phone	Contractor Email
			High	2x/month																
			Medium	Monthly																
			Low	As needed																

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CITY OF NATIONAL CITY
CONSTRUCTION SITE INFO FOR STORM WATER COMPLIANCE INSPECTIONS

Information gathered by: _____ Date: ____/____/_____

I. PROJECT INFORMATION

Site Prioritization: ☐ High ☐ Medium ☐ Low

Project Name: _____

Project Location: _____

Project Activity: _____

Project Area: _____ square feet Construction start date: ____/____/_____

Discharge points: _____

Receiving water bodies: _____ ESA: ☐ Yes ☐ No

Approximate distance from site: ☐ < 200 ft ☐ 200 – 1000 ft ☐ > 1000 ft

Tributary to CWA 303(d) List sediment-impaired water body: ☐ Yes ☐ No

High soil erosion potential: ☐ Yes ☐ No Site slope is 15% or greater: ☐ Yes ☐ No

Is this project subject to the General Construction Permit: ☐ Yes ☐ No

If yes, Waste Discharge Identification Number (WDID#): 9 37C_____

Does this Project maintain a:

Construction Grading Permit: ☐ Yes ☐ No ☐ N/A

Other Permits: ☐ Yes ☐ No

If yes, permit number(s): _____

Storm Water Pollution Prevention Plan (SWPPP): ☐ Yes ☐ No ☐ N/A (If yes, see review.)

II. CONTACT INFORMATION

On-site Responsible Person(s): _____

General Contractor Company: _____ (if applicable)

Mailing Address: _____

_____

Email Address: _____

Business Telephone #: (_____) _____- _____ ext._____

After hours Telephone #: (_____) _____- _____ ext._____

Fax #: (_____) _____- _____

Off-site owner (if applicable): _____

Mailing Address: _____

_____

Telephone #: (_____) _____- _____ ext._____

Email Address: _____

i. SWPPP REVIEW (if applicable)

SWPPP Component	Provided	Adequate	Notes
QSP/QSD……..	☐ Yes ☐ No	☐ Yes ☐ No	_____
Site Map/Description……	☐ Yes ☐ No	☐ Yes ☐ No	_____
Materials List……	☐ Yes ☐ No	☐ Yes ☐ No	_____
Significant Spills/Leaks……	☐ Yes ☐ No	☐ Yes ☐ No	_____
Pollution Prevention……	☐ Yes ☐ No	☐ Yes ☐ No	_____
Construction Activities……	☐ Yes ☐ No	☐ Yes ☐ No	_____
Pollutant Sources/Risks……..	☐ Yes ☐ No	☐ Yes ☐ No	_____
Compliance Activity Schedule……	☐ Yes ☐ No	☐ Yes ☐ No	_____
Employee Training……..	☐ Yes ☐ No	☐ Yes ☐ No	_____
Accessible to staff…….……...	☐ Yes ☐ No	☐ Yes ☐ No	_____
Existing BMPs……..	☐ Yes ☐ No	☐ Yes ☐ No	_____

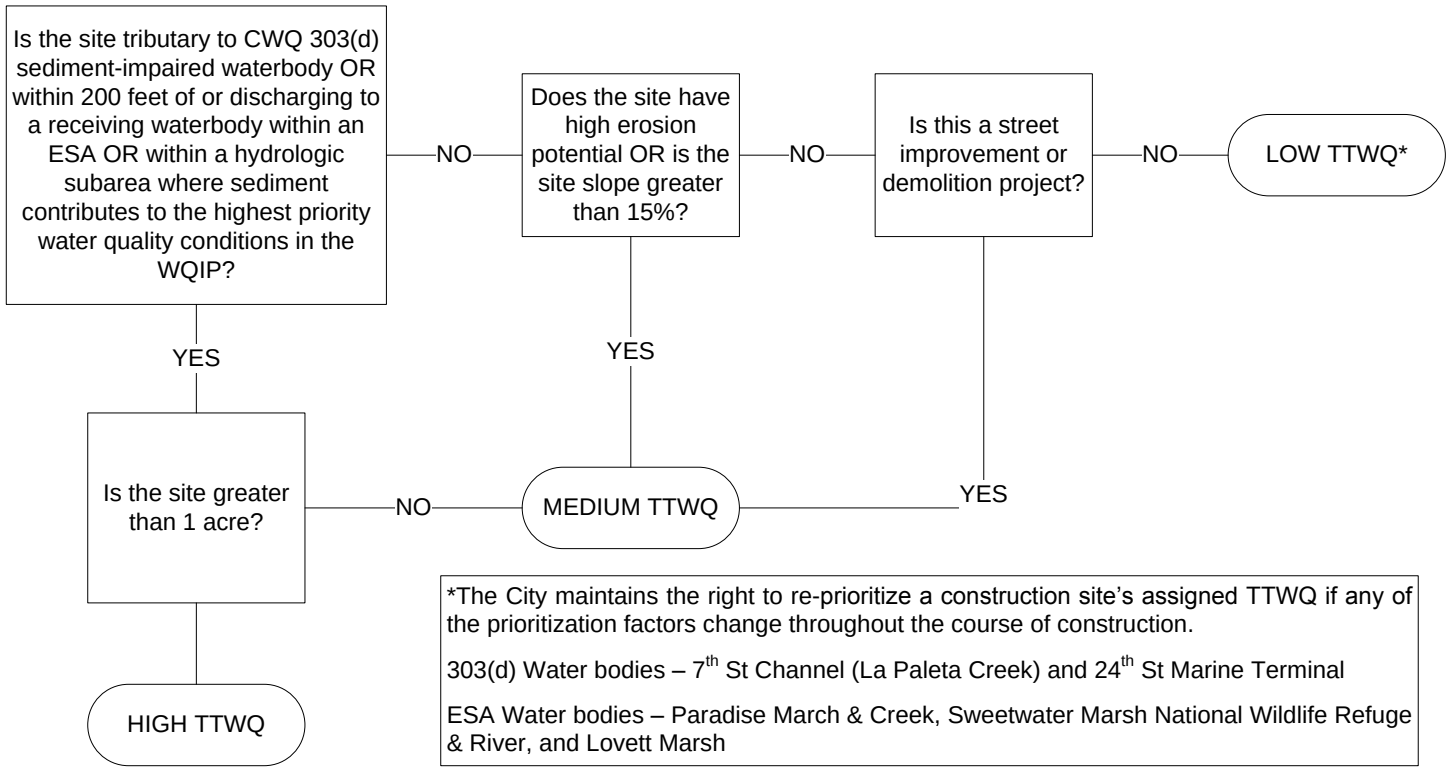
Additional Notes:

_____

_____

_____

Figure 1. Water Quality Threat Prioritization for Construction Sites



CITY OF NATIONAL CITY
STORM WATER COMPLIANCE INSPECTION FOR CONSTRUCTION ACTIVITIES

Inspector Name/ Title_____

Signature_____ Date____/_____/____ Time_____am/pm

Reason for Inspection: ☐ Routine Inspection ☐ Follow-up Inspection ☐ Complaint Investigation

Approximate rainfall since last inspection (____/_____/____): _____inches

I. GENERAL INFORMATION

Site Prioritization: ☐ High ☐ Medium ☐ Low

Project Name:_____

Project Location:_____

Person Present: _____ Phone Number: _____

II. INITIAL OBSERVATIONS

Approximate % of site covered by construction activities: _____%

Approximate % impervious surface of this area: _____%

Types of outdoor construction activity:

☐ grading ☐ concrete/asphalt work

☐ building construction ☐ landscaping

☐ excavation ☐ demolition

☐ drainage infrastructure work ☐ none

III. BMP ASSESSMENT

BMP	No Corrections Required		Corrections Required		Comments
	N/A	Fully Implemented	Partially Implemented	Not Implemented	
Erosion Prevention					
Prevent erosion from disturbed active areas (removable BMPs available).					
Prevent erosion from disturbed inactive areas (no activity >14 days).					
Keep discharge locations (drainage swales, ditches, gutters, etc.) free of sediment and debris.					
Sediment Control/ Run-on and Run-off Control					
Adequately contain the perimeter of site to prevent sediment transport.					
Prevent sediment discharge to inlets on site (using filter inserts, gravel bags, fiber rolls, etc.).					
Properly protect the site from run-on and run-off.					
Equip entrance/exit with adequate tracking controls.					

BMP	No Corrections Required		Corrections Required		Comments
	N/A	Fully Implemented	Partially Implemented	Not Implemented	
Materials and Equipment Management					
Store materials and wastes in a manner that minimizes or eliminates the potential to discharge these materials to the storm drain system.					
Provide timely service and removal to prevent waste containers and sanitary facilities from over flowing.					
Cover and contain material stockpiles.					
Park heavy equipment and vehicles in areas with permeable surface.					
Store liquid materials in a contained area.					
Provide secondary containment for portable toilets.					
Keep appropriate spill response and containment measures on site.					
Non-Storm Water Management					
Keep site free of evidence of illegal connections and illicit discharges.					
Other					
Ensure the SWPPP is kept on site, accessible to site personnel.					
Are there any other potential storm water pollution issues or concerns? If yes, explain below.					

Additional Corrective Actions:

_____

IV. RESULTS

Violation observed, immediate corrective action required

☐ Illegal discharge(s) of pollutants into the MS4 or receiving waters.
Description:_____

☐ Illegal connection(s) to the MS4
Description:_____

☐ Improper implementation of BMPs

☐ Littering

No violation noted at time of inspection/investigation

☐ However, corrective actions recommended

☐ No corrective actions at this time

Implement corrective actions within _____ consecutive days of the date of this report.

Re-inspection date: _____

V. POST INSPECTION COMPLIANCE

Were significant BMP violations resolved after inspection? ☐ Fully resolved ☐ Partially resolved ☐ Not resolved

_____

_____

_____

Required Storm Water Best Management Practices (BMPs) for Construction Sites

Construction sites of all sizes are required to use water quality protection practices to reduce the amount of dirt, trash, and other pollutants that could otherwise leave the sites. The storm water BMPs below are the minimum requirements for all construction sites within the City. See the City's Storm Water BMP Manual for additional details.

ESTABLISH PERMANENT VEGETATION

- ⇨ Install final cover (landscaping, buildings, pavement, etc.) as soon as possible
- ⇨ Protect other areas where permanent vegetation is not yet established

Wood mulch

Straw mulch

UTILIZE TEMPORARY EROSION PRACTICES

- ⇨ Protect bare soil and other disturbed areas at least 48 hours before predicted storms with at least 50% chance of rain using one or more of the following*:
  - Wood Mulch (SS-8)
  - Straw mulch (SS-6)
  - Plastic covers (SS-7)
- ⇨ Disturbed areas that are left inactive for 10 days or more ***must*** have erosion control measures.

**Other Caltrans soil stabilization methods are also acceptable.*

CONTROL SEDIMENT FROM PROJECT

- ⇨ Prevent tracking of dirt to areas outside the construction site by sweeping neighboring paved areas at the end of each work day (SC-7).

PROTECT STOCKPILES AND MATERIAL

- ⇨ Cover stockpiles at least 48 hours before predicted storms with at least 50% chance of rain (WM-3).

Fiber rolls or gravel bags to protect perimeter and hold plastic in place

Caltrans fact sheets can be viewed for more detailed directions. Caltrans references are provided in parentheses, the fact sheets can be viewed at http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm.

Required Storm Water Best Management Practices (BMPs) for Construction Sites

CONTAIN SITE PERIMETER

- ⇨ Use one or more of the following around the perimeter of the construction area:
  - Fiber rolls (SC-5)
  - Silt fence (SC-1)
  - Gravel bag berm (SC-6)
- ⇨ Install perimeter protection around the entire project.

Silt Fence

Fiber Rolls (trenched or secured)

Gravel Bag Berm

DRAIN INLET PROTECTION

- ⇨ Ensure all drains on site and nearby curb inlets on street are protected (SC-10)
  - Utilize check dams upstream of curb inlets to filter out sediment
  - Drains within project site should be protected so that sediment and construction material cannot enter

CONCRETE WASHOUTS

- ⇨ Washout concrete only to designated, lined area only (WM-8).

Note: this BMP only applies if pour in place concrete work is part of the project.

Additional required practices:

- Clean up trash regularly, store in designated area, and dispose appropriately (WM-5)
- No water other than rain is allowed to leave the site (NS-1, NS-2, NS-6, NS-7)
- If vehicles or equipment will drive onto the site through unpaved areas that are not existing roads (e.g., gravel roads or driveways), a stabilized construction entrance must be set up and maintained. This is usually done by laying down gravel over the dirt area next to an existing road or driveway that vehicles or equipment will drive through to access the site. See Caltrans BMP TC-1.
- Deficiencies discovered during an inspection of the construction site must be corrected prior to the next rain event or as directed by the City inspector (or approved official).

Caltrans fact sheets can be viewed for more detailed directions. Caltrans references are provided in parentheses, the fact sheets can be viewed at http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm.

Industrial and Commercial Inventory Format

Field Name	Field Description		Field Data Type
Agency	Responsible jurisdiction (Copermittee)		Text
Facility Name	Name used to identify facility in database		Text
Address Number	Street number of facility, this is the numeric street address		Number
Suite Number	Suite or unit number or letter, if needed. This field could also be used to indicate an intersection if no street number exists. **This field is optional.**		General
Street Name	Name of street facility is located on.		Text
City	City where facility is located		Text
State	This is a default to CA.		Text
Zip Code	Zip code where facility is located		Numeric
Hydrologic Subarea	This field must be populated to two decimal places.		Numeric (To 2 decimal places)
SIC Code	Standard Industrial Classification code. If facility has more than one SIC code use the primary SIC code.		SIC Code Numeric (four Digits)
Existing Development Type	Enter either "Industrial" or "Commercial"		Text
Mobile	Indicate whether the business is considered a mobile business.		Yes/No
Business Category	Description of business type or activities (e.g., "Restaurant").		Text
Potential Pollutants	Bacteria	Potential pollutants that may be generated by the facility. A facility can be identified as having more than one pollutant.	Text
	Gross Pollutants		Text
	Metals		Text
	Nutrients		Text
	Oil & Grease		Text
	Organics		Text
	Pesticides		Text
	Sediment		Text
	Trash		Text
Tributary to 303(d) Listed and Generated Pollutants Associated with Impairment	Is facility tributary to 303(d) listed receiving water and generating pollutants for which the water body is impaired?		Text
Threat to water quality	Does the facility pose a high threat to water quality?		Text
Industrial Permit WDID No.	Waste Discharge Identification (WDID) number, if applicable.		Text
APN	The following fields are optional. The purpose of these fields are to supply a coordinate system for GIS mapping.	Assessors Parcel Number (APN)	Text
X Coordinate		X-Y Coordinates	Easting Numeric
Y Coordinate			Northings Numeric
Coordinate System		The standard projection for the San Diego region is "NAD_1983_StatePlane_California_VI_FIPS_0406_Feet"	Text

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CITY OF NATIONAL CITY

STORM WATER COMPLIANCE INSPECTION

Inspected by D-MAX Engineering, Inc.

Inspector Name _____ **Date**_____/_____/_____**Time**_____**AM / PM**

Type of SW Inspection: ☐ Routine ☐ Routine - Property ☐ Routine - Mobile ☐ Follow-up ☐ Complaint

Result: ☐ Full Insp. ☐ Not Inventoried ☐ Could not Contact ☐ Refused ☐ Moved, Replaced by_____ ☐ Moved, Vacant ☐ Duplicate of: _____ ☐ Out of Jurisdiction ☐ Mobile

Type of FOG Inspection: ☐ Routine ☐ Follow-up ☐ Complaint

Result: ☐ Full Insp. ☐ Not FSE ☐ Could not Contact ☐ Home-based ☐ Moved, Replaced by_____ ☐ Moved, Vacant ☐ Duplicate of: _____

A. CONTACT INFORMATION

Business/Property Name _____

Street Address_____ **B. Phone # (_____)** _____ **-** _____

Responsible Person(s)/Title_____**Email:** _____

Property Management Co./Contact Name_____

Mailing Address_____ **P.M. Phone # (____)** ____ **-**_____**ext.** ____

FACILITY PERSONNEL PRESENT _____

B. FACILITY/SITE INFORMATION

Principal activity/Property Type: _____

SIC Code(s): _____ ☐ FOG Attachment ☐ Industrial Attachment

Business License: _____ **Expiration Date:** _____ **APN:** _____☐ **Entered**

Status Update): ☐ Moved/Out of Business ☐ Duplicate ☐ Not Inventoried ☐ Out of Jurisdiction ☐ Home Based

Is facility subject to CA Statewide General Industrial Permit? ☐ Mandatory ☐ Conditional ☐ No

Does facility have a Notice of Non-Applicability (NONA/NEC)? ☐ Yes ☐ No

Has facility filed a Notice of Intent (NOI) to obtain coverage? ☐ Yes ☐ No WDID: 9 37I0_____

Has facility filed a Notice of Termination (NOT) for the above WDID#? ☐ Yes ☐ No Approval date: _____

C. FACILITY OBSERVATIONS

Does the Facility have an irrigation system for landscaping? ☐ Yes ☐ No ☐ N/A

Does the Facility have any shared areas with other tenants or property management? ☐ Yes ☐ No ☐ N/A

Does the Facility have roof downspouts that can be directed to landscaping? ☐ Yes ☐ No ☐ N/A

D. BMP ASSESSMENT

BMPs	N/A	Adequate	Not Adequate	Comments	Shared
D.1 Storm Drains					
Keep storm drains free of trash, sediment, and liquids					
Eliminate illicit connections and illegal discharges from entering the MS4					
Provide storm water training for appropriate employees				☐ Unknown	
D.2 Trash Storage/Disposal Areas					
Keep trash storage/disposal areas clean					
Provide cover for trash receptacles and keep in good condition					
Keep grease storage bins free of spills and leaks					
D.3 Outdoor Areas					
Keep outdoor areas free of trash, debris, sediment, spills and leaks					

BMPs	N/A	Adequate	Not Adequate	Comments	Shared
Cover, contain, and/or elevate materials stored outside to prevent contact from rain					
Perform outdoor activities (vehicle/equipment repair, material processing) in appropriate (covered and/or contained) areas or ensure appropriate controls are in place					
D.4 Materials and Wastes					
Dispose wash/mop/processing water to appropriate areas (includes pressure washing, fire sprinkler maint., etc.)				☐ Unknown	
Equip liquid storage containers with secondary containment					
Properly store (cover and/or contain) and dispose hazardous materials					
Wash or clean vehicle/equipment/materials (including floor mats) in proper areas				☐ Unknown	
Ensure an accessible, functional spill response kit is available				☐ Unknown	
D.5 Landscaping Areas					
Eliminate irrigation runoff					
Protect unpaved and landscaped areas from eroding					
Properly use and dispose of fertilizers/pesticides				☐ Unknown	

D.6 Additional Questions	Comments/Results
If any illicit connections and/or illegal discharges were identified, were they eliminated during the site visit?	☐ Yes ☐ No ☐ N/A
Were any non IC/ID related corrective actions implemented during the site visit?	☐ Yes ☐ No
Were any educational materials distributed?	**SW:** NOI NONA/NEC Brochure Trifold Calendar Food BMPs GB **FOG:** FOG Letter FOG Factsheet Templates

D.7 Additional Required Actions	

E. SUMMARY

Follow Up Inspection Priority:

☐ PRIORITY 1 (NOV or Citation #_____) ☐ PRIORITY 2 ☐ PRIORITY 3

Level of knowledge regarding storm water issues:
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

F. POST-INSPECTION

Were significant BMP deficiencies resolved after inspection? ☐ Fully resolved ☐ Partially resolved ☐ Not resolved

Description of resolved BMP deficiencies:

City of National City

Storm Water Quality Inspection for Municipal Facilities

Inspected by D-MAX Engineering, Inc.

Inspector Name _____

Date____/____/_____Time_____AM / PM Type of Inspection: ☐ Routine ☐ Follow-up ☐ Complaint Investigation

A. CONTACT INFORMATION

Facility Name: _____

Street Address: _____ Mailing Address: _____

_____ _____

Manager/Operator(s): _____

Telephone #: _____ ext. _____ Fax #: _____

Manager/Operator(s) Email: _____

Facility Personnel Present: _____

B. FACILITY/SITE INFORMATION

Principal activity: _____

JRMP Threat to Water Quality: _____

C. BMP ASSESSMENT

BMPs	N/A	Yes	No	Comments
C.1 General				
Is the site free of excessive litter, debris, spills, and leaks?				
Are discharge locations free of excessive sediment and debris?				
Is wash water from pressure washing / hosing managed appropriately?				
Are employees trained in storm water management?				
Does the facility have a current log of employees who have participated in training?				
C.2 Landscaping				
Are adequate erosion prevention measures employed? (vegetation or physical stabilization)				
Are irrigation systems programmed to eliminate over-watering and runoff?				
Are stockpiles of soil or landscape waste covered when feasible and equipped to prevent runoff transport?				
Are pesticides, herbicides, and fertilizers managed in accordance with the JRMP BMPs?				
C.3 Materials and Wastes				
Are adequate trash containers provided?				

City of National City

Storm Water Quality Inspection for Municipal Facilities

Inspected by D-MAX Engineering, Inc.

BMPs	N/A	Yes	No	Comments
Is the trash/recycling area adequately covered (closed lids or permanent overhead cover)?				
Is the trash/recycling area free of litter and debris?				
Are outdoor materials that pose a threat to water quality stored appropriately (covered or in sealed containers)?				
Are outdoor storage containers properly labeled?				
Is there an accessible, appropriate spill response kit?				
Are liquid storage containers/tanks equipped with secondary containment?				
Is secondary containment free of spills and rainwater?				
Is water from pools and/or fountains disposed of properly?				
C.4 Equipment and Vehicles				
Are exposed parking areas free of significant spills and leaks?				
Are vehicle maintenance activities conducted within contained areas when feasible (garage, canopy, work shop)?				
Are storm drain inlets near vehicle-fueling areas protected from spills and leaks?				
Is vehicle washing preformed in a designated area where runoff does not enter the MS4?				
C.5 Non-Storm Water Management				
Is the site free of evidence of illicit connections and illegal discharges?				
Is the site free of evidence of unauthorized releases to storm drains?				
If not, have the appropriate authorities been notified?				
C.6 Other				
Are appropriate signs/stenciling present at the facility?				
Are there any other potential storm water pollution issues or concerns? If yes, explain below.				

D. ADDITIONAL COMMENTS

(describe any additional deficiencies not represented above and/or notable BMP improvements)

Does this facility require a follow-up inspection? ☐ **Yes** ☐ **No**

Level of knowledge regarding storm water issues: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Operator has been notified of recommended corrective actions both verbally and by: ☐ Hand ☐ Mail ☐ Fax ☐ E-Mail

City of National City

Storm Water Quality Inspection for Municipal Facilities

Inspected by D-MAX Engineering, Inc.

REQUIRED CORRECTIVE ACTIONS

Corrections are required for all BMPs that have the "Correction Required" box checked below.

Corrections Required to Be Completed By: ____/_____/_____

BMP (See Inspection Form)	Correction Required (Check if Required)	Correction Completed (Check if Completed)
C.1 General	☐	☐
C.2 Landscaping	☐	☐
C.3 Materials and Wastes	☐	☐
C.4 Equipment and Vehicles	☐	☐
C.5 Non-Storm Water Management	☐	☐
C.6 Other	☐	☐
Other Corrective Actions/Comments (Describe):	☐	☐

Have All Required Correction Actions Been Completed? ☐ **Yes** ☐ **No**

Date: _____/_____/_____

If NO, Describe Plan to Complete Remaining Corrections Below

Were Any Corrections Completed More than 30 Days After the Initial Inspection? ☐ **Yes** ☐ **No**

If YES, Provide a Reason Why More than 30 Days Was Required:

_____ _____

Inspector (Signature) **Date**

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Special Events

Pre-Event Storm Water Compliance Checklist

I. Special Event Information

Name of Special Event: _____

Event Address: _____ **Expected # of Attendees:** _____

Event Host/Coordinator:_____ **Phone Number:**_____

II. Storm Water Best Management Practices (BMPs) Review

	YES	NO	N/A
Are enough trash cans provided for the event?			
Are enough recycling bins provided for the event?			
Do all portable toilets have secondary containment trays? (exceptions for ADA compliant portable toilets)			
Is temporary fencing present to prevent windblown trash from entering adjacent water bodies or channels?			
Do all storm drains have screens to temporarily protect trash and debris from entering?			
Are spill cleanup kits readily available at designated spots?			

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Special Events

Post-Event Storm Water Compliance Checklist

I. Special Event Information

Name of Special Event: _____

Event Address: _____

Event Host/Coordinator:_____ **Phone Number:**_____

II. Storm Water Best Management Practices (BMPs) Review

	YES	NO	N/A
Is the event area clean and free of litter and debris?			
Are all trash areas cleaned of trash, debris, and spills?			
Is there evidence of discharges, spills, and or leaks in any areas?			
Are all protection screens from all storm drains removed?			
Are the areas around the storm drains cleaned of trash and debris?			

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JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM ANNUAL REPORT FORM

FY _____

I. COPERMITTEE INFORMATION

Copermittee Name:

Copermittee Primary Contact Name:

Copermittee Primary Contact Information:
Address:
City: County: State: Zip:
Telephone: Fax: Email:

II. LEGAL AUTHORITY

Has the Copermittee established adequate legal authority within its jurisdiction to control pollutant discharges into and from its MS4 that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐
A Principal Executive Officer, Ranking Elected Official, or Duly Authorized Representative has certified that the Copermittee obtained and maintains adequate legal authority?	**YES**	☐
	NO	☐

III. JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM DOCUMENT UPDATE

Was an update of the jurisdictional runoff management program document required or recommended by the San Diego Water Board?	**YES**	☐
	NO	☐
If YES to the question above, did the Copermittee update its jurisdictional runoff management program document and make it available on the Regional Clearinghouse?	**YES**	☐
	NO	☐

IV. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

Has the Copermittee implemented a program to actively detect and eliminate illicit discharges and connections to its MS4 that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐

Number of non-storm water discharges reported by the public	
Number of non-storm water discharges detected by Copermittee staff or contractors	
Number of non-storm water discharges investigated by the Copermittee	
Number of sources of non-storm water discharges identified	
Number of non-storm water discharges eliminated	
Number of sources of illicit discharges or connections identified	
Number of illicit discharges or connections eliminated	
Number of enforcement actions issued	
Number of escalated enforcement actions issued	

V. DEVELOPMENT PLANNING PROGRAM

Has the Copermittee implemented a development planning program that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐
Was an update to the BMP Design Manual required or recommended by the San Diego Water Board?	**YES**	☐
	NO	☐
If YES to the question above, did the Copermittee update its BMP Design Manual and make it available on the Regional Clearinghouse?	**YES**	☐
	NO	☐

Number of proposed development projects in review	
Number of Priority Development Projects in review	
Number of Priority Development Projects approved	
Number of approved Priority Development Projects exempt from any BMP requirements	
Number of approved Priority Development Projects allowed alternative compliance	
Number of Priority Development Projects granted occupancy	

Number of completed Priority Development Projects in inventory	
Number of high priority Priority Development Project structural BMP inspections	
Number of Priority Development Project structural BMP violations	
Number of enforcement actions issued	
Number of escalated enforcement actions issued	

JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM
ANNUAL REPORT FORM
FY _____

VI. CONSTRUCTION MANAGEMENT PROGRAM

Has the Copermittee implemented a construction management program that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐

Number of construction sites in inventory	
Number of active construction sites in inventory	
Number of inactive construction sites in inventory	
Number of construction sites closed/completed during reporting period	
Number of construction site inspections	
Number of construction site violations	
Number of enforcement actions issued	
Number of escalated enforcement actions issued	

VII. EXISTING DEVELOPMENT MANAGEMENT PROGRAM

Has the Copermittee implemented an existing development management program that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐

	Municipal	Commercial	Industrial	Residential
Number of facilities or areas in inventory				
Number of existing development inspections				
Number of follow-up inspections				
Number of violations				
Number of enforcement actions issued				
Number of escalated enforcement actions issued				

VIII. PUBLIC EDUCATION AND PARTICIPATION

Has the Copermittee implemented a public education program component that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐
Has the Copermittee implemented a public participation program component that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐

IX. FISCAL ANALYSIS

Has the Copermittee attached to this form a summary of its fiscal analysis that complies with Order No. R9-2013-0001?	**YES**	☐
	NO	☐

X. CERTIFICATION

I [☐ Principal Executive Officer ☐ Ranking Elected Official ☐ Duly Authorized Representative] certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Date
Print Name	Title
Telephone Number	Email

Appendix G

Municipal Inventory

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City of National City Municipal Inventory

#	Name	Location	Description	HSA	Adjacent to ESA?*	Priority	Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding Substances	Bacteria & Viruses	Trash & Debris	Likely Source?**
1	Butterfly Park	East 22nd Street and Palm Avenue	Park	909.12	No	Standard	UL	UL	UL	L	L	L	PO	PO	PO	Yes
2	Camacho Recreational Gymnasium	1810 East 22nd Street	Recreational Center and Parking Lot	909.12	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
3	Casa De Salud	1408 Harding Avenue	Community Center	908.31	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
4	City Hall	1243 National City Boulevard	Administrative Offices and Parking Lot	908.32	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
5	El Toyon Park	2005 East 4th Street	Park and Parking Lot	908.31	No	Standard	PO[1]	UL	PO[1]	L	L	L	PO	PO	PO	No
6	El Toyon Recreational Center	2005 East 4th Street	Recreational Center and Parking Lot	908.31	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
7	Fire Station 31	24th Street and Euclid Avenue	Fire Station	909.12	No	Standard	PO[1]	PO	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
8	George H. Waters Nutrition Center	1514 D Avenue	Community Center	908.32	Yes	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	L	L	L	No
9	Kimball Park	12th Street and D Avenue	Park and Parking Lot	908.32	Yes	High	PO[1]	UL	PO[1]	L	L	L	PO	PO	PO	No
10	Kimball Recreation Center	148 East 12th Street	Recreational Center and Parking Lot	908.32	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
11	Las Palmas Park	1800 Newell Street	Park and Parking Lot	909.12	No	Standard	PO[1]	UL	PO[1]	L	L	L	PO	PO	PO	Yes
12	Martin Luther King Community Center	140 East 12th Street	Community Center and Parking Lot	908.32	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
13	Municipal Separate Storm Sewer (MS4)	19 miles of storm drains, storm drain boxes, and open channel sections throughout the City	MS4	All	Yes	High	UL	UL	UL	PO[2]	UL	UL	PO[2]	PO[2]	UL	No
14	Municipal Swimming Pool	1800 East 22nd Street	Recreational Pool and Parking Lot	909.12	No	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
15	National City Fire Department Headquarters - Station 34	333 East 16th Street	Fire Station	908.32	Yes	High	PO[1]	PO	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
16	National City Municipal Golf Course***	1439 Sweetwater Road	Golf Course and Parking Lot	909.12	Yes	High	PO[1]	PO	PO[1]	L	L	L	PO	PO	PO	Yes

City of National City Municipal Inventory

#	Name	Location	Description	HSA	Adjacent to ESA?*	Priority	Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding Substances	Bacteria & Viruses	Trash & Debris	Likely Source?**
17	National City Public Library	1401 National City Boulevard	Library and Parking Lot	908.32	Yes	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
18	Paradise Creek Educational Park	West 19th Street and Coolidge Avenue	Park	908.32	Yes	High	UL	UL	UL	PO	PO	PO	PO	PO	PO	No
19	Police Station	1200 National City Boulevard	Police Station and Parking Lot	908.31	No	Standard	PO[1]	PO	PO[1]	PO[4]	PO[4]	PO[4]	PO	PO	PO	No
20	Public Works Material Yard	1243 McKinley Avenue	Waste Storage	908.31	No	High****	L	PO	PO	L	PO	L	L	L	L	No
21	Public Works Yard	1726 Wilson Avenue	Maintenance Yard and Parking Lot	908.31	No	High****	L	PO	L	PO	PO	PO	PO	PO	PO	No
22	Pump Station (Sewer)	14th Street and Tidelands Avenue	Pump Station	908.32	No	Standard	PO[3]	UL	PO[3]	UL	UL	PO[3]	PO[3]	PO[3]	UL	No
23	Pump Station (Sewer)	Tidelands Avenue and Bay Marina Drive	Pump Station	908.32	No	Standard	PO[3]	UL	PO[3]	UL	UL	PO[3]	PO[3]	PO[3]	UL	No
24	Sanitary Sewer System	Throughout City	Sanitary Sewer System	All	Yes	High	PO[3]	UL	PO[3]	UL	UL	PO[3]	PO[3]	PO[3]	UL	No
25	Senior Services Center	1221 D Avenue	Community Center and Parking Lot	908.32	Yes	Standard	PO[1]	UL	PO[1]	PO[4]	PO[4]	PO[4]	L	L	L	No
26	Streets	110 miles of roadways throughout the City	Streets	All	Yes	High	L	L	L	L	UL	UL	PO	PO	L	Yes
27	Sweetwater Heights Park	Cagle Street and Stockman Street	Park	909.12	No	Standard	UL	UL	UL	PO	PO	PO	PO	PO	PO	No

Notes: HSA = hydrologic subareas; L = Likely, PO = Possible, UL= Unlikely

All facilities are active and are located within the San Diego Bay Watershed Management Area.

Standard Industrial Classification (SIC) codes are not considered applicable to municipal facilities. The type of activity is indicated by the "Description" column.

This table is based on tables in the Copermittees' Baseline Long-Term Effectiveness Assessment (County of San Diego, 2011) and on the field experience of D-Max Engineering, Inc. D-Max has conducted more than 24,000 industrial and commercial facility inspections during which pollutant discharge potentials were assessed. Additionally, the City has determined whether or not a facility is likely to be, unlikely to be, or possibly a source of a potential pollutant based on site inspection history and observed sources of pollutants.

*Adjacent to means within a distance of less than 200 feet.

Is the facility or area tributary to **and within the same HSA as a water body segment listed as impaired on the 303(d) list **and** generates pollutants for which the water body segment is impaired? The most recent (2010) 303(d) list includes the following relevant impairments: San Diego Bay shorelines at the 7th Street Channel (HSA 908.31) and north of the 24th Street Marine Terminal (HSA 908.32) for benthic community effects and sediment toxicity; La Paleta Creek (HSA 908.31) for copper and lead; Paradise Creek (HSA 908.32) for selenium; Sweetwater River (HSA 909.12) for *Enterococcus*, fecal coliform, phosphorus, selenium, total dissolved solids, total nitrogen as N, and toxicity.

***Municipal Golf Course is owned by the City, but all on-site activities are managed by private lessee.

****Due to materials and activities associated with these facilities, annual inspections will occur indefinitely.

[1]Discharge of heavy metals and oil and grease is possible if the facility has onsite parking; otherwise, the discharge of these pollutants is unlikely.

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

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

[4]Discharge of sediment, pesticides, and nutrients is possible if the facility has onsite landscaping or other unpaved areas; otherwise, the discharge of these pollutants is unlikely.