CITY OF NATIONAL CITY

JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

MARCH 2008

PREPARED BY:

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D-MAX ENGINEERING, INC.
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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.

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EXECUTIVE SUMMARY

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

On January 24, 2007, the California Regional Water Quality Control Board, San Diego Region (RWQCB) adopted an updated National Pollutant Discharge Elimination System (NPDES) Municipal Permit, Order No. R9-2007-0001 (Municipal Permit). The Municipal Permit regulates discharges to storm drain systems within 18 municipalities in San Diego County, the County of San Diego, the San Diego County Regional Airport Authority, and the San Diego Unified Port District (collectively referred to a "Copermittees"). Order No. 2001-01, the previous permit, required each Copermittee, including the City to develop a comprehensive Jurisdictional Urban Runoff Management Program (JURMP). The new Municipal Permit requires Copermittees to make significant changes to their JURMPs to meet new Municipal Permit requirements. Major components of the JURMP include the implementation of Best Management Practices (BMP), water quality monitoring, and educational outreach efforts. The City also employs the use of Geographic Information System (GIS) technology in implementing its program. The various components of the City's updated JURMP are discussed below.

Introduction

The introduction includes a discussion of the general regulatory background leading up to the creation of this JURMP document and general objectives of updating the JURMP document. City setting information, land use statistics, a map of the City's storm drain system, and information about Environmentally Sensitive Areas (ESA) within the City are included in this section and were updated to account for changes since 2002.

Administrative and Legal Procedures

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

Non-Storm Water Discharges

Prohibitions of various non-storm water discharges—that is, discharges of water that is not rain—and the City's approach to controlling such discharges are included in this component. These discharges can increase pollutant loads in the water that flows in the City's storm drain system and eventually to receiving waters during non-storm conditions. The categories of non-storm water discharges the City has determined to be a significant source of pollutants are identified, the appropriate control measures the

City has identified to reduce the discharge of pollutants from such non-storm water discharges are discussed.

Development Planning Component

Development has the potential to negatively impact water quality when not properly managed. The City has incorporated water quality provisions into its General Plan, and the City's Standard Urban Storm Water Mitigation Plan (SUSMP) regulations have been updated. This section also describes the mechanisms that the City uses to require that development project are designed in ways that minimize their potential to negatively impact urban runoff, including requirements to implement Low Impact Development (LID) measures. Methods for maintaining a prioritized, watershed-based inventory of completed projects with treatment control BMPs and conducting associated maintenance inspections have been newly added to this section. A database has been developed in support of this program. A system to require the responsible party for each treatment control BMP to verify proper operation and maintenance of the BMP each year has also been newly developed. The timeline for future updates the City's SUSMP ordinance and the regional development of a Hydromodification Management Plan (HMP) are also included in this section.

Construction Component

This section includes updated information and regulations applicable to construction activities within the City; a watershed-based inventory of the construction sites within the City has also been created. Updates to the construction BMP requirements, including new requirements regarding the maximum area that can be disturbed before either temporary or permanent erosion controls are required, are also described in this section. Revised construction site inspection frequencies are presented, and enforcement processes, including the mechanism to report high level enforcement actions to the RWQCB, are described. New regionally specified requirements for the implementation of advanced treatment measures at sites that pose exceptional threats to water quality are found in this section. The construction and grading permit approval process and storm water related contract specifications for CIP projects are also discussed.

Municipal Component

This section provides an updated management program for municipal areas and activities; a prioritized, watershed-based inventory of these areas and activities is included in the updated JURMP. The City has developed a table that identifies the pollutant categories most commonly associated with the various categories of municipal areas and activities discussed in the JURMP. Another table in this section lists the updated BMP requirements for each category of municipal area or activity. The BMP requirements are now based on those listed in the California Storm Water Quality Association (CASQA) BMP handbook for municipal facilities, which has been published since the development of the last JURMP. References to the CASQA fact sheets are presented in the table. Updated descriptions of how the City will meet the higher required levels of MS4 maintenance and street sweeping are provided, as is a description of facility inspection procedures.

Industrial and Commercial Component

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

Residential Component

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

Illicit Discharge Detection and Elimination Component

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

Education Component

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 also describes how the City provides outreach efforts specifically tailored for target communities and activities.

Public Participation Component

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

Fiscal Analysis Component

The means by which the City funds its annual storm water-related activities including jurisdictional, watershed, and regional activities is discussed in this component. This

section also provides the methods of reporting the yearly fiscal analysis in the JURMP Annual Report. After regional efforts to create a standardized expenditure and budget format that will be used in future Annual Reports are completed, the City will begin using this procedure as required by the Municipal Permit.

Effectiveness Assessment Component

This section includes methods by which the City will continue to evaluate its program. The section includes an increased detail relative to the previous approach, and more emphasis has been placed on outcome levels relating to load reductions and discharge quality. The City has adopted standard metrics developed regionally and has also developed additional techniques tailored to the needs of the City. The results of the annual effectiveness assessments conducted as part of the JURMP Annual Reports will be used to guide future program implementation.

Modifications to the JURMP

This portion of the JURMP has been newly added as required by the Municipal Permit. It lists the locations in the JURMP where changes have been made to meet the new Municipal Permit requirements.

Conclusions and Recommendations

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

Each year the City will develop an annual report on the implementation of its JURMP; these JURMP Annual Reports will be submitted to the RWQCB by September 30 of each year. For example, the first report covering activities described in this updated JURMP will cover the 2007-2008 fiscal year and will be due to the RWQCB by September 30, 2008.

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 No

1.0 INTRODUCTION

In 2002, the City of National City (City) developed a Jurisdictional Urban Runoff Management Program (JURMP) document as required by the San Diego Regional Water Quality Control Board (RWCQB) Order No. 2001-01. On January 24, 2007, an updated permit, Order No. R9-2007-001 (Municipal Permit), was released. This new Municipal Permit requires each Copermittee, as defined in Section B of the Municipal Permit, to update its JURMP document to comply with the new requirements. This revised JURMP document contains a description of the City's program as a whole, with updates to specific measures the City will implement or require to be implemented to comply with the Municipal Permit.

This document is presented in the standardized format developed collectively by the Copermittees and is based on the most updated information available at the time this document was prepared. Each year the City will submit a JURMP Annual Report to the RWQCB, and any changes to the City's JURMP will be noted in that document. Any program modifications will be for the advancement of the City's program and will comply with all regulations as presented in the Municipal Permit.

1.1 BACKGROUND

1.1.1 URBAN RUNOFF AS A NON-POINT SOURCE OF POLLUTANTS

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

Pollutants that reach receiving water bodies, such as streams, lakes, lagoons, and the ocean, have the potential to significantly impact human and environmental health. Notably, environmentally sensitive areas (ESA) are especially threatened by urban development because such areas tend to have lower capacities to withstand pollutants entering the area.

1.1.2 REGULATORY BACKGROUND

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

In January 2007, the San Diego RWQCB released a revised municipal permit, Order No. R9-2007-0001. The new Municipal Permit required all Copermittees to make significant revisions to the JURMP.

1.2 PURPOSE AND OBJECTIVES

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

1.3 CITY SETTING

The City of 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 9 square miles and an estimated population of 55,000. Land use within the City is largely residential, though the largest land-use in the City is roads, streets, and highways; other land uses in the City include municipal facilities, industrial and commercial facilities, undeveloped open spaces, and other land use categories. Land use categories with the corresponding percentage of the total area are included in Table 1-1, below.

Table 1-1
City of National City Land Use Breakdown

Land Use	Total Area (Acres)	Percentage
Single Family Residential	1216	30%
Transportation	1149	29%
Commercial	490	12%
Industrial	251	6%
Multi-Family Residential	215	5%
Open	202	5%
Public Facilities and Utilities	174	4%
Vacant	115	3%
Parks	114	3%
Other Residential	41	1%
Office	22	1%
Water	20	<1%
Construction	6	<1%
Recreation	2	<1%
Total	**4,016**	**100%**

Source: 2007 SANDAG land-use data

1.3.1 WATERSHEDS

The City of National City lies entirely within the San Diego Bay Watershed. The City is located within two sub-watersheds: the Sweetwater and Pueblo San Diego sub-watersheds. Although the City of National City only comprises of approximately 1.6 percent of the total area of the San Diego Watershed, the area is one of the most densely populated areas in the watershed. Much of the southern portion of the City drains to Sweetwater River, which ultimately terminates in San Diego Bay and contributes water to Sweetwater Marsh, a section of the San Diego Bay National Wildlife Refuge (NWR). The northern areas of the City drain to Paradise Creek, a small salt marsh creek, which eventually discharges into the Sweetwater River. La Paleta Creek (also known as 7th Street Channel) drains a small northern portion of the City and 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. Most of the areas that drain to the 24th Street Marine Terminal are within the Port's jurisdiction.

1.3.2 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, culverts, desilting basins, and detention basins, which are included on Map 1.

1.3.3 ENVIRONMENTALLY SENSITIVE AREAS

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

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

Using the definitions above, it has been determined that the City of National City contains the following ESAs:

- San Diego Bay
- San Diego Bay shoreline at 7th Street Channel (La Paleta Creek)
- San Diego Bay shoreline at 24th Street Marine Terminal
- Paradise Creek
- Sweetwater Marsh

As previously mentioned, the City lies entirely within the San Diego Bay watershed. San Diego Bay, as a whole, is listed in the 2006 CWA Section 303(d) for polychlorinated biphenyls (PCB) based on fish tissues studies in recent years. The San Diego Bay shoreline at 7th Street Channel and at the 24th Street Marine Terminal is listed in the 2006 CWA Section 303(d) for benthic community effects and sediment toxicity. Because Sweetwater Marsh is part of a NWR, it is considered an ESA. Paradise Creek is also considered an ESA by the City. All ESAs within the City are included in Map 2.

1.4 REPORT ORGANIZATION

As previously mentioned, this report follows the standard reporting outline jointly developed by the Copermittees.

Section 1 Introduction

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

Section 2 **Administrative and Legal Procedures**

This section identifies and describes the departments within the City that conduct and oversee urban runoff management activities. Enforcement authority and actions are also detailed in this section.

Section 3 **Non-Storm Water Discharges**

This section describes non-storm water discharge prohibitions and the City's approach to controlling such discharges.

Section 4 **Development Planning Component**

This section addresses how the City will reduce discharge of pollutants from development projects. Information regarding the City's General Plan, the City's Standard Urban Storm Water Mitigation Plan (SUSMP) regulations, and related implementation methods are also included. A method for maintaining a prioritized, watershed-based treatment control BMP inventory and conducting associated inspections has been added to this section.

Section 5 **Construction Component**

This section provides a prioritized, watershed-based inventory of all construction sites within the City. Updates to the construction BMPs, including the maximum allowed disturbed area before either temporary or permanent erosion controls are required, are also described in this section. Other program implementation information, including construction and grading permit approval process, contract specifications, and inspection procedures, is also included in this section.

Section 6 **Municipal Component**

This section provides a prioritized, watershed-based inventory of municipal areas and activities. 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. Updated descriptions of MS4 maintenance activities, street sweeping, and facility inspection procedures are also included in this section.

Section 7 **Industrial and Commercial Component**

This section provides a prioritized, watershed-based inventory of industrial and commercial facilities within the City, including mobile businesses known to operate in the City. This section describes pollution prevention methods and BMPs that are required to be implemented at industrial and commercial facilities. Education, inspections, and other program implementation activities are also described in this section.

Section 8 **Residential Component**

This section provides a description of residential areas and activities that have been identified as high threat to water quality (TTWQ). This section

also includes minimum BMPs required to be implemented for residential high TTWQ residential activities.

Section 9 **Illicit Discharge Detection and Elimination Component**
This section describes the processes by which illicit connections and illegal discharges (IC/ID) will be detected by the City. This includes public reporting, spill response and prevention, the City's Dry Weather Field Screening and Analytical Monitoring Program (Dry Weather Monitoring Program).

Section 10 **Education Component**
This section describes the education programs and activities that will be used by the City including content, form, and frequency for each target community as described by the Municipal Permit.

Section 11 **Public Participation Component**
This section describes the mechanisms that will be used to encourage public participation in the City urban runoff management-related programs.

Section 12 **Fiscal Analysis Component**
This section provides the methods of reporting the yearly fiscal analysis in the Annual Report. A description of the City's method of securing all necessary financial resources for the inclusion of all programs detailed in the JURMP is also included.

Section 13 **Effectiveness Assessment Component**
This section provides the City's approach to annually assess the effectiveness of the JURMP.

Section 14 **Modifications to the JURMP**
This section provides an identification of the locations in the JURMP where changes have been made to meet the new Municipal Permit requirements.

Section 15 **Conclusions and Recommendations**
This section describes conclusions and recommendations that were drawn from updates made to the JURMP document.

Appendices

Appendix A **Ordinances**
Includes letter from chief legal council certifying that the Copermittee has taken the necessary steps to obtain and maintain full legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and the Municipal Permit. The City has revised all ordinances as part of the JURMP update process.

Appendix B **Inventories**
Includes inventories of treatment control BMPs, construction sites, municipal facilities, and industrial and commercial facilities.

Appendix C **Best Management Practices**
Provides BMPs for industrial, commercial, municipal, residential, and construction activities.

Appendix D **Implementation Tools and Procedures**
Provides storm water quality inspection forms for treatment control BMP operation and maintenance inspections, construction inspections, municipal inspections and industrial/commercial inspections.

Appendix E **Dry Weather Field Screening and Analytical Monitoring Program**
Includes Dry Weather Monitoring Sampling Manual and a Dry Weather Monitoring Field Data Sheet.

2.0 ADMINISTRATIVE AND LEGAL PROCEDURES

2.1 DEPARTMENTAL ROLES AND RESPONSIBILITIES

A detailed description of the City's departmental roles and responsibilities is included in the Legal Certification letter, which is included as Appendix A. A chart depicting the organization and relationship between City departments is also included in the Legal Certification letter in Appendix A.

2.2 LEGAL AUTHORITY

The City has established and maintains its legal authority to control pollutant discharges into and from its MS4 as specified in Section C.1 of the Municipal Permit. The City will ensure that it has the legal authority to require BMP implementation, to prohibit all identified illicit discharges which are not exempt pursuant to Section B.2 of the Permit, to prohibit and eliminate illicit connections to the MS4, and to control the discharge of spills, dumping, and disposal of materials other than storm water to its MS4. Section 3 of this document provides more information on discharge prohibitions.

The City has local ordinances and Municipal Code sections that 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 Ordinance (Ord. 2008-2308, Chapter 14.22)
- Grading Ordinance of the City of National City (Ord. 2008-2306, Chapter 15.70)
- Standard Urban Stormwater Mitigation Plan (SUSMP) Ordinance of the City of National City (Ord. 2008-2307)

The above Ordinances are included in Appendix A of this document. Additionally, Title 7 of the City's Municipal Code, Property Conservation and Community Appearance Code, contains various regulations regarding litter, public nuisance, residential vehicle repair and storage, etc., which are not specific to storm water but may in some cases be used to support storm water program implementation.

2.2.1 CERTIFICATION OF LEGAL AUTHORITY

The chief legal counsel of the City of National City has prepared a letter certifying that the City has adequate legal authority to implement and enforce the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and RWQCB Order No. R9-2007-0001. This letter is included in Appendix A.

2.2.2 ENFORCEMENT PROCEDURES

Compliance with the City's ordinances will be assessed through a variety of means, including inspections, responses to hotline calls, and the City's Dry Weather Monitoring

Program. Where violations are observed, administrative and judicial procedures may be employed to enforce storm water requirements. Depending on the severity of the violation, enforcement can range from a verbal warning to monetary fines. The goals of the City's enforcement program are the following:

- To educate the regulated community
- To encourage compliance with the laws and regulations within the regulated community
- To return violators to compliance in a timely manner to eliminate any threats posed due to non-compliance
- To initiate and conclude enforcement activities in a timely manner
- To penalize violators, as appropriate, and to deprive violators of any significant benefit gained from violations
- To prevent any business from having an unfair business advantage through non-compliance
- To treat similar facility owners and operators equally and consistently with regard to the same types of violations

The various administrative and judicial enforcement measures as prescribed by the City's Municipal Code are discussed below.

2.2.2.1 ADMINISTRATIVE ENFORCEMENT PROCEDURES

The City typically employs a tiered, escalating enforcement system. However, the City reserves the right to use whatever tools the enforcement official deems most appropriate for a given situation, as dictated by the specifics of each case. For example, a stricter initial enforcement measures may be applied where significant noncompliance is noted or when a potential rain event increases the potential for the violation to have a negative impact on water quality. The various administrative enforcement measures employed by the City, in order of increasing severity, are discussed below. Administrative enforcement actions may be appealed as provided in Chapter 1.42 of the City's Municipal Code.

Verbal Warnings

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

Written Warnings

The two main types of written warnings are corrective action letters and Notices of Violation (NOV). Copies of written warnings are provided to the responsible party and the owner of the property on which noncompliance is observed, as applicable. Other written warnings include cease and desist orders and notices to clean and abate.

Denial or Revocation of Permits

In severe cases of non-compliance or significant discharges relating to development and/or construction activities, the City can revoke the building or grading permits that a contractor is working under for the project or deny future permits on the project. The responsible party then needs to re-apply for permits and meet the requirements the City may have placed on the project before resuming the project.

Additional Penalties or Fines

The City may issue administrative citations for storm water violations. The fine associated with the first citation is typically $100, $200 for the second, and $500 for the third. A separate citation may be issued for each observed violation during an inspection or site visit.

Disciplinary Actions

If a City employee is the cause of non-compliant activities, the City will take disciplinary actions against the employee in accordance with its established procedures.

Enforcement of Contracts

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

Stop Work Orders

Stop work orders prohibit further activity until the problem is resolved and provide a time frame for correcting the problem. The stop work order will describe the infraction and specify what corrective action must be taken. A copy of the stop work order will be posted on site in accordance with the City's ordinance. To restart work once a stop work order has been issued, the project supervisor must request that the inspector re-inspect the project and verify that the deficiencies have been satisfactorily corrected. If the inspector is satisfied with the corrections, the inspector may authorize work to proceed.

Hearing and Appeals

When any of the above administrative enforcement actions are taken, a violator may request a hearing to contest the enforcement official's determination that a violation of the City's storm water requirements has occurred. Such request must be in writing and received by the City within 10 calendar days of service of the notice of violation (or 30 calendar days for out-of-state residents) in a form approved by the enforcement official. If the City does not receive such a written notice in the specified time frame, it shall constitute a waiver of the right to a hearing and adjudication of all or any portion of the notice and order. Once a request for hearing is received, the hearing shall be conducted pursuant to Chula Vista Municipal Code sections 1.40.020 and 1.40.070. If the violator(s) fails to attend the hearing, it shall constitute a wavier of the right to a hearing and adjudication of all or any portion of the notice and order.

2.2.2.2 JUDICIAL ENFORCEMENT PROCEDURES

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

Criminal Penalties

The assistance of a peace officer may be enlisted to arrest violators as provided in the California Penal Code (Ordinance 5, 5c and 5d, Title 3, Part 2). A citation and/or a notice to appear may also be issued as prescribed in the Penal Code (Ordinance 5c of Title 1376 3, Part 2 including Section 853.6 or as amended).

Injunction/Abatement of Public Nuisance

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

Other Civil Action

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

3.0 NON-STORM WATER DISCHARGES

3.1 STORM WATER DISCHARGE CATEGORIES

The City has determined any non-storm water discharge not listed in Section 3.3 below to be a potential significant source of pollutants to waters of the United States. For example, commercial washing of patios and cars, and illegal dumping of hazardous waste are not allowed.

3.2 PROHIBITED NON-STORM WATER DISCHARGE CATEGORIES

Generally, non-storm water discharges to the MS4 are prohibited unless the discharge has been authorized by a separate NPDES permit. In some cases, if the discharger can prove that the discharge will not cause or contribute to a violation of water quality standards when BMPs are implemented, the discharge may be allowed. The City will require monitoring data from the discharger prior to allowing the discharge. These situations are handled on a case-by-case basis.

3.3 CONTROL MEASURES FOR NON-PROHIBITED NON-STORM WATER DISCHARGES

The following categories of non-storm water discharges will not be prohibited by the City, unless the City identifies the discharge category as a significant source of pollutants to the waters of the United States:

- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s
- Uncontaminated pumped ground water
- Foundation drains
- Springs
- Water from crawl space pumps
- Footing drains
- Air conditioning condensation
- Flows from riparian habitats and wetlands
- Water line flushing
- Landscape irrigation
- Discharges from potable water sources not subject to NPDES Permit No. CAG679001, other than water main breaks
- Irrigation water
- Lawn watering
- Individual residential car washing on private property

- Dechlorinated swimming pool discharges
- Emergency fire fighting flows

The City will periodically review and evaluate allowable discharges to determine whether specified categories may be significant sources of pollutants to waters of the United States. In certain cases, the City will prohibit the discharge category from entering the MS4. In other cases, pollution prevention methods, BMPs, and enforcement measures will be implemented for each category that is identified as a significant source of pollutants to the waters of the United States to reduce the discharge of pollutants to the MEP.

3.4 Program for Non-Emergency Fire Fighting Flows

Emergency fire fighting flows (i.e., flows necessary for the protection of life or property) do not require BMPs and need not be prohibited. BMPs and educational methods will be used to reduce the discharge of pollutants to the MEP. The fire fighters contain spills (oil, grease, diesel, etc) as a first responder until they notify the Storm Water inspector and/or the Public Works Department for additional assistance.

3.4.1 Best Management Practices

The City has already developed and implemented a program to reduce pollutants from non-emergency fire fighting flows, in accordance with Section B.3. of the Permit.

BMPs will be implemented when conducting the following activities:

- Regular Maintenance of Fire and Emergency Vehicles and Equipment
- Training Exercises
- Facilities Maintenance
- Post-Emergency Rehabilitation of Response Equipment

These activities will be conducted in a way to either minimize or eliminate the discharge of pollutants to the MS4. Detailed descriptions of BMPs are given for each activity below:

Regular Maintenance of Fire and Emergency Vehicles and Equipment

- Vehicles and equipment will be cleaned where runoff will be directed to the sanitary sewer system. A dedicated wash area is used at Station # 34.
- Vehicles and equipment will be cleaned where runoff will be directed to a drain with an oil/water separator system.
- All hazardous waste is handled and collected by mechanics at City Shops. Vehicle and equipment used-oil, hydraulic fluids and antifreeze will be captured in containers for recycling or proper disposal as hazardous waste. General cleaning solutions used on vehicle parts or equipment will be disposed of in a utility sink that drains to the sanitary sewer system. Caustics, flammables and solvents will be contained and disposed of properly as hazardous waste.

- Absorbent will be available to provide prompt cleanup of leaking or spilled vehicle fluids.
- Use of soaps, cleaners and detergents will be minimized, and general cleaning solutions will be disposed of into the sanitary sewer system. For heavy cleaning, the City uses the wash rack at Public Works' yards.

Training Exercises

- All Fire Department training involving water flows are conducted in the Drill area, which has a water reclamation system.
- Areas with debris that could potentially enter the MS4 as a result of the drill activities will not be used for training until the debris has been removed.
- Live fire training activities will be pre-planned to allow integration of barriers to off-site runoff that could contribute to storm water discharges.

Facilities Maintenance

- Impervious areas such as apparatus floors, maintenance bays, driveways, patios and walkways will be swept to remove debris. Debris will be placed in the trash. Interior floors will be mopped as necessary, and the wastewater discharged into the sanitary sewer system or onto landscaped areas.
- Landscaped areas will be maintained as required to reduce introduction of leaves and other landscape waste into the MS4.
- Irrigation systems will be monitored and maintained as required to reduce irrigation water from going off site.
- Spills will be cleaned up using absorbent provided at the work site, and disposal of spilled material will be in accordance with applicable regulations.
- Spills that require a cleanup beyond the ability of the on-site employees will be reported to the City Public Works Department for assistance with appropriate resources.
- General non-hazardous cleaning solutions will be disposed of in a utility sink that drains into the sanitary sewer system.

Post-Emergency Rehabilitation of Response Equipment

Tools, fire hoses, ladders and other equipment utilized at the scene of an emergency will be restored to a response-ready state in a manner that does not delay the ability of the apparatus to be available for another emergency response. The use of water that could contribute to storm water discharges may be used unless another practical and immediately available method is identified.

3.4.2 EDUCATIONAL METHODS

Details of the City's educational programs for municipal staff, including fire fighters, are provided in Section 10 of this document.

4.0 DEVELOPMENT PLANNING COMPONENT

4.1 INTRODUCTION

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. Accordingly, the City has developed measures to limit the potential for urban development to negatively impact the environment through careful land use planning and thoughtful design of development projects. Development projects are defined by the Municipal Permit as 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.

The City of National City is almost completely developed, with limited natural areas remaining. A few of the 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 aesthetic value of the City and the environmental health of the area.

Due to the limited amount of land remaining for new development, most of the development projects within the City of National City consist of redevelopment projects. This provides the City with an opportunity to improve the design of already developed areas and potentially reduce the amount of runoff from urban areas and improve the quality of the City's receiving water bodies. Through the implementation of the City's development planning component the City will reduce the discharge of pollutants from development projects to the MEP, protect receiving water bodies, and manage increases in runoff from development projects that have the potential to increase erosion in streams or rivers.

4.2 LAND USE PLANNING

4.2.1 BACKGROUND

The City of National City's General Plan was adopted in 1996 by the City Council. One of the sub-goals of the General Plan states "the City will maintain and coordinate planning with the appropriate public agencies for evaluation and improvement of the various public facility service systems (water, sewerage, drainage, street lighting, streets, and highways and other utilities), to adequately serve existing and projected future development and maintain a high quality urban environment." To help achieve this goal, a number of water quality and watershed protection principles were included in

the General Plan's Natural Setting Element, which are discussed in Section 4.2.3 of this document.

4.2.2 SOURCE CHARACTERIZATION

There are four general types of general land uses: industrial, commercial, municipal and residential. Each type of land use is associated with different combinations of pollutants and activities that have the potential to negatively effect the surrounding environment. Many of these issues can be addressed through careful land use planning practices that help reduce and contain pollutants at their sources.

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

4.2.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

The City of National City has adopted the following policies to address water quality and watershed protection, which are included in the Natural Setting Element of the General Plan:

- Assessment of potential flood and drainage impacts will be required of all major new developments. When significant impacts are identified, the project will provide adequate mitigation either directly or will provide the means for financing necessary public drainage improvements.
- The City will cooperate with regional agencies in programs designed to reduce air and water pollution levels from all sources.
- Development on steep slopes in the City will be regulated as necessary for both public safety and natural conservation purposes. Allowable densities in these areas should be maintained at lower levels in order to reduce potential effects from development.
- The City will take necessary measures to reduce hazards in the coastal zone as specified by the Local Coastal Program.
- The City will preserve open space areas as necessary and desirable to conserve natural resources, to provide adequate recreation, and to protect public health and safety.
- The City will support efforts by the U.S. Fish and Wildlife Service and the California Department of Fish and Game, as well as the Coastal Commission and Army Corps of Engineers related to preserving valuable natural habitats in the Paradise Marsh and Sweetwater River areas.

- Coastal resources, including natural wetlands as well as visual resources, will be protected in accordance with the City's Local Coastal Program.

Details on how the City implements the above polices are described in the following sections. The City also has established minimum design requirements for all development projects, which are discussed in Section 4.4.3.

4.2.4 PROGRAM IMPLEMENTATION

The General Plan has been adopted by the City Council and is a legally binding document; the City is required to abide by its policies. The City has reviewed the General Plan and concluded that the water quality projection principles within are consistent with the goals of the Municipal Permit and this JURMP document. No updates to the City's General Plan are planned at this time.

In addition to the General Plan, the City of National City addresses water pollution through implementation of its Municipal Code. Chapter 14.22 of the Municipal Code, Storm Water Management and Discharge Control, has been reviewed and updated as necessary to comply with the new Municipal Permit. The updated Storm Water Ordinance can be found in Appendix A of this document.

In addition to the City's Storm Water Ordinance, the City's Municipal Code includes the City's Standard Urban Storm Water Mitigation Plan (SUSMP). The City adopted the SUSMP Ordinance in 2002 as a condition of the previous Municipal Permit. The SUSMP ordinance was based on a regionally developed Model SUSMP created to address post-construction urban runoff pollution from development projects. Certain categories of development projects deemed more likely to discharge pollutants defined in the City's SUSMP are referred to as Priority Development Projects (Priority Projects) and are subject to strict development requirements. As part of the design process, Priority Projects must submit post-construction BMP plans. These BMP plans must list the BMPs proposed to address potential pollutants likely to be generated and other conditions of concern likely to be associated with the development. Additional information on the City's SUSMP is discussed in Section 4.4 of this document.

The City has recently updated its SUSMP Ordinance to meet new Municipal Permit requirements and plans additional updates in the future. A copy of the amended SUSMP Ordinance can be found in Appendix A. Details on the completed and planned SUSMP Ordinance updates can be found in Section 4.4.4.4, and more information on the City's legal authority to implement its storm water program can be found in Section 2 of this JURMP.

4.3 ENVIRONMENTAL REVIEW PROCESS

The City of National City has evaluated its current established environmental review process for all development projects to determine compliance with the new Permit. Currently, when a project proponent initially contacts the City regarding a development project, the City guides the developers through filling out all necessary paperwork and

identifies which reports need to be submitted and approved before development may begin. The City's current environmental review process currently emphasizes the evaluation of water quality impacts and other related impacts that each development project may have.

All development and redevelopment projects are reviewed for compliance with the California Environmental Quality Act (CEQA) by the City's Planning Division. Project applicants must complete the CEQA Application (Appendix D) to determine if the project has the potential to significantly impact the environment. The City's Planning Department then reviews the project's CEQA Application using the CEQA Checklist (Appendix D) and determines what level of environmental review is necessary and what (if any) additional reports need to be prepared. Both the CEQA Application and CEQA Checklist were updated in 2005 and include questions related to watershed protection and water quality.

In addition to reviewing development projects for CEQA requirements, the City reviews all development projects for compliance with the Municipal Permit and the City's local Ordinances. Further description of how the City verifies compliance with these documents can be found in Section 4.4.4.2 of this JURMP document.

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

4.4 Development Project Approval and Verification Process

4.4.1 Background

The City of National City has an established multi-departmental review process for all new development and re-development projects. Through the development project approval and verification process the City will mitigate the negative impacts of urban runoff from development projects to the MEP.

4.4.2 Source Characterization

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

development, the City's design requirements for development projects vary according to size, project characteristics, and anticipated land use.

The City's updated SUSMP Ordinance describes specific categories of Priority Projects and indicates common pollutants associated with each category. A Priority Project must identify the potential pollutants anticipated from its development and implement design concepts and other BMPs to address these pollutants. How development projects determine if they are a Priority Project and what documents they must submit to the City is detailed in Section 4.4.3.

All development projects, including non Priority Projects, are required to meet the applicable BMP requirements, which are discussed below.

4.4.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

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

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

In addition to the above requirements, Priority Projects must identify potential pollutants from the project, propose LID principles, source control, and treatment control BMPs, perform sizing calculations for treatment control BMPs, and submit an appropriate maintenance plan. Priority Projects must also address how the project will manage increases in runoff discharge rates and durations associated with the project where such increases could cause erosion downstream of the project.

Under the current language in the SUSMP, the City requires Priority Project proponents to demonstrate that their proposed projects will not adversely impact downstream channels or habitat. This process typically includes hydrology calculations to determine whether the proposed development activities will increase the peak flow from the projects. The City is also collaborating with the other Copermittees to adopt a detailed Hydromodification Management Plan (HMP). The final HMP is not expected to be complete until the middle of 2009; however, the City has established and implemented Interim Hydromodification Criteria (IHC) that will be in effect until the final HMP is

approved. The City requires all Priority Projects disturbing 50 or more acres to comply with the IHC, except for those sites that are considered exempt as described in Section D.1.(g)(6) of the Municipal Permit. The Interim Hydromodification Criteria has been included in the updated SUSMP Ordinance included in Appendix A. Note that the existing requirements in the SUSMP that require demonstration of no adverse impact to downstream habitats or channels will also remain in effect for all development projects during this interim period. A time table for development of the HMP is found in Section 4.4.4.3.

As required by the Municipal Permit, all applicable updated SUSMP and Hydromodification requirements will apply to all Priority Projects or phases of Priority Projects which have not yet begun grading or construction activities at the time any updated SUSMP or Hydromodification requirements go into effect. However, if lawful prior approval of a project exists that makes implementing the updated requirements infeasible, the updated requirements will not be required for that project. The City considers a project with any of the following as having "lawful prior approval":

- A vesting tentative map
- A development agreement
- A permit has already been issued and construction has already started

The City will notify development projects undergoing the approval process that if the project does not anticipate having lawful prior approval prior to any updated requirements going into effect, the project will be required to include the updated requirements into the project's plans.

All development projects must submit documents to the City that meet all of the above requirements. To help development projects meet the City's minimum requirements, the City has updated its applicability checklist, which is included in Appendix D. All development and redevelopment projects that disturb soil are required to complete this checklist and submit it to the City. The checklist aids project proponents and the City in determining what documents relating to storm water must be prepared. Regardless of the permits required for the development project, all applicability checklists must be reviewed and signed off by the Engineering Department before any City permits can be obtained. This process helps ensure that all development projects complete the applicability checklist regardless of which City department the project originates.

Priority Projects must submit Storm Water Management Plans (SWMPs) that details how the project proposes to meet the requirements of the City's SUSMP ordinance. The City has also developed a SWMP self checklist (Appendix D) that can be used by SWMP preparers to check that all required SWMP components have been included in the report before it is submitted to the City.

Development projects determined to not be Priority Projects but still require permits and/or approvals or significant exterior construction must complete a Standard Permanent Storm Water BMPs form (Appendix D). If any structural BMPs are proposed

for non-Priority Projects, the City will also require the development project to submit a maintenance agreement.

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

Details on how the City reviews development projects for minimum BMP requirements are discussed in Section 4.4.4.2.

4.4.4 PROGRAM IMPLEMENTATION

4.4.4.1 OUTREACH AND STAFF TRAINING

All City of National City officials involved in planning and review of development projects are continually trained in storm water requirements. Training focuses on general water quality concepts in addition to specific SUMSP requirements and implementation procedures. The City holds frequent interdepartmental SUSMP coordination meetings, and the City's Planning and Engineering departments regularly attend these meetings to discuss storm water requirements with respect to both CIP and private development projects. To ensure that all City departments are aware of their responsibility in the SUSMP review process, the City developed a Departmental SUSMP Responsibly Checklist (Appendix D). City staff involved in development projects also utilize the County's LID Manual to incorporate LID concepts into CIP projects and to discuss LID with private development project proponents early in the permitting and design process.

The City also works closely with a variety of different industries involved in planning and development to educate the development community about storm water requirements. Applicants are given the appropriate information and tools to ensure the project will meet Municipal Permit requirements at the City's Planning and Engineering counters at the beginning and throughout the application process. The City works closely with applicants during the approval process to ensure that all project proponents are aware of and complying with appropriate regulations.

For more detail on the City of National City's outreach and training in respect to development planning, refer to Section 10.

4.4.4.2 DEVELOPMENT PROJECT APPROVAL PROCESS

All development projects in the City must comply with both the Municipal Permit and the General Construction Permit. The construction and post-construction BMP plan approval process requires that all submitted documents meet the minimum requirements of the City and the General Construction Permit before the project commences. Details regarding the City's approval process for construction

requirements are found in Section 5 of this document. The approval process for post-construction BMP plans is described below.

As previously discussed, Priority Projects must submit detailed SWMPs, and non-Priority Projects must complete the City's Standard Permanent Storm Water BMPs form. These submitted documents undergo a thorough review by City or contract staff. The documents are reviewed using the detailed Standard Urban Storm Water Mitigation Plan Checklist (SUSMP Checklist) included in Appendix D of this document. Since the requirements for Priority Projects and non-Priority Projects differ, sections of the checklist that are not applicable to non-priority projects are marked as such. The City utilizes the SUSMP Checklist when reviewing public Capital Improvement Projects (CIP) for compliance with minimum BMP requirements.

If any storm water related requirements are found to be missing or inadequate for a development project, the project proponent is made aware of what changes need to be made, and the project is required to resubmit revised plans as necessary for additional review. The process continues until all required documents meet all applicable storm water requirements, at which point the project is issued appropriate grading and/or building permits. The City will not issue permits to projects that do not meet the City's storm water requirements.

All applicable BMPs for public and private development projects must be shown on the project's construction plans. BMPs that cannot be shown on the plans must be noted or attached to the plans. Development Projects will not receive approval until all BMPs are included on or attached to the project's plans.

Any changes to approved project plans during development involving planned storm water BMPs must be approved by the City before any changes may be implemented.

4.4.4.3 WAIVER PROVISIONS

In the event that a Priority Project is unable to meet the treatment control BMP sizing requirements outlined in the City's SUSMP, the City has the authority to issue a wavier. In order to receive a waiver for treatment control BMP sizing requirements, the project must prove that all available treatment control BMPs have been determined to be infeasible for the site. If a waiver of infeasibility is issued, the City will notify the RWQCB within five days of granting the wavier. The following information will be provided to the Regional Board:

- The name of the City employee granting the waiver
- The name of the developer receiving the waiver
- The location of the site
- The reason for granting the waiver
- A description of the BMPs required for the site

The City has not granted any waivers in the past that have exempted projects from implementing treatment control BMPs and does not anticipate granting these waivers in

the future; however, if waivers are necessary, the City may choose to develop a waiver mitigation program. The waiver mitigation program would collect funds from projects that receive waivers and use the funds on programs to improve water quality in the projects' watershed.

4.4.4.4 Model and Local SUSMP Updates

The City has updated its current SUSMP to meet the new requirements outlined in the new Municipal Permit. The City's update is based on the recommended language developed by the regional SUSMP update group, in which the City played a significant role. The following were performed during the review and update of the SUSMP:

- Priority Project categories were updated.
- The document was reviewed to ensure no obsolete or ineffective BMPs were retained.
- LID requirements and additional source control requirements were added to meet or exceed Municipal Permit requirements.
- LID BMPs that can be used as treatment control BMPs were added to appropriate tables and discussions of treatment control options were updated accordingly.
- Pollution removal efficiencies of treatment control BMPs were reviewed and updated where necessary.

In addition to the changes discussed above, an updated Model SUSMP will be developed by a regional workgroup. The Model SUSMP will include the following as required by the Municipal Permit:

- Inclusion of LID, source control, and treatment control BMPs that meet or exceed the minimum requirements of the Municipal Permit.
- Establishment of siting, design, and maintenance criteria for each LID and treatment control BMP listed in the Model SUSMP.
- Addition of criteria to help determine conditions where implementation of each LID BMP included in the model SUSMP is applicable and feasible.
- Addition of a requirement for Priority Projects with low traffic areas and appropriate soil conditions to use permeable surfaces.
- Addition of any necessary restrictions for infiltration BMPs from Priority Projects that generate high levels of pollutants.

Once the Model SUSMP is accepted by the Regional Board as described in Section D.1.d(8)(b) of the Municipal Permit, the City will update its Local SUSMP to include requirements at least as stringent as those in the Model SUSMP within one year. Additionally, the City's Local SUSMP will include a review process to verify all proposed BMPs for Priority Projects meet the criteria designated in the updated Local SUSMP.

The City will also incorporate a HMP into the City's Local SUSMP. The HMP is currently being developed by a consultant and regional workgroup and is projected to

be completed in January 2009. After receiving comments from the RQWCB on the draft HMP, the final HMP will be prepared. The final HMP will be added to the Local SUSMP after approval by the Regional Board. The City's IHC as discussed in section 4.4.3 will remain in effect until the final HMP is adopted.

All necessary SUSMP updates described above and their projected completion dates are presented in Table 4-1.

Table 4-1
Time Schedule for Model and Local SUSMP Updates

SUSMP Update	Time Schedule
Model SUSMP update	July 2008
Local SUSMP update	July 2009
HMP Progress Report	July 2008
Draft HMP	January 2009
Final HMP	180 days after receiving comments on the draft HMP from the RWQCB
Adoption of HMP into local SUSMP	180 days after RWQCB approval of the final HMP

4.4.4.5 BMP Installation Verification

Engineering inspection staff will inspect all Priority Projects subject to SUSMP requirements prior to occupancy to ensure that all LID, source control, and treatment control BMPs proposed for the project have been constructed in compliance with all approved plans and City permits and ordinances. Inspections of Priority Project sites prior to occupancy will allow the City to verify that all BMPs are in place before any anticipated pollutants associated with the occupied site are generated.

Inspection staff checks to ensure that all BMPs proposed for the project have been built according to plans before signing off on each stage of construction. The inspectors use the project's plans to identify any missing or incorrectly installed structural BMPs and deny approval for sites with observed problems.

Since installation of structural BMPs is closely inspected and signed off during regular grading and building inspections, and the City requires all structural BMPs to be included on the project's construction plans before permits are issued, the City does not expect major deficiencies in BMP installation to be found once construction is completed. However, some treatment control BMPs, such as filter inserts, are usually installed post-construction and thus may not be checked during grading and building inspections. To address this, correct BMP installation is also examined during the final project inspection, and engineering inspectors sign off on the final "red line" drawings that also include any approved changes that were made to the plans during the course of construction. This also allows City personnel to check the completed project against its approved post-construction BMP plans. If any BMP, including filter inserts, is noted to be missing or incorrectly installed by any of the City's inspectors during or upon

completion of construction, appropriate enforcement measures as described in Section 4.4.4.8 will be taken to require proper installation of all approved BMP(s).

4.4.4.6 Treatment Control BMP Maintenance Tracking

The City has developed an electronic watershed-based database to track the maintenance of all approved treatment control BMPs installed at development sites in the City's jurisdiction. The database includes the following information:

- Type of treatment control BMP
- Location of the BMP
- Watershed the BMP is located within
- Date of construction of the BMP
- The party responsible for maintenance of the BMP
- Maintenance certifications or verifications
- Inspection findings
- Any corrective actions issued

To prepare the BMP database, information was gathered from the City's existing SUSMP filing system located in the City's Engineering Department and the electronic SUSMP project tracking spreadsheet maintained by the City's storm water consultant. The SUSMP and construction site plans for completed projects were reviewed and relevant information from these documents was entered into the database. The City plans on adding new projects to the database once a project's SUSMP report is approved and an acceptable maintenance agreement has been submitted.

With the aid of the City's prioritization flowchart (Figure 4-1), all development projects with approved treatment control BMPs were prioritized as high, medium, or low TTWQ. Future development projects with treatment control BMPs will be prioritized when they are added to the City's database. The following criteria are used to determine the TTWQ for development projects with treatment control BMPs:

- Type of BMP, including size
    - Recommended maintenance frequency of the BMP(s)
    - Likelihood of operational and maintenance issues associated with the BMP(s)
    - Size of development
    - Type of development
    - BMP pollutant removal efficiency
    - Risk associated with faulty operation and maintenance of BMP(s)
- Location of the BMP(s)
- Sensitivity of the receiving water body
- Other pertinent factors

The City's flow chart addresses basic site and treatment control BMP characteristics that can influence a site's TTWQ such as receiving water body sensitivity, development type, and the maintenance needs and removal efficiencies of the installed treatment controls.

To help make the prioritization process more standardized, common treatment control BMPs have been separated into two major groups, "A" and "B". Group "A" consists of BMPs that have lower removal efficiencies and/or require frequent and complex maintenance procedures in order to maintain their effectiveness. Group "B" consists mainly of "natural" treatment control BMPs, such as grass swales, which generally have higher removal efficiencies and require less complex maintenance procedures. The flow chart has been designed so that development projects that use only treatment control BMPs from group "A" are considered at least a medium TTWQ. The City will consider additional relevant factors beyond those included in the flow chart as necessary. Unless otherwise directly explained in future Annual Reports, the consideration of such factors will result in higher priorities than what would be expected based on the flowchart.

From the City's treatment control database, an inventory of development projects with approved treatment control BMPs has been complied and is presented in Appendix B-1. The inventory only includes treatment control BMPs for projects that have completed construction and require post-construction treatment control BMP inspections.

The City will prepare an annual inventory of all approved treatment control BMPs for completed development projects within the City's jurisdiction in addition to a list of all treatment control BMPs approved during the previous permit cycle, which will be included in the City's annual report.

4.4.4.7 Treatment Control BMP Maintenance Inspections

All treatment control BMPs installed at development projects will be regularly inspected by City or contract staff to ensure treatment controls are in working condition and are being properly maintained. Inspection frequencies are based on the project's assigned TTWQ priority as determined by the criteria outlined earlier. Table 4-2 below presents treatment control BMP TTWQ priorities and their corresponding inspection frequencies.

Table 4-2
Treatment Control BMP Inspection Frequencies

Development Project with Treatment Control BMPs TTWQ	Inspection Frequency
High	Annually (prior to the start of the rainy season)
Medium	Every two years
Low	As needed

As required by the Municipal Permit, a minimum of 20% of the total number of projects with approved treatment controls and a maximum of twice the average number of projects with treatment control BMPs approved per year will be inspected annually. Additionally, at least 50% of all sites with drainage inserts will be inspection annually.

Inspections will include examination of all treatment control BMPs at the site to verify that each treatment control BMP is working, being maintained properly, and is in

compliance with all applicable City ordinances and permits. One of the advantages of having an electronic database is the ability to print out site specific inspection forms that contain information directly from the database. An example of a site specific inspection form generated from the City's treatment control BMP tracking database is included in Appendix D. The form also lists the GIS coordinates of each site's treatment control BMPs, which can be obtained during the initial BMP inspection, to help in locating the treatment controls during subsequent inspections. Inspection findings will be documented by the inspector on the inspection form. If any deficiencies in treatment control operation and maintenance are noted during the inspection, the responsible party will be notified, and appropriate enforcement actions will be taken as described in Section 4.4.4.8 of this document to achieve compliance.

Inspection findings and follow-up actions for each development site with installed treatment controls will be included in the City's treatment control BMP tracking database.

4.4.4.8 Annual Maintenance Verification

The City will require annual verification of proper maintenance of all treatment control BMPs by the party responsible for maintenance prior to the start of the rainy season. The City will provide annual verification letters to the responsible party for each development site with treatment control BMPs in the City's electronic treatment control BMP database. The verification letter will require the responsible party to sign a statement verifying that the treatment control BMPs for which they are responsible are being properly maintained in accordance with the site's maintenance agreement. An example of the Annual Treatment Control BMP Maintenance Verification form can be found in Appendix D.

The annual maintenance verification of treatment controls by the responsible party for maintenance is unlike any current program within the City. Because of this, the City anticipates having to closely re-evaluate its annual maintenance verification procedure in the coming years and modify the program where necessary.

4.4.4.9 Enforcement Measures for Development Sites

The City will use a variety of enforcement methods to ensure storm water requirements for all development projects within the City's jurisdiction are implemented. Enforcement methods include verbal and written warnings, NOVs, monetary penalties, stop work orders, and denial of permits or occupancy. A detailed description of the different enforcement measures used by the City of National City to enforce its storm water regulations can be found in Section 2 of this document.

The City's current plan check process includes steps to enforce the implementation of development requirements during construction. Since all structural BMPs are required to be shown on the project's plans, inspectors check to make sure these BMPs have been correctly installed during their routine inspections. If any mistakes in BMP installation

are noted during plan checks, the City will require the project to promptly correct these errors until BMP installation is consistent with the specifications on the project's plans.

Enforcement of post-construction BMP maintenance after occupancy will likely include verbal and written warnings, NOVs, and monetary penalties. For new post-construction BMP requirements, such as annual verification of proper treatment control BMP maintenance, the City anticipates using education along with verbal and written warnings as its main enforcement tools. All enforcement actions will be documented appropriately in the development project's database file. If a development site receives frequent NOVs or is not responsive to previously issued enforcement actions, more severe actions, such as court actions, will be used as necessary. The City also may request enforcement assistance from the RWQCB for sites that do not respond to the City's enforcement measures.

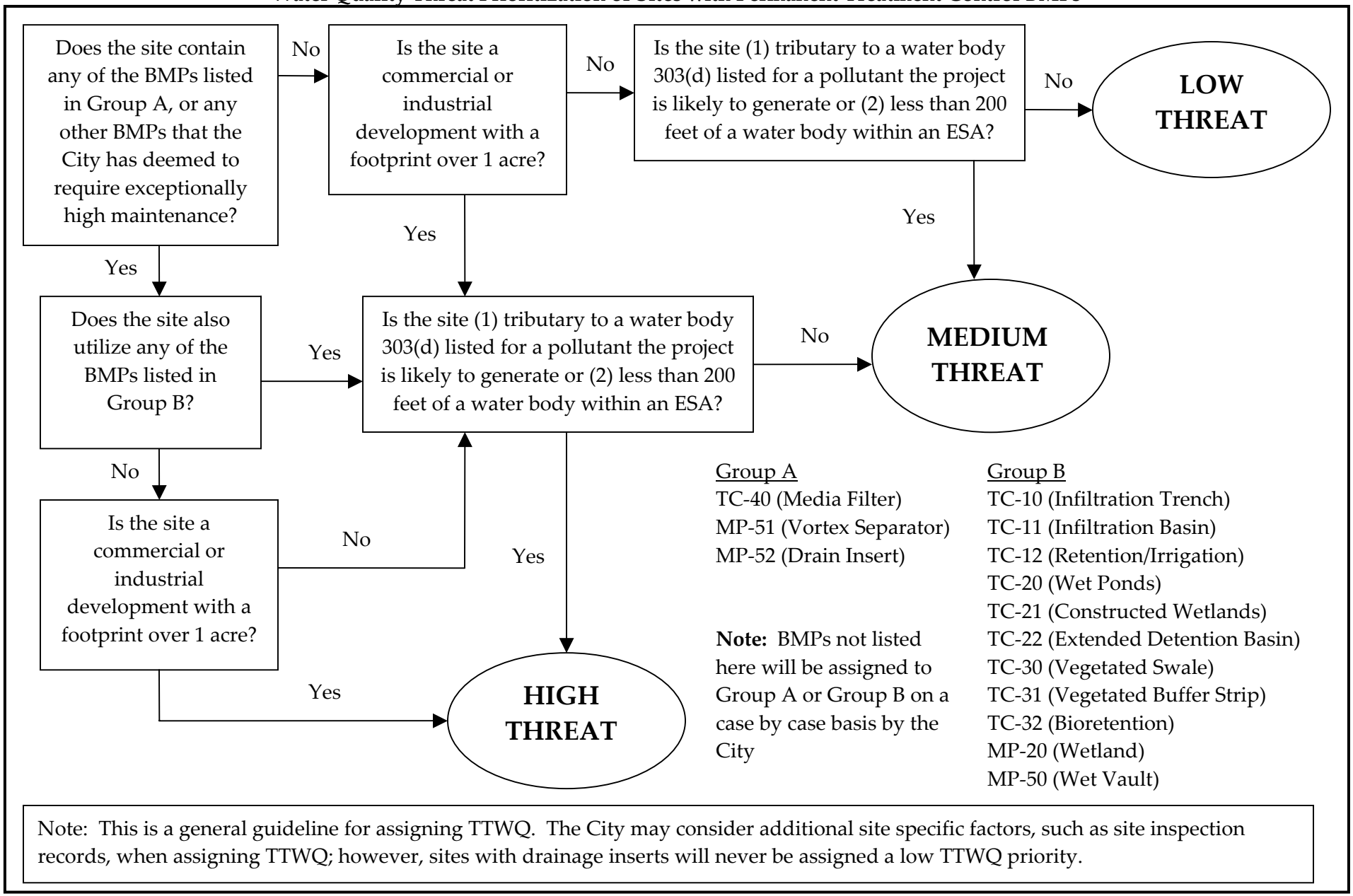
4.5 Development Planning Component Effectiveness Assessment

The City will continue to assess the effectiveness of its development and planning component as needed. Because of the detailed review process and the City's inspection process during construction of development projects, the City does not expect to have major deviancies regarding proper installation of BMPs. However, once construction is completed it can be difficult for the City to keep track of a site's activities on a regular basis. Treatment control BMP inspections and tracking via the City's database will provide the City with information on where post-construction treatment control maintenance problems exist and what enforcement methods are the most effective in dealing with these BMP maintenance deficiencies. Refer to Section 13 for further information regarding the City's effectiveness assessment procedures.

4.6 Program Review and Modification

Future modifications to National City's Development Planning component to meet the requirements of the Municipal Permit will be documented as necessary. Section 14 includes a list of the major changes that have been made to the development planning component of the City's JURMP.

Figure 4-1
Water Quality Threat Prioritization of Sites with Permanent Treatment Control BMPs



Note: This is a general guideline for assigning TTWQ. The City may consider additional site specific factors, such as site inspection records, when assigning TTWQ; however, sites with drainage inserts will never be assigned a low TTWQ priority.

5.0 CONSTRUCTION COMPONENT

5.1 INTRODUCTION

Construction and grading activities have the potential to impact neighboring waterbodies due to the presence of disturbed soils and building materials. It is important that construction sites take appropriate measures to prevent potential pollutants from entering the storm drain system.

The purpose of the construction component section is to limit the negative impact that construction and grading activities can have on receiving waterbodies. The following section provides details on how the City of National City will meet the minimum requirements outlined in Section D.2 of the Municipal Permit to reduce the release of pollutants into the storm drain system to the MEP.

5.2 SOURCE CHARACTERIZATION

5.2.1 SITE INVENTORY

The City of National City has compiled a watershed-based inventory of all construction sites within its jurisdiction. The City uses a construction site database to maintain its inventory, which includes details on each construction site, including project name, location, size, watershed, and construction site priority as determined by the process described in Section 5.2.1.1. The list of construction projects in the City's jurisdiction as of January 2008 can be found in Appendix B.2.

5.2.1.1 CONSTRUCTION SITE PRIORITIZATION

All construction sites within the City's jurisdiction are assigned a priority of high, medium, or low TTWQ. The new Municipal Permit has defined criteria for determining site inspection frequencies, but it does not explicitly require site prioritization. Though, since construction sites were previously prioritized to comply with the previous municipal permit, the prioritization categories are being kept to maintain consistency. The criteria for prioritization have been updated to correspond with the revised inspection frequencies required by the new Municipal Permit. Section 5.5.4.1 of this document discusses the new inspection frequencies for construction sites.

TTWQ Prioritization Criteria

Sites that meet any of the following criteria will be considered a **High** TTWQ:

- A site 17 acres or more in size.
- A site one acre or more and tributary to CWA section 303(d) waterbody segment impaired for sediment or within, directly adjacent to, or discharging directly to a receiving water within an ESA.

- A site that has been determined by the City or the RWQCB to pose a significant threat to water quality.

Sites greater than one acre but not meeting any of the above criteria will be considered a **Medium** TTWQ.

Sites less than one acre and not considered to be a significant threat to water quality will be considered a **Low** TTWQ.

The City will consider the following factors when evaluating a construction site's threat to water quality:

- Soil Erosion Potential
- Site Slope
- Project Type
- Sensitivity of Receiving Waterbodies
- Proximity to Receiving Waterbodies
- Non-Storm Water Discharge Potential
- Past record of non-compliance at the construction site
- Other Site-specific factors

Using the Water Quality Threat Prioritization Flow Chart presented in Figure 5-1 at the end of this section, each construction site was assigned a water quality threat priority of high, medium, or low. The prioritization flow chart specifically considers construction site factors such as soil erosion potential, site slope, and sensitivity and proximity of receiving waterbodies. The City recognizes that there are other factors besides those included in the flow chart that can influence a construction site's TTWQ. Additional factors, such as non-storm water discharge potential, project type, and past record of non-compliance at the construction site can also influence a site's TTWQ, and the City will consider these factors as necessary. 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.

5.2.2 Inventory Updates

To ensure that the City's watershed-based inventory of construction sites is current and accurate, the inventory will be updated at least monthly. Updates to the inventory will include the addition of new construction projects, the removal of completed construction projects, and re-prioritization of TTWQ designations for active construction sites as needed

5.3 Ordinance Updates

Storm water compliance requirements for construction activities are included in the City's Grading and Storm Water Management and Discharge Control ordinances. As required by Section D.2.a of the Municipal Permit, all applicable City documents and

ordinances have been reviewed and amended as needed to ensure full compliance with the Municipal Permit. The revised City ordinances are included in Appendix A.

5.4 BEST MANAGEMENT PRACTICE REQUIREMENTS

5.4.1 UPDATED BMP REQUIREMENTS

The City has developed a set of minimum BMPs that must be implemented at all construction sites. Every construction site within the City's jurisdiction is required to implement and maintain general site management BMPs and erosion and sediment control BMPs to reduce, retain, and manage pollutant discharges to the MEP. Table 5-1 outlines the minimum construction BMPs required by the City along with the corresponding current fact sheets obtained from the Caltrans Storm Water Quality Handbooks Construction Site BMP Manual (2003), and California Storm Water Association (CASQA) Handbook for construction activity where applicable. BMPs without relevant Caltrans or CASQA fact sheets are discussed further following the table.

Table 5-1
Minimum Required BMPs for Construction Sites

BMP Type	Minimum Required BMP(s)	CASQA Fact sheet	Caltrans Fact sheet
General Site Management			
Development Planning	Preservation of natural hydrologic features where feasible	-	-
	Preservation of riparian buffers and corridors where feasible	-	-
	Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction	-	-
	Minimization of exposure time of disturbed soil areas	**EC-1**	**SS-1**
	Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible	**EC-1**	**SS-1**
	Temporary stabilization and reseeding of disturbed soil areas as rapidly as feasible	**EC-1**	**SS-1**
	Employee and Subcontractor Training	-	-
Pollution Prevention	Vehicle and Equipment Management - Cleaning - Fueling - Maintenance	 **NS-8** **NS-9** **NS-10**	 **NS-8** **NS-9** **NS-10**

BMP Type	Minimum Required BMP(s)	CASQA Fact sheet	Caltrans Fact sheet
Pollution Prevention	Materials Management		
	- Material Delivery and Storage	**WM-1**	**WM-1**
	- Material Use	**WM-2**	**WM-2**
	- Stockpile Management	**WM-3**	**WM-3**
	- Spill Prevention and Control	**WM-4**	**WM-4**
	Waste Management		
	- Solid Waste	**WM-5**	**WM-5**
	- Hazardous Waste	**WM-6**	**WM-6**
	- Contaminated Soil	**WM-7**	**WM-7**
	- Concrete	**WM-8**	**WM-8**
	- Sanitary Waste	**WM-9**	**WM-9**
	- Liquid	**WM-10**	**WM-10**
	Non-Storm Water Management		
	- Water Conservation Practices	**NS-1**	**NS-1**
	- Dewatering Operations	**NS-2**	**NS-2**
	- Paving and Grinding	**NS-3**	**NS-3**
	- Potable Water/Irrigation and Flushing	**NS-7**	**NS-7**
Erosion and Sediment Controls			
Erosion prevention	Preservation of existing vegetation	**EC-2**	**SS-2**
	Physical Stabilization (one or more of the following must be implemented)		
	- Hydraulic Mulch	**EC-3**	**SS-3**
	- Hydroseeding	**EC-4**	**SS-4**
	- Soil Binders	**EC-5**	**SS-5**
	- Straw Mulch	**EC-6**	**SS-6**
	- Wood Mulch	**EC-8**	**SS-8**
	- Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats	**EC-7**	**SS-7**
	- Earth Dikes/Drainage Swales	**EC-9**	**SS-9**
	Site Drainage (one or both of the following must be implemented)		
	- Energy Dissipater Outlet Protection	**EC-10**	**SS-10**
	- Slope Drains	**EC-11**	**SS-11**
	Permanent re-vegetation or landscaping as early as feasible	**EC-1**	**SS-1**
Sediment controls	Perimeter Protection (one or more must be implemented)		
	- Silt Fence	**SE-1**	**SC-1**
	- Gravel Bag Berm	**SE-2**	**SC-6**
	- Fiber Rolls	**SE-3**	**SC-5**

BMP Type	Minimum Required BMP(s)	CASQA Fact sheet	Caltrans Fact sheet
Sediment Controls	Sediment Capture (one or more must be implemented)		
	- De-silting Basin[1]	**SE-2**	**SC-2**
	- Storm Drain Inlet Protection	**SE-10**	**SC-10**
	- Sediment Trap	**SE-3**	**SC-3**
	- Gravel Bag Barrier	**SE-8**	**SC-8**
	Sediment Tracking		
	- Stabilized Construction Entrance	**TC-1**	**TC-1**
	- Construction Road Stabilization	**TC-2**	**TC-2**
	- Entrance/Exit Tire Wash	**TC-3**	**TC-3**
	- Street Sweeping	**SE-7**	**SC-7**

1. De-silting basins must be designed in accordance with industry standards such as Caltrans, or the CASQA BMP manual for Construction. If the project is one acre or greater the de-silting basin must be designed in accordance with the current State General Construction Permit.

All development planning and pollution prevention BMPs should be implemented where applicable. For physical stabilization, site drainage, perimeter protection, sediment capture, and sediment tracking BMPs, at least one BMP from each category must be selected and properly implemented where applicable. However, construction sites are required to implement additional BMPs in these areas as necessary to meet the City's standard of reducing, retaining, and managing pollutant discharges to the MEP.

Minimization of areas cleared and graded for construction and preservation of natural hydrologic features and riparian buffers and corridors are concepts that are typically addressed during the development planning process. It is the responsibly of project proponents to propose effective means of protecting planned preservation areas during construction. The CASQA and Caltrans fact sheets for Preservation of Existing Vegetation (EC-2 and SS-2, respectively) provide some useful information that can be applied to all proposed preservation areas.

All personnel working at a construction site, including subcontractors, are expected to be aware of the BMPs selected for each individual site. While the City is involved in educating lead construction site project proponents about the City's requirements (see Section 5.5.1), it is the responsibility of project managers and site supervisors to communicate City requirements to all construction site personnel and subcontractors. Project foreman and other personnel who manage construction activities are also generally expected to stay updated on current BMPs for construction.

Prior to start of construction activities, project proponents are required to present the planned BMPs that meet the above minimum requirements to the City for compliance review. Section 5.5.2 provides a more detailed description of the construction and grading approval process. Projects may use alternative BMPs in lieu of the minimum BMPs mentioned above provided the alternative BMPs are as effective as the minimum BMPs listed above, meet Municipal Permit requirements, and are approved for use by the City.

5.4.1.1 SEASONAL SITE MANAGEMENT REQUIREMENTS

Construction sites are required to implement all minimum construction BMPs as necessary to prevent pollution discharges to the Maximum Extent Practicable regardless of the season. More details on the implementation of BMPs by season are listed below.

Dry Season (May 1st through September 30th)

- All exposed disturbed areas must have erosion prevention controls properly installed including building pads, unfinished roads, and slopes. (Slopes greater than 33.3% or 3:1 vertical vs. horizontal may use properly designed and installed de-silting basins at all discharge points in lieu of this requirement)
- Adequate perimeter protection BMPs must be installed and maintained.
- Adequate sediment containment BMPs must be installed and maintained.
- Adequate BMPs designed to control off-site sediment tracking must be installed and maintained.
- At a minimum, 125% of the materials needed to install standby BMPs necessary to completely protect exposed portions of the site from erosion and to prevent sediment discharges must be stored on the site. Areas that have already been protected from erosion using physical stabilization or vegetation stabilization BMPs are not considered to be "exposed" for purposes of this requirement.
- The owner/contractor must have an approved "weather triggered" action plan and have the ability to deploy standby BMPs as needed to completely protect the exposed portions of the site within 24 hours of prediction of a storm event (a forecasted 40% chance of rain).
- Deployment of physical or vegetation erosion control BMPs must commence as soon as grading and/or excavation is completed for any portion of the site. The project proponent may not continue to rely on the ability to deploy standby BMP materials to prevent erosion of graded areas that have been completed.
- The amount of cleared or graded areas left exposed at any given time is limited to 17 acres or to the alternate maximum area approved by the City in writing (see Section 5.4.3).
- Non-storm water discharges must be eliminated or controlled to the MEP.

Wet Season (October 1st through April 30th)

All dry season requirements are required in addition to the following:

- Perimeter protection and sediment control BMPs must be upgraded if necessary to provide sufficient protection for storms.
- Adequate erosion prevention BMPs must be installed and established for all completed slopes prior to October 1 and maintained throughout the

wet season. If a BMP fails, it must be repaired, improved or replaced with an acceptable alternative as soon as it is safe to do so.

- Standby erosion and sediment control BMPs must be able to protect all exposed soil areas. An incomplete disturbed area that is not being actively graded must be fully protected from erosion if left for 10 days or more.

5.4.2 ADDITIONAL CONTROLS FOR CONSTRUCTION SITES

The Municipal Permit requires implementation of additional controls for construction sites tributary to 303(d) listed waterbody segments impaired for sediment or within, adjacent to, or discharging directly to coastal lagoons or other receiving waters within ESAs. Additional requirements for such sites will be determined by the City as needed on a site-by-site basis. Additional controls may include required de-silting basins, increased inspection frequency, and/or stronger penalties for non-compliance. Currently, there are no waterbodies 303(d) listed for sediment in or downstream of the City, and construction sites within, adjacent, or discharging directly to waterbodies within ESAs are not common in the City's jurisdiction.

5.4.3 MAXIMUM DISTURBED AREA FOR EROSION CONTROLS

The City requires that temporary or permanent erosion controls be implemented before a construction site has disturbed a total of 17 acres. This 17 acre maximum is comparable to the current Caltrans grading limitation of 750,000 square feet.. If the site is in compliance with applicable storm water regulations and has adequate control practices implemented to prevent storm water pollution, the City has the option to give the site written authorization to disturb beyond the 17 acre maximum. The City will require as necessary additional controls for construction sites allowed to disturb more than 17 acres, which could include additional BMPs, increased inspection frequency, and/or stronger penalties for non-compliance.

5.4.4 ADVANCED TREATMENT METHODS

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

- Is located within, adjacent to, or a portion of the site is within 200 feet of waters listed on the CWA Section 303(d) list of Water Quality Limited Segments as impaired for sedimentation, and 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;
- Contains a predominance of soils with USDA-NRCS Erosion factors k_f greater than or equal to 0.4.

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

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.

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

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.

5.5 PROGRAM IMPLEMENTATION

All construction sites are required to select, install, and maintain BMPs that meet or exceed the City's minimum BMP requirements listed in Section 5.4.1, in addition to complying with City's dry and wet season requirements. The City's minimum construction BMPs are a condition of approval for all grading and building permits issued. Additionally, a construction site over one acre where grading will occur is subject to the NPDES General Construction Permit and is required to file an NOI and develop a Storm Water Pollution Prevention Plan (SWPPP). SWPPPs are required to include a list of BMPs that will be implemented during each phase of construction to reduce pollution discharges to the MEP. All grading projects, including those under one acre are required to prepare erosion control plans, which indicate what BMPs will be implemented during construction.

5.5.1 EDUCATION AND STAFF TRAINING

The City provides all appropriate parties involved with construction activities with training and information regarding storm water quality, as applicable. These parties include but are not limited to City employees and project proponents, which can include contractors, subcontractors, developers, property owners, and superintendents. Education and training of the development community in National City is typically done on a project-by-project basis during pre-application, pre-grading, and pre-construction meetings with the City. Training of City staff is done continually using a variety of methods such as workshops and memorandums. For further detail regarding

the City's construction educational program, please refer to Sections 10.2.2 and 10.3.1 of this document.

5.5.2 Construction and Grading Approval Process

The City has an established departmental review and approval process for local construction and grading permits. The City has evaluated its current approval process and has determined that its current program meets the requirements of the new Municipal Permit. Prior to issuing construction and grading permits, City personnel verify that the proposed construction site intends to implement all required BMPs to reduce pollutant discharges to the City's MEP standard. Erosion control plans are reviewed to verify that all proposed BMPs are adequately shown. The City also verifies that each construction site subject to the General Construction Permit has existing permit coverage and reviews the project's SWPPP to verify that the document is generally in compliance with applicable requirements.

5.5.3 Direct Implementation of BMPs

The City is required to implement the same minimum construction BMPs for CIP projects as private projects, and all public projects are subject to the same review process as private projects. All contractors involved with CIP projects are educated about storm water requirements through the same approach used for proponents involved in private development projects.

5.5.4 Inspection of Construction Sites

The City has an established inspection program to evaluate construction sites within the City's jurisdiction. Site inspections are performed by City or contract staff to evaluate compliance with minimum BMP requirements and applicable ordinances and permits (building, grading, storm water etc.).

Inspections will include the following:

- Where applicable, a check for proof of coverage under the General Construction Permit. Once coverage has been confirmed, this information is not checked during subsequent inspections.
- Assessment of the implementation of all required minimum BMPs and any additional controls required by the City.
- A check for proper maintenance of the applicable BMPs.
- Assessment of the effectiveness of required BMPs.
- Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff.
- Assessment of whether project proponents are making appropriate adjustments when BMP inefficiencies are found as a result of self or City-conducted inspections.
- Education of project proponents on storm water pollution prevention as needed.

Inspection findings are documented on the City's Storm Water Quality Inspection for Construction Activities Inspection form (Appendix D) and kept in each construction site's file. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in Section 5.5.5, will be taken. The City's storm water inspector will conduct follow-up inspections where necessary to determine if corrective actions have been taken to comply with City ordinances and minimum BMP requirements.

5.5.4.1 INSPECTION FREQUENCY

The criteria used to determine a construction site's TTWQ presented in Section 5.2.1.1 was developed to correspond to the inspection frequencies required by the new Municipal Permit. The following table presents the different TTWQ categories and their corresponding minimum inspection frequencies for the wet (October 1 through April 30) and dry (May 1 through September 30) seasons.

Table 5-2
Construction Site Inspection Frequency

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

The City will reevaluate a construction site's TTWQ and subsequent inspection frequency on a regular basis, particularly when grading activities are being conducted during the wet season. The City maintains the right to inspect a site more often than at the minimum frequencies outlined above where deemed necessary. The need for additional inspections can vary depending on site conditions, previous violations, history of developer or contractor past performance, and/or weather patterns. The number of inspections performed at each construction site will be tracked to ensure all construction sites in the City's inventory are being inspected at the appropriate frequency.

5.5.5 ENFORCEMENT MEASURES FOR CONSTRUCTION SITES

The City will be responsible for enforcement of applicable local ordinances and permits at all construction sites in its jurisdiction. All inspection personnel have the direct authority or resources to take immediate enforcement actions when necessary. This facilitates quicker correction of inadequate implementation, reducing the risk of pollutants discharging from the site.

When violations are observed during a site inspection, the City will implement appropriate enforcement measures based on the severity of the violation. Enforcement can range from verbal warnings to more severe enforcement such as stop work orders.

The typical progressive enforcement steps that the City will implement for construction sites include the following:

- Verbal warnings
- Written warnings
- Enforcement of contracts (Municipal projects)
- Stop work orders
- Denial or revocation of permits
- Civil and/or criminal court actions

High level enforcement actions such as stop work orders are typically given when BMP violations noted in verbal or written warnings are not implemented during the allotted time frame; however, stop work orders may also be given as an initial enforcement measure if a construction site is found to be doing work without proper permits. Additional enforcement measures will be used as necessary. For a more detailed description of the City's different enforcement tools please refer to Section 2 of this document.

All stop work orders and other high level enforcement actions will be reported to the RWQCB as described in section 5.5.6.

5.5.6 RWQCB NOTIFICATION

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

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

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

- Estimated area of erosion caused by discharge
- Estimated pollutant load discharged from site
- Estimated volume of discharge
- Types of pollutants discharged, including if toxic materials were discharged
- Total suspended solids (TSS) concentration and turbidity of discharge

- Other materials discharged that pose a threat (concrete washout, sanitary washes, etc.)
- Sensitivity of the receiving waterbody, including if it is 303(d) listed for any of the pollutants in the discharge
- Proximity of site to sensitive habitat/endangered species
- Proximity of site to public water supply (well head, monitoring wells)
- How much, if any, of the discharge reached the receiving waterbody
- Beneficial uses for affected waterbodies

In addition to notifying the RWQCB about threats to human health or environmental health, the City will notify the RWQCB when high level enforcement measures are issued to construction sites in the City's jurisdiction. The City will provide a courtesy call to the RWQCB within 24 hours of issuing the high level enforcement action such as a stop work order as well as notify the RWQCB in writing within 5 working days.

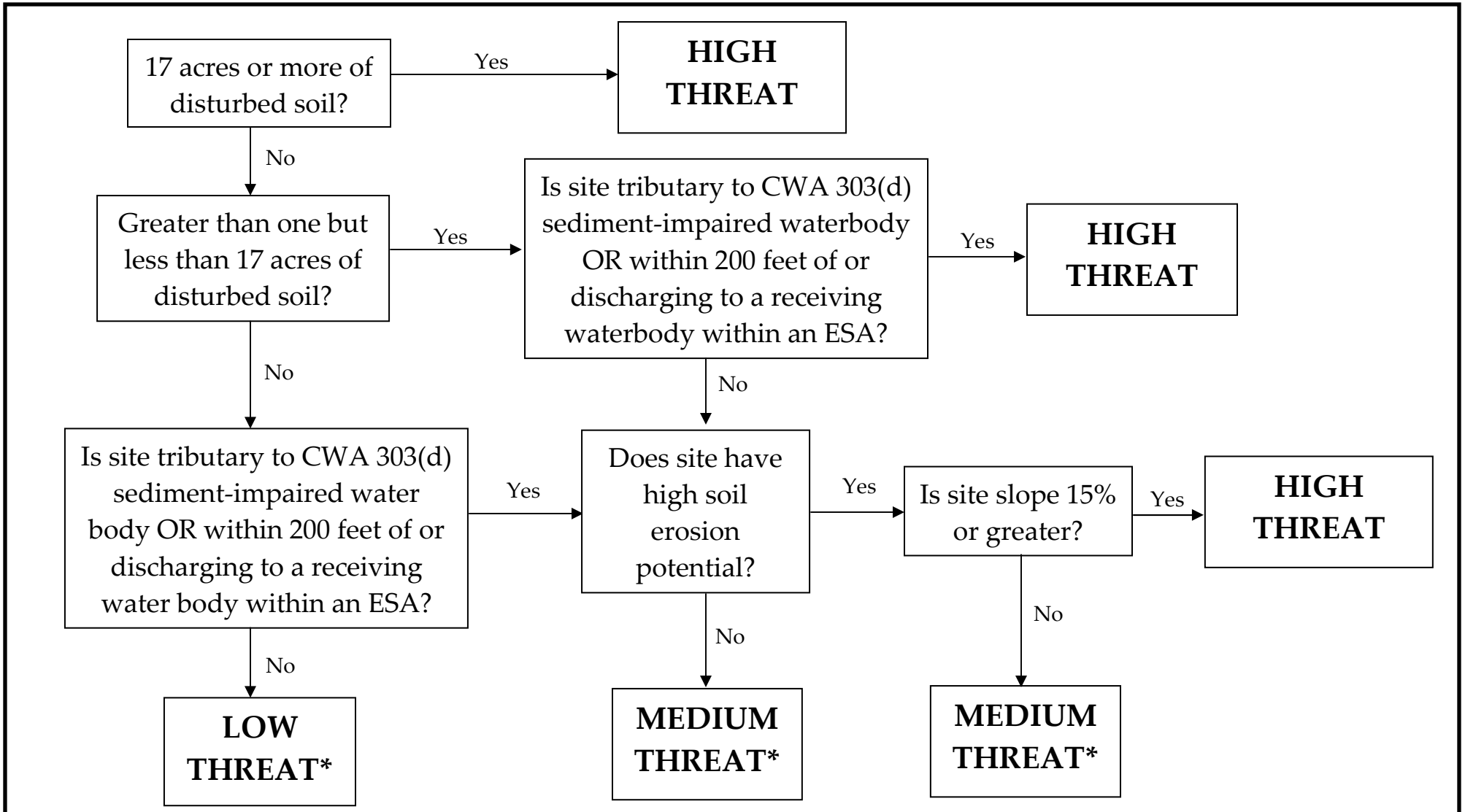
5.6 Construction Activities Effectiveness Assessment

The effectiveness of the City's construction component will be assessed as required by Municipal Permit sections I.1 and J.1.(3)(I) and documented in the City's JURMP Annual Reports. Refer to Section 13 of this document for a description of the City's effectiveness assessment procedure.

5.7 Program Review and Modification

Future modifications to the City's construction component to meet the requirements of the Municipal Permit will be documented as necessary. Section 14 includes a list of the major changes that have been made to the construction component of the City's JURMP.

FIGURE 5-1: WATER QUALITY THREAT PRIORITIZATION FLOW CHART FOR CONSTRUCTION PROJECTS



*Sites with a low or medium TTWQ can be given a higher threat prioritization based on additional factors, such as project type, non-storm water discharge potential, or if there is a history of non-compliance with storm water regulations at the site.

6.0 MUNICIPAL COMPONENT

6.1 INTRODUCTION

Due to the large expanse of municipal areas and activities, City officials must carefully manage pollution prevention measures and BMPs to reduce or potentially eliminate the discharge of pollutants into the MS4 from municipal areas and activities. The City of National City owns and maintains a variety of municipal facilities and activities. The City maintains four public parks, two administration buildings, two fire stations, two public works facilities, and a number of other miscellaneous facilities. Additionally, the City conducts municipal activities such as graffiti removal, emergency vehicle maintenance, sidewalk repairs, and street repairs. Other prominent activities include street sweeping, inspections of municipal facilities, educational efforts geared toward municipal personnel, MS4 maintenance and regular upkeep of the sanitary sewer system to prevent overflows. Municipal facilities, parks, buildings, and activities may create a high potential to discharge pollutants into urban runoff via maintenance yards, parking lots, and irrigation systems. To comply with the Municipal Permit, the National City has developed a comprehensive program designed to reduce the amount of pollutants that are transported in urban runoff from municipal areas and activities.

Proper operation and maintenance of City property is the primary mechanism for reducing municipal discharges of pollutants into the MS4. Implementing pollution prevention techniques and other BMPs is often the most cost effective and simple solution to reduce pollution at the source and preventing costly remediation efforts. General BMPs, such as housekeeping, are stressed at all municipal facilities. Site-specific BMPs are also implemented to reduce the potential for pollution from municipal areas and activities. Inspections of high TTWQ municipal areas and activities are conducted annually, and other municipal areas and activities are inspected as needed to ensure compliance with Municipal Permit requirements. Enforcement action is taken if necessary to bring about compliance.

6.1.1 SOURCE PRIORITIZATION AND CRITERIA

As required in Section D.3.a(1), the City of National City has developed a watershed-based inventory of all municipal land use areas and activities that generate pollutants. The inventory of municipal facilities, including areas and activities, is updated annually. The City of National City maintains a number of municipal facilities, including parks, administrative buildings, fire stations, and public works yards.

Municipal facilities were assigned a TTWQ based on an evaluation of the TTWQ of the area and/or activity. Each site was evaluated based on a variety of site-specific factors including size, location, and type of activity. Functions of the area and activity, described in the following pages, were also considered while determining TTWQ. Using these criteria, a complete, prioritized, watershed-based inventory was completed.

The municipal inventory, including high, medium, and low TTWQ municipal sites, is presented in Appendix B.3 of this document. The inventory is updated annually based on knowledge of changes in municipal operations or inspection results.

The Municipal Permit has provided a list of facilities that must be listed as high TTWQ. The minimum high TTWQ areas and activities include:

- Roads, Streets, Highways, and Parking Facilities
- Flood Management Projects and Flood Control Devices
- Areas and activities tributary to a CWA section 303(d) impaired water body segment, where an area or activity generates pollutants for which the water body segment is impaired. Areas and activities within or adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in Attachment C of the Municipal Permit)
- Municipal Facilities adjacent to or discharging into sensitive water bodies
    - Active or closed municipal landfills;
    - Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;
    - Solid waste transfer facilities
    - Land application sites
    - Corporate yards including maintenance and storage yards for materials, waste, equipment, and vehicles; and
    - Household hazardous waste collection facilities
- Municipal airfields
- Parks and recreation facilities
- Special event venues following special events (festivals, sporting events, etc.)
- Power Washing
- Other municipal areas and activities that the Copermittee determines may contribute a significant pollutant load to the MS4.

In addition to the minimum criteria listed above, the City also considered the following site attributes to evaluate the potential threat to water quality:

- Type of municipal area or activity
    - Materials used
    - Wastes generated
    - Pollutant discharge potential
    - Non-storm water discharges
- Size of facility or area
- Proximity to receiving water bodies
- Sensitivity of receiving water bodies
- Any other relevant factors

The following provides more detail about the factors in the above bulleted list.

Type of municipal area or activity

Municipal areas and activities within the City of National City include recreational parks, buildings, maintenance yards, fire stations, and other facilities. Each area and activity creates different potential threats to water quality, and this was considered during the prioritization process. Below is a description of some of the functions of municipal areas and activities that were taken into account during the prioritization process.

Materials used

Different municipal areas and activities use an assortment of different chemicals and materials that can contribute significant pollutant loads to receiving waters if transported by storm water. During the prioritization process, municipal facilities within the City were evaluated to determine if hazardous chemicals and materials are used and if they have the potential to be transported by storm water.

Types of waste generated

Different municipal areas and activities may produce a variety of wastes (green waste, electronic waste, hazardous waste, etc). Wastes generated at municipal facilities or activities have the potential to pollute receiving waters if transported by storm water and were evaluated during prioritization.

Potential to discharge pollutants

All material handling equipment and machinery, raw materials, intermediate products, final products, and by-products exposed to storm water are evaluated to determine the potential to discharge pollutants in storm water.

Non-storm water discharges

Though some non-storm water discharge categories are allowed by the Municipal Permit, they can negatively affect water quality by transporting pollutants into receiving waters. Non-storm water discharges were evaluated to determine whether they are a significant source of pollutants and whether the discharges may continue to be exempted from the prohibitions of Section B.1 of the Municipal Permit.

Size of the facility

Size of the facility affects the amount of runoff and pollutant loads generated from the area or activity.

Proximity and sensitivity of receiving water bodies

All facilities directly discharging to or within 200 feet of an ESA were considered high TTWQ.

Any other relevant factors

Other relevant factors specific to the facility or activity were considered during the prioritization process, when applicable, to assign a higher priority than determined by using the aforementioned criteria only.

Based on the criteria defined by the Municipal Permit, each site was prioritized as a high, medium, or low TTWQ. Figure 6-1, end of section, is a flow chart illustrating the prioritization process. Site prioritizations obtained by using the flow chart were assessed on a site-by-site basis to ensure that the most appropriate site prioritization was assigned. Other factors, which are discussed in the facility descriptions in the following subsections, were used to ensure that the most accurate TTWQ was assigned to municipal facilities.

6.1.2 BMP IMPLEMENTATION

The City implements BMPs at municipal areas and during municipal activities to decrease or potentially eliminate the amount of pollutants that originate from a specific area and/or activity. City personnel are trained to implement good housekeeping BMPs and general pollution prevention measures at all municipal areas and during all municipal activities. The City utilizes the CASQA Municipal Handbook to guide its implementation of applicable BMPs for specific municipal areas and activities. Table 6-1, at the end of this section, provides a list of municipal facility types and estimated load potentials of specific pollutants from a particular type of facility area or activity. Table 6-2, at the end of this section, provides a checklist that includes which fact sheets in the CASQA Municipal Handbook are used as a source of BMPs based on municipal area and/or activity. If it is not feasible to implement the required BMPs at specific sites and/or during specific activities, the City implements other equivalent BMPs as necessary to comply with the Municipal Permit.

6.2 FIXED FACILITIES

6.2.1 BACKGROUND

The City owns and operates a variety of municipal fixed facilities that have been grouped in this section because these facilities receive formal inspections as part of the municipal program. Therefore, the program implementation for these facilities is generally the same. Municipal fixed facilities include the following categories of facilities:

- Parks and Recreational Facilities
- Public Works Facilities
- Fire Stations
- Other Fixed Facilities

6.2.2 SOURCE CHARACTERIZATION

All municipal fixed facilities are included on the City's inventory, which is included in Appendix B.3. Fixed facilities that include activities beyond what is suggested by the facility's category or name are described in further detail below.

Parks and Recreational Facilities

The City of National City maintains four of parks, a golf course, and a municipal pool, which are included in the municipal inventory (Appendix B.3) and discussed below. Recreational areas are defined as areas supporting any outdoor recreational activity only. Municipal personnel are responsible for park maintenance activities such as landscaping, waste removal and control, and the maintenance of any facilities on the grounds of the park such as restrooms.

El Toyon Park, ***4th Street and U Avenue***
This park is approximately 25 acres in size, with multipurpose athletic field, tennis courts, basketball courts, playground equipment, horseshoe pit and parking for approximately 150 cars**.** There is one score shack/snack bar where food is prepared (microwaves and electric skillets) and sold during youth sporting events.

Kimball Park, ***12th Street and D Avenue***
Kimball Park is located adjacent to Paradise Creek, which runs from east to west through the southern end of the property. Kimball Park is approximately 30 acres in size, and has open parklands for general recreation activities. This park has four baseball fields, tennis courts, basketball courts, playground equipment, and a war memorial. There are 100 parking spaces at this site, three restroom facilities, and a snackbar. The City anticipates adding a soccer field area to the grounds.

Las Palmas Park, ***1800 Newell Street***
This park is 35 acres in size and is one of the larger park facilities within the City. This park is located just east of the Municipal Golf Course. Outdoor areas consist of landscaped grounds with playground areas. This facility has parking lots to accommodate approximately 130 cars. There are two score shacks and one snackbar.

Sweetwater Heights Park, ***Cagel Street and Stockman Street***
This park is approximately two acres in size and is found near the southeast corner of the City limits. Park facilities include playground equipment with a sandlot and a half-size basketball court. This facility has no off-street parking.

Municipal Swimming Pool, ***1800 East 22nd Street***
This Olympic size Municipal Swimming Pool with a children's play pool is located on 22nd Street adjacent to Las Palmas Park. The facilities include locker areas and a filter room. Paved parking is available at Las Palmas Park.

National City Municipal Golf Course, ***1439 Sweetwater Road***
This golf course is approximately 15 acres in size and has 9 holes. The course is leased to a private company that runs the course for the City. The course is well groomed and landscaped with grass, trees, and shrubs.

Public Works Facilities
Public works yards are important in maintaining the functionality of many publicly offered services. The City of National City maintains two City-owned public works yards, which are included in the municipal inventory (Appendix B) and are actually located at the same address. The area is divided by Paradise Creek and therefore listed

as two separate facilities. Descriptions of each facility are provided below. Although the East and West Public Works Yards are not required to maintain a storm water management plan, the facility keeps a site-specific detailed storm water management plan that is available for municipal personnel. The document contains a number of CASQA municipal BMP fact sheets as an appendix. The document is reviewed at least annually to ensure it continues to reflect the areas and activities at the facilities.

East Public Works Yard, *2100 Hoover Avenue*

The Public Works Facility is situated on ten acres of land and is separated (east and west) by Paradise Creek. The Public Works East Yard consists of two buildings, and a hazardous material container and raw materials storage bins. The first building, located on the eastern portion of the site, is a warehouse and administrative offices. The second building consists of a vehicle washing facility, offices, storage areas, an employee lunchroom, locker room, and the equipment maintenance garage. There is a storage structure with two small offices on the east side of the property. City vehicles and equipment are maintained and then stored outside at this site.

West Public Works Yard, *2100 Hoover Avenue*

This yard is located on the west side of Paradise Creek. The site is used as a temporary storage yard for collected green waste, and trash prior to disposal.

Fire Stations

Fire fighting capability is an essential element of municipal activities conducted in the City. Fire fighting activities are conducted both at a training facility in the City, and during non-emergency and emergency fire fighting activities in the field. Other fire fighting activities include truck washing, and other equipment maintenance. Fire fighting personnel are trained regarding the water produced during training activities, and how to implement BMPs during non-emergency fire fighting activities. The City of National City maintains two fire stations, which are included in the municipal inventory (Appendix B.3) and discussed below.

National City Fire Department Head Quarters – Station 34, *343 East 16th Street*

This firehouse is located near the intersection of 16th Street and D Avenue, approximately 200 feet south of Paradise Creek. This facility serves as a fire station and headquarters for the National City Fire Department. Facilities include a stationhouse with sleeping quarters, a kitchen, exercise rooms, and offices. The fire engines, ambulances, and administrative vehicles are house inside the structure. There is a multi-floor training structure with a water reclamation system. There is a paved employee parking area with 21 spaces.

Fire Station Sub-Station 31, *2333 Euclid Avenue*

This is a small firehouse located at the corner of Euclid Avenue and East 24th Street. The facility houses fire engines and provides sleeping/eating quarters for the firefighters. There is a small employee parking lot with eight parking spaces.

Other Fixed Facilities

Additionally, the City maintains a number of public buildings such as administrative buildings and libraries. Typically, such facilities are considered a medium or low TTWQ because many, if not all, activities at these facilities are conducted indoors and do not correspond with activities that are considered a high TTWQ. Included below all fixed facilities not previously discussed.

Civic Center, City Hall and Administration, ***1243 National City Boulevard***

This facility serves as the administration building for the City. The property is landscaped and also has two paved parking lots and a total of 43 parking spaces.

Martin Luther King Community Center, ***140 East 12th Street***

This is a relatively large structure located on 12th Street between City Hall and the Library. The Human Resource Office and the Fire Administrative Office occupy approximately one third of the building. The remaining portion of the building is divided into two halls. These halls are used for community gathers, training sessions, and miscellaneous City functions.

Police Station, ***1200 National City Boulevard***

The Police Department is located on the corner of National City Boulevard and Civic Center Drive. There is minimal landscaping around this building. The structure includes underground parking for employees and police vehicles. There is a small paved visitor and employee parking lot outside.

Camacho Recreation Gymnasium, ***1810 East 22nd Street***

This gymnasium is approximately 12,000 square feet in size and is used for miscellaneous athletic activities. There is a small parking lot with space for 40 cars.

Casa De Salud, ***1408 Harding Avenue***

Casa de Salud is a recreation center approximately 5,000 square feet in size. There is minimal landscaping at this site and no off-street parking.

El Toyon Recreation Center, ***2005 East 4th Street***

This is a recreational facility located within the El Toyon Park grounds. The facility consists of an enclosed structure used for hosting community activities such as after school programs, arts and crafts activities, and the Tiny Tots program. The attached parking lot has 37 parking spaces

George H. Waters Nutrition Center, ***1514 D Avenue***

This facility is part of Morgan Towers, a senior housing complex. The City uses this facility to prepare one meal a day for seniors that live in the complex and also uses the facility to host events such as educational seminars. The nutrition center consists of a kitchen and a120 seat capacity dining room.

Kimball Recreation Center, ***148 East 12th Street***

This is a 2-story building on the grounds of Kimball Park, which is used for after school youth recreation activities. The lower level is used for storage space for a majority of park maintenance equipment and landscape chemicals. Equipment is

stored within the enclosed building. Landscape chemicals are organized and stored on pallets located within the building and kept in a locked area.

National City Public Library, *1401 National City Boulevard*
The library is a 49,000 square foot building with 95 parking spaces situated at the northwest corner of Kimball Park.

Senior Services Center, *1221 D Avenue*
This facility consists of a small recreational building with 88 parking spaces. There is minimal landscaping at this site.

6.2.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

6.2.3.1 UPDATED BMP REQUIREMENTS

The City implements BMPs at all fixed municipal facilities. As previously mentioned, the City utilizes the CASQA Municipal BMP Handbook as a source of appropriate BMPs for various fixed facility types. Refer to Table 6-2, end of section, for information regarding specific CASQA fact sheets from the Municipal BMP Handbook that are used to choose BMPs for specific facility types. More detailed information about BMP implementation at specific facility types is included in the following sub-sections and in Appendix C. The City implements additional BMPs if necessary, and implements equivalent BMPs when it is determined that a specific BMP is not feasible at a particular site. In addition to implementing BMPs, the City implements pollution prevention measures to reduce or eliminate the amount of pollutants generated from City-owned fixed facilities.

Parks and Recreational Facilities
The City implements a variety of BMPs to reduce or eliminate the amount of pollutants entering the MS4 from municipal parks and recreation facilities and other open landscaped areas. City personnel implement general waste management BMPs, and patrons of the facility are encouraged to properly dispose of trash and pet waste.

Due to their widespread outdoor use, pesticides, herbicides, and fertilizers can be discharged to MS4s. Transport of these pollutants is often a result of one or more of the following: (1) runoff from excessive irrigation after application; (2) application of chemicals during or prior to storm events; (3) overspray from chemical applications that may eventually enter the MS4. In addition to introducing pollutants to the MS4, improper pesticide and herbicide use can cause harm to non-target flora and fauna. The City has developed a comprehensive program aimed at preventing or reducing pesticides, herbicides, and fertilizers from entering the storm water system and causing direct or indirect harm on non-target flora and fauna and receiving water. This program is accomplished through implementation of the BMPs described below.

Pesticide, Herbicide and Fertilizer Application and Handling
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. The following BMPs are implemented to reduce pollutants from pesticides, herbicides and fertilizers:

- City personnel who participate in the application of pesticides/herbicides are trained and licensed (Qualified Applicator License) and follow guidelines set by the California Department of Pesticide Regulations and the County Agricultural Commission. Every two years, Qualified Applicator Certificate holders must show proof that they have secured a minimum of 20 hours of continuing education.
- Pesticide application has not been administered in the past several years by City personnel. Diseased plants are rinsed off with water, pulled out and replaced, or treated with systemic pesticides in fertilizers that eliminate pests. Special fertilizers for rose bushes contain pesticide products. These are kept in limited quantities to minimize the storage of these products.
- Herbicides are used during different times of the year. The City primarily uses less persistent herbicides such as glyphosphate products rather than organophosphate herbicides.
- City personnel manually pull weeds, mow weeds, mulch, and disk and till twice a year to minimize the amount of herbicides used.
- All herbicides are stored in fire safe, self-closing, weatherproof metal cabinets. Material Safety Data Sheets (MSDS) and spill kits are kept in the storage area.
- Mixing of herbicides, if necessary, is conducted on site to minimize areas of exposure.
- The City minimizes the use of fertilizers and is primarily fertilizing with a slow-release fertilizer on a less frequent basis (this allows more of the product to be accepted with less leaching; the reduced frequency creates less chance for the product to exit the target area).
- Fertilizer stock is purchased as needed and quantities are used up within a reasonable amount of time so that it is not necessary to stockpile the material.
- All fertilizers and green landscape debris are kept within the target areas.
- Pesticides, herbicides, and fertilizers are not applied during or directly prior to storm events.
- The City uses drought tolerant plants and native vegetation for landscaping new areas.
- The City recycles all hardwood (except for palm trees) to use as mulch in landscaping areas.

- In place of vegetation for erosion control, the city uses mulching in select areas. Mulching not only serves as an effective erosion control measure, but it does not require irrigation, herbicides, pesticides, or fertilizers.
- The City aerates soil three or four times per year and applies soil treatments with gypsum to increase the absorptive capacity of the soil and reduce runoff.
- Irrigation systems are inspected every other day so that necessary repairs can be made immediately.
- All timers for the irrigation system are adjusted with multiple start times to allow water time to percolate into the soil and prevent runoff.
- Irrigation schedules are seasonal; the winter schedule and amount of water usage is half of the summer schedule.
- Many sprinklers use low angle nozzles in order to prevent drift of water.
- Old sprinklers are replaced with low volume heads with in-line checks to prevent excessive runoff if the sprinkler head is broken.
- The City records the location, frequency, amount, type, and date of pesticides, herbicides and fertilizers used and include totals in the JURMP Annual Report.
- Formal workshops and classes are provided for City personnel who store and handle pesticides, herbicides, and fertilizers.
- City personnel are provided with refresher sessions regarding proper storage and handling of pesticides, herbicides, and fertilizers.

Public Works Facilities

City personnel implement appropriate BMPs for all activities that take place at public works facilities and include, but are not limited to, the following:

- Inspect all vehicles weekly to check for leaks or any other needed repairs
- Designate predetermined areas for conducting vehicle maintenance activities
    - Conduct vehicle maintenance indoors, inside garage, or under canopy where inlets drain to sewer system
- Use a the designated wash rack area to wash vehicles and equipment
- Spill controls are utilized by mechanics within the shop work area
- Secondary containment is used for liquids. Coolants and oils are recycled.
- Filter fabric has been installed to protect storm drain inlets, which is inspected routinely, cleaned four times a year, and replaced on an as needed basis.
- Spill response kits are easily accessible at various locations throughout the yard
- Good housekeeping measures are emphasized by the Public Works Director for all divisions of Public Works
- Equipment maintenance personnel conduct weekly inspections of the East Yard.

Fire Stations

The City continues to education municipal fire personnel on the importance of using the training facility properly and ensuring that all waste water is either re-claimed or discharged to the sanitary sewer system. BMPs for non-emergency fire fighting flows

are included in Section 3 of this document. Personnel are also encouraged to report IC/IDs noticed during routine activities.

Other Facilities

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

6.2.3.2 ADDITIONAL CONTROLS FOR MUNICIPAL AREAS AND ACTIVITIES

San Diego Bay, as a whole, is 303(d) listed for PCBs and the shoreline of San Diego Bay at the 7th Street Channel and 24th Street Marine Terminal are listed for benthic community effects and sediment toxicity. The City has not identified any municipal fixed facilities that are potential sources of PCBs or pollutants that could lead to benthic community effects and/or sediment toxicity. If the City identifies any potential sources of pollutants contributing to benthic community effects and sediment toxicity that could be the result of fixed municipal facilities, additional controls will be required to be implemented.

There are two ESAs within the City that are not 303(d) listed water bodies: Sweetwater River and Paradise Creek. Paradise Creek splits the City's public works yard into the East Public Works Yard and West Public Works Yard. In addition to other BMPs implemented at these sites, the City has installed filter inserts and absorbent socks on the storm drain inlets to provide additional removal of sediment and hydrocarbons from storm water runoff. If the City determines that additional controls are necessary to further protect Paradise Creek, additional BMPs will be required to be implemented. Current BMP implementation has reduced pollutant discharges to the MEP for all municipal fixed facilities in the City. If the City determines that additional controls are necessary to further reduce pollutant discharge for facilities draining to either Paradise Creek or Sweetwater River, the City will require that additional BMPs be implemented.

6.2.4 PROGRAM IMPLEMENTATION

The City of National City implements the municipal program using a variety of different processes, including maintenance, training and education, inspections, and if necessary, enforcement actions. Program implementation also includes the continuous assessment of municipal programs to ensure that they are designed and executed in a manner that is most effective to reducing, and potentially eliminating, the threat of pollution from fixed municipal facilities.

6.2.4.1 MAINTENANCE

The City will continue to conduct regular maintenance activities at fixed facilities, which includes, but is not limited to, landscape maintenance, building maintenance, and parking lot and sidewalk repair, when necessary. Sweeping of the parking facilities associated with the municipal facility is conducted at these facilities during regular maintenance activities.

The City maintains a regular maintenance schedule for fixed facilities in the City. As previously mentioned, City personnel are trained to implement the proper BMPs when at municipal facilities and when engaging in specific activities at those facilities. City personnel are also trained to dispose of any waste properly, and to report illegal discharges/illicit connections as they may come across them during normal work activities.

6.2.4.2 TRAINING AND EDUCATION

Municipal personnel are trained in implementing appropriate BMPs and preventing non-storm water discharges. A detailed description of the municipal education program can be found in Section 10 of this document.

6.2.4.3 MUNICIPAL INSPECTIONS

Medium and low priority fixed facilities are inspected as needed, and high priority facilities are inspected annually as required by Section D.3.a(7) of the Municipal Permit. Additional inspections may be needed depending upon the site conditions and the facility's history of compliance and past performance. If necessary, follow-up inspections and/or actions will be conducted within a timely manner. City personnel or other contract staff with inspection and enforcement authority inspect municipal facilities and activities. Inspectors fully assess facility areas and activities to ensure that all areas and activities are being maintained in accordance with City regulations, ordinances, and BMP requirements. Inspectors assess the areas and activities based on the minimum BMP requirements set forth for such area or activity by the City. Inspectors utilize the following plan when conducting an inspection:

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

If BMPs are found to be deficient or otherwise ineffective, internal enforcement action is initiated. The responsible party or department is provided with required corrective actions, and inspectors conduct a follow-up within a reasonable time frame to assure that all applicable requirements are implemented. Inspections are documented using

the inspection form attached in Appendix D (Storm Water Quality Inspection for Municipal Activities).

6.2.4.4 Reporting of Non-Compliant Sites

As required by the Municipal Permit, the City of National City will provide oral notification to the San Diego RWQCB within 24 hours of the discovery of any non-compliant sites within its jurisdiction that are determined to pose a threat to human or environmental health. The City will then submit a written report and submitted to the RWQCB within five days of the incident as required in Attachment B of the Municipal Permit.

6.3 Roads, Streets, Highways, and Parking Facilities

6.3.1 Background

Roads, streets, highways, and parking facilities are an integral part of any functional City. Roads, streets, highways, and parking facilities can collect a variety of pollutants due to routine vehicle use and have a tendency to collect litter and debris from neighboring areas and activities. Regular maintenance is necessary to control the level of pollutants, such as sediment, metals, litter, and debris on roads, streets, highways, and parking facilities. Other City activities include building new roads, resurfacing existing roads, and similar construction-related activities. All construction-related activities conducted by the City are conducted under the requirements of the construction component, which is described in detail in Section 5 of this document.

6.3.2 Source Characterization

The City of National City maintains approximately 110 miles of roads, streets, and highways throughout the City. A parking facility is defined as a stand-alone parking facility, which is a parking facility that is not associated and/or adjacent to other inventoried municipal facilities. Parking facilities that are associated with a municipal facility are included in regular maintenance activities of the associated municipal facility. The City does not maintain any stand-alone parking facilities. Roads, streets, and highways are included in the City's municipal inventory, which is included in Appendix B.3.

6.3.3 Best Management Practice Requirements

6.3.3.1 Updated BMP Requirements

Similar to municipal fixed facilities, the City utilizes the CASQA Municipal Handbook to choose applicable BMPs to implement for roads, streets, highways, and parking facilities within the City. Street sweeping and cleaning is the main BMP that is implemented for roads, streets, highways, and parking facilities. The frequency of cleaning takes into

account the following: variations in climate conditions, surrounding land use, design of existing structures, traffic volume, frequency and quantity of accidental spills and leaks, and areas with historical trash and/or debris problems. Treatment control BMPs are used for road sections subject to SUSMP.

6.3.3.2 ADDITIONAL CONTROLS FOR MUNICIPAL AREAS AND ACTIVITIES

Presently, roads, streets and highways 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 303(d) listed. The City continues to implement an aggressive street sweeping program to reduce the amount of pollutants discharged from roads, streets, highways, and parking facilities in the City. These measures are also implemented for roads, streets, highways, and parking facilities that drain to ESAs within the City. If in the future the City observes negative impacts to ESAs associated with runoff from roads, streets, highways, or parking facilities are noted, the City will take the measures necessary to mitigate the negative impacts.

6.3.4 PROGRAM IMPLEMENTATION

As an effort to reduce the pollutant load entering local receiving water bodies, the City implements a sweeping schedule for roads, streets, highways, and parking facilities to meet the requirements of Municipal Permit. The City sweeps all roads and streets in the City at least once every two weeks. Highland Avenue, National City Boulevard, and 8th Street are typically swept more frequently. It is not necessary to prioritize roads and streets in the City since the sweeping schedule meets the requirement of the highest frequency as stated in the Municipal Permit. The City does not maintain any stand-alone parking facilities that are not associated with municipal facilities. 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. All municipal parking lots are swept quarterly and receive additional sweeping if needed; the Public Works storage/parking area is swept weekly. The Streets Division is responsible for conducting street sweeping activities as well as other street-related maintenance and repairs. Private roads are not included in the City's street sweeping program.

6.4 MS4

6.4.1 BACKGROUND

The primary function of municipal separate storm sewer systems are to collect and transport surface runoff to receiving waters during storms in order to prevent flooding. The entire MS4 system is considered high TTWQ due to its tendency to collect and convey pollutants to receiving waters. In order to reduce the transportation of pollutants into receiving water bodies, the City of National City regularly maintains its MS4 to ensure that it remains both fully functional and free of pollutants to the MEP.

6.4.2 SOURCE CHARACTERIZATION

The City's MS4 consists of 19 miles of pipes of varying materials, natural creeks and streams, natural channels, concrete channels, culverts, catch basins, and inlets. The MS4, as one complete entity, is included on the municipal inventory (Appendix B.3).

6.4.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

6.4.3.1 UPDATED BMP REQUIREMENTS

As previously mentioned, the City utilizes the CASQA Municipal Handbook to choose applicable BMPs to implement for municipal areas and activities, including MS4 maintenance. Refer to Table 6-2 regarding specific fact sheets that are used to choose minimum BMPs. Such BMPs are designed to prevent waste from entering the system and ensuring waste collected out of the City's MS4 does not re-enter the system.

The City continues to maintain the MS4, which acts as the sole flood control device in the City. The City does not maintain any other flood control devices. Since the City does not maintain any specific flood control devices aside from the MS4, retrofitting flood control devices in the City is not feasible.

6.4.3.2 ADDITIONAL CONTROLS FOR MUNICIPAL AREAS/ACTIVITIES

Presently, MS4 facilities 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 303(d) listed. The City maintains a thorough MS4 maintenance schedule, which includes maintenance of the City's entire MS4. The City will continue to assess the MS4 maintenance procedures and results to ensure it is being maintained properly and that areas draining to ESAs do not require additional protection. Additional controls will be implemented as necessary. The City is committed to eliminating pollutant discharges, and if municipal areas or activities are found to be significant sources of pollutants other than pollutants associated with 303(d) listings, the City will still take actions to address those pollutant sources.

6.4.4 PROGRAM IMPLEMENTATION

The City's MS4 management program includes responding to complaints received by the City's Storm Water Hotline, detecting and ceasing IC/IDs, inspecting and maintaining MS4s by cleaning, removing sediment, debris, and excessive vegetation, and by flushing the pipes, 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 both regular maintenance and emergency maintenance and/or discharge control. Structural 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.

6.4.4.1 MAINTENANCE

The expanded MS4 maintenance schedule includes several BMPs for operation and maintenance as follows:

- Removal of trash and debris from all drainage facilities – as needed/year round, at least once annually. MS4 facilities, along main arterials in the City are inspected monthly and cleaned if necessary.
- Open channels are inspected twice monthly and cleaned of trash if necessary
- The City's current inspection/cleaning schedule is sufficient in ensuring that catch basins and inlets are less than 33% of capacity full and that self-cleaning MS4 facilities are kept free of trash and debris. All appropriate records are recorded by City personnel.
- Removal of silt after sufficient accumulation from creeks, desilting basins, detention basins, and rock lined channels – when needed. Permits are required for such work; the City obtains all applicable permits before removing silt from the aforementioned MS4 facilities.
- Accessible channels are scheduled for monthly inspection and cleaning as necessary
- Construction or repairs to non-emergency storm water facilities– as needed between May 1 to September 30
- Construction or repairs to emergency storm water facilities – as needed/year round
- Illicit discharge detection and reporting - as encountered/year round
- Implementing BMPs or other measures to eliminate waste discharges to the MS4 during regular maintenance and cleaning activities – always/year round
- Proper handling of materials and disposal of waste removed during maintenance activities in a manner that will not release the material to the storm drain system, or in any other way contaminate storm water runoff – always/year round

City personnel handle materials and waste removed during maintenance activities in a manner that will not release the material to the storm drain system, or in any other way contaminate storm water runoff. . The City keeps records to document all MS4 maintenance activities and inspections. Documentation of the activities is included in the JURMP Annual Report contains the following information, where applicable.

Record keeping for preventative maintenance, cleaning, and inspections should contain the following information:

- Dates and time inspection was performed
- Name and title of inspector
- Items inspected
- Locations of facilities inspected or cleaned
- Overall amount of material removed (estimated in either volume or dry weight)
- Type of material
- Disposal site

- Problems noted
- Illicit Connections and Illegal Discharges IC/IDs detected
- 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 Permit.

Continuous, long-term seepage from the sanitary sewer system to the MS4 has the potential to discharge a large amount of a variety of different kinds of pollutants into receiving water bodies. Measures the City is taking to prevent seepage from the sanitary sewer system to the MS4 is discussed in the next section.

6.5 SANITARY SEWER SYSTEM

6.5.1 BACKGROUND

Spills and/or leaks caused by a malfunction or failure of a component of the City' sanitary sewer system and overflows from private laterals have the potential to introduce a significant volume of 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. Untreated sewage also has the potential to contain a variety of hazardous chemicals, which also pose threats to the environment and human health. The City of National City conducts routine inspections and maintenance of the sanitary sewer system to ensure that the system is functioning properly. Routine inspections and maintenance of the sanitary sewer system reduces the potential for an overflow and helps prevent and eliminate infiltration of seepage to the MS4. The City also responds to sanitary sewer overflows to reduce or eliminate the amount of untreated sewage that reaches the MS4 and aids in cleaning up and disposing of overflow residue.

6.5.2 SOURCE CHARACTERIZATION

The City's sewer system/water system consists publicly owned sewer laterals, and a system, which is shared with the City of San Diego. Select areas of the City that are characteristic of a more frequent number of blockages are scheduled for maintenance on regular intervals.

6.5.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

6.5.3.1 UPDATED BMP REQUIREMENTS

The City utilizes the CASQA Municipal Handbook to choose applicable BMPs to implement for municipal areas and activities, including sanitary sewer maintenance.

Refer to Table 6-2 regarding specific fact sheets that are used to designate minimum BMPs specific to sewer maintenance.

Similar to the MS4 maintenance program, the City trains field staff on implementing BMPs, equipment inspection, and the action plan that is followed for both regular maintenance and emergency maintenance and/or discharge control. Structural BMPs are used during routine and emergency maintenance, where applicable.

6.5.3.2 ADDITIONAL CONTROLS FOR MUNICIPAL AREAS AND ACTIVITIES

Presently, sanitary sewer facilities within the City are not known to be a source of pollutants for which San Diego Bay and the San Diego Bay shoreline areas are 303(d) listed. The City conducts regular maintenance of the sanitary sewer system to prevent SSOs and other leaks that may occur due to system malfunction. The City maintains a detailed Sanitary Sewer Management Plan (SSMP), which includes plans for regular maintenance and response to SSOs. The City's response plan describes the City's activities and personnel organization when responding to an SSO. The City will continue to assess the sanitary sewer maintenance procedures to ensure the system is being maintained properly and that areas in proximity to ESAs do not require additional protection. Additional controls will be implemented as necessary.

6.5.4 PROGRAM IMPLEMENTATION

The City maintains a Sewer System Management Plan (SSMP), which is a program to ensure that the sewer system is functioning properly, and that necessary maintenance is conducted. The SSMP also includes a spill response plan that establishes standard procedures for immediate response to a sanitary sewer system overflow (SSO). City personnel are trained in detecting, reporting, and responding to SSOs. More information about the SSMP and its components is included in Section 9.

Continuous, long-term seepage from the sanitary sewer system to the MS4 has the potential to discharge a large amount of a variety of different kinds of pollutants into receiving water bodies. The City seeks to reduce and eliminate the amount of seepage from the sanitary sewer system to the MS4 through routine preventative maintenance of both systems. Detailed regular routine maintenance of the MS4 is included later in this section. Preventative maintenance of both systems may allow City officials to detect and eliminate active seepage points before they become a larger problem, and also to repair areas of the system that have a high possibility of becoming a seepage point. The City takes the following measures to reduce the seepage from the sanitary sewer system to the MS4:

- Routine inspection
- Flow metering is conducted throughout the City's sanitary sewer system to monitor flow depths and potential capacity concerns (monitoring is conducted by the City of San Diego and any increases decrease in flow are reported to the City)

- Use of video cameras in storm drains to check pipe conditions and detect possible blockages, cracks, or other seepage points

6.6 Mobile Municipal Activities, Including Power Washing

6.6.1 Background

The City conducts a number of activities, which are not designated to a specific location. Because such activities are not confined to a fixed facility, where BMPs may be permanently implemented, BMPs must actively be implemented during all mobile municipal activities.

6.6.2 Source Characterization

Power washing, a high priority municipal activity, which is used during some mobile municipal activities, has been included in the municipal inventory (Appendix B.3). Other mobile activities the City conducts include:

- Power washing
- Infrastructure maintenance
    - Public street and sidewalk repairs
    - Street striping/painting
- Landscape maintenance
- Graffiti removal

6.6.3 Best Management Practice Requirements

6.6.3.1 Updated BMP Requirements

As previously mentioned, the City implements good housekeeping and general pollution prevention measures during municipal activities including the mobile activities discussed above. The City utilizes the CASQA Municipal Handbook to choose applicable BMPs to implement for municipal areas and activities, including mobile activities. Refer to Table 6-2 (end of section) regarding specific fact sheets that are used to designate minimum BMPs for mobile activities.

6.6.3.2 Additional Controls for Municipal Areas and Activities

The City has not identified any mobile municipal activities that are likely to be a source of pollutants for which San Diego Bay and the San Diego Bay shoreline areas are 303(d) listed. If the City identifies any potential sources of PCBs or pollutants that contribute to benthic effects or sediment toxicity that could be result of mobile municipal activities, additional controls will be required to be implemented.

The City implements BMPs to ensure that pollutant discharges from all municipal mobile activities in all areas of the City, including to ESAs, are reduced to the MEP. The City will require the implementation of additional BMPs if such BMPs may provide additional pollutant removal. The City is committed to eliminating pollutant discharges, and if municipal areas or activities are found to be significant sources of pollutants other than pollutants associated with 303(d) listings, the City will still take actions to address those pollutant sources.

6.6.4 PROGRAM IMPLEMENTATION

City field crews are trained to implement BMPs during all mobile activities. City field crews are also trained to properly contain, control, and capture any discharge generated by power washing (or any other discharge-generating activities). The City has also outlined specific BMPs that are to be implemented during the graffiti abatement program. As required by the Municipal Permit, high priority activities will be inspected annually.

6.7 SPECIAL EVENTS

6.7.1 BACKGROUND

The City of National City hosts a variety of special events in the City. These events include, but are not limited to, festivals, fairs, and other events for various causes and occasions. Special events have the potential to generate significant trash and litter caused by the patrons and activities of the special event.

6.7.2 SOURCE CHARACTERIZATION

The following City-hosted events include, but are not limited to, the following:

- Memorial Day Event
- International Fair and Parade
- National City, California 91950 Night Out Against Crime
- Chili Cook-Off
- Public Safety Fair
- Veteran's Day Memorial

The City allows individuals/private organizations to use City property for special events. Individuals/private organizations that use City property to host an event are provided with a special events guide, which contains a statement about the NPDES. All hosts and patrons of the event are responsible for implementing BMPs and any problems or violation of the City's storm water ordinance should be reported immediately. The following City co-hosted events include, but are not limited to, the following:

- Cinco de Mayo Fair

- World Asthma Day
- Filipino Parade and Fair
- Miss National City, California 91950 Pageant
- Auto Heritage Days
- Relay for Life
- Salute to Navy
- ROTC Appreciation
- National City, California 91950 Concert Band

6.7.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

6.7.3.1 UPDATED BMP REQUIREMENTS

The City implements the following BMPs during and/or after special events, *where applicable*:

- Proper management of trash and litter including extra trash receptacles situated throughout the event site and emptied throughout the day
- Recycling containers for plastic, cardboard, glass, and aluminum, are placed near trash receptacles throughout the site
- Events with more than 300 attendees require the use of a dumpster
- Portable toilets must have secondary containment
- Clean-up throughout and at the end of each event (or at the end of each day, depending on the length of the event) by removing trash and power washing paved areas, if necessary
- City personnel are immediately available to resolve any storm water-related problems that may arise
- Temporary screens on catch basins and storm drain inlets
- Temporary fencing to prevent windblown trash from entering adjacent water bodies and MS4 channels
- Catch basin cleaning following the special event, as needed
- If needed, the City sweeps roads, streets, highways, and parking facilities following the special event

6.7.3.2 ADDITIONAL CONTROLS FOR MUNICIPAL AREAS AND ACTIVITIES

Special events occurring within the City are not known to generate pollutants for which San Diego Bay and San Diego Bay shoreline areas are 303(d) listed. The City will continue to monitor special event activities to ensure that additional controls are not necessary.Current BMP implementation is effective in reducing discharges to ESAs in the City to the MEP. Additional BMPs will be required to be implemented if the City determines that they will provide additional pollutant removal.

6.7.4 PROGRAM IMPLEMENTATION

Any private organization hosting a special event in the City is required to meet with the City's NPDES Storm Water Inspector to choose the BMPs appropriate for the size and location of the event. As previously mentioned, City personnel are available throughout the event to ensure that the previously designated BMPs have been implemented, pick up trash, and report any IC/IDs. Required BMPs will be evaluated based on location, weather conditions, and as necessary. Please refer to Section 6.10 for a detailed description of the implementation of the municipal program as a whole.

6.8 MUNICIPAL COMPONENT EFFECTIVENESS ASSESSMENT

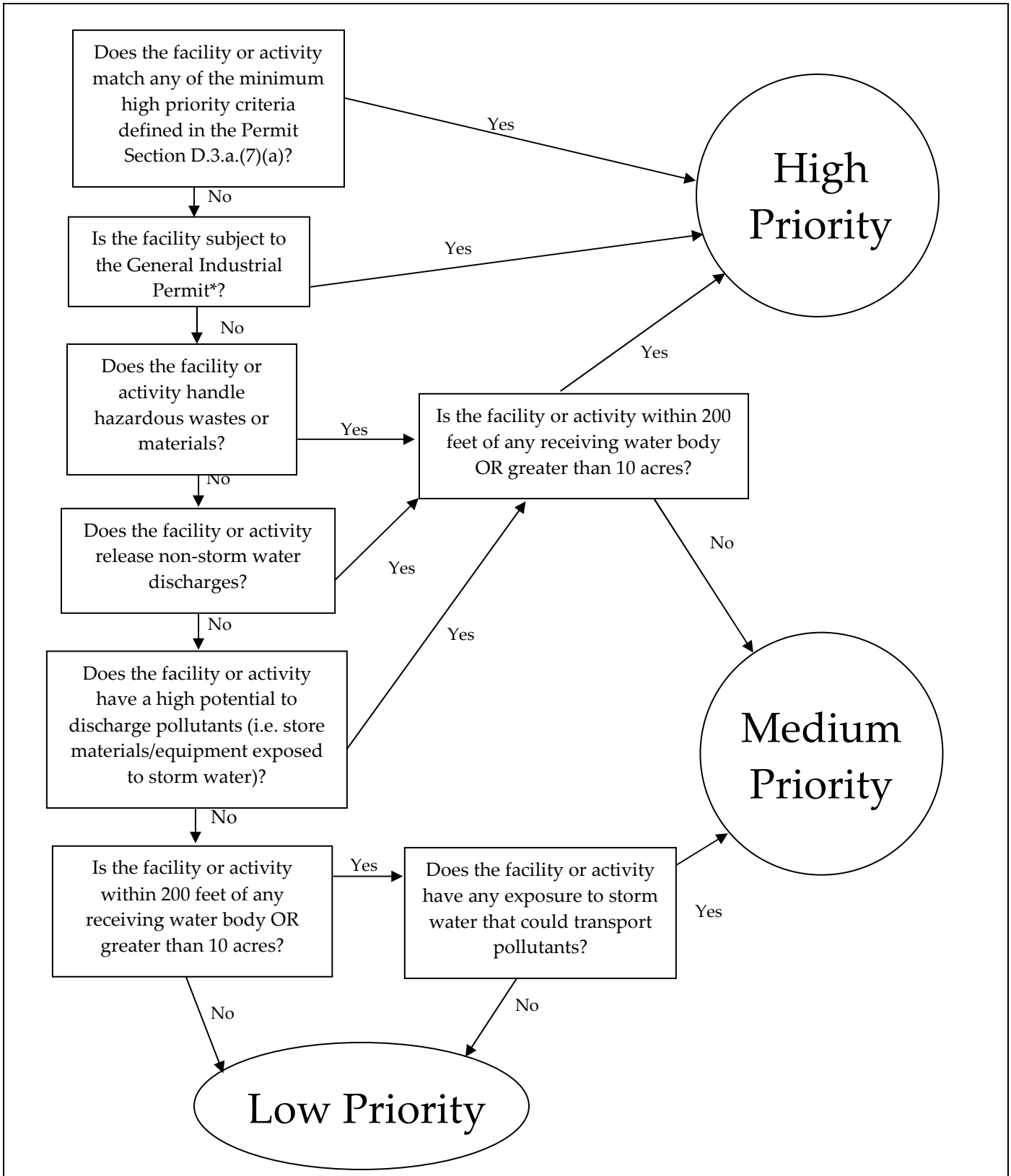
Section 13 of this document provides an effectiveness assessment of the City's JURMP as a whole.

6.9 PROGRAM MODIFICATION AND REVIEW

Section 14 of this document identifies the location in the JURMP of any changes made to the JURMP to meet the requirements of the Municipal Permit.

FIGURE 6-1

TTWQ PRIORITIZATION FLOW CHART FOR MUNICIPAL AREAS/ACTIVITIES



*If the facility is either unconditionally subject to the General Industrial Permit (Order Number 97-03-DWQ), or conditionally subject to the General Industrial Permit and not eligible for NONA/NEC certification.

TABLE 6-1

POLLUTANT LOADING POTENTIALS OF MUNICIPAL AREAS/ACTIVITIES

	Potential for discharge based on activities and existing information								
Source	**Heavy Metals**	**Organics**	**Oil & Grease**	**Sediment**	**Pesticides**	**Nutrients**	**Oxygen Demanding**	**Bacteria/ Viruses**	**Trash**
Fire Stations	PO	PO	PO	PO	UL	UL	UL	PO	PO
Mobile Municipal Activities	PO	PO	PO	PO	UL	UL	UL	PO	UL
MS4**	UL	UL	UL	PO**	UL	UL	PO**	PO**	UL
Other Fixed Facilities	PO*	PO	PO*	PO	PO	PO	PO	PO	PO
Parks, Recreational Facilities, and Other Landscaped Areas	PO*	UL	PO*	L	L	L	L	L	PO
Public Works Facilities	L	PO	L	L	PO	PO	PO	PO	PO
Roads, Streets, Highways, and Parking Facilities	L	L	L	L	UL	UL	UL	PO	L
Sanitary Sewer System	PO***	UL	PO***	UL	UL	PO***	PO***	PO***	UL
Special Events	UL	UL	UL	UL	UL	UL	PO	PO	L

Notes

L = Likely, PO = Possible, UL= Unlikely

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

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

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

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

TABLE 6-2
MINIMUM BMP SELECTION CHECKLIST FOR MUNICIPAL AREAS/ACTIVITIES

Required Minimum BMPs as discussed in the CASQA Municipal BMP Handbook

Facility Type	SC-10 Non-Stormwater Discharges	SC-11 Spill Prevention, Control & Cleanup	SC-20 Vehicle and Equipment Fueling	SC-21 Vehicle and Equipment Cleaning	SC-22 Vehicle and Equipment Repair	SC-30 Outdoor Loading/Unloading	SC-31 Outdoor Container Storage	SC-32 Outdoor Equipment Maintenance	SC-33 Outdoor Storage of Raw Materials	SC-34 Waste Handling & Disposal	SC-41 Building & Grounds Maintenance	SC-43 Parking/Storage Area Maintenance	SC-50 Over Water Activities	SC-60 Housekeeping Practices	SC-61 Safer Alternative Products	SC-70 Road and Street Maintenance	SC-71 Plaza and Sidewalk Cleaning	SC-72 Fountain & Pool Maintenance	SC-73 Landscape Maintenance	SC-74 Drainage System Maintenance	SC-75 Waste Handling and Disposal	SC-76 Water & Sewer Utility Maintenance
Fire Stations	X	X		X						X	X	X		X	X							
Mobile Municipal Activities																	X	X	X			
MS4																				X		
Other Fixed Facilities	X	X								X	X	X		X					X			
Parks, Recreational Facilities, and Other Landscaped Areas	X	X					X		X	X	X	X		X	X							
Public Works Facilities	X	X	X	X	X	X	X	X	X	X	X	X		X	X							
Roads, Streets, Highways, and Parking Facilities		X										X				X						
Sanitary Sewer System																						X
Special Events	X	X								X				X								

7.0 INDUSTRIAL AND COMMERCIAL

7.1 INTRODUCTION

Activities associated with industrial and commercial businesses can contribute pollutants to the MS4. The City of National City has implemented a program that aims to reduce and prevent industrial and commercial pollution discharges from the MS4 to the MEP to protect local receiving water bodies and to comply with the Municipal Permit. The City has compiled a list of industrial and commercial sources and developed BMP requirements, including pollution prevention measures, for each source and activity. Implementation of these requirements is accomplished through education, inspection, and enforcement measures.

7.2 INDUSTRIAL AND COMMERCIAL SITES / SOURCES

7.2.1 BACKGROUND

The main objective of the Industrial and Commercial Sites/Sources component of the JURMP is to minimize or eliminate the impacts of industrial and commercial activities on receiving waters and other sensitive environmental resources.

Examples of industrial facilities include manufacturing facilities, recycling facilities, and transportation businesses. Stationary Commercial facilities include auto repair shops, restaurants, and wholesalers of many kinds, and do not include mobile commercial facilities. For the rest of Section 7.1, "stationary commercial" facilities will imply commercial facilities that are not mobile. Mobile commercial facilities are detailed in Section 7.3.

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

7.2.2 SOURCE CHARACTERIZATION

A watershed-based inventory of the industrial facilities and commercial sites/sources within the City's jurisdiction has been compiled using GIS, and prioritized based on TTWQ, to determine potential sources. Information was merged into one concise database that includes the facility name, address, pollutants potentially generated by the site/source (and identification of whether the site/source is tributary to a Clean Water Act section 303(d) waterbody segment and generates pollutants for which the water body segment is impaired), short narrative description, and Standard Industrial

Classification (SIC) code. The pollutant discharge potential for business categories are presented in Table 7-1. The pollutant discharge potential for each business can be found by matching the category listed for the business in the inventory with the category and associated pollutant discharge information in Table 7-1. Information included in the database was gathered from the following sources:

- City of National City business license listing
- State Water Resources Control Board list of Permittees covered under the General Industrial Permit

The inventories will be updated annually through reviewing business license records for new businesses, performing routine inspections, and responding to reported incidents. All industrial and commercial facilities that meet at least one of the following criteria are included in the inventories:

Industrial facilities

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

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

Note that other categories of commercial businesses that are explicitly mobile are listed in Section 7.3 of this document. Both mobile and stationary businesses are included on the inventories in Appendix B of this JURMP document.

Both Industrial and Commercial facilities

- All other commercial or industrial sites/sources tributary to a CWA Section 303(d) impaired water body segment, where the site/source generates pollutants for which the water body segment is impaired
- All other commercial or industrial sites/sources within or directly adjacent to (i.e., within 200 ft.) or discharging directly to coastal lagoons or other receiving waters within an Environmentally Sensitive Area (ESA).
- All other commercial or industrial sites/sources that the City determines may contribute a significant pollutant load to the MS4. Dry weather field screening and analytical monitoring results were evaluated to identify any commercial or industrial sites/sources that contribute significant pollutant loads to the MS4. Complaints, violations, and field investigation reports were also reviewed, when available, to identify such sites.

Inventories of industrial and commercial facilities within the City of National City are included in Appendix B. As of this writing, 877 stationary industrial and commercial are included on the inventories, 817 of which are stationary facilities. The inventories include name, address, Standard Industrial Classification (SIC) code, and a description of the products or services provided by each site or source. Waste Discharge Identification Numbers (WDID) are also included for sites that are covered under the State of California Industrial General Permit (General Industrial Permit). The TTWQ prioritization, assigned via the process described in Section 7.2.2.1, the category of the facility, and whether the site is tributary to a 303(d) listed water body and generating a pollutant for which the water body is impaired are noted on the inventories as well. Table 7-1 lists the pollutants that may be generated by each category of business. The pollutants that may be generated by each individual business can be determined by matching the category of business, which is noted for each of the businesses in Appendix B, with the category in Table 7-1.

7.2.2.1 PRIORITIZATION

The City of National City evaluated the potential TTWQ of each business by incorporating factors specified by the Municipal Permit and by using past experience. A flow chart summarizing the prioritization process is provided at the end of this section as Figure 7-1. Because many of the factors and a summary of the factors used in assigning TTWQ prioritization is listed below:

- If the receiving water body is 303(d) listed, whether the business has a "likely" pollutant discharge potential for pollutants for which the water body is impaired
    - Business activity type, based primarily on SIC code.
        - Materials used
        - Wastes generated

        - Pollutant discharge potential
- Results from inspections and institutional knowledge
    - Non-storm water discharges
    - Size of facility and total area of the site
    - Facility design, including degree of exposure of storage and/or activities
    - Compliance history
- Coverage under the General Industrial Permit
- Proximity to the receiving water body

The City evaluated pollutant discharge potential and types of materials used and wastes generated via the assignment of business activity type categories based on SIC codes. The category assignments were also verified through checking them by reading the business names, and, in some cases, conducting searches for the business on the internet. Information gathered from pollutant discharge potential assessments conducted during inspections was also used when available. Results from inspections and other institutional knowledge were used to assess the likelihood of non-storm water discharges, the size of the facility and total area of the site, facility design, and the compliance history. Evaluation of aerial photos was also used to help assess the degree of exposure. The State's online database of businesses that have obtained coverage under the General Industrial Permit was referenced to ensure that permitted businesses located in National City are included on the inventory. GIS analysis was used to determine land use, watershed, receiving water body, and distance to receiving water bodies. Land use was used to help differentiate between mobile and stationary businesses, as businesses in single family residential areas are typically mobile.

Note that while Figure 7-1 includes being less than 200 feet from a receiving waterbody among its criteria. If a business had been inspected before, the distance to the water body was based on inspection records. For businesses not inspected before, the distance to the water bodies was calculated based on geocoded addresses, which results in the facility location being plotted along a street center line. Because it is possible for a portion of the site to be within 200 feet of a waterbody even if the point on the street center line is more than 200 feet away, to be conservative all facilities for which the geocoded point was within 500 feet of the receiving waterbody were categorized as being within 200 feet of the water body. This will be revised based on the individual assessment of each site using inspection observations as they become available.

Industrial/commercial businesses that, based on past inspections and institutional knowledge, are known to have poor compliance history or otherwise have a high potential for pollutant discharge were classified as high TTWQ. In future years if these sites develop a satisfactory pattern of compliance, a lower priority may be assigned so that the City will continue to direct its inspection resources where they are most needed.

7.2.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

7.2.3.1 UPDATED BMP REQUIREMENTS

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

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

- Reduce quantity of toxic materials used or substitute less-toxic materials
- Use minimal cleaning water to decrease wastewater generation
- Display pollution prevention methods prominently to remind or instruct employees and customers
- Implement a spill response plan
- Segregate and recycle wastes
- Provide a schedule of preventive maintenance procedures
- Reduce waste through more efficient production processes
- Recycle wastes as part of the production process (most preferred), off site or on site (least preferred)
- Treat wastes on site to decrease volume and/or toxicity
- Dispose of wastes properly
- Continually train employees as needed

In addition to the methods listed above, the City of National City also reserves the authority to require a Storm Water Pollution Prevention Plan (SWPPP) for any Industrial or Commercial facility within its jurisdiction that discharges significant pollutants into receiving water bodies.

In addition to the pollution prevention BMPs described above, the City has also established a set of minimum BMPs based on the CASQA California Stormwater BMP Handbook – Industrial & Commercial (CASQA, 2003) for all industrial and commercial sites. Businesses are required to use an effective combination of general BMPs and activity-specific BMPs. General BMPs and activity-specific BMPs are required where applicable and are briefly listed below. The relevant CASQA BMP fact sheet reference is given in parentheses after each listing; the BMP fact sheets are available online at www.cabmphandbooks.com. In some cases the City's local implementation guidelines are somewhat different than those listed in the CASQA fact sheets. Those exceptions are discussed in the BMP manual in Appendix C. Businesses will be informed of the exceptions.

- **General BMPs**
    - Non-Storm Water Discharge Control (SC-10)
    - Spill Prevention, Control/Cleanup (SC-11)
    - Waste Handling and Disposal (SC-34)
    - Sediment/Erosion Control (SC-40)
    - Building/Grounds Maintenance (SC-41)
    - Parking Area Maintenance (SC-43)
    - Drainage System Maintenance (SC-44)
    - Employee Training
        - As appropriate to their positions, staff must be trained to avoid prohibited discharges.
        - Staff must be trained in proper implementation of the BMPs applicable to the activities they regularly conduct.
- **Activity-Specific BMPs**
  Appropriate BMPs depend on the type of activities, pollutants and potential sources of pollutants. BMPs requirements for the following activities and areas, which are relatively common at industrial and commercial sites, follow the CASQA BMP noted in parentheses after each activity.
    - Vehicle/Equipment Fueling (SC-20)
    - Vehicle/Equipment Cleaning (SC-21)
    - Vehicle/Equipment Repair (SC-22)
    - Outdoor Loading/Unloading (SC-30)
    - Outdoor Liquid Container Storage (SC-31)
    - Outdoor Equipment Operations (SC-32)
    - Outdoor Storage of Raw Materials (SC-33)

In addition to the minimum BMPs listed above, the City may require additional BMPs based on specific site conditions observed during an inspection. The City also may require the implementation of treatment control BMPs, including but not limited to the following:

- Infiltration Trench (TC-10)
- Infiltration Basin (TC-11)
- Retention/Irrigation (TC-12)
- Wet Pond (TC-20)
- Constructed Wetland (TC-21)
- Extended Detention Basin (TC-22)
- Vegetated Swale (TC-30)
- Vegetated Buffer Strip (TC-31)
- Bioretention (TC-32)
- Media Filter (TC-40)
- Water Quality Inlet (TC-50)
- Multiple Systems (TC-60)
- Wetland (MP-20)

- Media Filter (MP-40)
- Wet Vault (MP-50)
- Vortex Separator (MP-51)
- Drain Inlet (MP-52)

7.2.3.2 Additional Controls for Industrial and Commercial Sites / Sources

San Diego Bay, as a whole, is 303(d) listed for PCBs and the shoreline of San Diego Bay at both the 7th Street Channel and the 24th Street Marine Terminal is listed for benthic community effects and sediment toxicity. The City has not identified any industrial or commercial facilities that are potential sources of PCBs or pollutants that could lead to benthic community effects and/or sediment toxicity. If the City identifies any potential sources of pollutants contributing to benthic community effects and sediment toxicity that could be the result of fixed municipal facilities, additional controls will be required to be implemented.

There are two ESAs within the City that are not 303(d) listed water bodies: Sweetwater River and Paradise Creek. If for any reason the City determines that additional controls are necessary to further protect ESAs in the City, additional BMPs will be required to be implemented.

7.2.4 Program Implementation

The City of National City provides education and outreach so that regulated businesses are aware of the City's storm water requirements. The City also inspect its inventoried businesses to evaluate compliance with its BMP requirements. Enforcement actions are taken as necessary to bring violators into compliance.

7.2.5 Education and Outreach

Because the City's BMP requirements as described in this updated JURMP are not substantially different from the BMP requirements that the City has been enforcing since 2002, most businesses should already be familiar with what they need to do to comply with the City's requirements. While the City will continue to provide education and outreach to industrial and commercial businesses, a lack of awareness is not accepted as an excuse for noncompliance.

The City of National City will continue to provide information and training regarding storm water quality to industry and commercial owners and operators, personnel, employees, and other associated parties involved with industrial or commercial activities. All new businesses are given a tri-fold brochure about commercial BMPs at the time of application. Businesses are also given educational materials outlining pollution prevention methods and BMPs during inspections, where appropriate. Inspectors also give BMP-related recommendations to businesses where necessary. Based on the City's experience, this site-specific, personal education is among the most

effective methods of outreach. The educational program for industrial and commercial businesses is described in more detail in Section 10 of this document.

The City of National City will notify each inventoried industrial or commercial business of the City's updated BMP requirements that are applicable to the site/source within the first three (3) years of implementation of the updated JURMP. The notification will include information about City exceptions to the CASQA BMP fact sheets.

7.2.6 STAFF TRAINING

Staff responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities are trained annually on inspection and enforcement procedures, BMP implementation, and reviewing monitoring data. City inspectors will continue to attend the available workshops for inspectors.

7.2.7 FACILITY INSPECTIONS

Before beginning the inspection process, the City prepares a list of businesses selected for inspection. Educational material, may be distributed to businesses upon inspection, as applicable. The following methods are used to evaluate compliance of industrial and commercial sites:

Site Inspection
The site inspection procedure involves a thorough examination of the facility and all outdoor activities with the potential to generate urban runoff pollution. A standard five-page inspection form was completed at each site to document the visit (Appendix D). When an inspection is resolved by phone, the result is entered into the Industrial/Commercial Database, but a form is not filled out. If the business is a duplicate of another business or cannot be contacted, an inspection form is still filled out to document the outcome of the inspection.

Pre-Inspection
Prior to beginning the site inspection, the inspector completes *Section A. "Contact Information"* and *Section B. "Facility/Site Information"* of the inspection form using information from the prioritized inventory. This information includes business name, address, telephone number, and the assigned SIC code and priority. The inspectors use the City's drainage maps to assess the approximate distance to waterbodies. Upon arrival at the site, initial observations are documented in *Section C. "Initial Observations*." Observations of surface runoff drainage patterns and the approximate percent impervious surface are also recorded.

Meeting With Manager/Responsible Party
Upon meeting the manager/responsible party, the inspector introduces the storm water program and the purpose of the inspection, using this opportunity to provide education to the public regarding storm water compliance. The introduction to the program includes a brief overview of the federal and state water quality laws, Municipal Permit requirements, impacts of urban runoff, and a description of the local waterbodies and

pollutants of concern. The inspector also introduces the concept of BMPs as a mechanism to eliminate pollutant discharges to the storm drain system and distributes an educational brochure provided by the City.

After the introduction, the inspector verifies the existing information including the business address and phone number and noted any changes on the form as necessary. The inspector also thoroughly evaluates the SIC code(s) to verify that the code(s) accurately reflected the principal activity of the business. If the SIC code(s) does not reflect the principal activity of the business, an applicable SIC is recommended.

BMP Assessment

After the introductory meeting, the inspector conducts a comprehensive walk-through of the facility, generally accompanied by the manager/responsible party, to inspect all areas exposed to storm water and to evaluate existing BMPs and their effectiveness. The inspector also uses this time to identify possible IC/IDs to the City storm water conveyance system. If specific BMPs are not implemented or are found to be ineffective, BMP recommendations are made. If the facility manager/responsible party accompanies the inspector, recommendations are made verbally in addition to being recorded on the inspection form. The BMP evaluation and any recommended improvements are recorded on the inspection form in *Section D, "BMP Assessment"*. Any recommendations are summarized in *Section F, "Recommended Corrective Action"*. If an active IC/ID is observed or significant corrective action is needed right away, appropriate City personnel is notified. While inspectors do not typically prescribe exact BMP solutions, the inspectors generally do attempt to work with site owners and/or operators to provide examples of BMPs solutions that could be implemented. Effective, low cost solutions are sought whenever possible, although in some cases more expensive BMPs are needed to reduce pollutant discharges to the MEP. The business is also evaluated for its staff training procedures and the stormwater quality awareness of the contact person; educational information is provided as appropriate. Whenever possible, the findings of the inspection and related corrective actions are discussed with the responsible party while the inspector is at the site. Based on observations during the inspection, the City may also determine that the TTWQ rating of the business should be changed from low to high or vice versa. Any such changes will be reflected in inventory updated submitted in JURMP Annual Reports.

If the facility has a Storm Water Pollution Prevention Plan (SWPPP) and storm water monitoring program, both are assessed. The SWPPP is assessed to ensure it contains the major sections discussed in the General Industrial Storm Water Permit (Industrial Permit). Typically only sites that are covered under the General Industrial Permit have these documents. The inspector checks for coverage under the General Industrial Permit where applicable. If the inspector finds reason to believe that the business might need coverage under the General Industrial Permit but has not obtained such coverage, the RWQCB is notified. The results from the storm water monitoring program are also reviewed and compared with RWQCB benchmark values; any exceedances are noted.

Storm Water Quality Inspection Summary and Conclusion

At the completion of the walk-through, the inspector summarizes the recommended corrective actions and/or violations on the inspection form and discusses any recommendations with the manager/responsible party. All efforts were made to recommend non-structural, low-cost BMPs where possible; however, certain businesses required more extensive BMP implementation.

Inspection Frequency

During the first year of implementation, the City will inspect at least 50 percent of the stationary industrial and commercial facilities inventoried as high TTWQ. The City will inspect all the high TTWQ stationary industrial and commercial facilities the following year, and annually thereafter, in accordance with the Municipal Permit requirements. Note that if the RWQCB inspects an industrial site in the City, the City will not need to inspect the site itself during that reporting period.

At least 20 percent of all stationary inventoried sites will be inspected in the first year of program implementation. In subsequent years at least 25 percent of the stationary inventoried businesses will be inspected. If in future years, high TTWQ stationary sites comprise more than 25 percent of the inventory, the City will still inspect all high priority sites. Note that mobile businesses are not included when determining the inspection requirements based on percentages of the inventory. The City will track its inspections during each reporting period to ensure that it meets the minimum inspection frequencies required by the Municipal Permit.

The City will also investigate all reported incidents of illegal discharges from industrial or commercial facilities, including those arising from the results of the Dry Weather Field Screening and Analytical Monitoring Program (Dry Weather Monitoring Program). Investigations will be performed according to the procedures described in Section 9.5 of this document.

As required by the Municipal Permit, the City has identified the businesses it plans to inspect within the first year of program implementation. The City's inventories include 817 stationary businesses, 137 of which are prioritized as high TTWQ. Rounding up to the nearest whole number, 20 percent of the inventory is 164 businesses, and 50 percent of the high TTWQ sites is 69 businesses. The City has identified 176 businesses it intends to inspect in 2007-2008. The City plans to inspect all businesses that have Industrial Permit coverage, regardless of TTWQ, and most high TTWQ sites. Sites selected for inspection in 2007-2008 are identified on the inventories in Appendix B.

7.2.8 ENFORCEMENT

The City will continue to ensure that pollution prevention methods and BMPs are implemented by enforcing its ordinance. City inspectors and staff members properly document each observed violation at facilities failing to comply with storm water requirements, and enforcement action is taken where necessary to bring about compliance.

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

In instances where a City inspector observes a significant and/or immediate threat to water quality, immediate enforcement action is taken to require the facility owner or operator to remedy the problem. Stop work orders may be issued in such cases if necessary. In any case in which the City determines that a noncompliant site within its jurisdiction poses a threat to human or environmental health, the City will verbally notify the RWQCB within 24 hours of the discovery of non-compliance, as required by Attachment B of the Municipal Permit. Oral notification will be followed up by a written report to the RWQCB within five days of the time that the City becomes aware of the noncompliance unless the RWQCB waives the requirement for a written report, which the RWQCB may do on a case-by-case basis.

Depending on the severity of the infraction, enforcement can range from verbal warnings to monetary fines. Escalating enforcement steps, providing flexibility for the inspectors to establish appropriate compliance time frames on a case-by-case basis, will be used as needed to ensure compliance. More detail about the City's enforcement procedures can be found in Section 2 of this document. Note that the City does maintain the authority to require businesses to prepare SWPPPs or to conduct sampling and analysis where deemed necessary by the City.

Reporting of Industrial Non-Filers

In each JURMP Annual Report the City of National City will provide a list of industrial sites that may require coverage under the General Industrial Permit but which, to the City's knowledge, have not filed NOIs. At minimum the list will include the name, address, and SIC code of such businesses.

7.3 Mobile Sources

7.3.1 Background

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

7.3.2 Source Characterization

The mobile businesses known to operate within the City's jurisdiction are marked as such on the City's commercial inventory. The following business types are addressed by the mobile sources element of the City's industrial and commercial program.

- Mobile automobile or other vehicle washing
- Mobile carpet, drape or furniture cleaning
- Painting and coating
- Pool and fountain cleaning
- Power washing services

Because not all mobile businesses have obtained business licenses in the City or have a base of operations in the City, the City expects that a continual process of refining and updating its inventory is necessary. Sources for such inventory updates will include reported incidents, general observations by City staff, and available business licenses. The City intends to participate if and when a regional inventory and/or tracking system for mobile businesses is developed.

7.3.3 Best Management Practice Requirements

7.3.3.1 Updated BMP Requirements

All BMPs required for stationary sources, listed in Section 7.2.3.1 of this document, are also required for mobile business where applicable. The most important BMPs for most mobile businesses are typically SC-10, Non-Storm Water Discharge Control, and SC-11, Spill Prevention, Control/Cleanup.

7.3.3.2 Additional Controls for Mobile Sources

Regardless of where the activity occurs, the City categorically prohibits illegal discharges from mobile businesses. Aside from washing, cleaning, or other activities that may cause illegal discharges, mobile businesses are not likely to conduct activities that produce significant pollutant discharges. If in the future the City finds that even in the absence of illegal discharges the activities of mobile businesses are contributing pollutants of concern to a CWA section 303(d) impaired water body segments or are negatively impacting ESAs, additional controls will be required for those activities. Further, if the City has reason to believe that mobile businesses are generating significant illegal discharges in a given area of the City that is tributary to a 303(d) listed water body (and the discharges contain pollutants causing the impairment) or is within, directly adjacent to, or directly discharges to a water body within an ESA, City staff may more regularly visit those areas and/or take other actions to address the illegal discharges.

7.3.4 Education and Outreach

The City of National City will provide information and outreach regarding storm water quality to mobile business owners and operators known to operate in the City. Inspectors will also give recommendations to businesses during interaction in the field where appropriate. Because a mobile business program is being newly developed for this revised JURMP, it is anticipated that some mobile businesses are not aware of storm water requirements and that education will need to be a significant portion of the program. The City also plans to participate in regional Copermittee mobile business

programs, which have been proposed for development in the near future and will likely provide assistance with education targeted at mobile businesses. The educational program is described in more detail in Section 10 of this document.

7.3.4.1 OWNER/ OPERATOR NOTIFICATIONS

The City of National City will notify the owner/operator of each inventoried mobile business of applicable BMP requirements within the first three (3) years of implementation of the updated JURMP.

7.3.4.2 INTER-JURISDICTIONAL COOPERATION

As of the writing of this document, no inter-jurisdictional program for the regulation of mobile businesses has been finalized. It is likely that such a program will be in place in the future, and the City plans to participate in that program. The program may include creation of a regional inventory of mobile businesses, standardization of BMP requirements across jurisdictions, sharing of enforcement action information, and/or the development and distribution of standardized educational materials.

7.3.4.3 STAFF TRAINING

Staff responsible for conducting storm water compliance inspections and enforcement of mobile sources will be trained annually on inspection and enforcement procedures and BMP implementation as they relate to mobile businesses. City staff will also be encouraged to be vigilant for illegal discharges from mobile businesses when working in the City and to report businesses that are not in compliance to the storm water hotline.

7.3.4.4 INSPECTIONS

Mobile sites/sources will be inspected by the City on as needed basis. The most common triggers for these inspections are anticipated to be receipts of incident reports and direct visual observations by City staff. The inspections will generally follow the same procedure described in 7.2.4.4 of this document, although the main focus of most mobile business inspections will be on discharge control BMPs.

7.3.4.5 ENFORCEMENT

Most violations associated with mobile businesses are anticipated to be related to illegal discharges. The City's enforcement approach to such discharges will require the discharge to be stopped and cleanup of discharged materials when applicable and feasible. Education may also be provided to operators who are not aware of the City's storm water requirements. Businesses that do not possess the materials necessary to implement the required BMPs may be required to demonstrate to the City that they have obtained such materials and can properly use them before the City allows such businesses to resume operations in the City. Mobile businesses that do not have City business licenses will be required to obtain them. The types of enforcement measures available to the City are discussed in Section 2 and Section 7.2.4.5 of this document. Also, discharges related to noncompliance deemed to pose a threat to human or

environmental health will be reported using the same process described in Section 7.2.4.5.

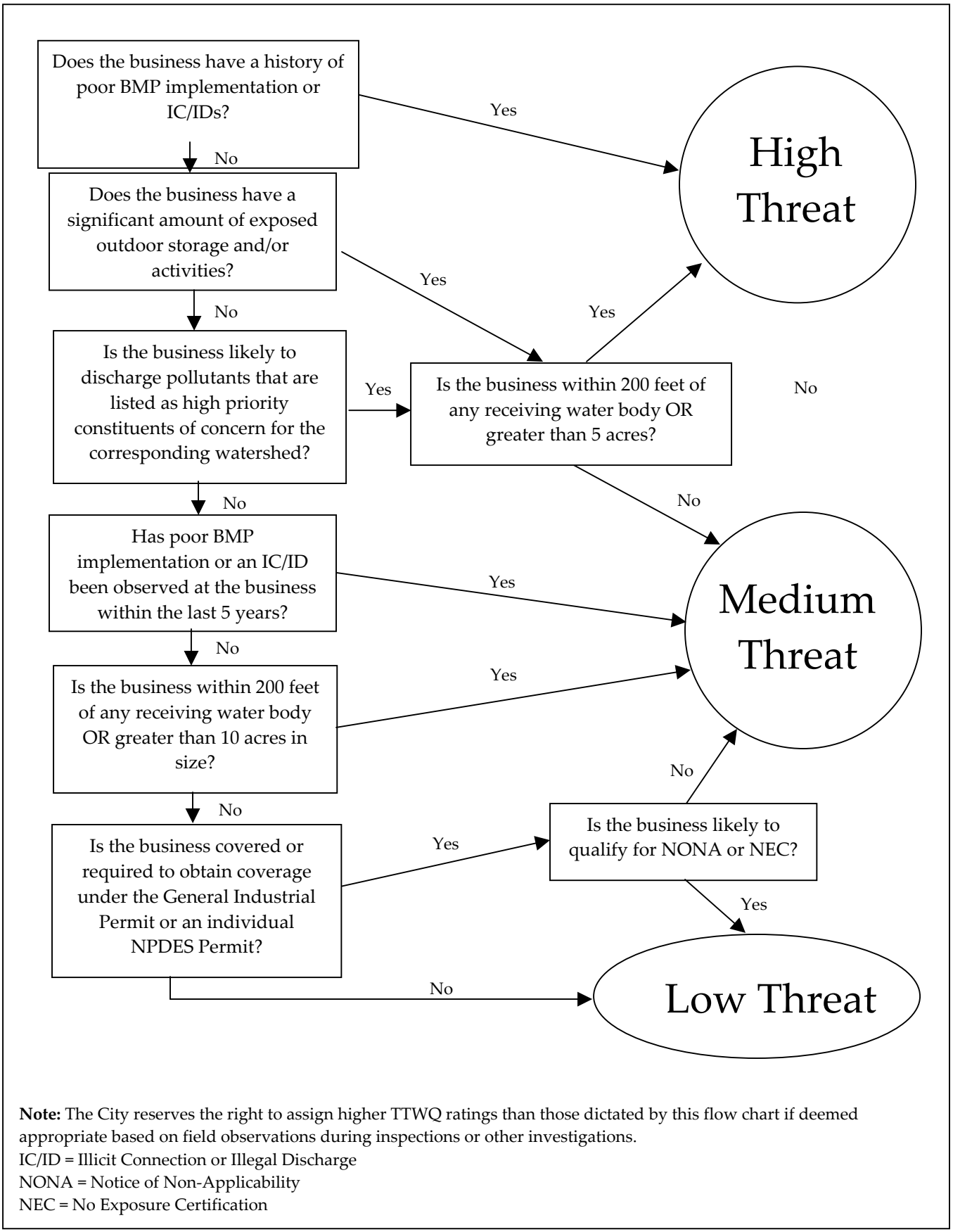
7.4 Industrial and Commercial Component Effectiveness Assessment

The City will assess the effectiveness of its program for industrial and commercial sites, and will document its findings for review by the RWQCB. Details of this assessment are given in Section 13.

7.5 Program Review and Modification

Changes or additions made to the JURMP to meet the requirements of the new Municipal Permit are noted in Section 14 of this document. Any future changes will be noted in JURMP Annual Reports.

FIGURE 7-1
TTWQ PRIORITIZATION FLOW CHART FOR INDUSTRIAL AND COMMERCIAL SOURCES



Note: The City reserves the right to assign higher TTWQ ratings than those dictated by this flow chart if deemed appropriate based on field observations during inspections or other investigations.
IC/ID = Illicit Connection or Illegal Discharge
NONA = Notice of Non-Applicability
NEC = No Exposure Certification

TABLE 7-1
POLLUTANT LOADING POTENTIALS OF INDUSTRIAL AND COMMERCIAL SOURCES

Source Category	Permit Commercial Category*	Heavy Metals**	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding	Bacteria/ Viruses	Trash
Auto Repair	i	L	L	L	PO	UL	UL	PO	UL	PO
Airplane Repair	ii	L	L	L	PO	UL	UL	PO	UL	PO
Boat Repair	iii	L	L	L	PO	UL	UL	PO	UL	PO
Equipment Repair	iv	L	L	L	PO	UL	UL	PO	UL	PO
Pest Control	ix	PO	PO	UL	PO	L	UL	PO	UL	PO
Auto Paint/Body	v	L	L	PO	PO	UL	UL	PO	UL	PO
Vehicle Washing	vi	PO	L	PO	PO	UL	UL	PO	UL	PO
Vehicle Parking/Storage	vii	L	L	L	L	UL	UL	PO	UL	PO
Fueling	viii	L	L	L	PO	UL	UL	PO	UL	PO
Eating/Drinking Establishments	x	UL	UL	L	PO	UL	UL	L	L	L
Carpet/Furniture Cleaning	xi	UL	PO	UL	PO	UL	UL	PO	UL	PO
Cement Mixing/Cutting	xii	UL	UL	PO	L	UL	UL	PO	UL	PO
Masonry	xiii	UL	UL	PO	L	UL	UL	PO	UL	PO
Painting/Coating	xiv	PO	PO	PO	PO	UL	UL	PO	UL	PO
Cemeteries	xix	UL	UL	UL	PO	L	L	PO	PO	PO
Botanical/Zoological Exhibits	xv	UL	PO	UL	PO	L	L	PO	L	PO

TABLE 7-1
POLLUTANT LOADING POTENTIALS OF INDUSTRIAL AND COMMERCIAL SOURCES

Source Category	Permit Commercial Category*	Heavy Metals**	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding	Bacteria/ Viruses	Trash
Landscaping	xvi	UL	PO	UL	PO	L	L	PO	UL	PO
Nurseries/Greenhouses	xvii	UL	PO	UL	L	L	L	PO	PO	PO
Golf courses/Parks	xviii	UL	UL	UL	PO	L	L	PO	PO	PO
Pool/Fountain Cleaning	xx	UL	UL	UL	PO	UL	UL	UL	UL	UL
Marinas	xxi	L	PO	L	PO	UL	UL	PO	PO	PO
Portable Sanitation	xxii	UL	PO	PO	PO	UL	L	PO	L	PO
Building Materials	xxiii	PO	UL	PO	L	PO	PO	PO	UL	L
Animal Facilities	xxiv	UL	UL	UL	PO	UL	L	L	L	PO
Power Washing	xxv	PO	PO	PO	PO	UL	UL	UL	UL	UL
Aggregates		PO	UL	UL	L	UL	UL	PO	UL	UL
Air Transit		PO	PO	PO	PO	UL	UL	UL	UL	UL
Airfields		L	PO	L	PO	UL	UL	PO	UL	PO
Entertainment		UL	UL	UL	UL	UL	UL	PO	PO	L
Ground Transportation		L	PO	L	PO	UL	UL	PO	UL	PO
Landfills		PO	PO	PO	L	PO	PO	L	L	L
Manufacturing, Biotech/Pharmaceutical		UL	PO	UL	PO	UL	UL	PO	UL	PO

TABLE 7-1
POLLUTANT LOADING POTENTIALS OF INDUSTRIAL AND COMMERCIAL SOURCES

Source Category	Permit Commercial Category*	Heavy Metals**	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding	Bacteria/ Viruses	Trash
Manufacturing, Chemicals		UL	PO	PO	PO	PO	UL	PO	UL	PO
Manufacturing, Concrete		PO	UL	PO	L	UL	UL	PO	UL	PO
Manufacturing, Electronics		PO	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Equipment		PO	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Fabric/Clothes		UL	UL	UL	PO	UL	UL	PO	PO	PO
Manufacturing, Fabricated Metal		L	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Food/Drink		UL	UL	PO	PO	UL	UL	PO	L	PO
Manufacturing, Misc.		PO	PO	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Paper		UL	UL	UL	PO	UL	UL	PO	PO	PO
Manufacturing, Plastic/Rubber		UL	PO	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Primary Metal		L	UL	PO	PO	UL	UL	PO	UL	PO
Manufacturing, Stone/Glass		UL	UL	UL	L	UL	UL	PO	UL	PO
Manufacturing, Structural Steel		L	UL	UL	PO	UL	UL	PO	UL	PO
Manufacturing, Wood/Furniture		UL	UL	UL	PO	UL	UL	PO	PO	PO
Other Contractor		PO	PO	PO	PO	UL	UL	PO	UL	PO
Other Recreation		UL	UL	UL	UL	UL	UL	PO	PO	L

TABLE 7-1
POLLUTANT LOADING POTENTIALS OF INDUSTRIAL AND COMMERCIAL SOURCES

Source Category	Permit Commercial Category*	Heavy Metals**	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Oxygen Demanding	Bacteria/ Viruses	Trash
POTWs		PO	UL	UL	PO	UL	PO	L	UL	PO
Power Generation		PO	PO	PO	L	UL	UL	UL	UL	UL
Printing		PO	PO	UL	PO	UL	UL	PO	PO	PO
Recycling		L	PO	PO	L	PO	PO	PO	UL	PO
Sewage Sludge		PO	PO	PO	PO	PO	L	L	L	PO
Vehicle/Equipment Rental		L	UL	L	PO	UL	UL	PO	UL	PO
Waste Management		PO	PO	PO	L	UL	PO	L	L	L
Water Transit		PO	L	PO	PO	UL	PO	PO	PO	PO
Wholesale Food		UL	UL	PO	PO	UL	UL	L	PO	PO
Wholesale/Storage/Warehousing		UL	UL	PO	PO	UL	UL	PO	PO	PO

Notes

L = Likely, PO = Possible, UL= Unlikely

* The Municipal Permit lists a number of specific commercial categories. Other categories on this list were mainly created for industrial facilities, which the Municipal Permit mainly defines via a broad reference to the Code of Federal Regulations rather than listing specific categories. Some commercial categories not specifically listed in the Municipal Permit are also included.

** Heavy metals are a possible pollutant for any facility that has a parking lot.

This table is based on the field experience of D-MAX Engineering and on tables in the Copermittees' Baseline LTEA. D-MAX has conducted more than 1,000 industrial and commercial inspections during which it assessed the pollutant discharge potentials of the inspected facilities

8.0 RESIDENTIAL

8.1 INTRODUCTION

A total of 35% percent of the City's 4,016 acres is designated as either multi- or single-family residential. Since residential land use comprises such a large area of the City, residential activities can have a considerable effect on the water quality of receiving waters. The City has developed an extensive program that aims to reduce pollutant runoff from residential areas and activities to the MEP.

8.2 SOURCE CHARACTERIZATION

The City of National City has designated ten high TTWQ residential areas within the City and has also designated a number of high TTWQ residential activities as specified by the Municipal Permit. To reduce pollutant generation from these high TTWQ areas and activities, the City has designated specific BMPs, which are discussed later in this section.

8.2.1 HIGH TTWQ ACTIVITIES

Automobile Repair, Maintenance, Washing, and Parking
Residents sometimes conduct vehicle repair and maintenance outside in areas where possible spills (e.g., used oil, transmission fluid, etc.) have a high potential to be transported to the MS4. Residential car washing can result in the release of detergents and debris washed from the vehicle, including heavy metals from brake systems, to the MS4. Additionally, poorly maintained vehicles parked outside may potentially leak pollutants onto driveways and streets, which may eventually be carried to receiving water bodies in storm water runoff.

Home and Garden Care Activities and Product Use, including Disposal
Home and garden products (e.g., paint, fertilizers, and pesticides) can cause pollution problems if they are not used or stored properly. Excessive irrigation can potentially introduce pollutant runoff into the storm drain system. Green waste from gardening may contain chemicals, and if washed into surface waters it can reduce available oxygen for other organisms.

Disposal of Trash and Pet Waste
Illegal dumping and littering are not only aesthetic concerns, they can also be sources of pollutants to the MS4. HHW disposal (e.g., paints, cleaning products, etc.) is another potential source of pollutants if not disposed of correctly. Improper pet waste disposal in residential and public areas can be a source of bacteria and pathogens. Animal waste left on neighborhood lawns and sidewalks and in other public areas may eventually be washed onto streets and carried to receiving water bodies through the City's MS4.

8.2.2 HIGH THREAT TO WATER QUALITY AREAS

High TTWQ areas were designated by considering the relative prevalence of high TTWQ activities mentioned above, Dry Weather Monitoring Program results, the frequency and location of reported violations, inspections and other investigations, and the following criteria as defined in the Municipal Permit:

- Any residential area tributary to a CWA section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired
- Any residential area within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an ESA

The City of National City contains the following ESAs, which are shown in Map 2 of this document. All residential areas directly discharging to or within 200 feet of the ESAs listed above were considered high TTWQ.

- La Paleta Creek (7th Street Channel)
- 24th Street Marine Terminal
- Paradise Creek
- Paradise Marsh
- Sweetwater Marsh National Wildlife Refuge (NWR)

The City has designated the following residential areas as high TTWQ:

Division Avenue Area
The residential area located near Division Street, east of Highland Avenue, discharges to La Paleta Creek. Potential sources of pollutants may include residences located on East 2nd Street, Melrose Street, Eta Street, Fig Court, Scott Drive, 43rd Street, and Nordica Avenue. Past dry weather monitoring programs have detected elevated levels of bacteria, ammonia, and detergents.

West 18th Street Area
Runoff from residential areas in the vicinity of West 18th Street eventually discharge to Paradise Creek. Potential sources of pollutants include residences along Hoover Avenue and Roosevelt Avenue. Past dry weather monitoring programs have detected elevated levels of ammonia and detergents just downstream of these residential areas.

Paradise Creek Area, between F and L Avenues
The residential area that runs along the Southern side of Paradise Creek between F and L Avenues, which is adjacent to Paradise Creek, has been identified as being a potential source of pollutants. Residences in this area are located along East 12th Street, East 13th Street, and East 14th Street, and are upstream of dry weather site number 46. Past dry weather monitoring programs have detected elevated bacteria, ammonia, and oil and grease levels.

East 8th Street Area
The residential area near East 8th Street borders Paradise Creek and is also located upstream of dry weather site number 46, which has been found to have the same

elevated constituents as the areas between F and L Avenues. Potential sources of pollution include residences near East 8th Street and East 9th Street, between L Avenue and N Avenue.

Grove Avenue Area
The residential area surrounding Grove Avenue has been identified during previous dry weather monitoring programs as a source of trash, ammonia, and detergents. This area includes residences along East 14th Street, Grove Avenue, Stancrest Lane, and Orange Street.

Arcadia Place Area
The residential area surrounding Arcadia Place has been identified during previous dry weather monitoring programs as a source of ammonia and detergents. Potential sources in this area include residences west of Harbison Avenue along East 11th Street, East 10th Street, and East Plaza Boulevard.

Harbison Avenue Area
The residential area along Harbison Avenue, between 20th Street and 24th Street, has been identified as a source of ammonia and excessive amounts of trash during past dry weather monitoring programs.

A Avenue Area
The residential area in the vicinity of the intersection of A Street and 22nd Street has been identified as a potential source of pollutants. Past dry weather monitoring programs have detected elevated levels of ammonia and detergents. Likely sources of pollutants are residential landscaping and washing activities.

B Avenue Area
The residential area in the vicinity of the intersection of 28th Street and B Avenue, near Sweetwater High School, has been identified as a potential source of ammonia during past dry weather monitoring programs.

2nd Avenue Area
The residential area around 2nd Avenue, north of the Interstate 54, has been identified as a potential source of pollutants. Previous dry weather monitoring programs have detected elevated levels of bacteria. This area is adjacent to Sweetwater River. The most likely sources of bacteria appear to from trash decomposition and human inhabitation.

8.3 Best Management Practice Requirements

8.3.1 Updated BMP Requirements

The City of National City continues to encourage the implementation of pollution prevention measures and encourage or require the implementation of BMPs for residential areas and activities, including areas and activities that have been designated high TTWQ and areas and activities that have not been designated high TTWQ. If particular BMPs are not feasible for any specific site or source, the City requires implementation of other equivalent BMPs. Education and outreach aimed at residents

helps facilitate the implementation of BMPs, including pollution prevention methods. A detailed discussion of the City's education program can be found later in this section and in Section 10 of this JURMP document.

Residents are encouraged, and in some cases required, to use BMPs, including pollution prevention techniques when performing the following high TTWQ activities:

- **Automobile Repair and Maintenance**
    - The following BMPs are required
        - Prevent leaks and spills from contacting urban runoff by using the following BMPs or their equivalent:
            - Use drip pans, plastic sheeting, or other materials to contain spills
            - Work indoors or under shelter
            - If working outdoors, do not conduct maintenance during rain events
            - Clean up leaks and spills when they occur
            - Clean tools and parts only in contained areas
        - Properly manage and dispose of automotive wastes and materials by using the following BMPs or their equivalent:
            - Properly and lawfully dispose of all wastes
            - Recycle or properly dispose of oil and antifreeze
            - Store materials and wastes indoors or under cover
            - Use secure and watertight containers when storing materials and wastes outside
    - Residents are encouraged to
        - Use routine preventive maintenance practices to prevent vehicle leaks and spills from entering urban runoff
        - Reduce vehicle use by
            - Changing driving habits
            - Carpooling
            - Increasing use of public transportation
            - Biking or walking for short trips
        - Make timely vehicle inspections and repairs
        - Use commercial repair and maintenance facilities to avoid the potential for pollution in residential areas.
- **Automobile Washing**
    - Residents are encouraged to do all of the following BMPs, except where specifically noted to be "required":
        - Use preventive practices to keep vehicles clean (park in garage, under cover, etc.)
        - Reduce volume of wash water
            - Dry cleaning methods to avoid the generation of wash and rinse water

            - Turn off the water when not in use or to use a controllable spray nozzle
            - Contain, capture, or divert wash water from the conveyance system
            - Wash vehicles over pervious surfaces such as lawns or gravel areas
            - Establish neighborhood wash areas where wash water and contaminants can be properly managed
        - Properly manage materials and wastes
            - Use minimal amounts of soap, detergents, and other cleaners when washing vehicles
            - Residents are required to properly dispose of soapy water or bucket rinse water into the sanitary sewer or soak into the lawn
            - Launder rags and towels or dispose of them in the trash
            - Use dry methods to degrease or clean especially dirty parts prior to wet washing and rinsing. For example, grease or brake dust can be removed using towels.
        - Use commercial wash facilities to avoid the potential for pollution in residential neighborhoods (this may be discussed with residents, for example, during a complaint investigation)
- **Automobile Parking**
    - Residents are encouraged to do all of the following BMPs, except where specifically noted to be "required":
        - Minimize leaks and spills in driveways and parking areas by repairing oil, water, and fuel leaks in vehicles
        - Use routine preventative maintenance practices and to make timely vehicle repairs
        - Proper design and construction of parking areas in residences during major redevelopment is required. Further details are given in the Development Planning Component (Section 4 of this document).
        - Clean parking areas using dry methods, particularly where sediments and/or debris has accumulated
- **Garden Care Activities and Product Use**
    - Residents are encouraged to do all of the following BMPs, except where specifically noted to be "required":
        - Leaks and Spills
            - Clean up spills of gardening chemicals, fertilizers, and soils immediately
            - Return spilled materials to the container for future use or to properly dispose if them
        - Materials and Waste Management

- Use safe substitutes and alternative methods for garden use including
    - Integrated Pest Management (IPM) techniques
    - Use of native plants and drought-tolerant species to reduce water use and the amount of green waste produced
    - Planting techniques to attract beneficial insects
    - Use of biological controls
    - Composting, vermiculture, and yard waste recycling
- Employ practical purchasing for pesticides and fertilizers:
    - Use minimal amounts of pesticides and fertilizers, to help prevent unnecessary pollutant runoff to the MS4
    - Always read label instructions and follow the instructions for garden care products
- Conserve water through the use of xeriscape gardening, drip irrigation, soaker hoses, and micro-spray systems
- Repair or adjust irrigation systems that allow excessive runoff
- Prevent erosion by planting and mulching hillsides and slopes
- Store lawn care products in closed, labeled containers and in covered areas
- Avoid using pesticides, fertilizers, and other materials during windy or rainy days
- Effectively cover stockpiles of soil, compost or fertilizers with plastic tarps or equivalent methods to prevent dispersal by wind or rain
- Use dry sweeping techniques for clean up
- Recycle lawn clippings and greenery waste
- Residents are prohibited from hosing off paved surfaces to the street or gutter as described in the City's ordinance
- Residents are required to properly dispose of HHW. Residents are prohibited from disposing of any hazardous waste into the trash, landfill, or storm drain system

- **Home Care and Maintenance**
    - The following BMPs are required
        - Leaks and Spills
            - Clean up hazardous materials spills immediately
            - Use proper techniques for spill cleanup and waste disposal
        - Discharges and HHW

            - Do not dispose of wash waters (carpet cleaning, mop water, paint wash-up, etc.) to the street, gutter, or storm drain
            - Ensure swimming pool water is clear, de-chlorinated, and free of chemicals, sediments, or other pollutants before discharging to the storm drain
            - Do not wash pool filters where discharges may enter storm drainage systems
            - Properly dispose of unwanted HHW
    - Residents are encouraged to implement the following BMPs:
        - Materials and Waste Management
            - Use practical purchasing for home cleaning and maintenance products to reduce waste. For example, purchase only what is needed for specific projects.
            - Use safe substitutes for home cleaning and maintenance
            - Read and abide by product label instructions
            - Use water based paints
            - Store HHW in closed labeled containers in a covered area
            - Recycle unused, unwanted products
            - Recycle unwanted appliances and household equipment
- **Disposal of Pet Waste**
    - Waste Management/ Disposal
        - Pet owners are required to clean up after their pets. Pet waste bags are supplied at one park in the City to facilitate this activity. There is a container for bags, but the City does not stock them.
        - Residents are required to dispose of pet waste to the toilet, trash, or other acceptable means.
        - Pet owners are prohibited from discharging pet waste to receiving waters.
    - Pet Management
        - Residents are prohibited from allowing their pets to run free in City neighborhoods.
- **Disposal of Trash**
    - The following activities are prohibited:
        - Littering
        - Dumping trash, including large appliances, furniture, hazardous waste, and other unwanted items, into the MS4
    - The following BMPs are encouraged:
        - Dispose of trash in provided trash cans or shared dumpsters and ensure that trash bags are not leaking prior to disposal
        - Recycle waste products where possible
        - Compost food scraps and green waste where possible

- Pick up, sweep up, and mop up trash and spills surrounding the trash can/dumpster, using minimal water and cleaning products, if necessary. No discharge from property to the MS4 is allowable during this process.
- Keep trash can and/or dumpster lids closed

8.3.2 Additional Controls for Residential Areas and Activities Discharging or Tributary to ESAs

The City may use additional measures in certain residential areas where BMP implementation is regarded as especially important. These include residential areas and activities that are known to discharge to an ESA. The City evaluates dry weather monitoring station locations as necessary to ensure they are located in areas that represent specific areas of the City. The City plans to continue to invite residents to workshops that included information on BMPs and watershed concepts. If necessary, the City will require the implementation of additional measures to reduce pollutant discharges from residential areas to the MEP.

8.4 Program Implementation

The residential program has been designed to ensure that adequate City enforcement, complaint investigation, and complaint reporting is conducted, so that pollutants associated with residential activities and areas are minimized to the MEP. The residential program also has an education component, described in the following sections, so that residents are made aware of appropriate BMPs, including pollution prevention methods that should be used during certain activities. The City will continue to use enforcement mechanisms when necessary to address particularly problematic individuals, activities, and areas.

8.4.1 Outreach and Training

The most efficient way to encourage pollution prevention and BMP implementation and to restrict polluting practices is to educate residents on how to carry out their daily activities in ways that have the smallest potentials to discharge pollutants to the MS4.

The City of National City provides the following educational information and outreach events to residents of the City:

- Booths at public events
- Workshops
- Website postings
- Flyers, brochures, and calendars
- Clean up events

Further details can be found in the Education and Public Participation sections (Section 10 and Section 11 of this document).

8.4.2 USED OIL AND WASTE COLLECTION SERVICES

The City will continue to facilitate the proper management and disposal of used oil, toxic materials, and all other HHW. Residents are educated about the disposal of such waste through the City's educational program, which is detailed in Section 10. Residents may take used oil to the following facilities in the City for disposal:

AutoZone #5658
1539 Highland Ave
National City, CA 91950
(619) 474-5196
CIWMB#: 37-C-04840

AutoZone #5659
2500 E Plaza Blvd
National City, CA 91950
(619) 475-9900
CIWMB#: 37-C-04841

Firestone Store #2241
2531 Plaza Blvd
National City, CA 91950
(619) 475-6171
CIWMB#: 37-C-01205

Firestone Store #2245
943 Highland Ave
National City, CA 91950
(619) 477-2109
CIWMB#: 37-C-01208

Frank Hyundai
3150 National City Blvd
National City, CA 91950
(619) 474-5502
CIWMB#: 37-C-01639

Frank Toyota
2400 National City Blvd
National City, CA 91950
(619) 474-5573
CIWMB#: 37-C-01638

Kragen Auto Parts #1722
1202 E Plaza Blvd
National City, CA 91950
(619) 474-3312
CIWMB#: 37-C-02560

Each center accepts up to 5 gallons, per person, per day. Certified centers accept used motor oil at no charge and offer a recycling incentive of 16 cents per gallon.

The City of National City, in conjunction with the cities of Chula Vista, Coronado, and Imperial Beach, has a South Bay Regional Household Hazardous Waste Collection Program. National City residents can dispose of paints, pool chemicals, batteries, pesticides, anti-freeze, adhesives, thinners, photo chemicals, fluorescent bulbs, degreasers, and fertilizers on Saturdays between 9:00 a.m. and 1:00 p.m. at the HHW Collection Facility located at 1800 Maxwell Road in Chula Vista. Residents pay a five dollar co-pay fee to dispose of up to 15 gallons or 125 pounds of waste. A HHW waste door-to-door collection program is also available to residents for a small co-pay.

8.4.3 HOTLINES AND WEBSITES

The City encourages public reporting of illicit discharges and illegal dumping through the City's Storm Water hotline:

(619) 336-4389

Further information can be gained by contacting the City at:

General Information (619) 336-4380

Information can also be accessed via the City's website:

http://www.ci.national-city.ca.us/

Additionally, the storm water hotline is also printed on the educational materials discussed earlier in this section.

8.4.4 METHODS EVALUATION AND ENFORCEMENT

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

- Public reporting hotline
- Analysis of dry weather monitoring results
- Observations from City maintenance personnel

There are two routes of discovering illegal residential activities. One is through complaint/referral process. Complaints may be received through direct contact with City staff, through calls to the City's storm water hotline, or through the City's website (via e-mail). The other route is observations during scheduled City monitoring and routine City activities such as MS4 maintenance. Additional, focused investigations of areas upstream of exceedances detected during the Dry Weather Monitoring Program and complaint response investigations provide further information about potential problem areas. The City believes that the combination of monitoring, public reporting, direct observations by City staff who are routinely in the field, and targeted additional investigations where necessary provide sufficient oversight of residential areas and activities.

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

During investigations of incidents reported to the hotline or discovered during monitoring, the City uses the opportunity to address any other issues of concern, and provides educational materials where appropriate. Voluntary compliance and escalating enforcement mechanisms are implemented to immediately eliminate an IC/ID once the source has been identified. Further details of enforcement mechanisms can be found in Section 9 of this document.

Violations are investigated by City personnel with enforcement authority within a reasonable timeframe. Violations are documented and, depending on the nature and severity of the violation, enforcement may consist of any of the following:

- Verbal warning
- Written warning
- Orders to abate or to correct
- Fines

Details of these procedures are included in Section 2 in this document.

8.4.5 Regional Residential Education Program

The City will collaborate with other Copermittees to develop and implement the Regional Residential Education Program required in Section D.3.c.(5) and Section F.1 of the Municipal Permit. The program will include the following components:

- Pollutant-specific education that focuses educational efforts on bacteria, nutrients, sediment, pesticides, and trash. If a different pollutant is determined to be more critical for the education program, the pollutant can be substituted for one of these pollutants.
- Education efforts focused on the specific residential sources of the pollutants listed in Section F.1.a of the Municipal Permit
- Develop the standardized fiscal analysis method required in Section G of the Municipal Permit
- Facilitate the assessment of the effectiveness of jurisdictional, watershed, and regional programs

8.5 Residential Component Effectiveness Assessment

The effectiveness of the Residential component will be assessed and documented for review by the RWQCB. Details of the assessment procedure can be found in Section 13 of this document.

8.6 Program Review and Modification

The City will use this section as a placeholder for identifying and documenting future modifications to the Residential component. Section 14 will identify the location in the JURMP of any changes made to the JURMP to meet the requirements of the Municipal Permit.

9.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

9.1 INTRODUCTION

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

A list of prohibited discharges, non-storm water discharge exemptions (allowable discharges), and a process for evaluating whether non-storm water discharge exemptions are allowed has been developed by the City, and is described in Section 3 of this document. IC/IDs can be defined as the following:

- An ***illicit connection*** is a connection that conveys an illicit discharge to the MS4 (pipe, drain, channel, catch basin, grated inlet, junction box, etc.).
- An ***illicit discharge*** is the act of disposing of any pollutant that is prohibited by the City (Section 3) either intentionally or unintentionally to the MS4. This does not include non-storm water exemptions and discharges resulting from emergency fire fighting activities.

The main objective of the illicit discharge detection and elimination component of the City's storm water program is to actively seek and eliminate IC/IDs into the MS4. Eliminating IC/IDs helps minimize potentially negative impacts of human activities on receiving water bodies. As mentioned in Section 6, the City of National City owns and maintains approximately 19 miles of catch basins, inlets, pipes of varying materials, natural creeks and streams, natural channels, concrete channels, and culverts.

The City uses its municipal personnel to assist in actively seeking, identifying, and reporting IC/IDs during their daily activities. Detection and prevention of IC/IDs is achieved by

1. Operating a public complaint hotline
2. Inspecting local businesses and municipal facilities
3. Conducting dry weather field screening and analytical monitoring
4. Maintaining municipal MS4 and sewer systems
5. Educating the local community

The City investigates, inspects, and appropriately follows-up on every IC/ID that is reported or detected, to identify the source or sources of the discharge. Voluntary compliance and escalating enforcement mechanisms are implemented to immediately eliminate the IC/ID once the source has been identified. Educational materials are distributed to help prevent future IC/ID occurrences. The City is in the process of

developing MS4 outfall and source identification monitoring programs, which are anticipated to aid in identifying IC/IDs.

9.2 Public Reporting of Illicit Discharges and Connections

To further aid the process of identifying illicit discharges, the City encourages the public and City staff to report IC/IDs. Maintenance and operations personnel are also trained to promptly refer potential storm water violations observed while working in the field to the City's Engineering Department (details of municipal staff training are discussed in detail in Section 10.2 of this document).

A public complaint hotline has been developed and is currently operated by the City's Engineering Department; it is capable of receiving messages in English and Spanish:

(619) 336 4389

Additionally, the County of San Diego Department of Environmental Health (DEH) receives and responds to complaints at (888) 846-0800. The hotline is answered Monday through Friday, 8:00 a.m. – 5:00 p.m. and provides a voice mail message for 24-hour public access in both English and Spanish. Each complaint is dealt with as follows:

Collection of Essential Information
Complainant information, responsible party information, location, and description of the discharge materials and waste involved is collected using a standardized intake form, which is either logged onto hard copy forms or input directly into a database.

Prioritization
Table 9-1 below summarizes the criteria are used to determine what action(s) should be taken in response to complaints.

Table 9-1
Complaint Response Prioritization

Criterion	Action
Is a hazardous or unknown material involved?	The local fire department is dispatched to investigate. Fire departments contact the San Diego Hazardous Incident Response Team (HIRT) if needed.
Is the spill or discharge currently occurring?	An immediate referral is made to the appropriate agency if the spill is still occurring. Discharges that have ended may not need immediate investigation. Investigations follow procedures outlined in Section 9.3 of this document.

Criterion	Action
Is there an immediate threat to health or the environment?	The discharge is eliminated immediately as described in Section 9.3.2 and/or Section 9.5.3.

Routing/Referral

Based on the prioritization, complaints are routed to the appropriate City staff or department or other appropriate agency, and the City confirms receipt. All reported incidents are summarized in each year's JURMP Annual Report. If determined to pose a serious threat to human health or the environment, the complaint is reported to the RWQCB in accordance with Section 5.(e) of Attachment B of the Municipal Permit.

9.3 Spill Reporting, Response, and Prevention

The City implements spill prevention, spill response, and reporting mechanisms to prevent, respond to, contain, and clean up all sewage and other spills that discharge to its MS4 from any source.

9.3.1 Sewage Spill Prevention

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

Preventive Maintenance Activities

Many spills can be avoided by putting effective preventative measures in place. There are approximately 19 miles of storm drain pipes, open channel, and creeks and rivers. There are approximately 110 miles of streets within the City. The City actively maintains its approximately 99.8 miles of sewer collection system and MS4 as described in Section 6 of this document and implements the following measures:

- Sanitary sewer surveys
- MS4 surveys
- Thorough, routine preventive maintenance of both systems
- Dry weather monitoring
- Public and City staff violations

Sewer System Management Plan (SSMP)

As of November 2, 2006, the transition from RWQCB Order No. 96-04 to SWRCB Order No. 2006-003-DWQ was initiated. The new SWRCB permit describes the applicable set of regulations for sewer system maintenance and reporting with respect to SSOs. These regulations are met mainly through the development and implementation of a Sewer System Management Plan (SSMP). Many of the program requirements of the SSMP are currently being met or exceeded by the City, and the City will ensure that it implements its SSMP by August 1, 2009, as required by SWRCB Order No. 2006-003-DWQ.

The City Public Works Department will continue to have a Sanitary Sewer Overflow Prevention Plan (SSOPP), which will be included as sections within the SSMP. The SSOPP has been designed to prevent or minimize the potential for sanitary sewer overflows. The City has contracted a company to prepare an updated SSMP.

The City is in the process of developing a Fats, Oil, and Grease (FOG) monitoring program. The primary purpose of this program is to reduce the amount of FOG introduced into the sanitary sewer system by consumers and businesses.

The Permit also requires that sewage discharges that are caused by blockages or other problems within a privately owned lateral or failing septic systems are dealt with appropriately. The City will respond, contain, and evaluate each situation accordingly to make the best decision.

The Municipal Permit also requires that sewage discharges that are caused by blockages or other problems within a privately owned lateral or failing septic systems are dealt with appropriately. If a spill from a private sewer lateral is not being contained and no action is being taken by the responsible party to repair the lateral, the City can take necessary action to contain the spill, repair the lateral and bill the responsible party. The City's Code Enforcement handles citations. The County DEH is responsible for sewage spills due to failing septic systems at private residences.

9.3.2 SEWAGE SPILL RESPONSE

Spills from the sanitary sewer entering the MS4 may be discovered during routine maintenance activities or observed and reported to the City by citizens and sewer maintenance workers. The Public Works Department and/or Storm Water inspector is notified when appropriate and determines the best course of action to address the spill, using the procedure in Section 9.3.5.

Depending on the nature of the spill, either the City of National City or the County Department of Environmental Health (DEH) takes action to control, contain, and clean up the discharged materials (Table 9-2). Remedial actions are implemented to the extent that they are applicable to the discharge; the following are common remedial actions:

- Interception and rerouting of sewage flows around the sewage line failure
- Vactor truck recovery of SSO materials and wash down water
- Use of portable aerators where complete recovery of the SSO is not practicable and where severe oxygen depletion in existing surface waters is expected
- Cleanup of debris of sewage origin at the overflow site

Table 9-2
Responsible Agency for Sewage Spills

Source	Responsible Agency
Leaks and spills from publicly owned collection system	City of National City
Private residence (failing septic systems)	County DEH
Any spill reaching MS4	City of National City

9.3.3 OTHER SPILL PREVENTION AND MITIGATION PROCEDURES

The City coordinates spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies so that maximum water quality protection is available at all times.

Spills are prevented and mitigated through the implementation of BMPs, which are described for the Development Planning, Construction, Municipal, Industrial and Commercial, and Residential components in sections 4, 5, 6, 7, and 8, respectively.

9.3.4 HAZARDOUS WASTE DISPOSAL

The City of National City facilitates the proper disposal of used oil, toxic materials, and other HHW through education, providing public information, and providing dedicated collection centers. Further information can be found in Section 8 and Section 10 of this document.

9.3.5 SPILL REPORTING

The City reports all SSOs online using the California Integrated Water Quality Management System (CIWQS) database, as required by SWRCB Order No. 2006-003-DWQ. Initial reports are sent to the CIWQS within three days, and final, certified reports are sent within 15 days. The City reports all SSOs that are at least 1,000 gallons and all SSOs that cause a beach closure (regardless of volume) to the CIWQS within 24 hours. All IC/IDs are reported annually in the City's JURMP Annual Report, which includes specific IC/IDs and their resolution, inspections conducted, and enforcement actions taken. The City follows additional reporting requirements specific to sewage spills, including sewage spills from private laterals and failing septic systems, which are described below:

County of San Diego Department of Environmental Health (DEH)
California Health and Safety Code Section 5411.5 requires sewage spills be reported immediately to the DEH, 24 hours a day. During standard work hours (Monday through Friday, 7:30 a.m. to 4:30 p.m.), reports can be called in to the Proposition 65/Recreational Water Duty Specialist at (619) 338-2386. After hours, reports are directed to the County Communications office at (858) 565-5255, and the Environmental Health Specialist may be contacted.

State Office of Emergency Services (OES)
California Water Code Section 13271 and the California Code of Regulations Section 2250 require that the OES be notified of sewage spills of 1,000 gallons or more by telephone at (800) 825-7550 and by fax at (916) 262-1677 (follow-up only).

Regional Water Quality Control Board (RWQCB)
As required in the Municipal Permit, the City will provide oral notification to the RWQCB of all IC/IDs within its jurisdiction that are determined to pose a threat to human or environmental health within 24 hours of the discovery of non-compliance. Oral notification will be followed up by a written report to the RWQCB within five days of the incidence of non-compliance. Order No. 96-50 requires that dischargers report to the RWQCB all sewage spills of at least 1,000 gallons, or any spills to surface waters, within 24 hours by fax at (858) 571-6972 or telephone at (858) 467-2952. Surface waters include rivers, streams, ephemeral streams, lagoons, the ocean, dry arroyos, and storm drains. In all instances, the discharger must fax an SSO Report Form to the RWQCB within five days of the spill. The completed SSO form must also be faxed to the DEH. A quarterly report of all sewage spills, including those not meeting the criteria stated above must also be submitted electronically to the RWQCB.

The City complies with the sewage spill reporting requirements outlined in Table 9-3 below:

Table 9-3
Summary of Sewage Spill Reporting Requirements

Spill Volume	Criteria	Agency Receiving Report	Reporting Period
Any	Spills to waters of the State	SWRCB online RWQCB DEH	3 days (initial) 24 hours Immediate
Any	Municipal Permit non-compliance threatening human or environmental health	RWQCB SWCRB online	24 hours verbal and 5 days written 3 days (initial)
Any	Mitigated spills (absorbed, cleaned up, or captured)	DEH	24 hours
Any	Unmitigated spills to areas with potential public contact	DEH	Immediate
Any	Unmitigated spills to areas without potential public contact	DEH	24 hours

Spill Volume	Criteria	Agency Receiving Report	Reporting Period
>1000 gallons	Anywhere	OES RWQCB DEH SWCRB online	Immediate 24 hours Immediate 3 days (initial)

9.4 URBAN RUNOFF MONITORING

The Urban Runoff Monitoring Program will incorporate MS4 outfall monitoring, source identification monitoring, and the Dry Weather Monitoring Program.

The Copermittees are in the process of developing regional guidance for the MS4 outfall monitoring and source identification monitoring programs. Once the regional guidance is prepared, the City will work with other jurisdictions in its watersheds to develop tailored programs for its jurisdiction.

9.4.1 MS4 OUTFALL MONITORING

Regional guidance for the MS4 outfall monitoring program is being developed by the Copermittees, which will characterize pollutant discharges from MS4 outfalls in each watershed during wet and dry weather. The program will include the following:

- Rationale and criteria for selection of outfalls
- Type of samples collected, including pollutants causing or contributing to violations of water quality standards within the watershed

The City will commence MS4 outfall monitoring during the 2007-2008 monitoring year, and the program will be fully implemented beginning in 2008-2009.

9.4.2 SOURCE IDENTIFICATION MONITORING

Regional guidance for the source identification monitoring programs is being developed by the Copermittees, which will aim to identify sources of discharges of pollutants causing the priority water quality problems within each watershed. This program will include the following:

- Focused monitoring which moves upstream into each watershed as necessary to identify sources
- Use of source inventories and "Threat to Water Quality" analysis to guide monitoring efforts

Once the source identification monitoring program has been developed, the City will commence monitoring no later than the 2008-2009 monitoring year.

9.4.3 DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING

The Dry Weather Field Screening and Analytical Monitoring Program is a crucial part of the City's Urban Runoff Monitoring Program (Dry Weather Monitoring Program). The City has been conducting dry weather monitoring each year since 1996. The updated requirements of the Dry Weather Monitoring Program component in the Municipal Permit are very similar to those in the previous Municipal Permit (Order 2001-01). New requirements included in the new Municipal Permit include a more detailed trash assessment component and requires follow-up investigations to be conducted within two business days of receiving results.

There are three components to the Dry Weather Monitoring Program:

- Field observations (site description and qualitative observations)
- Field screening monitoring (testing of sample while at site and flow estimation)
- Analytical monitoring (performing further tests of sample later at a laboratory)

The City has previously developed a program to detect and eliminate IC/IDs to the MS4 using frequent, geographically widespread dry weather discharge monitoring and follow-up investigations, which includes the following:

- Selecting monitoring stations
- Obtaining an MS4 map
- Developing Dry Weather Monitoring Program procedures
- Conducting field sampling, testing, and further investigations

The City updated its program to reflect the changes in the Municipal Permit, and these changes are discussed in the following sub-sections. Results of the Dry Weather Monitoring Program are included in the JURMP Annual Reports submitted to the RWQCB.

9.4.3.1 DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING STATIONS

The City of National City has identified 15 primary monitoring stations where data is collected during the Dry Weather Monitoring Program. Additionally, 6 alternate stations have been identified that are monitored if any of the primary stations exhibit no flowing or ponded water. The selected primary and alternate monitoring stations, their locations, land-use, and drainage areas are presented in tables 9-4 and 9-5, respectively, at the end of this section. A map of the MS4 with primary and alternate sampling station locations and drainage basins is included as Map 1.

The City assessed whether any existing sites should be relocated and whether any new sites are necessary. This process relied on review of historical data from past monitoring programs and review of MS4 and land use data. Maps integrating the City's drainage system, watersheds, major water bodies, current dry weather monitoring locations, and

approximate locations of potential sources of pollutants were prepared to assist in this process. The City's storm water consultant made field visits to assess the suitability of potential new sites. This process included locating relevant access points and then making flow estimations, assessing of accessibility, and recording GPS coordinates. As a result of this process, the several changes were made.

It was determined that Site 38 was located on enclosed private property, so it was moved approximately 100 yards downstream.

Sites 11, 20, and 31 were removed. It was determined that Site 11 is usually tidally influenced, so results from that site are not entirely representative of urban runoff. Site 20 was removed because it is usually dry. Flow at Site 31 comes mainly from the Sweetwater Authority's demineralization plant, so discharges to that area are not representative of urban runoff from the City. Site 31A was chosen to replace site 31.

Two sites that were previously primary sampling sites, sites 43 and 44, were designated as alternate sites. Site 43 is not easily accessible, and Site 44 is often tidally influenced. New sites upstream of each were chosen to replace them, sites 43A and 44A.

In addition to new sites selected to replace existing sites, 10 new potential site locations were visited. Of those 10, six were dry and thus were not deemed suitable for inclusion. In general, sites on the west side of the City were either consistently dry, with any water observed being due to tidal influence. Of the 4 sites that were not completely dry, two, sites 3 and 4, were added as primary sites. These two sites are located upstream of sites that have had exceedances in the past, and they should help provide more information about potential sources. Two other sites, sites 6 and 10, were added as alternate monitoring stations.

Overall, the selected stations meet the following criteria:

- Downstream of any sources of suspected illicit discharge or illicit activity
- Located at the farthest manhole possible or other accessible location downstream in the system
- Take into account hydrological conditions, total drainage area of the site, traffic density, age of the structures or buildings in the area, history of the area, and land use types

9.4.3.2 MS4 MAP

The City has developed a labeled map of its entire MS4 that includes MS4 facilities, dry weather monitoring stations, and drainage basins. When field staff note inaccuracies in the map during dry weather monitoring, 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.

9.4.3.3 SAMPLING FREQUENCIES

Dry weather monitoring is conducted at least once at each primary station where flowing or ponded water is observed during the dry season (May 1 – September 30). An alternate station is visited instead when no flow is observed at the primary stations. Dry weather monitoring is only conducted when there has been at least 72 hours of dry weather prior to the time of the sampling. Grab samples are collected for laboratory analysis at a minimum of 25 percent of the stations where water is present.

9.4.3.4 SAMPLING PROCEDURES

Field screening and analytical sampling is conducted according to the procedures outlined in Appendix E (Dry Weather Monitoring Sampling Manual). When primary sites are dry and cannot be monitored, alternate sites are substituted to replace them. Additional field reference materials are available at all times including MS4 maps, contact numbers, and field equipment operating manuals and procedures. All field screening and laboratory analytical monitoring results are recorded on a Dry Weather Monitoring Field Datasheet (Appendix E). This datasheet is based on a standard form developed by the Dry Weather Monitoring Workgroup, and it may be modified in the future if directed by the workgroup.

Field screening includes the following major components:

Qualitative Observations
Qualitative observations at the site are recorded on the Dry Weather Monitoring Field Data Sheet.

Trash Assessment
Visual estimates of the amount of trash present at the site are recorded on Trash Assessment Form, which is attached in Appendix E. The form will be completed in accordance with the regional standards for trash assessment submitted to the RWQCB by the regional Monitoring Workgroup in the fall of 2007.

Flow Estimation
At sites where flowing water is observed, an estimate of the flow rate is recorded on the Dry Weather Monitoring Field Data Sheet.

Field water quality analyses
Grab samples are collected if flowing or ponded runoff is observed. The collected water is analyzed in the field for the following constituents:

- Specific conductance (calculate estimated Total Dissolved Solids)
- Turbidity
- pH
- Reactive Phosphorus (Orthophosphate phosphorus)
- Nitrate Nitrogen
- Ammonia Nitrogen
- Surfactants (MBAS)*

- Temperature**

*Surfactant concentration is measured as Methylene Blue Active Substances (MBAS).
**Although the Municipal Permit does not require temperature to be recorded, the City will continue to record this parameter for consistency. Field analytical methods are described in Appendix E.

Analytical Monitoring
At a minimum of 25 percent of the sites where ponded or flowing water is observed, grab samples are collected and submitted to a California Department of Health Services certified laboratory for analysis of the following constituents using the standard methods presented in Appendix E, which are consistent with 40 CFR part 136:

- Total hardness
- Oil and grease
- Diazinon and Chlorpyrifos
- Cadmium (Dissolved)
- Lead (Dissolved)
- Zinc (Dissolved)
- Copper (Dissolved)
- *Enterococcus* bacteria*
- Total Coliform bacteria*
- Fecal Coliform bacteria*

*Colilert and Enterolert may be used as alternative methods, with fecal coliform determined by calculations. A conversion factor of 1.2 can be used to calculate estimates from *E. coli* to fecal coliform.

Beginning May 1, 2008, the City will begin conducting dry weather monitoring in accordance with the procedures outlined above. The City collects data during the period of May 1 – September 30 each year and reports the results of the dry weather monitoring in its JURMP Annual Report.

A follow-up investigation is conducted at sites where dry weather monitoring results indicate elevated pollutant levels and potential IC/IDs upstream. Numeric action levels and best professional judgment (described in Section 9.5) are used to interpret the field screening results.

9.5 FOLLOW-UP AND ENFORCEMENT

All potential IC/IDs are investigated and eliminated in a timely manner after the City is notified of their occurrence. IC/IDs are mainly identified through routine inspections of businesses and municipal facilities (procedures are provided in Section 6 and Section 7.2.8), through public complaints and referrals, and the Dry Weather Monitoring Program. Procedures for follow-up investigations related to inspections and public complaints are discussed earlier in this section. Dry Weather Monitoring Program data

is compared to the regionally developed actions levels, which are summarized below and listed in more detail in Appendix E. The Dry Weather Monitoring Workgroup may update these action levels in the future, and the City will follow the most current standards.

Numeric Action Levels
Numeric action levels are used as the primary approach for interpreting pH, orthophosphate, nitrate, ammonia, surfactants, oil and grease, diazinon, chlorpyrifos, total coliform, fecal coliform, and enterococcus analytical results (Appendix E).

California Toxics Rule
The California Toxics Rule (CTR) Criteria Maximum Concentration (CMC) is used as action level for dissolved trace metals, including cadmium, copper, lead, and zinc. The CTR equations provide benchmarks based on the total hardness of the sampled water, with the action levels increasing as hardness increases.

Best Professional Judgment
Best professional judgment is used as the primary approach for interpreting turbidity, conductivity, and water temperature. Best professional judgment is also the secondary approach for interpreting the results of all other field and laboratory analyses. Best professional judgment may indicate that results which either exceed certain action levels or are statistical outliers that may be the result of natural or background factors.

When action level exceedances are noted, the City will follow up within two business days for further investigation or provide a rationale for why the discharge does not pose a threat to water quality and does not require follow-up. Procedures for follow-up investigations are described below.

9.5.1 FIELD INVESTIGATION PROCEDURES

Field Investigation Preparation
Before leaving for an investigation, staff assemble needed information and equipment. Staff are prepared to conduct field screening analyses, sample for laboratory analysis, and document the discharge for any future enforcement. A list of required equipment is given in Appendix E.

Field Investigation Procedure
An immediate source identification investigation is initiated if visual and/or analytical evidence of gross contamination is present at a site during a routine investigation. Examples of gross contamination include substantial petroleum sheens, constituent concentrations well above action levels, abnormal colors or odors not attributable to natural site conditions, or evidence of a sewage release; such conditions would typically be considered a threat to human health or the environment.

When Dry Weather Monitoring Program results exceed action levels, the City either conducts an investigation to identify the source of the discharge or provides rationale for why the discharge does not pose a threat to water quality and does not need further investigation. When further investigation is needed, the City initially confirms the results by resampling within two business days of being informed of the exceedance. For field screening, this is within two business days of the initial test. The overall time frame for laboratory analytical results depends on the time that results are received from the lab, but investigations will be conducted within two days of receiving the data, where applicable. The results of the follow-up sampling are used to guide further upstream investigations where necessary. Note that sites with exceedances will continue to be screened in subsequent years.

9.5.2 SOURCE INVESTIGATION PROCEDURES

When follow-up sampling confirms continued exceedance of action levels, then the City conducts further investigation to identify the source of the exceedance. Additional investigation is not conducted when exceedances are not noted during the follow-up visit or when the exceedance is known not to be the result of IC/IDs, as without a high constituent level to track upstream the investigation is unlikely to identify any sources. As noted earlier, when gross contamination is observed during a routine visit, an immediate upstream source investigation is initiated. Prior to beginning an upstream source investigation, field staff review previous dry weather monitoring reports and consult MS4 maps to plan the investigation.

Dry weather flows are generally traced from the site in an upstream direction along the conveyance system. Water samples are collected at upstream confluences for analyses of the constituent(s) being tracked. All samples are documented. If the samples are being submitted for laboratory analysis, they are delivered within the appropriate holding time, and all appropriate chain-of-custody procedures are followed. Photos and GPS coordinates are taken to aid in documentation and in potential enforcement procedures.

For dry weather flows that are traced to a specific source, a sample of water from the source is collected at the curb or public right of way and may be submitted for analysis. Investigators take care to ensure the sample includes only water from the specific source and has not commingled with other discharges. If analysis of the sample indicates that an IC/ID may be present, appropriate City personnel will be notified. Where appropriate and feasible, field staff may also contact the party responsible for the discharge directly regarding the IC/IDs and potential BMPs. IC/IDs are required to be eliminated; relevant procedures employed by the City are listed in Section 9.5.3 and Section 9.5.4.

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

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

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 storm drain system.

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

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

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

- Ammonia - Sewage frequently contains ammonia levels of 30 mg/L or greater. This can be measured with an inexpensive field screening kit.
- Bacteria - Sewage generally has high levels of total and fecal coliforms and *Enterococci*. Sewage treatment plants and many laboratories routinely conduct these indicator analyses. Water samples must be collected in sterile containers provided by the laboratory and delivered within the appropriate holding time.

9.5.3 ELIMINATION OF IC/IDS

Action is taken to eliminate all detected IC/IDs and their sources as soon as possible after detection. IC/IDs that pose a serious threat to public health or the environment are

eliminated immediately. IC/IDs that are not deemed to pose serious threats to public health or the environment are eliminated through an escalating series of enforcement actions, which are described in Section 9.5.4.

Remove Illicit Connections

The City ensures that the violator takes appropriate action to disconnect, block, stop, or divert drainage facilities and pipe connections that are determined to discharge pollutants to the MS4. Appropriate actions may include the following:

- Plug sinks and drains that are discharging illicit materials to the storm drain system
- Disconnect all drainage pipes found to discharge illicit pollutants to the storm drain system
- Dispose of illicit materials via the sanitary sewer or other appropriate disposal or storage methods
- Divert illicit discharges to the sanitary sewer or treat on-site

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

Discontinue Illicit Discharges

As applicable to each individual circumstance, the City ensures that responsible parties implement the procedures outlined below to eliminate discharges that transport pollutant materials to the MS4.

- Eliminate the source of the discharge
- Remove pollutant materials from the site
- Prevent pollutant materials from coming in contact with the discharge
- Contain potential illicit discharges on site for treatment or proper disposal

9.5.4 ENFORCEMENT

The City implements and enforces its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4. Many illicit connections and illegal discharges can be eliminated through voluntary compliance. Most people are readily willing to change their behaviors when they learn that their actions are detrimental to the environment. The City will utilize a variety of options under a flexible and graduated system of enforcement actions, emphasizing voluntary return to compliance when possible. Field staff will be trained to evaluate each situation and within certain statutory and departmental guidelines, choose and appropriate enforcement mechanism. Voluntary return to compliance will be used for first-time, minor violations, whereas more serious violations or continued non-compliance may warrant a more aggressive and enforcement oriented approach. Increasingly severe enforcement actions will be taken until compliance is achieved or the illicit connection or illegal discharge is otherwise eliminated.

In cases where further enforcement is needed, the typical progressive enforcement

procedures that the City will implement are outlined as follows:

- Verbal warnings
- Written warnings
- Disciplinary action taken against a City employee
- Enforcement of contracts (Municipal projects)
- Stop work orders (Municipal projects)
- Denial or revocation of permits
- Civil and or Criminal court actions

A detailed discussion of these enforcement mechanisms is provided in Section 2 of this document. The nature of the City's enforcement approach is determined on a case-by-case basis and is based on factors such as the severity of the violation, the threat to human or environmental health, site-specific circumstances, and past compliance history. If the situation is determined to pose an immediate risk to public health or the environment, the City may coordinate with other agencies or teams that are specially trained to assess and mitigate emergency situations (e.g., those involving hazardous wastes/materials, etc.). The discharge is also reported to the RWQCB as required by the Municipal Permit.

Enforcement Documentation

Investigators will carefully document non-compliant activities during every investigation in case information is needed in future court cases. In preparing an appropriate file for referral to a prosecuting agency, the City will include all information from the site investigation, any analytical results, records or previous violations or complaints and overall compliance history, when available. The file should include the following, when available:

- Chronology of events
- Case summary
- Time and expense log
- Inspection reports
- Complaints
- Correspondence
- Maps and diagrams
- Photographs
- Reports from regulatory agencies
- Explanation of the violations
- Emergency incident reports
- Lab results
- Chain-of-custody for samples
- Permit applications
- Sampling plans
- Other supporting documents

9.6 Illicit Discharge Detection and Elimination Component Effectiveness Assessment

Tracking of numbers of public complaints received and analysis of historical Dry Weather Monitoring Program data are among the approaches used to assess the

effectiveness of the Illicit Discharge Detection and Elimination component. Further details can be found in Section 13 of this JURMP document.

9.7 PROGRAM REVIEW AND MODIFICATION

Section 14 identifies the locations of changes made to the JURMP to meet the requirements of the Municipal Permit. Any future modifications to this JURMP component will be described in JURMP Annual Reports.

TABLE 9-4

PRIMARY DRY WEATHER MONITORING STATIONS

Site ID	Location	Conveyance	Primary Land Use	Secondary Land Use	Hydrologic Unit	Latitude	Longitude
1A	Southwest of 43rd Street and Nordica Avenue	Concrete Channel	Residential	Commercial	908	32.68575	-117.10166
3	E. 7th Street and R Avenue	Manhole	Residential	Commercial	908	32.68183	-117.08894
4	E. 1st Street and U Avenue	Manhole	Parks	Residential	908	32.68726	-117.08749
13A	Northeast of 16th Street and National City Boulevard, inside Kimball Park	Outlet	Commercial	Residential	908	32.66942	-117.10326
31A	North of Sweetwater Road, across from 2nd Avenue at the corner of the golf course	Open Channel	Parks	Commercial	909	32.66121	-117.08453
32	East of 2nd Avenue, north of Freeway 54 and the Sweetwater River	Outlet	Commercial	Open	909	32.65887	-117.08274
38	Dirt road, west of Harbison Avenue, between 20th Street and 24th Street, at the end of fence line	Earthen Channel	Residential		909	32.67265	-117.07057
40	Southwest corner of Sweetwater Road and Plaza Bonita/Stockman Street, down in channel	Outlet	Commercial	Residential	909	32.65961	-117.06677
41	Northeast of San Miguel Court and Valley Road, inside Park Bonita Apartment complex	Earthen Channel	Residential		909	32.66588	-117.05083
42	Southwest of Euclid Avenue and 24th Street, south of Southern Community Church	Outlet	Residential	Commercial	909	32.66785	-117.07691
43A	F Avenue between E. 24th and E. 28th, west of Olivewood Elementary	Catch Basin	Residential	Commercial	909	32.66134	-117.09447

TABLE 9-4 (CONTINUED)

PRIMARY DRY WEATHER MONITORING STATIONS

Site ID	Location	Conveyance	Primary Land Use	Secondary Land Use	Hydrologic Unit	Latitude	Longitude
44A	D Avenue, behind Boys Club in Kimball Park	Outlet	Commercial	Residential	908	32.67151	-117.10123
45	In front of 1243-1305 Fig Court, in the middle of street	Manhole	Residential	Parks	908	32.68739	-117.09690
46	South of South Bay Plaza Center, between Fashion Plaza and Fiesta Pet Shop	Manhole	Commercial	Residential	908	32.67584	-117.09539
47	Southeast corner of the Mile of Cars Way and Transportation Avenue	Manhole	Commercial	Residential	908	32.66163	-117.10275

TABLE 9-5

ALTERNATE DRY WEATHER MONITORING STATIONS

Site ID	Location	Conveyance	Primary Land Use	Secondary Land Use	Hydrologic Unit	Latitude	Longitude
6	First outlet west of Sweetwater River	Outlet	Industrial	Commercial	909	32.65668	-117.08844
10	Fifth outlet west of Sweetwater River	Outlet	Industrial	Commercial	909	32.65427	-117.09377
43	Southeast of National City Boulevard and 30th Street, north of South Bay Volkswagen	Manhole	Commercial	Residential	909	32.65620	-117.09911
44	Northeast of 16th Street and National City Boulevard, under the Kimball Park bridge	Concrete Channel	Commercial	Residential	908	32.66982	-117.10247
48	Northwest of E. 14th Street and Grove Street	Catch Basin	Residential		908	32.68333	-117.06940
49	South end of Arcadia Place (through Harbison Avenue and 11th Street)	Concrete Channel	Residential	Commercial	908	32.68102	-117.07751

Note: Some sites have not been visited in the past, so the GPS coordinates have been estimated based off review of aerial photos in GIS.

10.0 EDUCATION

10.1 INTRODUCTION

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

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

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

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

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

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

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

10.2 MUNICIPAL STAFF TRAINING

The City presents general storm water educational content, which is described in Section 10.3, and will continue to provide specific content information to various audiences, including municipal personnel. The City will update its education program to include information regarding plan review practices, current BMP technologies, and SUSMP requirements. The City primarily educates its municipal staff through workshops and training sessions, which occur annually. The City uses a City-developed NPDES Knowledge/Awareness Assessment Test to analyze the effectiveness of the workshops, which may highlight any areas that require further instruction, when appropriate.

10.2.1 MUNICIPAL DEVELOPMENT PLANNING

The City will continue to offer an educational program so that its planning and development review staffs have an understanding of the following, where appropriate:

- Laws, Regulations, Permits, & Requirements
    - Federal, state, and local water quality laws and regulations applicable to Development Projects
    - Regional Board's General NPDES Permit for Ground Water Dewatering
    - Regional Board's 401 Water Quality Certification Program
    - Statewide General NPDES Utility Vault Permit
- General Urban Runoff Concepts
    - Short- and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development)
    - Integration of LID BMP requirements into the local regulatory program(s) and requirements
- Best Management Practices
    - Methods of minimizing impacts to receiving water quality resulting from development, including the following:
        - Storm water management plan development and review
        - Methods to control downstream erosion impacts
        - Identification of pollutants of concern
        - LID BMP techniques
        - Source control BMPs
        - Selection of the most effective treatment control BMPs for the pollutants of concern
- Other Topics
    - Water quality awareness for Emergency/First Responders
    - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
    - Further education shall be provided on additional topics, when necessary

Municipal development and planning staff are educated on LID BMP techniques during ongoing SUSMP or other training sessions.

10.2.2 MUNICIPAL CONSTRUCTION ACTIVITIES

The City will continue to provide an educational program, which includes annual training prior to the rainy season, so that its construction crews, building department, code enforcement, grading review personnel, inspectors, and other responsible construction personnel have an understanding of the following topics, where appropriate:

- Laws, Regulations, Permits, & Requirements
    - Federal, state, and local water quality laws and regulations applicable to construction and grading activities
    - Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
    - Regional Board's General NPDES Permit for Ground Water Dewatering
    - Regional Board's 401 Water Quality Certification Program
    - Statewide General NPDES Utility Vault Permit
- General Urban Runoff Concepts
    - BMP types: facility or activity specific, LID, source control, and treatment control
    - Short- and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development, construction materials, etc.)
- Best Management Practices
    - Methods of minimizing impacts to receiving water quality resulting from construction activities, including the following:
        - Proper implementation of erosion and sediment control
        - Other activity specific BMPs
        - Current advancements in BMP technologies
- Other Topics
    - Water quality awareness for Emergency/First Responders
    - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
    - Inspection, plan review, and enforcement policies and procedures to verify consistent application
    - SUSMP requirements including treatment options, LID BMPs, source control, and applicable tracking mechanisms

10.2.3 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 include the following topics, where appropriate:

- Laws, Regulations, Permits, & Requirements

    - Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction)
- General Urban Runoff Concepts
    - BMP types: facility or activity specific, source control, and treatment control
    - How to conduct storm water inspections
- Best Management Practices
- Other Topics
    - Enforcement procedures
    - BMP implementation
    - Reviewing monitoring data

10.2.4 Other Municipal Activities

Training and educational programs include the following topics where appropriate:

- Laws, Regulations, Permits, & Requirements
- General Urban Runoff Concepts
- Best Management Practices
    - Activity-specific BMPs
- Other Topics

10.3 Educational Outreach

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

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

    - Equipment/vehicle maintenance and repair
    - Spill response, containment, and recovery
    - Recycling
    - BMP maintenance
- Other Topics
    - Public reporting mechanisms
    - Potable water discharges to the MS4
    - Integrated pest management
    - Benefits of native vegetation
    - Water conservation
    - Traffic reduction, alternative fuel use

10.3.1 Construction Site Owners and Developers

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

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

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

Potential impacts of activities:

- Degradation of aquatic and riparian ecosystems
- Pollutant transport
- Alteration of impervious area and natural drainage patterns
- Sedimentation of storm water runoff

The City will continue to educate construction site owners and developers through annual training prior to the rainy season. City personnel will continue to disseminate information to owners and developers during pre-construction project meetings with the City and during storm water inspections of construction sites. The following education topics are covered during training, where appropriate:

- Laws, Regulations, Permits, & Requirements
    - Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
    - Regional Board's General NPDES Permit for Ground Water Dewatering
    - Regional Board's 401 Water Quality Certification Program

    - Statewide General NPDES Utility Vault Permit
- General Urban Runoff Concepts
    - BMP types: facility or activity specific, LID, source control, and treatment control
    - Short- and long-term water quality impacts associated with urbanization (e.g. land-use decisions, development, construction)
- Best Management Practices
    - Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities
    - Current advancements in BMP technologies
    - Methods of minimizing impacts to receiving water quality resulting from development and construction, including:
        - Storm water management plan development and review
        - Methods to control downstream erosion impacts
        - Identification of pollutants of concern
        - LID BMP techniques
        - Source control BMPs
        - Selection of the most effective treatment control BMPs for the pollutants of concern
- Other Topics
    - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
    - Hydrostatic testing

The City will continue to make fact sheets available at the Building and Safety counter and the City's Engineering Department counter. Each fact sheet describes specific BMPs for construction activities, including soil stabilization and erosion prevention, sediment containment, materials and equipment management, non-storm water discharge control, and drainage control. This sheet is distributed with all permits issued, including building permits; implementing the BMPs listed on the sheet is a condition of the permits.

10.3.2 Industrial Owners and Operators

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

The City will continue to provide an educational program for industrial owners and operators through the use of print media, printed materials, and workshops targeted to specific businesses. The City distributes educational brochures to all business license applicants. The brochure informs businesses that they are required to prevent urban

runoff pollution by implementing BMPs. The NPDES Storm Water Compliance Inspector continues to provide copies of this brochure to businesses during industrial inspections and during public-complaint response investigations. The City's educational program includes the following topics, where appropriate:

- Laws, Regulations, Permits, & Requirements
  - Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction)
  - Regional Board's General NPDES Permit for Ground Water Dewatering
- General Urban Runoff Concepts
  - BMP types: facility or activity specific, source control, and treatment control
- Other Topics
  - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
  - Hydrostatic testing

10.3.3 Commercial Owners and Operators

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

The City will continue to provide an educational program for commercial owners and operators through the use of print media, printed materials, and workshops targeted to specific businesses. The City distributes brochures to all business license applicants. The brochure informs businesses that they are required to prevent urban runoff pollution by implementing BMPs. The NPDES Storm Water Compliance Inspector continues to provide copies of this brochure to businesses during commercial inspections and public-complaint response investigations. The City's educational program includes the following topics, where appropriate:

- Laws, Regulations, Permits, & Requirements
- General Urban Runoff Concepts
- Best Management Practices
- Other Topics
  - Illicit Discharge Detection and Elimination observations and follow-up during daily work activities

10.3.4 Residential Community, General Public, and School Children

As previously mentioned, residential areas make up a significant portion of the land use in the City, and therefore even small pollutant discharges can be magnified greatly and have the potential to affect the quality of the receiving waters. Activities such as

residential car washing and over irrigation, although currently allowed, remain harmful to receiving water bodies by contributing pollutants such as heavy metals, detergents, and nutrients. 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.

Community Events and Outreach

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

- Mailers enclosed in residential trash bills
- Booths at public events
- Annual workshops
- Website postings
- 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
- Cleanups

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

- Laws, Regulations, Permits, & Requirements
- General Urban Runoff Concepts
- Best Management Practices
    - Methods to reduce the impact of residential and charity car-washing
    - Methods to reduce over watering of lawns (misdirection of sprinklers onto sidewalks, over use of water)
- Other Topics
    - Dechlorination techniques
    - Community outreach and activities

School Education

Educating the City's youngest residents is important in two ways: hopefully 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 continue to 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

10.3.5 Targeting "Underserved" Communities

The City of National City is a growing community that is diverse in culture. The demographics of the City are unique, and to address various communities' needs, the City takes pride in servicing its residents by presenting some of its brochures in English and Spanish. Additionally, brochures may be found at various locations throughout the City such as the Chamber of Commerce, the public library, public recreational centers, and the storm water display area at the City's Engineering Department.

In addition, the City includes the bilingual educational handout entitled "Everything that flows down into a storm drains goes untreated directly to our creeks, lagoons, and San Diego Bay" in all mail-based correspondence (i.e. NOV, notice of corrective action, etc.) with residents and industrial and commercial businesses in the City.

10.4 Outreach Component Effectiveness Assessment

The City will assess the effectiveness of the Education component in accordance with the Municipal Permit. Details of the assessment of this document as a whole, including the residential component, are described in Section 13 of this document.

10.5 Program Review and Modification

The City will include this section to reserve a location for identifying and documenting future modifications to the Education component of the City's JURMP. Section 14 will also identify the location in the JURMP of any changes made to the JURMP to meet the requirements of the Municipal Permit.

11.0 PUBLIC PARTICIPATION

11.1 INTRODUCTION

Community involvement plays an important role in achieving the goals of the JURMP. 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. Some programs, such as cleanup events, have direct water quality benefits. Collaboration between the City and the community should help foster a sense of shared responsibility in protecting water quality both locally and regionally. The City encourages public participation though the programs discussed in this section.

11.2 PROGRAMS

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 continue to work with the non-profit environmental organization I Love A Clean San Diego (ILACSD) for this program.

Creek and Waterways Cleanups

The public is encouraged to participate in organized creek, marina, waterway, and storm drain cleanups. Typically, such events are designed to remove trash and debris that may otherwise contaminate receiving waters. Projects may be organized by the City or other interested parties such as high schools, volunteer groups, or other outside agencies. Paradise Creek Educational Park, Inc., a non-profit organization located in National City, currently has a cleanup program in place for Paradise Creek, scheduled once a month. The City also collaborates with ILACSD to participate in the Earth Day Creek to Bay Cleanup event.

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 Storm Water inspector aims to attend different neighborhood council meetings throughout the City on a monthly basis.

Public Reporting

The City encourages citizens to report to the City's Storm Water Hotline any illicit connections, illegal discharges, or any other activity that contributes pollutants. Reports can also be filed online on the City's website. The City advertises the City's Storm Water Hotline number on various educational materials targeted at residents, commercial businesses, industrial businesses; the City's website also provides information about how to report storm water related concerns.

Hazardous Waste Collection and Used Oil Recycling

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, as discussed in Section 8.4. Residents may also take advantage of the City's door-to-door HHW collection program. 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.

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 Workshops

The City holds storm water workshops that are open to the public. Workshops may be tailored to the specific needs of a certain group of individuals within the City, such as automotive shop owners/managers/employees, restaurant owners/managers/employees, construction site developers/workers, Architects/Engineers (SUSMP), industrial facility owners/managers, and residents of the City.

Encourage Public Participation in the updating, development, and implementation of the JURMP

A flyer was sent to Neighborhood Councils, which encouraged residents to send comments about the JURMP to the Engineering Department. A meeting to discuss the JURMP update may be set up if there is a sufficient response, and any written comments provided will also be considered.

11.3 Public Participation Component Effectiveness Assessment

In order to monitor the level of public participation within the City, some of the programs listed above may also be assessed for effectiveness. Further details of the assessment are described in Section 13 of this document.

11.4 Program Review and Modification

The City will include this section to reserve a location for identifying and documenting future modifications to the Public Participation component. Section 14 will also identify the location in the JURMP of any changes made to the JURMP to meet the requirements of the Municipal Permit.

12.0 FISCAL ANALYSIS

12.1 INTRODUCTION

As required by Section G of the Municipal Permit, the City will secure the resources necessary to meet the requirements of the Municipal Permit as described below.

12.2 FISCAL ANALYSIS METHODS

The City of National City acquires the funds necessary to implement the City's Storm Water Program through the Sewer Fund. Additional program support comes in the form of street sweeping, litter control, code enforcement and capitol improvement projects (SUSMP implementation). These services are funded by a variety of funds such as Community Development Block Grants (CDBG) funds, gas tax fund, and the General Fund.

The City's storm water budget is used to support the following expenditure categories:

- Staff
- Storm Water Operating Budget
- Drainage CIPs

Personnel from various City divisions/departments are involved in the implementation of the City's storm water program. Refer to Section 2 and the City's legal certification letter in Appendix A of this document for further detail regarding the responsibilities of various departments.

Other program expenditures include watershed and regional storm water activities. The specifics of these programs and expenses vary from year to year and will be discussed in future JURMP Annual Reports submitted to the RWQCB.

The City will present information regarding its storm water related expenditures for the fiscal year as well as a proposed budget for the next fiscal year in its JURMPAnnual Report each year.

12.3 UPDATE TO FISCAL ANALYSIS METHODS

The City is collaboratively working with other Copermittees to develop the *Standardized Method and Format for Annually Conducting and Reporting Fiscal Analyses of Copermittee Urban Runoff Management Programs*, which will be included in Section 5.3 of the RURMP that will be submitted by January 31, 2009 to the RWQCB. Once complete, the City anticipates updating the current analysis and reporting method to meet the standards of the newly developed format. This standardized reporting format will be utilized by the City beginning on January 31, 2010.

13.0 EFFECTIVENESS ASSESSMENT

13.1 ASSESSMENT FRAMEWORK

Implementation of the City's JURMP is intended to reduce discharges of urban runoff related pollution to the MEP. The City regularly evaluates its program to make it as effective as possible. The overall structure of the City's storm water program is composed of three primary components:

- Program Planning
- Program Implementation
- Effectiveness Assessment

The process typically proceeds from planning to implementation to assessment, although in practice all three may be in progress at the same time. The initial step is program planning, which requires identifying potential pollutant sources, establishing BMP requirements, and establishing targeted outcomes and ways to measure those outcomes. Next the program developed during the planning step is implemented. Program implementation is assessed each year using the methods developed in the program planning stage and reported in JURMP annual reports. Results from long-term effectiveness assessments, usually prepared on a regional basis every five years, are also considered. The conclusions from these assessments are used during the next round of program planning to incorporate improvements to the program and refine the assessment technique.

Source inventories, required BMPs, and techniques for education and enforcement are discussed in detail in the preceding sections of this JURMP. The City has identified a variety of metrics to assess progress toward targeted outcomes. At the end of each reporting year, the City uses selected metrics to assess the effectiveness of its program implementation. Typically, items mandated by the Permit, such as conducting the Dry Weather Monitoring Program or investigating storm water complaints, are relatively easy to measure. Conversely, goals such as significant improvements in receiving water quality are more difficult to assess.

The effectiveness assessment approach developed by the Copermittees during the last permit cycle recognizes this distinction by defining six different levels of targeted outcomes. Each successive level represents a step up from more easily measured, activity-based outcomes to more difficult to measure, quality-based outcomes. The levels are listed below.

Level 1: Compliance with Activity-Based Permit Requirements
Level 2: Changes in Knowledge/Awareness
Level 3: Behavioral Change/BMP Implementation
Level 4: Load Reductions

Level 5: Changes in Discharge Quality
Level 6: Changes in Receiving Water Quality

13.2 Assessment Approach

The City has participated in regional efforts to develop a standardized assessment approach and associated metrics since the summer of 2007. The original goal of that group was to produce assessment work products that all Copermittees could use in their JURMPs. Due to a variety of complications on a regional level, that process could not be completed prior to the submittal of the City's JURMP, so the City has prepared its own effectiveness assessment approach and measures. It is still anticipated that at some point in the future a regionally accepted approach will be developed, and the City will most likely adopt that approach once it is finalized.

As required by the Municipal Permit, the City will assess its overall program implementation, the implementation of each component of the JURMP, and the implementation of significant activities within each JURMP component. The various targeted outcome levels listed earlier in this section will be used in each of these assessments where applicable and feasible. Tables 13-1 through 13-9 identify measures that may be used for evaluating each of the significant program component activities for each of the targeted outcome levels. Level 6 targeted outcomes are not included in these tables, as assessments of changes in water quality are best conducted at the watershed or regional levels, since most of the relevant data is collected and analyzed on regional and/or watershed levels. The overall implementation of each program component will be assessed based on the net result of all the significant activity results. Where a monitoring site drains mainly one type of land use, data from that site may be used for a Level 5 assessment on a program component or significant activity level where applicable and feasible. JURMP sections 1 through 3 and 13 through 16 do not have significant ongoing activities and are therefore not included in the tables. However, legal authority and non-storm water discharge prohibitions requirements may need to be revised based on assessment of the implementation of other program components or the JURMP as a whole.

A Level 1 assessment of overall program effectiveness can be completed through checking whether each of the applicable Municipal Permit requirements has been satisfied during a given reporting year. Level 2 and 3 assessments are generally better suited to individual program components or significant activities but will be completed where feasible. Level 4, 5, and 6 assessments are useful in forming an overall picture of the program's effectiveness, but the data to complete these assessments is more difficult to obtain and interpret. Load reductions will be quantified from direct measurements when possible; load reduction estimates may be made based on regional standards for such estimations when finalized and available. Level 5 assessments may be made using data from the Dry Weather Monitoring Program, the new MS4 monitoring program, and other relevant studies when available. As previously mentioned, Level 6 assessments are likely to rely mainly on watershed and regional level assessments.

Table 13-1: Development Planning Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Review and approve project plans	Projects will propose an effective set of post-construction BMPs as required by City regulations	• Description of process through which storm water requirements are applied to projects, including relevant checklists • List of subject projects and review status of submitted documents	Select from following, as applicable. <u>External</u> • Surveys • Pre- and post-test quiz results from training • Description of results from conversations with project proponents <u>Internal</u> • Number of staff attending training • Pre- and post-test quiz results from training • Description of training for applicable staff	• Overall report approval rate • Individual firm report approval rate • Number of reports requiring three or more reviews	N/A. Addressed through other significant activities for this component	N/A. Addressed through other significant activities for this component
Verify proposed BMPs are implemented	Projects will implement an effective set of BMPs	• List of completed projects and BMP implementation check results (OR description of process)	Select from following, as applicable. <u>External</u> N/A. Knowledge is evaluated by appropriate implementation of BMPs as shown in Level 3 <u>Internal</u> • Number of staff attending training • Pre- and post-test quiz results from training • Description of inspector training	• Percent of projects implementing proposed BMPs • List of sites requiring enforcement actions and whether they have been resolved	• Percent of projects proposing BMPs besides filter inserts • Percent of approved projects implementing BMPs with high or medium removal efficiencies for key pollutants of concern	• May be inferred or potentially estimated from number and types of BMPs proposed
Verify BMPs are properly maintained	Implemented BMPs will function properly	• List of sites visited and maintenance statuses (field inspection component) • List of sites submitting verification records and maintenance statuses (annual maintenance certification component)	Select from following, as applicable. <u>External</u> • Surveys • Pre- and post-test quiz results from training • Description of results from conversations with project proponents <u>Internal</u> • Number of staff attending training • Pre- and post-test quiz results from training • Description of inspector training	• Percent of sites properly maintaining BMPs • List of sites requiring enforcement actions and whether they have been resolved • Percent of sites submitting proper verification forms • Percent of sites certifying proper maintenance	• May be inferred or potentially estimated from maintenance rate	• Assessment of monitoring results from sites located downstream of sites with post-construction BMPs, where applicable • May be inferred or potentially estimated from BMP maintenance data
Maintain an accurate inventory	Identify number and location of sources	• List of projects that includes Municipal Permit-required fields	N/A. Data management only	N/A. Data management only	N/A. Data management only	N/A. Data management only

Table 13-2: Construction Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Review proposed plans and BMPs	Projects will propose an effective set of BMPs	• Description of process to require applicable BMPs and verification that BMPs were required	Select from following, as applicable. External • Surveys • Pre- and post-test quiz results from training • Description of results from conversations with project proponents Internal • Number of staff attending training • Pre- and post-test quiz results from training • Description of training for applicable staff	• Discussion of trends in acceptability of proposed BMPs	• Can be qualitatively assessed on a broad level based on the concept that proper site planning should lead to lower pollutant loads	• Can be qualitatively assessed on a broad level based on the concept that proper site planning should lead to lower levels of pollutants in discharges
Verify proposed BMPs are implemented	Projects will implement an effective set of BMPs	• List of projects under construction and inspections	Select from following, as applicable. External • Assessment of contractor/ responsible party knowledge, largely based on inspections Internal • Number of staff attending training • Pre- and post-test quiz results from training • Description of inspector training	• Percent of projects implementing required BMPs • List of sites requiring enforcement actions and whether they have been resolved • Number of dry weather monitoring exceedances traced to construction sources	• Can potentially be estimated or evaluated qualitatively based on BMP implementation results	• Assessment of monitoring results from sites located downstream of construction sites, where applicable • Can potentially be evaluated qualitatively based on BMP implementation results
Maintain an accurate inventory	Identify number and location of sources	• List of projects that includes Municipal Permit-required fields	N/A. Data management only	N/A. Data management only	N/A. Data management only	N/A. Data management only

Table 13-3: Municipal Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Verify proposed BMPs are implemented at facilities	Municipal facilities will implement an effective set of BMPs	• List of facilities and inspections	Select from following, as applicable: • Surveys • Number of staff attending training • Pre- and post-test quiz results from training • Description of results from conversations with staff	• Percent of facilities implementing required BMPs • List of sites requiring corrective actions and whether they have been resolved • Number of dry weather monitoring exceedances traced to municipal sources	• Can potentially be evaluated qualitatively based on BMP implementation results	• Assessment of monitoring results from sites located downstream of municipal facilities, where applicable • Can potentially be evaluated qualitatively based on BMP implementation results
Sweep streets and parking facilities	Municipal streets will be swept at the appropriate rate	• Discussion of whether streets and parking facilities were swept at rates meeting minimum requirements		N/A Streets and parking facilities are swept as often as directed by management. Adequacy of frequency is addressed by the Level 1 metric.	• Amount of sediment and debris removed (weight or volume) • Amount of sediment and debris removed per length of street swept (weight or volume per curb mile)	• Can potentially be evaluated based on amount of material removed
Maintain and clean out MS4	Municipal MS4 structures will be cleaned out at the appropriate rate	• Discussion indicating whether clean out frequencies met minimum requirements		N/A. MS4 structures are maintained as often as directed by management. Adequacy of frequency is addressed by the Level 1 metric.	• Amount of sediment and debris removed (weight or volume)	• Can potentially be evaluated based on amount of material removed
Maintain sanitary sewer system	Municipal sanitary sewer system will be maintained to prevent potential overflows	• Discussion indicating whether maintenance measures met minimum requirements		N/A. The sanitary sewer system is maintained as often as directed by management. Adequacy of frequency is addressed by the Level 1 metric.	• Can be estimated based on number of spills and volume of associated discharge over the years	• Can be estimated based on number of spills and volume of associated discharge over the years
Maintain public treatment control BMPs	Publicly owned BMPs will operate effectively	• Discussion of whether BMPs have received necessary maintenance		N/A. Treatment control BMPs are maintained as often as directed by management. Adequacy of frequency is addressed by the Level 1 metric.	• Amount of sediment and debris removed from BMPs • BMP effectiveness studies	• BMP effectiveness monitoring studies
Maintain an accurate inventory	Identify number and location of sources	• List of sources that includes Municipal Permit-required fields	N/A. Data management only	N/A. Data management only	N/A. Data management only	N/A. Data management only

Table 13-4: Industrial and Commercial Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Require BMP implementation	Businesses will implement an effective set of BMPs	• List of industrial and commercial businesses and inspections • Discussion of process to notify responsible parties of BMP requirements	Select from following, as applicable. External • Records of distribution of educational materials • Knowledge assessment scores • Description of results from conversations with responsible parties, largely based on inspections • Number of business personnel attending trainings • Pre- and post-test quiz results from training Internal • Number of staff attending training • Pre- and post-test quiz results from training • Description of inspector training	• Percent of projects implementing required BMPs • List of sites requiring enforcement actions and whether they have been resolved • BMP assessment scores • Number of dry weather monitoring exceedances traced to industrial or commercial sources	• Can potentially be evaluated qualitatively based on BMP implementation results	• Assessment of monitoring results from sites located downstream of industrial and commercial sites, where applicable • Can potentially be evaluated qualitatively based on BMP implementation results
Maintain an accurate inventory	Identify number and location of sources	• List of businesses that includes Municipal Permit-required fields • List of potential Industrial Permit non-filers provided to RWQCB	N/A. Data management only	N/A. Data management only	N/A. Data management only	N/A. Data management only

Table 13-5: Residential Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Require BMP implementation	Residents will implement BMPs	• Discussion of process to notify residents of BMP requirements • Discussion of oversight methods	Select from following, as applicable. External • Surveys • Number of residents attending training • Pre- and post-test quiz results from training • Description of results from conversations with residents • Records of distribution of BMP educational materials Internal • Description of training for applicable staff, if necessary	• Number of residential incidents reported to storm water hotline • List of incidents requiring enforcement actions and whether they have been resolved • Number of dry weather monitoring exceedances traced to residential sources	• Can potentially be evaluated qualitatively based on numbers of confirmed incidents or violations and their resolutions	• Assessment of monitoring results from sites located downstream of residential areas, where applicable • Can potentially be evaluated qualitatively based on numbers of confirmed incidents or violations and their resolutions
Maintain an accurate inventory	Identify number and location of high threat to water quality areas and activities	• Identification of high threat to water quality areas and activities	N/A. Data management only	N/A. Data management only	N/A. Data management only	N/A. Data management only

Table 13-6: Illicit Discharge Detection and Elimination Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Conduct Dry Weather Monitoring Program	Locate and eliminate IC/IDs based on water quality monitoring and visual observations	• Lists of sites visited, sites screened, and sites where samples were submitted for laboratory analysis • List of sites exceeding action levels • Description of follow-up actions for sites with exceedances	• Discussion of training for personnel conducting monitoring, if necessary	N/A. Personnel conduct monitoring as directed by management. Adequacy of frequency is addressed by the Level 1 metric; behavior changes of responsible parties are addressed in assessments of relevant program components.	• Can be estimated based on recorded pollutant concentrations and flow rates when IC/IDs are eliminated	• Field screening and laboratory analytical results
Respond to incidents reported to storm water hotline	Locate and eliminate IC/IDs reported to the City	• List of reports received and investigated and whether they were resolved	• Discussion of training for personnel responding to reported incidents, if necessary	N/A. Personnel respond to incidents as directed by management. Adequacy of frequency is addressed by the Level 1 metric; behavior changes of responsible parties are addressed in assessments of relevant program components.	• Can potentially be evaluated qualitatively based on numbers of confirmed incidents or violations and their resolutions	• Can potentially be evaluated qualitatively based on numbers of confirmed incidents or violations and their resolutions
Respond to and clean up SSOs	Mitigate potential impact of SSOs	• List of SSOs that includes all information required by the Municipal Permit • Description of how SSOs were responded to and resolved • Discussion of responses to spills from private laterals or leaking septic tanks, if applicable	• Discussion of training for personnel responding to SSOs, if necessary	• Discussion of how maintenance measures have been adjusted to target areas at higher risk for SSOs, if applicable	• Can be estimated based on amount of spill volume recovered before reaching receiving water bodies	• Can potentially be evaluated qualitatively based on recovered spill volume

Table 13-7: Education Component Assessment Measures*

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Provide storm water education to the public	Raise general public awareness of storm water issues	• List of general education projects or programs that apply across multiple program components. Component specific programs are assessed separately as part of each program component's assessment.	Select from following, as applicable. <u>External</u> • Surveys • Records of distribution of general BMP educational materials • Descriptions of educational programs generally applicable across several program components <u>Internal</u> • Description of training for applicable staff, if necessary	• Could potentially be evaluated based on behavior reported via surveys. Additional behavior change assessments are conducted for specific program components.	• Could potentially be evaluated qualitatively based on reported behavior.	• Could potentially be evaluated qualitatively based on reported behavior.

*Assessment measures for component-specific educational programs are provided in the tables for those other program components.

Table 13-8: Public Participation Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Involve the public in activities that relate to storm water protection	Increase sense of ownership and involve the public in improving water quality	• List of public participation opportunities provided	Select from following, as applicable. <u>External</u> • Surveys • Records of distribution of advertisement materials for public participation opportunities • Discussion of results from conversations with residents about awareness of opportunities for public participation <u>Internal</u> • Description of training for applicable staff, if necessary	• Number of people attending events • Number of calls received to the storm water hotline • Number of comments on the storm water program received from the public	• Amount of trash and debris collected at cleanup events, if applicable	• Can potentially be evaluated based on amount of material removed at cleanup events, if applicable

Table 13-9: Fiscal Analysis Component Assessment Measures

Significant Activity	Goal	Level 1	Level 2	Level 3	Level 4	Level 5
Provide necessary funding for the program	Enable continued functioning of the storm water program	• Description of mechanism to fund program and its adequacy	N/A. Fiscal analysis only	N/A. Fiscal analysis only	N/A. Fiscal analysis only	N/A. Fiscal analysis only

14.0 MODIFICATIONS TO THE JURMP

This section identifies the location in the JURMP of any changes made to the JURMP in order to meet the requirements of the Municipal Permit.

14.1 INTRODUCTION

Updated land use information and listings of ESAs based on more recent information have been provided in the introduction. The regulatory background discussion has been updated to provide information about the Municipal Permit.

14.2 ADMINISTRATIVE AND LEGAL PROCEDURES

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
1	2	Moved information on administrative and legal procedures to its own section	Separate section for this information has been included in the County's JURMP format
		Added information about the City's enforcement procedures	Provides information that can be referenced when discussing enforcement in other sections within the JURMP
		Added updated organizational chart	Required by Municipal Permit

14.3 NON-STORM WATER DISCHARGES

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
1.5.1	3.2	Moved prohibited discharges information to new section	Required by Municipal Permit
1.5.2	3.3	Moved allowable discharges information to new section	Required by Municipal Permit
13.1	3.4.1	Moved non-emergency fire fighting BMP information to new section	Required by Municipal Permit

14.4 DEVELOPMENT PLANNING COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
Intro	4.1	Complete rewrite, added new goals of the component	Old intro not applicable to Municipal Permit
6.1	4.2	Added list of current water quality and watershed protection principles in the General Plan	Required by Municipal Permit
		Added additional land use planning implementation information	Required by Municipal Permit
6.2	4.4.3	Updated minimum requirements for all development projects	Required by Municipal Permit
		Added definition of "lawful prior approval"	Provides clarification of what projects are subject to updated requirements
	4.2.4	Updated and moved discussion of the City's SUSMP Ordinance	SUSMP Ordinance has been modified to meet Municipal Permit requirements
	4.4.2	Added Description of the City's SUSMP and general requirements for all SUSMP projects	Required by Municipal Permit
	4.4.3	Added new BMP requirements for Priority Projects, including HMP requirements	Required by Municipal Permit
	4.4.4.4	Added table and description of planned updates for Model and Local SUSMP including HMP	Required by Municipal Permit
6.3	4.3	Updated description of the EIS checklist	Required by Municipal Permit
		Updated description of environmental review process to reflect current City procedure	Required by Municipal Permit
6.4	4.4.4.1	Updated outreach and staff training information	Not specifically required by Municipal Permit but is part of the City's implementation of the Development and Planning Component
-	4.4.4.3	Added criteria for granting of waivers for treatment control BMPs and option to development a mitigation program	Required by Municipal Permit

Old JURMP Section	New JURMP Section	Change	Rationale for Change
-	4.4.4.6	Added description of the new treatment control BMP maintenance tracking database	Required by Municipal Permit
-	4.4.4.6	Added treatment control BMP prioritization criteria	Required by Municipal Permit
-	Appendix B	Added prioritized inventory of development projects with approved treatment control BMPs	Required by Municipal Permit
-	4.4.4.5	Added inspection program for post-construction BMPs for SUSMP projects prior to occupancy of site	Required by Municipal Permit
-	4.4.4.7	Added inspection program for all projects with treatment control BMPs	Required by Municipal Permit
-	4.4.4.8	Added annual verification procedure for treatment control BMPs by responsible maintenance party	Required by Municipal Permit
-	4.4.4.9	Added enforcement measures for development projects	Required by Municipal Permit
-	4.6	Added effectiveness assessment	Required by Municipal Permit
-	4.7	Added program review and modification	Optional section presented in San Diego County's JURMP outline

14.5 CONSTRUCTION COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
Intro	5.1	Removed 10-step process and added a general introduction about the	Outdated; not required by Municipal Permit.
		Added general statement about the goals of the construction component	States goals of section.
7.1	-	Section removed	Section no longer required by Municipal Permit. Concepts included in Section 5.4.1.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
7.2	5.3	Added statement about updating City ordinances to comply with Municipal Permit.	Required by Municipal Permit.
7.3	5.5.2	Added details regarding current review process and City departments involved	Old JURMP was vague, and specificity is required by Municipal Permit.
7.4	Appendix B	Provided an updated site inventory	Required by Municipal Permit.
	5.2	Added requirement to update inventory at least once a month	
7.5	5.2.1.1	Updated TTWQ prioritization criteria	Now corresponds to the new inspection frequency requirements in Municipal Permit.
7.6	5.4.1 and Table 5-1	Updated minimum BMP requirements	Required by Municipal Permit.
		Reformatted listing of BMP requirements to better match Municipal Permit	
	5.4.1	Added pollution prevention concepts (formally section 7.1)	Required by Municipal Permit
	5.4.1.1	Updated seasonal BMP requirements	Allowed by Municipal Permit.
7.6	5.4.2	Added additional controls for construction sites near sensitive waterbodies	Required by Municipal Permit.
	5.4.3	Added maximum disturbed area limitations	Required by Municipal Permit.
	5.4.4	Added advanced treatment requirements	Required by Municipal Permit.
7.7	5.5.4	Updated minimum inspection frequencies	Required by Municipal Permit.
		Added tracking of inspections at each construction site	Required by Municipal Permit.
		Added language about implementing proper follow-up actions based on inspection findings	Required by Municipal Permit.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
		Added description of what actions will be performed by the City during inspections	Required by Municipal Permit.
7.8	5.5.5	Added requirement of inspectors having authority to implement immediate enforcement action	Required by Municipal Permit.
		Added description of escalating enforcement measures	Required by Municipal Permit.
7.9	5.5.8	Added reporting of high level enforcement actions to RWQCB	Required by Municipal Permit.
7.10	5.5.1	Added information regarding education and staff training and reference to education section of the JURMP	Required by Municipal Permit.
7.11	5.6	No major changes	-

14.6 MUNICIPAL COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
2.1	6.1.2	Discussion of pollution prevention measures and BMPs	Required by Municipal Permit
2.3	6.1.1	Updated source characterization, criteria, and prioritization	Required by Municipal Permit
2.2	6.2	Updated/added municipal fixed facilities	Required by Municipal Permit
	6.3	Updated/added description of roads, streets, highways, parking facilities	Required by Municipal Permit
	6.5	Updated/added sanitary sewer system	Required by Municipal Permit
-	6.6	Added mobile municipal activities, including power washing	Required by Municipal Permit
-	6.7	Added special events	Required by Municipal Permit

Old JURMP Section	New JURMP Section	Change	Rationale for Change
-	6.3.4	Added street sweeping prioritization	Required by Municipal Permit
-	6.4.2	Added information about the retrofitting of flood control devices within the City	Required by Municipal Permit
-	6.5.4.1	Added controls and measures to prevent and eliminate seepage from sanitary sewers to MS4s	Required by Municipal Permit
-	6.7	Added controls and measures for special events	Required by Municipal Permit
2.4, Appendix C	6.1.2, Appendix C	Update to Minimum BMP requirements for all municipal areas and activities	Required by Municipal Permit
2.5	6.4	Updated MS4 maintenance and BMPs	Required by Municipal Permit
2.6	6.2.3.1	Updated management strategy for pesticides, herbicides, and fertilizers	Required by Municipal Permit
2.7	6.2.4	Updated inspection procedures and frequencies	Required by Municipal Permit

14.7 INDUSTRIAL AND COMMERCIAL COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
3, 4	7	Combined industrial and commercial sections into one section	Follows organization of the Municipal Permit and of the Copermittees' standard JURMP outline
4.2	7.2.2, 7.3.2	Added building material retailers and storage, animal facilities, food markets, and power washing to the list of inventoried commercial business categories	Requirement of the Municipal Permit

Old JURMP Section	New JURMP Section	Change	Rationale for Change
3.2, 4.2	7.2.2, Appendix B	Created a table for pollutants potentially generated by each category of site/source; added identification of whether the site/source is tributary to a Clean Water Act section 303(d) water body segment and generates pollutants for which the water body segment is impaired to the inventory tables	Requirement of the Municipal Permit
3.3, 4.2	7.2.2	Modified prioritization criteria for industrial and commercial.	Municipal Permit allows for more flexibility; incorporation of knowledge from inspection experience provides more accurate prioritization
3.1, 4.1	7.2.3	Incorporated pollution prevention measures into the BMP section; removed the stand alone pollution prevention section.	Municipal Permit treats pollution prevention measures as a type of BMPs; this organization reduces potential for confusion based on trying to distinguish between what is a pollution prevention measure and what is a BMP
-	7.3	Added more specific description of BMPs to implemented for businesses (a) tributary to 303(d) listed water bodies and generating pollutants for which the water body is impaired and/or (b) within, directly adjacent to, or directly discharging to receiving waters within ESAs	Requirement of the Municipal Permit
3.5	N/A	Removed industrial monitoring component of the JURMP	Not required by the Municipal Permit
-	7.2.4	Added a commitment to notify businesses of updated BMP requirements within the first three years of program implementation	Requirement of the Municipal Permit
-	7.2.4	Added commitment to train City inspectors at least annually	Requirement of the Municipal Permit

Old JURMP Section	New JURMP Section	Change	Rationale for Change
3.6, 4.4	7.2.4	Inspection frequency requirements updated to 20 percent of inventoried sites in the first year first year and 25 percent in subsequent years, and 50 percent of high priority sites in the first year and 100 percent in subsequent years.	Requirement of the Municipal Permit
-	7.2.4	Added commitment to track the number of inspections during each reporting period to ensure the minimum inspection frequencies are achieved	Requirement of the Municipal Permit
3.6, 4.4	7.2.4, 7.3.4	Updated inspection procedure to match current status of program as implemented in the City	Requirement of the Municipal Permit, and City has modified its program based on lessons learned during the previous permit cycle
-	7.2.4, Appendix D	Updated discussion of SWPPP review and monitoring review during inspections	Requirement of the Municipal Permit
-	7.2.4, Appendix B	Identified businesses that the City plans to inspect in 2007-2008	Requirement of the Municipal Permit
-	7.2.4	Added description of procedure to report industrial non-filers in JURMP Annual Reports	Requirement of the Municipal Permit
-	7.3	Added a new program element to regulate mobile businesses, including BMP requirements, education, inspections, and enforcement measures	Requirement of the Municipal Permit
-	7.3.2, Appendix B	Added a column to the inventories to identify which businesses are mobile	Requirement of the Municipal Permit
-	7.3.4	Added a description of potential regional collaboration effort related to mobile business regulation	Encouraged by the Municipal Permit and likely to be developed by Copermittees
-	7.4	Added reference to Effectiveness Assessment Section	Matches Copermittees' standard JURMP outline, clarifies location of effectiveness assessment discussion
-	7.5	Added place holder for future modifications to the JURMP	Matches Copermittees' standard JURMP outline, provides location for future updates to be recorded

14.8 RESIDENTIAL COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
-	8.2.1	Disposal of trash	Required by Municipal Permit
5.2.3	8.2.2	High TTWQ areas updated	Based on experience implementing JURMP
5.1, 5.3	8.3	BMP section merged with Pollution Prevention methods, and updated	Required by Municipal Permit
5.3	8.3	Updated BMPs	Ensure BMPs updated to current standards
-	8.3.1	Added discussion of trash disposal as a BMP	Required by Municipal Permit
-	8.3.2	Discussion of additional controls for tributaries to 303(d) listed impaired water bodies	Required by Municipal Permit
-	8.3.2	Updated list of used oil collection centers	Provide most current information
-	8.4.5	Regional Residential Education Program added	Required by Municipal Permit

14.9 ILLICIT DISCHARGE DETECTION AND ELIMINATION COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
8.6.1	9.3.1	Updated Sewer prevention and response plans to reflect changes in State Order	New State Order
-	9.3	Updated discussion of sewage spill response to include private laterals and failing septic systems	Required by Municipal Permit
8.8	9.3.4	Hazardous waste disposal section moved to sections 8 and 10	Consistency with Municipal Permit requirements
-	9.4.1	Added MS4 Outfall Monitoring section	Required by County standard format
-	9.4.2	Added Source Identification Monitoring	Required by County standard format

Old JURMP Section	New JURMP Section	Change	Rationale for Change
8.1.1	9.4.3	Revised locations for Dry Weather Monitoring Program sites	Based on past experience and to provide data to help address new requirements
8.1	9.4.3	Updated MS4 map	Required by Municipal Permit
-	9.4.3	Updated Dry Weather Monitoring Program procedures to include trash monitoring	Required by Municipal Permit
-	9.5.1	Modified Dry Weather Monitoring follow-up investigation procedures to state that investigation must be initiated within two business days where dry weather results exceed action levels unless a rationale can be provided	Required by Municipal Permit
8.9	6.5.1	Moved discussion of controlling sanitary sewer system related infiltration to Section 6	Consistency with Municipal Permit requirements

14.10 EDUCATION COMPONENT

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
9.3.1	10.2.2	Municipal Construction staff training annually prior to start of rainy season	Required by Municipal Permit
13.2	10.2.4	Education of fire fighting staff	Required by Municipal Permit
9.3.2	10.3.1	Construction staff training annually prior to start of rainy season. Includes watching a video & signing an acknowledgement form	Required by Municipal Permit
-	10.3.5	Educational programs will emphasize underserved target audiences, high-risk behaviors, and allowable behaviors and discharges.	Required by Municipal Permit
-	10.2, 10.3.1	LID BMP requirements	Required by Municipal Permit

14.11 Public Participation Component

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
-	11.2	Added discussion of how public participation is encouraged in development and implementation of the JURMP	Required by Municipal Permit
10.1	11.2	Updated list of programs	Match most recent information

14.12 Fiscal Analysis

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
12.1	-	Estimated implementation cost removed	No longer required by Municipal Permit
12.2	12.2	Updated financing mechanisms	Required by Municipal Permit
-	12.2	Added urban runoff programs	Required by Municipal Permit
-	12.3	Update to fiscal analysis methods	Required by Municipal Permit

14.13 Effectiveness Assessment Component

This table identifies changes that have been made to the JURMP in this section.

Old JURMP Section	New JURMP Section	Change	Rationale for Change
11.1	13.1	Updated content to account for development of regionally accepted framework for effectiveness assessment	Update to most recent approach
-	13.2	Added discussion of assessments for overall program, individual program components, and significant activities for targeted outcome levels 1 through 6	Required by Municipal Permit
-	13.2	Added tables listing assessment metrics for significant activities for levels 1 through 6	Provide method for addressed Municipal Permit requirement

15.0 CONCLUSIONS AND RECOMMENDATIONS

Drawing upon its experience implementing it JURMP over the past permit cycle, the City has updated its JURMP to both improve upon storm water programs in the City and to meet the requirements of the new Municipal Permit. To comply with the new Municipal Permit, the City has implemented a number of new programs. The City anticipates assessing and refining new programs as well as continuing to assess and improve existing ones. Regularly working to improve existing programs and implementing additional programs is expected to be effective in reducing or eliminating discharges of pollutants to the City's MS4. The City will continue to work with the other Copermittees to develop methods to foster and assess long-term success in regional water quality improvement.

16.0 REFERENCES

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

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

California Storm Water Quality Association, 2003. *California Storm Water BMP Handbook – Industrial & Commercial.*

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

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

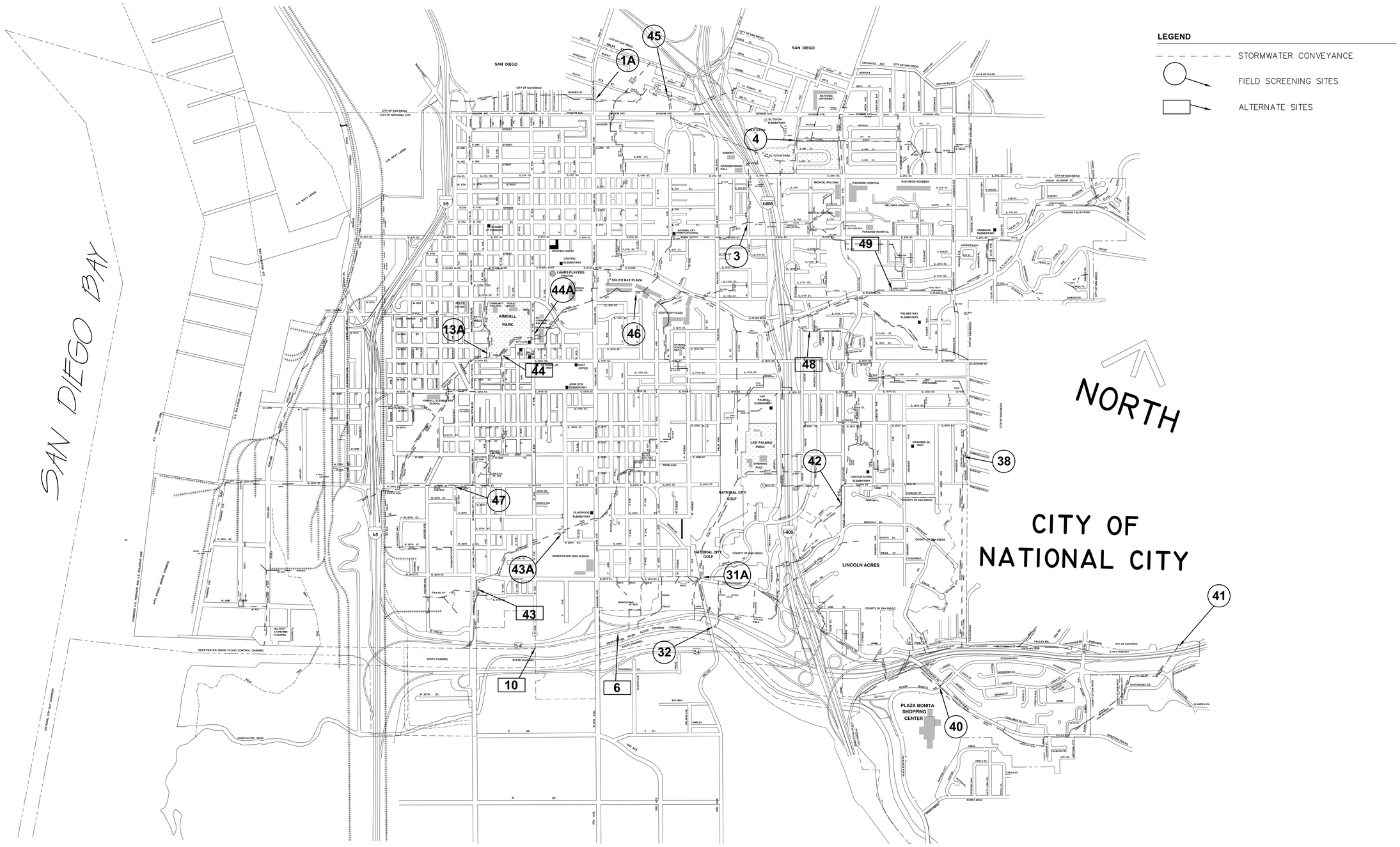
National City General Plan, 1996.

Weston Solutions, Inc., Larry Walker Associates, and Mikhail Ogawa Engineering, 2005. *Baseline Long Term Effectiveness Assessment: San Diego Copermittees Jurisdictional Urban Runoff Management Program*. Prepared for the County of San Diego.

Maps

Map 1 **MS4 and Monitoring Locations**

Map 2 **National City Environmentally Sensitive Areas**



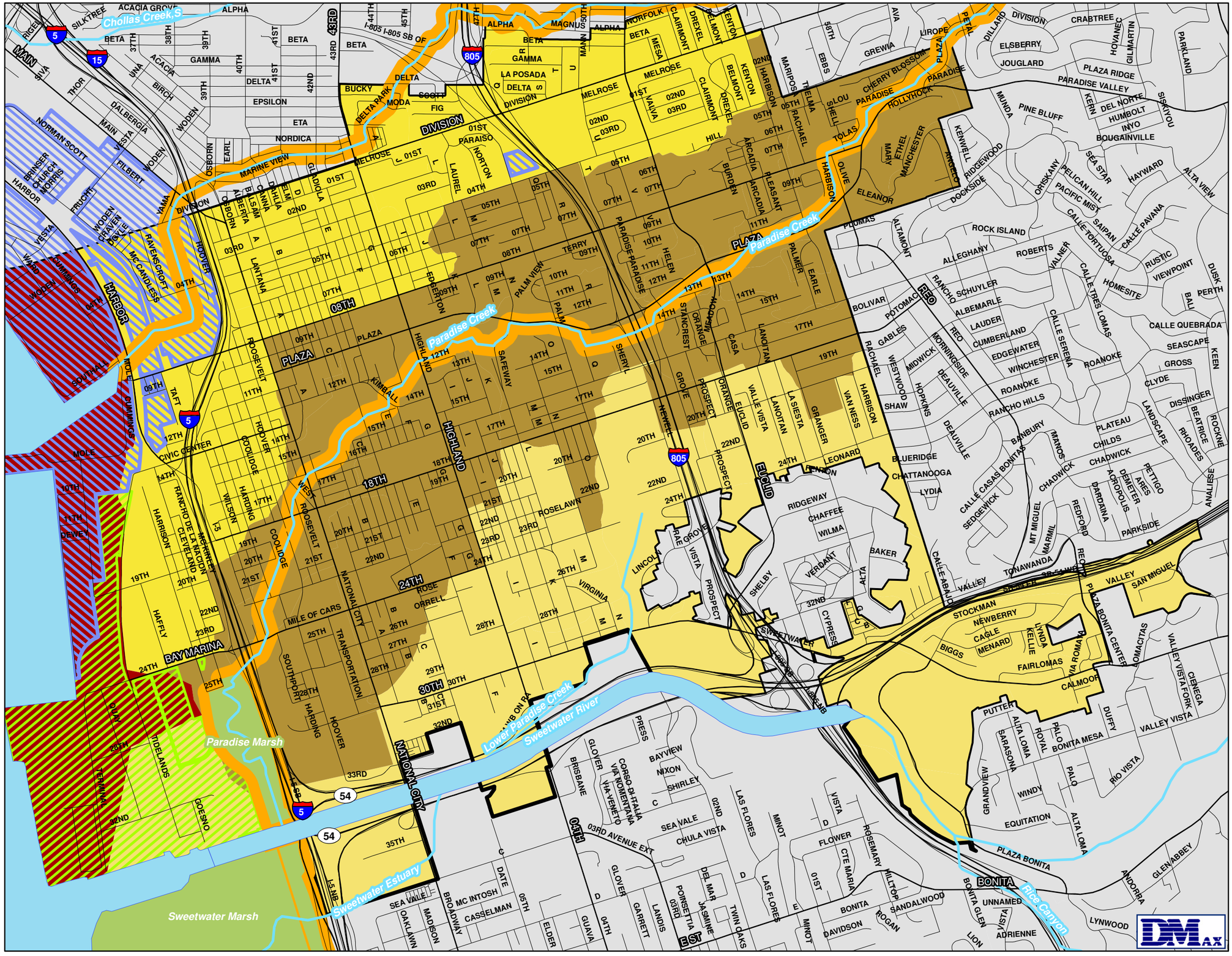
CITY OF NATIONAL CITY

MS4 AND MONITORING LOCATIONS

DRAWN BY: CM	CHECKED BY:	PROJECT NO: 200723W-8	MAP NO: 1
FN:NATIONALCITY-MS4 2008		DATE: 02-22-08	

D-Max Engineering, Inc.

Map 2
National City Environmentally Sensitive Areas



Legend

- Streams
- Lakes/Bays
- Marsh
- Major Roads
- Roads
- ESA Buffer

Municipal

- Other Jurisdiction
- National City
- Military
- Port Jurisdiction

Drainage Basins

- SD Bay
- 7th St Channel
- Paradise
- Sweetwater

N W E S

0 0.4 0.8 Miles

Note: Marsh boundaries based on land use data from SANDAG.

Base Data Sources: City of National City, SANDAG, SanGIS, Port of San Diego

Appendix A

Ordinances

Legal Certification Letter

City of National City Storm Water Management and Discharge Control Ordinance (Ord. 2008-2308, Chapter 14.22)

Grading Ordinance of the City of National City (Ord. 2008-2306, Chapter 15.70)

Standard Urban Stormwater Mitigation Plan (SUSMP) Ordinance of the City of National City (Ord. 2008-2307)

City of National City
Office of the City Attorney

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March 19, 2008

John Minan, Chair
California Regional Water Quality Control Board
San Diego Region
9771 Clairmont Mesa Boulevard
San Diego, CA 92124-1324

Re: City of National City Certification of Adequate Legal Authority to Implement and Enforce the Requirements of 40 CFR 122.26(d)(I)(A-F and RWQCB Order R9-2007-0001

Dear Mr. Minan:

In compliance with Section D2 of the National Pollutants Discharge Elimination System (NPDES) permit No. CAS0108758, the City of National City submits this certification in its capacity as a copermittee under RWQCB Order R9-2007-0001.

Certification

The undersigned chief legal counsel of the City of National City does hereby certify that the City has adequate legal authority to implement and enforce the requirements contained in 40 CFR 122.26(d)(i)(A-F) and RWQCB Order R9-2007-01. The City of National City has adopted provisions in the National City Municipal Code, to wit, Chapters 1.12, 1.36, 1.44, 1.48, 4.16, 7.10, 7.14, 7.18, 7.20, 9.24, 9.28, 14.22, 15.50, 15.70, 17.07, 18.10, and 18.48, that are in consonance with the necessary language to implement its stormwater management and discharge control program in accordance with the Order R9-2007-01.

City Department Program Activities [Section C.2.a]

The following City Departments conduct urban runoff related activities and have the following roles and responsibilities under Order R9-2007-001.

1. ENGINEERING
   a. Administers and enforces the City Grading Ordinance (Chapter 15.70).
   b. Administers and enforces the City Stormwater Management and Discharge Control Ordinance (Chapter 14.22).
   c. Participates in administration of the City's land development plans based on the Ordinances.

d. Issues grading and construction permits for development/redevelopment projects and imposes conditions on such permits including Pre and Post construction Best Management Practices (BMPs).

e. Participates in evaluation of the potential environmental impacts of the proposed projects, for CEQA and other purposes, and provides recommendations to lead agencies concerning potential project impacts and means to mitigate those impacts.

f. Conducts inspection of City projects and private projects and activities pursuant to the City's Engineering Administration Program.

g. Provides training and guidance literature to private developers and City employees regarding Post-Construction BMPs and proper Documentation of Water Quality Technical Reports.

h. Designs and administers the construction of the Capital Improvement Projects.

i. Reviews proposed designs for various private projects for compliance with the City's SUSMP ordinance.

j. Coordinates with other City departments to develop and implement aspects of the City's Storm Water Program.

k. Imposes Standard Urban Storm Water Mitigation Plan (SUSMP) conditions on the subdivision maps.

l. Administers traffic engineering services.

2. PUBLIC WORKS

Street Division

a. Street Sweeping: Scheduled to sweep Highland Ave, National City Blvd, 8th Street from Highland to National City Boulevard daily. All residential streets are scheduled for weekly sweeping.

b. Maintain and clean the City's MS4's: Perform monthly inspections of open channels at 30 locations with removal of trash & debris as necessary.

c. Use of proper BMP's during maintenance activities: BMP's such as gravel bags, fiber rolls, street sweeping are used as needed while maintenance activities are being performed.

d. Coordinate with other City departments as needed.

Wastewater Division

a. Sanitary Sewer System Maintenance: 44 segments are scheduled to be flushed/cleaned monthly. All other segments are scheduled by zones and are flushed/ cleaned as time permits.

b. Sewage Flow Meters: City of San Diego has 15 meters in the City to monitor sewage flow. If there is a spike/ increase or decreased of flow the City is notified and the lines are inspected for possible blockages or breaks and maintain as necessary.

c. Maintain MS4's: Storm drain boxes are scheduled to be clean yearly. Large storm drain tubes are scheduled for monthly inspections with other maintenance performed as needed.

d. Coordinate with other City departments as needed

Equipment Maintenance

a. Maintenance of City Fleet: Schedule the City's fleet for periodic maintenance. Use drip pans and/or other BMP's as necessary to ensure fluids and other substances do not reach the MS4s. Fluid drainage and replacement functions are performed indoors.

b. Storage of Hazardous materials: Store items such as drums containing hazardous or other substances using proper BMPs.

c. Coordinate with other City departments as needed.

Park Division

a. Watering of Parks: Parks are watered for shorter periods of time to lessen run-off.

b. Fertilizer and Herbicide use in Parks: Fertilizer are put down per manufacturers recommendation, with sidewalks being cleaned after the fertilizer is spread. Herbicides are used by state licensed personnel and per manufacturer recommendations with proper reporting to the state.

c. Use of BMP's in the Parks: Tasks are accomplished with BMPs used as necessary.

d. Coordinate with other City departments as needed.

Facility Division

a. City trash/ recycling dumpsters: City employees will close dumpsters after use and when found in the open position. The City requests additional pick-ups when dumpsters are full prior to scheduled service.

b. Maintenance of City Buildings: While performing maintenance on City buildings or structures, utilize proper BMPs.

c. Coordinate with other City departments as needed.

3. PLANNING DEPARTMENT

   a. Reviews plans for compliance with the City's Storm Water Ordinances.

   b. Administers other City land development/redevelopment projects.

   c. Imposes conditions on the subdivision maps.

   d. Develops City procedures to implement CEQA.

   e. Evaluates the potential environmental impacts of the proposed projects, for CEQA and other purposes, and provides recommendations to lead agencies, to the Planning Commission, and to the City Council concerning potential project impacts and means to mitigate those impacts.

   f. Reviews proposed Capital Improvement project designs.

4. DEPARTMENT OF BUILDING AND SAFETY

   a. Participates in administration and enforces the City Ordinances that pertain to litter, trash, debris and grey water that could have an effect on water quality.

   b. Provides basic information and guidance materials to developers, contractors and City employees regarding BMPs.

   c. Conducts plan checks for SUSMP BMPs on proposed Capital Improvement project designs.

5. POLICE DEPARTMENT

   a. Administers and enforces City Ordinances.

   b. Provides training and guidance materials to the City employees regarding the City's Storm Water Program.

   c. Notifies the City's Storm Water Compliance Inspector when there is a reported threat to water quality.

6. FIRE DEPARTMENT

   a. Participates in administration and enforcement of City Ordinances: Informs contractors/developers of potential violations. Provide recommendations and guidance on approved procedures and enforcement of National City Municipal Code. Inform contractors/developers, business operators of potential violations. Make recommendations on operation within approved means. Provide direction in the use of Best Management Practices during fire inspections.

   b. Participates in administration of other City land development/redevelopment projects by conducting plan reviews.

c. Provides training and guidance materials to private developers, City employees and managers. Directs developers to City Storm Water Compliance Inspector for guidance and direction on obtaining appropriate training. Provides materials to developers as provided by City Stormwater Compliance Inspector. Makes City employees and Managers available for employee training provided by the City's Stormwater Compliance Inspector.

d. Reviews certain proposed designs for City projects. Directs developers/ designers/architects to provide for the protection of the waterway(s). Gives guidance and direction for the use of Best Management Practices (BMPs).

e. Coordinates with other City Departments to implement City Storm Water Quality Control Program.

The responsibilities of each City Department in conjunction with the City Stormwater Quality Control Program will be in accordance with the new permit requirements.

Attached are the City's organization charts for the entire City and for the Engineering Department.

Municipal Code Sections and Enforceability [Sections C.2.b]

The following chapters of the Municipal Code may be utilized to enforce the City's stormwater management and discharge control program:

Chapter 1.12	Right of Entry for Inspection or Service of Notices, and Stop Orders
Chapter 1.36	Abatement of Public Nuisances
Chapter 1.44	Administrative Citations
Chapter 1.48	Administrative Remedies
Chapter 4.16	Harbor Improvement Fund
Chapter 7.10	Garbage and Refuse Collection
Chapter 7.14	Litter, Debris and Rubbish
Chapter 7.18	On-street Activities
Chapter 7.20	Outdoor Activities
Chapter 9.24	Harbor Regulations
Chapter 9.28	Trailer Parks
Chapter 14.22	Stormwater Management and Discharge Control
Chapter 15.50	Nuisance Abatement
Chapter 15.70	Grading
Chapter 17.07	Subdivisions; Dedications and Improvements
Chapter 18.10	Zones and Zoning Map
Chapter 18.48	Drainage

Reasons these Ordinances are Enforceable

These enacted Ordinances are enforceable pursuant to the City's authority under the California Constitution and statutes of the State of California to enact and enforce such ordinances. These ordinances contain specific enforcement provisions or are enforceable under the City's general enforcement provisions. We are authorized to enforce the City's Stormwater Ordinance.

How Ordinances are Implemented and Appealed [C.2.d.]

Some of these ordinances are implemented through permit programs and some are implemented as regulatory programs. Under each Ordinance, one or more City departments or department directors are authorized and directed in each Ordinance to take the actions contemplated by the Ordinance, e.g., consider whether to issue or deny ministerial permits, to recommend imposition of certain conditions on discretionary projects, to inspect, to take enforcement action, etc.

The City Stormwater Ordinance, Chapter 14.22 of the National City Municipal Code, is the principal City Ordinance addressing urban runoff. This Ordinance is regulatory, and applies to all development projects and to all new and existing facilities in the City, whether or not a City permits or approval is required. The Stormwater Ordinance contains discharge prohibitions and BMP requirements. This Ordinance also authorizes the City to require the submission of stormwater pollution prevention plans.

The City Grading Ordinance, Chapter 15.70 of the National City Municipal Code, requires compliance with the Stormwater Ordinance as a condition for issuance of a City permit. These departments may also impose specific conditions of approval consistent with the Stormwater Ordinance.

All City environmental ordinances are implemented in part through the application of the CEQA process to proposed projects.

The requirement in Order R9-2007-0001 for a statement as to "how these Ordinances are...appealed" may be described as follows:

Proposed City Ordinances are subject to a public meeting and comment process prior to enactment. Enacted City ordinances can be challenged by timely filing suits seeking injunctive and declaratory relief, and other equitable remedies, in Superior Court. The referendum process can also be used to challenge enacted Ordinances. The imposition of administrative penalties under these Ordinances (where applicable) can be appealed to the courts. Trial court decisions to impose civil penalties or to grant injunctive or other relief can also be appealed.

Administrative and Legal Procedures [Section D.2.c. and D.2.e.]

The City has the legal and administrative procedures listed below in place to mandate compliance with urban runoff related Ordinances. As a result of recent revisions to the Municipal Code, these procedures are applicable to all programs and ordinances discussed above, except as noted.

Notice to Comply/Notice of Violation
Administrative Orders
Stop work orders (for work requiring a City permit)
Administrative penalties
Infraction citations and prosecution
Misdemeanor citations and prosecution (explicitly authorized for grading violations and stormwater violations)
Permit revocation or withdrawal
Nuisance abatement procedures (civil and administrative)
- Abatement cost recovery

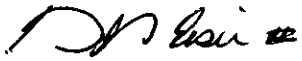
Civil penalties
Injunctions

The City can issue administrative orders without going through the Court system. The City cannot issue injunctions, but can seek injunctions through judicial actions.

Closing

The City of National City looks forward to working with you and your Board on urban runoff related matters.

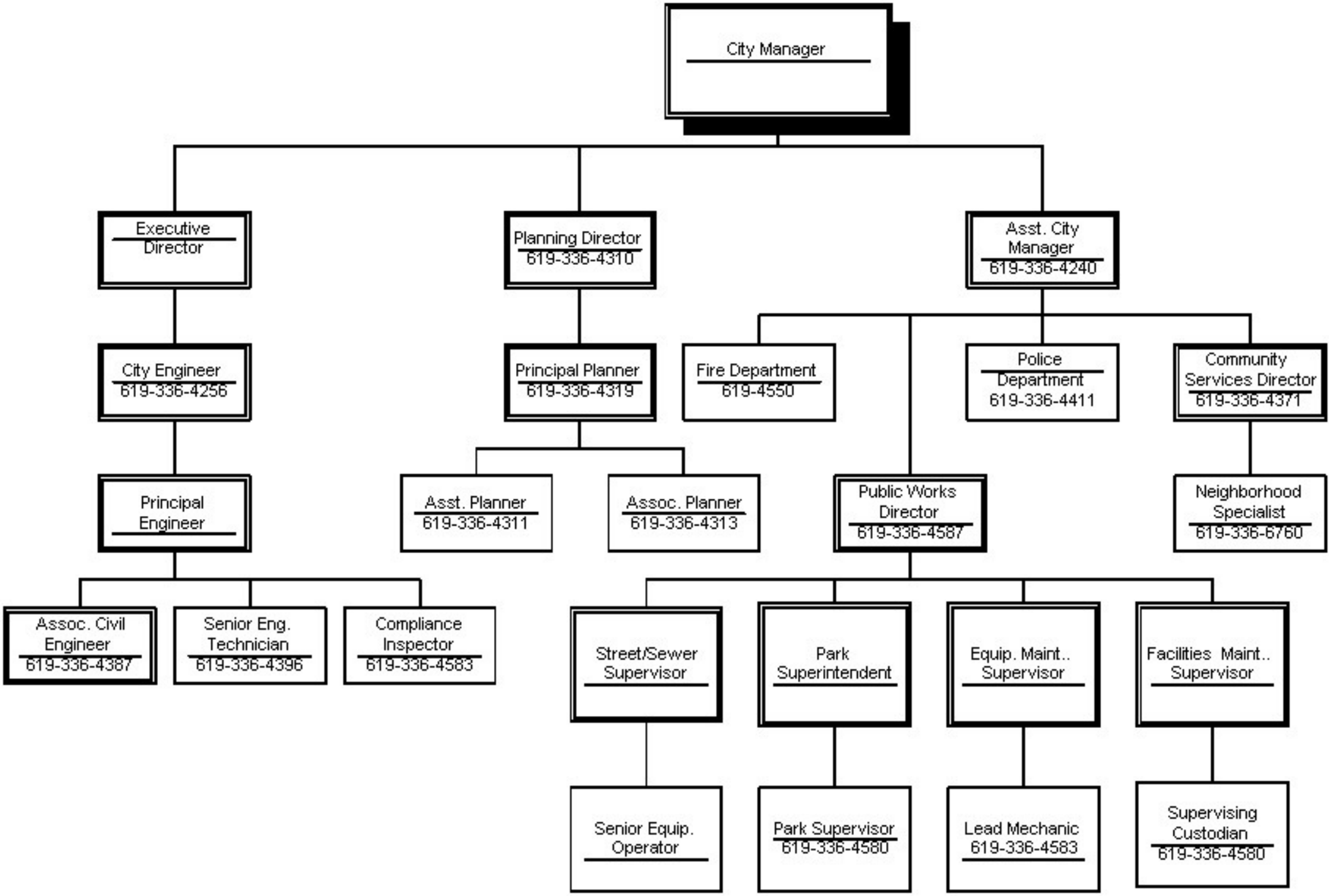
Very Truly Yours,



GEORGE H. EISER, III
City Attorney

cc: City Engineer
Community Development Commission Director
Planning Director
Building and Safety Director
Public Works Director
Fire Chief
Police Chief

NPDES Organization Chart



ORDINANCE NO. 2008 – 2308

AN ORDINANCE OF THE CITY COUNCIL
OF THE CITY OF NATIONAL CITY
AMENDING TITLE 14, CHAPTER 14.22
OF THE NATIONAL CITY MUNICIPAL CODE,
PERTAINING TO STORM WATER
MANAGEMENT AND DISCHARGE CONTROL

Be it ordained that the City Council hereby amends Title 14, Chapter 14.22 of the National City Municipal Code, to read as follows:

Chapter 14.22

STORM WATER MANAGEMENT AND DISCHARGE CONTROL

Sections:

14.22.010	Title.
14.22.020	Purpose and intent.
14.22.030	Definitions.
14.22.040	General provisions.
14.22.050	Reduction of pollutants in storm water – Minimum requirements
14.22.060	Watercourse protection.
14.22.070	Illicit connection and illegal discharge of pollutants - Prohibited
14.22.080	Exceptions to discharge prohibition.
14.22.090	Best management practice requirements and general requirements applicable to all discharges.
14.22.100	Additional minimum best management practice requirements for residential activities and facilities.
14.22.110	Additional minimum best management practice requirements for commercial activities and facilities.
14.22.120	Additional minimum best management practice requirements for industrial activities and facilities.
14.22.130	Additional minimum best management practice requirements for municipal activities and facilities.
14.22.140	City best management practices manual.
14.22.150	Additional requirements for land disturbance activity.
14.22.160	Additional planning, design, and post construction requirements for all land development and redevelopment projects.
14.22.170	Maintenance of BMP”s
14.22.180	Inspection and sampling.
14.22.190	Enforcement.
14.22.200	Enforcement authority.
14.22.210	Other acts and omissions that are violations.
14.22.220	Penalties.
14.22.230	Restrictions and conditions on issuance of ministerial and discretionary development permits.

14.22.010 Title. This chapter shall be known as the “National City Storm Water Management and Discharge Control Ordinance”, and shall be so cited.

14.22.020 Purpose and intent.

A. The purpose of this chapter is to ensure the future health, safety and general welfare of the citizens; to protect water resources and to improve water quality; to cause the use of management practices by the city and its citizens that will reduce the adverse effects of polluted runoff discharges on waters of the state; to secure benefits from the use of storm water as a resource; and to ensure that the city is compliant with San Diego Regional Water Quality Control Board (“RWQCB”) Order No. 2001-01 National Pollutant Discharge Elimination System (“NPDES”) Permit Number CAS 0108758 and with applicable state and federal law. The city seeks to promote these purposes by:

1. Controlling non-storm waterstorm water discharges to the storm waterstorm water conveyance system;

2. Eliminating discharges to the storm waterstorm water conveyance system from spills, dumping or disposal of materials other than storm water or permitted or exempted discharges;

3. Reducing pollutants in storm water discharges, including those pollutants taken up by storm water as it flows over urban areas, to the maximum extent practicable (MEP);

4. Reducing pollutants in storm water discharges in order to achieve applicable water quality objectives for surface waters in San Diego County;

5. Establishing minimum requirements for storm water management, including source control requirements, to prevent and reduce pollution;

6. Establishing requirements for development project site design, to reduce storm water pollution and erosion;

7. Establishing requirements for the management of storm water flows from development projects, both to prevent erosion and to protect and to enhance existing water-dependent habitats;

8. Establishing notice procedures and standards for adjusting storm water and non-storm water management requirements where necessary.

B. The intent of this chapter is to protect and enhance the water quality of the watercourse, water bodies and wetlands in a manner pursuant to and consistent with the Clean Water Act and the San Diego RWQCB Order No. 2001-01, NPDES Permit Number CAS 0108758 and any subsequent amendments, revisions or reissuance of the permit and the Standard Urban Storm Water Mitigation Plan (SUSMP) adopted by Ordinance 2213 on November 19, 2002 and any subsequent adopted amendments, revisions or modifications.

14.22.030 Definitions. When used in this chapter, the following terms shall have the meanings ascribed to them in this section:

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

"Basin plan" means the Comprehensive Water Quality Control Plan for the San Diego Basin, adopted by the Regional Water Quality Control Board, San Diego Region (July 1975) and approved by the state Water Resources Control Board, together with subsequent amendments.

"Best management practices (BMPs)" means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures and other management practices to prevent or reduce to the MEP the discharge of pollutants directly or indirectly to waters of the United States. BMPs also include

treatment requirements, operating procedures and practices to control site runoff, spillage or leaks, sludge or waste disposal or drainage from raw materials storage.

"BMPs" means best management practices.

"California ocean plan" means the California Ocean Plan: Water Quality Control Plan for Ocean Waters of California, adopted by the state Water Resources Control Board, September 1991, and any subsequent amendments.

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

"Commercial discharger" means discharger who operates a regulated commercial facility.

"City" means the City of National City.

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

"Development project proponent" means developer.

"Directors" means the director of public works/engineering.

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

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

"Discharges directly to" means that storm water or non-storm water enters receiving waters from a facility or activity without mixing with any storm water or non-storm water from another facility or activity prior to entering such receiving waters.

"Drainage easement" means a legal right granted by a land owner to a grantee allowing the use of private land for storm water management purposes.

"Employee training program" means a documented employee training program for all persons responsible for implementing a storm water pollution prevention plan. The employee training program shall include, but is not limited to, the following topics:

1. Laws, regulations and local ordinances associated with storm water pollution prevention and an overview of the potential impacts of polluted storm water on the receiving waters of the San Diego region.
2. Proper handling of all materials and wastes to prevent spillage.
3. Mitigation of spills including spill response, containment and cleanup procedures.
4. Visual monitoring of all effluent streams to ensure that no illicit discharges enter the storm water conveyance system.
5. Discussion of the difference between the storm water conveyance system and the sanitary sewer system.
6. Identification of all on-site connections to the storm water conveyance system.
7. Preventive maintenance and good housekeeping procedures.
8. Material management practices employed by the facility to reduce or eliminate pollutant contact with storm water discharge.
9. A documented employee training program prepared pursuant to any NPDES storm water permit shall meet the definition of an employee training program for the purposes of this chapter.

“Enclosed Bays and Estuaries Plan” means the California Enclosed Bays and Estuaries Plan: Water Quality Control Plan for Enclosed Bays and Estuaries of California, adopted by the State Water Resources Control Board, April 11, 1991, and any subsequent amendments.

“Environmentally sensitive area” means impaired water bodies, areas designated as areas of special biological significance or with the RARE beneficial use by the SWRCB in the Water Quality Control Plan for the San Diego Basin (1994 and amendments), national wildlife refuges, areas designated as preserves for species protection purposes by the state of California or a local government and pre-approved mitigation areas identified in agreements between the City and state or federal natural resources agencies.

“ESA” means environmentally sensitive area.

“Household hazardous waste” means a household hazardous material that no longer has a use and is discarded or intended to be discarded. The term includes, but is not limited to: paint and paint-related materials; yard and garden products; household cleaners; used oil, motor vehicle fluids, batteries and oil filters; and household batteries.

“Illegal connection” means a pipe, facility or other device connected to the storm water conveyance system or receiving waters, which has not been reviewed and authorized by the City; or a permitted/authorized pipe, facility or other device, which conveys illegal discharges.

“Illicit connection” means any unpermitted or undocumented physical connection to the storm water conveyance system which has not been approved by the City or which drains illegal discharges either directly or indirectly into a storm water conveyance system.

“Illegal discharge” means any non-permitted or nonexempt discharge to the storm water conveyance system that is not composed entirely of storm water or is expressly prohibited by federal, state or local regulations, laws, codes or ordinances or degrades the quality of receiving waters in violation of the basin plan, the enclosed bays and estuaries plan, the inland surface water plan and the California ocean plan standards.

“Impaired water body” means a water body that is listed by the SWRCB as impaired by a particular pollutant or pollutants, pursuant to Section 303(d) of the Federal Clean Water Act. “303(d)-listed water body” has the same meaning.

“Impervious cover or impervious surface” means constructed or modified surfaces that cannot effectively infiltrate rainfall. The term includes, but is not limited to, building rooftops, pavement, sidewalks and driveways.

“Impervious surface area” means ground area covered or sheltered by an impervious surface, measured in plan view (i.e., as if from directly above). For example, the “impervious surface area” for a pitched roof is equal to the ground area it shelters, rather than the surface area of the roof itself.

“Industrial activity” means manufacturing, processing or raw materials storage at a commercial, industrial or municipal facility. The term includes, but is not limited to, such manufacturing, processing or storage in or upon industrial plant yards or immediate access roads used or traveled by carriers of raw materials; manufacture of products, waste material or by-product creation or storage; material handling; refuse storage or disposal; the application or disposal of processed wastewaters; storage and maintenance of material handling equipment; treatment, storage or disposal of residuals; outdoor shipping and receiving; activities in manufacturing buildings; storage of raw materials and intermediate and finished products; and the ownership, use or control of areas where significant industrial activity has taken place in the past and significant materials remain and are exposed to storm water. Material handling activities include the storage, loading and unloading, transportation or conveyance of any raw material, intermediate product, finished product, by-product or waste product.

“Industrial discharger” means a discharger who operates a regulated industrial facility.

“Industrial storm water permit” means the state general industrial storm water permit.

“Infiltration” means the process of percolating storm water or non-storm water into the soil.

“Infiltration BMPs or infiltration facility” means any structural treatment BMP designed primarily to percolate water into the subsurface, such as an infiltration trench or infiltration basin. An infiltration facility may include filtering prior to or during infiltration. BMPs that infiltrate some water but which are designed primarily to retain water or to treat water, such as retention basins, constructed wetlands or filtering swales are not infiltration facilities.

“JURMP” is an acronym for Jurisdictional Urban Runoff Management Program. This document presents the City’s storm water program in compliance with the municipal permit.

“Land development activity” means any activity or proposed activity that requires any of the permits or approvals listed in Section 14.22.040(F) of this chapter.

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

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

“Low Impact Development (LID)” means a storm water management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic features.

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

“Manual” means the City’s Best Management Practices Manual described in Section 14.22.040 (G) of this chapter, adopted by resolution and hereinafter referred to as “manual”.

“Maximum extent practicable” is an acceptability standard for best management practices (BMPs). When BMPs are required to meet this standard, the BMPs must be the most effective set of BMPs that is still practicable. A BMP is effective if it prevents, reduces or removes the pollutants that would otherwise be present in runoff due to human activity. A BMP is practicable if it complies with other regulations as well as storm water regulations; is compatible with the area’s land use, character, facilities and activities; is technically feasible (considering area soil, geography, water resources and other resources available); is economically feasible; and provides benefits that are reasonable in relation to costs.

“MEP” means maximum extent practicable.

“Motor vehicle” means any automobile, car, truck, bus, motor home or other self-propelled vehicle used or suited to use for on-road transportation; and any similar vehicle modified for off-road use.

“Municipal facility” means a facility owned or operated by the City of National City that is used for a governmental purpose. Facilities on municipally owned land that are leased or rented to others to generate municipal revenues are not municipal facilities. (The commercial or industrial lessees of such facilities may, however, be subject to this chapter as commercial dischargers or industrial dischargers).

“National pollution discharge elimination system (NPDES) permit” means a national pollutant discharge elimination system permit issued by the Regional Water Quality Control

Board or the State Water Resources Control Board and or the Regional Water Quality Control Board.

"NPDES Permit No. CAS 0108758" means RWQCB Order No. 2007-0001, NPDES Permit No. CAS 0108758, 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.

"Non-storm water discharge" means any discharge to the storm water conveyance system that is not entirely composed of storm water.

"Plan standard" means any or all applicable requirements of the basin plan, the enclosed bays and estuaries plan, the inland surface water plan and the California ocean plan.

"Pollutant" may include but is not limited to solid waste, sewage, garbage, medical waste, wrecked or discarded equipment, radioactive materials, dredged spoil, rock, sand, sediment, industrial waste and any organic or inorganic contaminant whose presence degrades the quality of the receiving waters in violation of the Basin Plan, the Enclosed Bays and Estuaries Plan, the Inland Surface Water Plan and the California Ocean Plan standards such as fecal coliform, fecal streptococcus, enterococcus, volatile organic carbon (VOC), surfactants, oil and grease, petroleum hydrocarbons, total organic carbon (TOC), total suspended and settleable solids, nutrients, metals, cyanides, phenols and biocides. A pollutant also includes any substance defined as a pollutant under 40 CFR Section 122.2 and any contaminant which degrades the quality of the receiving waters in violation of the basin plan, the enclosed bays and estuaries plan, the inland surface water plan and the California ocean plan standards by altering any of the following parameters: pH, biochemical oxygen demand (BOD), chemical oxygen demand (COD) and temperature.

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

"Rainy season" means the period from October 1 through April 30.

"Receiving water" means surface bodies of water, as described in Order No. 90-42 of the Regional Water Quality Control Board, San Diego Region, which serve as discharge points for the storm water conveyance system, including San Diego Bay, Paradise Creek and the Paradise Creek Marsh, the Sweetwater River and the Sweetwater River Flood Control Channel, the 7th Street Channel and La Paleta Creek.

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

"Regulated commercial facility" means all non-residential facilities engaged in business or commerce, whether for profit or not-for-profit or publicly or privately owned, except for regulated industrial facilities and municipal facilities; plus residences used for commercial repair, maintenance, cleaning, manufacturing, food preparation or painting activity if that activity has the potential to result in the discharge of non-storm water or the discharge of pollutants to storm water.

"Regulated industrial facility" means any facility subject to the state general industrial storm water permit; any other facility primarily engaged in manufacturing, processing, storage or handling of raw materials, processed bulk materials or refuse; and any other facility with a total outdoor uncovered area of more than two acres that is used for an industrial activity. Municipal facilities are not regulated industrial facilities, unless they are subject to the state general industrial storm water permit.

“Residential discharger” means, for an occupied residence, the occupants; and for a vacant residence, the owner and the manager of the residence.

“RWQCB” means the Regional Water Quality Control Board for the San Diego region.

“Significant redevelopment” means development in the City that would create, add, or replace at least 5,000 square feet of impervious surfaces on an already developed site that falls under one or more priority development project categories. Significant redevelopment includes, but is not limited to: the expansion of a building footprint; addition to or replacement of a structure; replacement of an impervious surface that is not part of a routine maintenance activity; and land disturbing areas related with structural or impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Significant redevelopment does not include trenching and resurfacing associated with utility work; resurfacing and reconfiguring surface parking lots; new sidewalk construction, pedestrian ramps, or bike lane on existing roads; and replacement of damaged pavement.

“Standard Urban Storm Water Mitigation Plan (SUSMP)” means a plan designed to reduce pollutants and runoff flows from new development and significant redevelopment. It was adopted by Ordinance 2213 of November 12, 2002, together with any amendments or revisions now or hereafter adopted.

“State General Construction Storm Water Permit” means NPDES Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Associated with Construction Activities, and any amendments thereto.

“State General Industrial Storm Water Permit” means NPDES Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities and any amendments thereto.

“Stop work order” means an order issued which requires that specifically identified activity or all activity on a site be stopped.

“Storm water” means surface runoff and drainage associated with storm events and snow melt.

“Storm water conveyance system” includes but is not limited to those municipal facilities within the City by which storm water may be conveyed to waters of the United States, including any roads with drainage systems, municipal streets, catch basins, natural and artificial channels, aqueducts, canyons, stream beds, gullies, curbs, gutters, ditches, natural and artificial channels or storm drains.

“Storm water management” means the use of structural or non-structural BMPs that are designed to reduce urban run-off pollutant loads, discharge volumes and/or peak discharge flow rates or velocities. When applied to the City or another municipality, storm water management also includes planning and programmatic measures.

“Storm water management plan” means a plan, submitted on a City form or in a City-specific format in connection with an application for a City permit or other City approval, identifying the measures that will be used for storm water and non-storm water management during the permitted activity.

“Storm water pollution prevention plan (SWPPP)” means a document which describes the on-site program activities to eliminate or reduce to the MEP, pollutant discharges to the storm water conveyance system. This plan shall include, but not be limited to, the following site information:

1. An inventory of all of materials/wastes that are handled on a premise and have a reasonable potential to impact storm water quality;

2. A description of measures taken which will reduce the possibility or likelihood of accidental spillage resulting from equipment failure or employee error;

3. A description of on-site spill control/response equipment and procedures to prevent contaminants from entering the storm water conveyance system;

4. A site map indicating all building structures, materials and waste storage areas, paved areas, areas of existing and potential erosion, storm drain inlets and point(s) of discharge to a municipal storm water conveyance system or receiving waters. The site map shall include an estimate of the size of the facility and the facility's impervious area;

5. An employee training program, as defined in subsection D of this section, including training outlines and training records;

6. A description of any storm water monitoring program that is conducted on the site.

A storm water pollution prevention plan prepared and implemented pursuant to any NPDES storm water permit shall meet the definition of a storm water pollution prevention plan for the purposes of this chapter.

"Structural BMP" means a BMP that relies on either a physical condition (other than an entirely natural and undisturbed condition) or on a constructed or installed device to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

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

"SWRCB" means the State Water Resources Control Board.

"Surface waters plan" means the "California Inland Surface Waters Plan: Water Quality Control Plan for Inland Surface Waters of California" adopted by the state Water Resources Control Board, April 11, 1991 or the most current amendments thereto.

"Treatment Control BMP" means any engineered system designed and constructed to remove pollutants from urban runoff. Pollutant removal is achieved by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption, or any other physical, biological, or chemical process. "Treatment control" has the same meaning.

"Tributary to an impaired water body" means a facility or activity is tributary to an impaired water body if urban runoff from that facility or activity enters:

1. The storm water conveyance system at a place and in a manner that will carry pollutants for which that water body is impaired in that discharge to the impaired water;

2. A flowing stream that will carry pollutants for which that water body is impaired in that discharge to the impaired water; or

3. An ephemeral stream that reaches the impaired water during storm events and that will carry pollutants for which that water body is impaired from the facility or activity to the impaired water body during such storm events.

"Urban run-off" means all flows in a storm water conveyance system in the City other than point source discharges in violation of a site-specific NPDES permit. Urban run-off includes, but is not limited to, storm water, exempt non-storm water discharges and illicit discharges.

"Water main" means a potable or recycled water delivery line greater than or equal to four inches in diameter.

"Watercourse" means any natural or artificial stream, river, creek, ditch, channel, canal, conduit, culvert, drain, waterway, gully, ravine, arroyo or wash, in which waters flow in a definite direction or course, either continuously or intermittently and which has a definite channel and a bed or banks. A channel is not limited to land covered by minimal or ordinary flow but also includes land covered during times of high water. Watercourse does not include any surface drainage prior to its collection in a stream, river, creek, ditch, channel, canal, conduit, culvert, drain, waterway, gully, ravine, arroyo or wash.

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

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

14.22.040 General provisions.

A. Responsibility for Administration. This chapter shall be administered for the City by its authorized enforcement officials.

B. Effective Date. This chapter shall be effective March 20, 2008.

C. Construction and Application. This chapter shall be interpreted to assure consistency with the requirements of the Federal Clean Water Act and acts amendatory thereof or supplementary thereto, applicable implementing regulations and NPDES Permit No. CAS108758 and any amendments, revision or reissuance thereof and SUSMP. This chapter is not intended to interfere with, abrogate or annul any other chapter, rule or regulation, statute or other provision of law. The requirements of this chapter should be considered minimum requirements and where any provision of this chapter imposes restrictions different from those imposed by any other chapter, rule or regulation or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall take precedence. Storm water and non-storm water discharges regulated under a valid facility-specific NPDES permit or facility-specific RWQCB waste discharge requirements permit are not subject to this chapter, but shall instead be regulated exclusively by the RWQCB.

D. Recycled Water. This chapter is not intended to prohibit or prevent the use of recycled water or the discharge of recycled water after use. This chapter is intended to require the use of BMPs for such uses and discharges as necessary to protect human health and the environment.

E. Severability and Validity. If any section of this chapter is declared invalid by a court of law, the remaining sections shall remain valid.

F. City Permits and Approvals.

1. An application for any of the following discretionary permits or approvals shall be accompanied by plans demonstrating how the requirements of this chapter will be met, and the permit or approval shall not be approved unless the decision maker determines that the application complies with the requirements of this chapter:

Conditional use permit (including modification or extension)
Coastal development permit
Parcel map (and modifications)
Reclamation plan
Planned development permits
Planned unit development permits
Planning commission approval of plans
Site plan review
Tentative map (and amendments to conditions of approval or time extension)
Tentative parcel map
Variance.

2. An application for any of the following ministerial permits or approvals shall be accompanied by plans demonstrating how the specifically applicable requirements, if any, set out in corresponding sections of the manual will be met and the permit or approval shall not be approved unless the decision maker determines that the application complies with those requirements:

Administrative clearing permit
Lot line adjustment
Final map modification
Grading plan (including modification or renewal)
Improvement plan (including modification)
Landscape plan
Building permit
Construction right-of-way permit
Encroachment permit
Excavation permit
On-site wastewater system permit
Underground tank permit
Well permit

G. Guidance Documents. Any authorized enforcement official may prepare, circulate for public comment, disseminate and maintain guidance documents addressing the use of pollution prevention practices and BMPs for specific activities or facilities, illicit connections and illegal disposal.

These guidance documents may set out additional compliance alternatives that, in specified circumstances, can provide the same environmental protection that is afforded by the BMPs required by this chapter.

These guidance documents may also identify practices that have been determined by the authorized enforcement official to be additional BMPs that may be implemented for land disturbance activity and land development activity to prevent or control pollution to the MEP.

Authorized enforcement officials may also take these guidance documents into account when determining whether any practices used by a discharger or proposed in a grading plan, a storm water pollution prevention plan (SWPPP), an enforcement settlement offer or any other submittal to the City, are BMPs that will prevent or control pollution to the MEP. These case-specific discretionary decisions may involve circumstances that were not anticipated when general guidance documents were prepared. Therefore, these guidance documents do not confer rights on dischargers in these circumstances and do not constrain the discretion of authorized enforcement officials. Where appropriate and provided the same protection is provided to the environment, authorized enforcement officials may depart from these guidance documents when making case-specific decisions authorized by this chapter.

14.22.050 Reduction of pollutants in storm water--Minimum requirements. Any person engaged in activities, which will or may result in pollutants entering the City storm water conveyance system shall undertake all measures to reduce such pollutants to the MEP. The following minimum requirements shall apply:

A. Business-related Activities. All owners or operators of premises where pollutants from business related activities may enter the storm water conveyance system must reduce any such pollutants as are generated from said premises to the MEP. The authorized enforcement official may require the business to develop and implement a SWPPP, as defined in Section 14.22.090 of this chapter. Examples of business related activities are maintenance, storage, manufacturing, assembly, equipment operations, vehicle loading and/or cleanup procedures which are carried out partially or wholly out of doors.

B. Standard for Parking Lots and Similar Structures. Persons owning or operating a parking lot or impervious surfaces used for similar purposes shall clean those structures thoroughly as is necessary to prevent the discharge of pollutants to the City storm water conveyance system to the MEP, but not less than once prior to each rainy season. Sweepings

or cleaning residue from parking lots or said impervious surfaces shall not be swept or otherwise made or allowed to go into the gutter or roadway.

C. BMPs for New Developments and Redevelopments. Any person performing construction work in the City shall prevent, to the MEP (maximum extent practicable), pollutants from entering the storm water conveyance system by complying with Section 7013 of the 1991 Uniform Building Code as amended by Chapter 15.70 of this code, the Standard Specifications for Public Works Construction Manual and applicable provisions of the general construction activity storm water NPDES permit issued by the State Water Resources Control Board (SWRCB) and the SUSMP.

The City Engineer may establish controls on the volume and rate of storm water runoff from new developments and redevelopments as may be appropriate to minimize the discharge and transport of pollutants.

D. Compliance with NPDES Storm Water Permits. Each industrial discharger, discharger associated with construction activity or other discharger subject to any NPDES storm water permit addressing such discharges, as adopted by the United States Environmental Protection Agency, the SWRCB or the RWQCB, shall comply with and undertake all other activities required by any storm water permit applicable to such discharges, including but not limited to, the SWRCB statewide general industrial and general construction activity storm water permits and the RWQCB general de-watering permits. Each discharger identified in an individual NPDES permit relating to storm water discharges shall comply with and undertake all activities required by such permit.

E. Compliance with BMPs. Every person owning or operating any activity, operation or facility will comply with storm water BMPs adopted by federal, state, regional or local agencies, as applicable.

14.22.060 Watercourse protection.

A. Every person owning property through which a watercourse passes or such person's lessee or tenant, shall keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive vegetation and other obstacles which would pollute, contaminate or significantly retard the flow of water through the watercourse; shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function or physical integrity of the watercourse; and shall not remove healthy bank vegetation beyond that actually necessary for said maintenance which shall be accomplished in a manner that minimizes the vulnerability of the watercourse to erosion.

B. No person shall commit or cause to be committed any of the following acts, unless a written permit has been obtained from the City Engineer and the appropriate state or federal agencies, if applicable:

1. Discharge pollutants into or connect any pipe or channel to a watercourse;

2. Modify the natural flow of water in a watercourse;

3. Carry out developments within thirty feet of the center line of any creek or twenty feet of the top of a bank, whichever is the greater distance from the top of the bank;

4. Deposit in, plant in or remove any material from a watercourse including its banks, except as required for necessary maintenance;

5. Construct, alter, enlarge, connect to, change or remove any structure in a watercourse; or

6. Place any loose or unconsolidated material along the side of or within a watercourse or so close to the side as to cause a diversion of the flow or to cause a probability of such material being carried away by storm water passing through such a watercourse.

7. The above requirements do not supersede any requirements set forth by the California Department of Fish and Game stream alteration permit process.

14.22.070 Illicit connection and illegal discharge of pollutants--Prohibited.

A. Illegal Discharges. The discharge of pollutants directly or indirectly into the storm water conveyance system or receiving waters in non-storm water is prohibited, except as exempted in Section 14.22.080 of this chapter. The discharge of pollutants directly or indirectly into the storm water conveyance system or receiving waters in storm water is prohibited, unless the applicable requirements of this chapter have been met.

B. Illicit Connection. It is prohibited to establish, use, maintain or continue illicit connections to the City storm water conveyance system, regardless of whether such connections were made under a permit or other authorization or other authorization or whether permissible under the law or practices applicable or prevailing at the time of connection.

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

14.22.080 Exceptions to discharge prohibition. The following discharges are exempt from the prohibition:

A. Separately Permitted Discharges. Storm water discharges regulated under a valid facility-specific NPDES permit or facility-specific RWQCB waste discharge requirements permit or under a general NPDES permit (including the state general industrial storm water permit or state general construction storm water permit), are exempt from discharge prohibitions established by this chapter, provided compliance with all relevant permit conditions is maintained to the satisfaction of the RWQCB. Except as provided in Section 14.22.040(C), these discharges are not otherwise exempted from this chapter.

B. Categorically Allowed Discharges Subject to Section 14.22.090. The following categories of non-storm water discharges are exempt from discharge prohibitions established by this chapter, but dischargers must install, implement and maintain the applicable BMPs set out in Section 14.22.090 of this chapter:

1. Discharges from potable water sources other than water main breaks;
2. Diverted stream flows (provided required permits are obtained);
3. Flows from riparian habitats and wetlands;
4. Foundation drains (not including active groundwater dewatering systems);
5. Individual residential washing of vehicles;
6. Irrigation water including recycled water used for irrigation;
7. Landscape irrigation;
8. Lawn watering;
9. Rising ground water;
10. Swimming pool discharges (if dechlorinated to less than one PPM chlorine);
11. Uncontaminated ground water infiltration to storm drains;
12. Uncontaminated pumped ground water;
13. Water from crawl space pumps; and
14. Water from footing drains (not including active groundwater dewatering systems).

C. Categorically Allowed Discharges Not Subject to Section 14.22.090. The following categories of non-storm water discharges are exempt from discharge prohibitions established by this chapter and are not subject to Section 14.22.090:

1. Air conditioning condensation;
2. Flows from emergency fire fighting activities;

3. Springs; and

4. Water line flushing.

D. Exemptions to Protect Public Health and Safety. Discharges determined by any authorized enforcement official to be necessary to protect public health and safety are exempt from discharge prohibitions established by this chapter, provided any conditions on such discharges imposed by the authorized enforcement official are satisfied. In emergency circumstances, the determination of an authorized enforcement official that a discharge is necessary may initially be oral but must be promptly confirmed in writing by an authorized enforcement official. In non-emergency situations, a prior written determination is required to exempt a discharge.

E. On-site Wastewater Systems. Discharges to the subsurface from permitted properly functioning on-site wastewater systems are not prohibited by this chapter.

F. Exemptions Not Absolute. Any discharge category described in subsection (B) above that is a significant source of pollutant to waters of the United States shall be prohibited from entering the storm water conveyance system or shall be subjected to a requirement to implement additional BMPs to reduce pollutants in that discharge to the MEP. Such prohibitions shall be effective on a schedule specified by an authorized enforcement official in a written notice to the discharger. That schedule may take into account the nature and severity of any effects caused by the discharge; and the time required to design, engineer, fund, procure, construct and make appropriate BMPs operational.

14.22.090 Best management practice requirements and general requirements applicable to all discharges.

A. Applicable Requirements. All dischargers in the City must comply with the generally applicable prohibitions and requirements in Sections 14.22.010 through 14.22.080 of this chapter and must also comply with any other parts of this chapter (including relevant parts of the manual) that are applicable to the type of facility or activity owned or operated by that discharger.

B. Minimum BMPs for All Dischargers. All dischargers in the City must install, implement and maintain at least the following minimum BMPs:

1. Eroded Soils. Prior to the rainy season, dischargers must remove or secure any significant accumulations of eroded soils from slopes previously disturbed by clearing or grading, if those eroded soils could otherwise enter the storm water conveyance system or receiving waters during the rainy season.

2. Pollution Prevention. Dischargers employing ten or more persons on a full-time basis shall implement those storm water pollution prevention practices that are generally recognized in that discharger's industry or business as being effective and economically advantageous.

3. Prevention of Illegal Discharges. Illicit connections must be eliminated (even if the connection was established pursuant to a valid permit and was legal at the time it was constructed) and illegal discharge practices eliminated.

4. Slopes. Completed slopes that are more than five feet in height, more than two hundred fifty square feet in total area and more than a three-to-one run-to-rise ratio in grade that have been disturbed at any time by clearing, grading or landscaping shall be protected from erosion prior to the first rainy season following completion of the slope and continuously thereafter.

5. Storage of Materials and Wastes. All materials and wastes with the potential to pollute urban runoff shall be stored in a manner that either prevents contact with rainfall and storm water or contains contaminated runoff for treatment and disposal.

6. Use of Materials. All materials with the potential to pollute urban runoff (including, but not limited to, cleaning and maintenance products used outdoors, fertilizers,

pesticides and herbicides, etc.) shall be used in accordance with label directions. No such product may be disposed of or rinsed into receiving waters or the storm water conveyance system.

C. Inspection, Maintenance, Repair and Upgrading of BMPs. BMPs at manned facilities must be inspected by the discharger before and following predicted rain events. BMPs at unmanned facilities must be inspected by the discharger at least once during the rainy season and at least once between each rainy season. These BMPs must be maintained so that they continue to function as designed. BMPs that fail must be repaired as soon as it is safe to do so. If the failure of a BMP indicates that the BMPs in use are inappropriate or inadequate to the circumstances, the BMPs must be modified or upgraded to prevent any further failure in the same or similar circumstances.

D. Storm Water Pollution Prevention Plan. An authorized enforcement official may require a commercial, industrial or land disturbance activity discharger to prepare and submit a SWPPP for approval by that official if:

1. The discharger does not come into compliance with this chapter after one or more warnings (or other enforcement action) that BMPs are inadequate or are not being adequately maintained; or

2. The facility or activity at issue is a significant source of contaminants to receiving waters despite compliance with this chapter. Any discharger required to submit and to obtain approval of a SWPPP shall install, implement and maintain the BMPs specified in the approved SWPPP.

The SWPPP shall identify the BMPs that will be used by the discharger to prevent or control pollution of storm water to the MEP. If the facility is an industrial facility, the SWPPP submitted to the City shall at a minimum meet the requirements of the state NPDES general industrial storm water permit. If the activity at issue is a construction or land disturbance activity, the SWPPP submitted to the City shall at a minimum meet the requirements of the state NPDES general construction storm water permit. If a facility required to submit a SWPPP to the City discharges non-storm water to groundwater, the facility shall obtain a RWQCB permit as required by the state water code and shall describe the requirements of that permit in the SWPPP.

Whenever submission of a SWPPP is required pursuant to this chapter, an authorized enforcement official may take existing City BMPs into account when determining whether the practices proposed in the SWPPP are BMPs that will prevent or control pollution to the required level of MEP.

E. Notification of Spills, Releases and Illegal Discharges. Spills, releases and illegal discharges of pollutants to receiving waters or to the storm water conveyance system shall be reported by the discharger as required by all applicable state and federal laws. In addition, any such spills, releases and illegal discharges with the potential to endanger health, safety or the environment shall be reported to the directors within twenty-four hours of discovery of the spill, release or discharge. If safe to do so, necessary actions shall be taken to contain and minimize the spill, release or illegal discharge.

F. Sampling, Testing, Monitoring and Reporting. Commercial, industrial or land disturbance activity dischargers shall perform the sampling, testing, monitoring and reporting required by this chapter. In addition, an authorized enforcement official may order a discharger to conduct testing or monitoring and to report the results to the City if (1) the authorized enforcement official determines that testing or monitoring is needed to determine whether BMPs are effectively preventing or reducing pollution in storm water to the MEP or to determine whether the facility is a significant source of contaminants to receiving waters; or (2) the authorized enforcement official determines that testing or monitoring is needed to assess the impacts of an illegal discharge on health, safety or the environment; or (3) an illegal discharge has not been eliminated after written notice by an authorized enforcement official; or (4)

repeated violations have been documented by written notices from authorized enforcement officials; or (5) the RWQCB requires the City to provide any information related to the discharger's activities.

Testing and monitoring ordered pursuant to this subsection may include the following:

1. Visual monitoring of dry weather flows, wet weather erosion and/or BMPs;
2. Visual monitoring of premises for spills or discharges;
3. Laboratory analyses of storm water or non-storm water discharges for pollutants;
4. Background or baseline monitoring or analysis; and
5. Monitoring of receiving waters or sediments that may be affected by pollutant discharges by the discharger (or by a group of dischargers including the discharger).

The authorized enforcement official may direct the manner in which the results of required testing and monitoring are reported and may determine when required sampling, testing or monitoring may be discontinued.

G. Mitigation. All illegal discharges must be mitigated within a reasonable period of time to correct or compensate for all damage to the environment caused by the illegal discharge. The authorized enforcement official shall determine whether mitigation measures proposed or completed by the discharger meet this standard. The authorized enforcement official shall require the discharger to submit a mitigation plan and schedule by a specified date prior to taking action and to submit a summary of completed mitigation by a specified date.

14.22.100 Additional minimum best management practice requirements for residential activities and facilities.

A. Applicable Requirements. The requirements in this section apply to all residential dischargers within the City. All residential dischargers must install, implement and maintain the BMPs identified in Section 14.22.090(B) for all dischargers and at least the additional minimum BMPs specified below for the category of activities conducted by that discharger.

B. Motor Vehicle or Boat Repair and Maintenance.

1. Motor vehicle and boat repair and maintenance activity shall be performed under a permanent roof or other permanent cover, if such space is available. Maintenance and repair activities that are conducted without cover or without BMPs to prevent pollutant discharges are prohibited during times of precipitation.
2. Any release of fluids during repair or maintenance shall be promptly contained and cleaned up. Any absorbent materials used must be disposed of properly.
3. Automotive and boat materials and wastes must be stored indoors or under cover or in secure and watertight containers.

C. Motor Vehicle Washing.

1. Vehicles shall be washed over porous surfaces such as gravel areas where feasible.
2. Remaining detergent solutions prepared for use in vehicle washing, but not used up in that process, may not be disposed by emptying buckets or other containers directly or indirectly to the storm water conveyance system or receiving waters. Disposal to the sanitary sewer (e.g., through a sink, toilet or floor drain) or to a porous surface is required.
3. The use of "hose off' or single use engine degreasing chemicals is prohibited, unless captured and disposed of properly.
4. Motor vehicle washing other than individual residential motor vehicle washing is prohibited, unless all wash and rinse water is diverted to or contained and disposed to a porous area or the sanitary sewer.

D. Motor Vehicle Parking.

1. Residents shall remove excessive accumulations of oil and grease deposited by vehicles they own from parking areas, using dry cleaning methods (e.g., absorbents, scraping, vacuuming or sweeping).

2. Residents shall move vehicles from streets when notified to do so to allow street cleaning.

E. Home and Garden Care Activities and Product Use.

1. Irrigation systems should be adjusted to avoid excessive runoff.

2. Spills of gardening chemicals, fertilizers or soils to non-porous surfaces must be cleaned up and properly disposed.

3. Lawn and garden care products must be stored in closed labeled containers; or in covered areas; or off the ground under protective tarps.

4. Household hazardous waste may not be disposed of directly or indirectly to the trash or to the street, gutter or storm drain.

5. Lawn waste (green waste) may not be disposed of directly or indirectly to the street, gutter, or storm water conveyance system.

F. Home Care and Maintenance.

1. Painting equipment may not be cleaned out in or over streets, sidewalks or gutters.

2. Action shall be taken to minimize and contain all spills of hazardous materials, if it is safe to do so.

3. Household hazardous materials must be stored indoors or under cover and in closed and labeled containers.

4. Household wash waters (carpet cleaning, mop water, washing machine effluent, other gray water, paint wash-up water, etc.) may not be disposed of to the street, gutter or storm drain or to receiving waters. Disposal to the sanitary sewer (e.g., through a sink, toilet or floor drain) or to a porous surface is required.

5. Trash and other unwanted household items may not be disposed of to the street, gutter, or storm water conveyance system.

G. Manure and Pet Waste Management.

1. Manure deposited by horses and large animals within an enclosure or on uncovered areas, from which runoff could enter receiving waters or the storm water conveyance systems, must be cleaned up at least once weekly and either be composted or be stored prior to disposal in a manner that prevents contact with runoff to receiving waters or the storm water conveyance system.

2. Areas used for composting such manure must be located, configured or managed to prevent runoff to receiving waters or the storm water conveyance system.

3. Pet waste shall not be disposed to the storm water conveyance system or receiving waters.

H. Private Sewer Laterals and On-site Wastewater Systems.

1. Private sewer laterals shall be cleaned, maintained and when necessary replaced to prevent seepage and spills. On-site wastewater systems shall be pumped, maintained and when necessary modified or replaced to prevent spills.

2. Spills from private sewer laterals and on-site wastewater systems shall be contained and cleaned-up in a manner that minimizes any release of pollutants to the storm water conveyance system or receiving waters.

3. Any release from a private sewer lateral that enters the storm water conveyance system or receiving waters shall be immediately reported to the City.

4. Failed on-site wastewater systems shall be repaired or replaced after issuance of all required permits and approvals.

I. Additional Controls. Where necessary to prevent discharges from causing or contributing to violations of water quality standards, the City may require the implementation of

additional controls for residential dischargers tributary to 303(d) listed water body segments where the residential area or activity generates pollutants for which the water body segment is impaired or for residential dischargers within or directly adjacent to or discharging directly to receiving waters within ESAs. Additional controls may include but are not limited to implementation of BMPs more stringent than the applicable minimum BMPs listed in this chapter.

14.22.110 Additional minimum best management practice requirements for commercial activities and facilities.

A. Application of Requirements. All regulated commercial dischargers must install, implement and maintain at least the additional minimum BMPs, if any, specified in this section or in the manual for the category of activity or facility owned or operated by that discharger, as applicable. All regulated commercial dischargers shall review their facilities, activities, operations and procedures at least annually to detect and eliminate illicit connections and illegal discharges. Corrective training shall be provided as needed (and documented in training records) whenever an illegal disposal practice is discovered.

B. Regulated Commercial Dischargers Identified. As required by NPDES Permit No. CAS0108758, facilities in the City having one or more of the following characteristics are regulated commercial facilities:

1. The facility is a regulated commercial discharger if it is engaged in one or more of the following commercial activities:

Airplane mechanical repair, maintenance, fueling or cleaning
Motor vehicle (or other vehicle) parking lots and storage facilities
Motor vehicle and other vehicle body repair or painting
Motor vehicle mechanical repair, maintenance, fueling or cleaning
Boat mechanical repair, maintenance, fueling or cleaning
Botanical or zoological gardens and exhibits
Cement mixing or cutting
Cemeteries
Eating or drinking establishments, including food markets
Equipment repair, maintenance, fueling or cleaning
Golf courses, parks and other recreational areas/facilities
Landscaping
Marinas
Masonry
Mobile motor vehicle or other vehicle washing
Mobile carpet; drape or furniture cleaning
Nurseries and greenhouses
Painting and coating
Pest control services
Pool and fountain cleaning
Portable sanitary services
Retail or wholesale fueling
Building material retailers and storage
Animal facilities
Power washing services

2. All other commercial dischargers not mentioned in 14.22.110(B)(1), tributary to a CWA Section 303(d) impaired water body segment, for which the City has determined the facility or activity generates pollutants for which the water body segment is impaired.

3. Commercial dischargers discharging directly to receiving waters within ESAs.

4. All other commercial dischargers that the City determines may contribute a significant pollutant load to the storm water conveyance system.

C. Additional Minimum BMPs for All Regulated Commercial Dischargers. All regulated commercial dischargers shall install, implement and maintain the BMPs specified in the manual the following areas, as applicable:

1. Employee training;
2. Storm drain tileage and signing;
3. Annual review of facilities and activities;
4. Pollution prevention; and
5. Good housekeeping.

D. Additional Minimum BMPs for Specific Activities Conducted by Regulated Commercial Dischargers. Regulated commercial dischargers shall install, implement and maintain the BMPs specified in the manual for all locations, if any, where any of the following activities are conducted:

1. Vehicle and equipment operations;
2. Materials and waste management (including tanks); and
3. Outdoor work and storage functions.

E. Additional Minimum BMPs for Specific Types of Regulated Commercial Facilities and Activities. Regulated commercial dischargers, including but not limited to the types of facilities and activities listed below, shall install, implement and maintain the BMPs specified in the manual for each such type of facility or activity. BMPs must be installed, implemented and maintained for all applicable specific facility or activity types regardless of whether that activity is the primary activity of the regulated commercial discharger.

1. Automobile, other vehicle, or equipment repair, maintenance, fueling, or cleaning;
2. Boat repair, maintenance, fueling, or cleaning, including marinas;
3. Automobile or other vehicle body repair or painting;
4. Automobile or other vehicle parking and storage;
5. Painting and coating;
6. Eating and drinking establishments, including food markets;
7. Parking lots and storage facilities;
8. Cement mixing and cutting and masonry;
9. Mobile carpet, drape, and furniture cleaning;
10. Pool and fountain cleaning;
11. Portable sanitary servicing;
12. Mobile vehicle washing;
13. Pest control;
14. Landscaping, including cemeteries, botanical gardens, golf courses, and parks;
15. Nurseries and greenhouses;
16. Building materials retailers and storage;
17. Animal facilities, including zoological gardens; and
18. Power washing.

F. Additional Controls. Where necessary to prevent discharges from causing or contributing to violations of water quality standards, the City may require the implementation of additional controls for commercial dischargers tributary to 303(d) listed water body segments where the facility or activity generates pollutants for which the water body segment is impaired or for commercial dischargers within or directly adjacent to or discharging directly to receiving waters within ESAs. Additional controls may include but are not limited to implementation of

BMPs more stringent than the applicable minimum BMPs in this chapter and preparing a SWPPP or conducting monitoring as provided in Section 14.22.090 of this code.

14.22.120 Additional minimum best management practice requirements for industrial activities and facilities.

A. Application of Requirements. All regulated industrial dischargers must install, implement and maintain at least the applicable additional minimum BMPs, if any, specified in this section or in the manual for the category of activity or facility owned or operated by that discharger. All regulated industrial dischargers shall review their facilities, activities, operations and procedures at least annually to detect and eliminate illicit connections and illegal discharges. Corrective training shall be provided as needed (and documented in training records) whenever an illegal disposal practice is discovered.

B. Regulated Industrial Dischargers Identified. Dischargers that meet one or more of the criteria listed below are regulated industrial dischargers:

1. The facility is an industrial discharger, as defined in 40 CFR § 122.26(b)(14), including those subject to the state industrial general storm water permit or other individual NPDES permit

2. The facility is an operating and/or closed landfill.

3. The facility is subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

4. The facility is a hazardous waste treatment, disposal, storage, and/or recovery facility.

5. The facility is an industrial discharger tributary to a 303(d) listed water body and the facility generates a pollutant for which that water body is impaired.

6. The facility is a regulated industrial facility and is located within or directly adjacent to (i.e., within 200 feet) or discharges directly to a coastal lagoon or a receiving water body within an ESA.

C. Regulated industrial facilities must meet the applicable requirements set out in Section 14.22.040 through Section 14.22.090 for all discharges, the applicable requirements set out in Section 14.22.110 for regulated commercial facilities, any applicable requirements in Section 14.22.140, and the following practices:

1. Pollution Prevention Practices. Regulated industrial facilities shall consider and, where determined to be appropriate by the facility, shall implement the following measures to prevent the pollution of storm water and runoff:

a. The use of smaller quantities of toxic materials or substitution of less toxic materials;

b. Changes to production processes to reduce waste;

c. Decreases in waste water flows;

d. Recycling of wastes as part of the production process;

e. Segregation of wastes; and

f. Treatment of wastes on site to decrease volume and/or toxicity.

2. Non-structural BMPs. Regulated industrial facilities shall incorporate into the SWPPP, and install, implement and maintain, the following nonstructural BMPs. The implementation of these practices shall be consistent with specifications, if any, contained in the Manual.

a. BMPs for material handling and storage of significant materials;

b. BMPs for non-hazardous waste handling and recycling;

c. Preventive maintenance practices;

d. Self inspection and quality assurance practices; and

e. Spill response planning.

3. BMPs for Specific Activities. Regulated industrial facilities shall install, implement and maintain BMPs as specified in the manual for any commercial activities conducted at the facility (as identified in Section 14.22.110) and for areas at the facility where industrial activities are conducted. Industrial activities include but are not limited to the following:

a. Raw or processed materials bulk storage;

b. Mixing, where there is the potential for release of a pollutant;

c. Cutting, trimming or grinding in connection with a production process;

d. Casting, forging or forming;

e. Hazardous materials storage (including tanks);

f. Pesticide or other chemical products formulation or packaging;

g. Process water pre-treatment;

h. Solid waste storage;

i. Waste water treatment;

j. Welding;

k. Blasting;

l. Chemical treatment;

m. Loading and unloading significant materials;

4. Additional Structural BMPs. Regulated industrial facilities shall install, implement and maintain one or more of the additional structural BMPs listed below where practicable, if use of such BMPs would significantly reduce pollution in run-off from the facility. The discharger shall determine in the first instance which of these BMPs to implement. However, an authorized enforcement official can order that additional BMPs be used at a particular facility.

a. Overhead coverage of outdoor work areas or chemical storage;

b. Retention ponds, basins or other impoundments that confine storm water to the site;

c. Berms and concrete swales or channels that divert run-on and runoff away from contact with pollutant sources; and

d. Treatment controls to reduce pollutants in storm water or authorized non-storm water discharges. The design of proposed treatment controls must be approved by the City Engineer prior to implementation. Maintenance of treatment controls shall be the responsibility of the property owner.

D. Additional Requirements for Regulated Industrial Dischargers Subject to the State Industrial General Storm Water Permit.

1. Notice of Intent. Industrial dischargers required to comply with the state industrial general storm water permit shall maintain on site and make available for inspection on request by the City the state-issued waste discharge identification number (WDID) for the facility and a copy of the notice of intent (NOI) filed with the SWRCB pursuant to that permit. The discharger shall submit the WDID and a copy of that NOI to the City by mail if directed to do so by an authorized enforcement official. Regulated industrial dischargers which are potentially subject to the State industrial general storm water permit that have determined they do not require coverage under that permit must prepare and retain on site, and make available for inspection, a written report documenting and explaining that determination.

2. Storm Water Pollution Prevention Plan. Dischargers required to prepare a SWPPP under the state general industrial storm water permit must prepare the plan, implement the plan and maintain it at the site readily available for review. Failure to comply with an applicable state-required SWPPP is a violation of this chapter.

E. Additional Controls. Where necessary to prevent discharges from causing or contributing to violations of water quality standards, the City may require the implementation of additional controls for industrial dischargers tributary to 303(d) listed water body segments

where the facility or activity generates pollutants for which the water body segment is impaired or for commercial dischargers within or directly adjacent to or discharging directly to receiving waters within ESAs. Additional controls may include but are not limited to implementation of BMPs more stringent than the applicable minimum BMPs in this chapter and preparing a SWPPP or conducting monitoring as provided in Section 14.22.090 of this code.

14.22.130 Additional minimum best management practice requirements for municipal activities and facilities. Municipal facilities must meet the requirements set out in Sections 14.22.010 through 14.10.090 and, where applicable, Sections 14.22.150 and 14.22.160 of this chapter. In addition, these facilities and activities must install, implement and maintain at least the additional minimum BMPs, if any, specified in Section 14.22.120 or in the manual, for industrial areas and activities at the municipal facility.

14.22.140 City best management practices manual.

A. Effect of Manual. All dischargers who are required by this chapter to install, implement and maintain BMPs shall ensure that their selection of BMPs is consistent with the applicable specifications, if any, contained in the manual, for the category and priority of activity or facility owned or operated by that discharger. All BMPs installed, implemented or maintained to meet the requirements of this chapter must conform to the applicable specifications, if any, set out in this manual.

B. Existing Facilities. The manual sets out minimum BMPs and other objective specifications for specific types and categories of existing facilities and activities. Where minimum BMPs and objective specification are specified, they are mandatory. Where no minimum BMPs have been specified in the manual for a type and category of facility or activity, only the requirements set out in this chapter are applicable.

C. Ministerial Land Development Projects. Requirements applicable to development projects requiring only the kinds of ministerial permits listed in subsection 14.22.040(F)(2) of this chapter are set out in separately identified sections of the manual. Other requirements in the manual are not applicable to these projects during the development process. However, some additional requirements will apply to completed projects when they become subject to this chapter as residential, commercial or industrial facilities.

D. Discretionary Land Development and Redevelopment Projects. The manual sets out minimum BMPs, other objective specifications and water quality standards for land development projects requiring one or more of discretionary permits listed in subsection 14.22.040(F)(1) of this chapter. The minimum BMPs and other objective specifications in the manual are applicable to both ministerial and discretionary land development projects. The BMPs in the manual are applicable to projects that require a discretionary City permit or approval and shall be implemented through specific permit conditions. Development project proponents must determine whether their project design will meet the water quality standards for their facility or activity and must redesign their project and/or install, implement and maintain additional BMPs where needed to meet applicable water quality standards.

E. Conflicting or More Detailed Requirements. In case of any conflict between any applicable minimum BMPs specified in this chapter and any applicable requirements described in more detail for a particular type of facility or activity in the manual, the requirement in the manual shall prevail.

14.22.150 Additional requirements for land disturbance activity.

A. Permit Issuance. No land owner or development project proponent shall receive any City grading, clearing, building or other land development permit required for land disturbance activity without first meeting the requirements of this chapter with respect to the

portion of the development project and the land disturbance activity to which the permit at issue would apply.

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

C. Storm Water Management Plan. All applications to the City for a permit or approval associated with a land disturbance activity must be accompanied by a storm water management plan, on a form or in a format specified by the City. The storm water management plan shall specify the manner in which the discharger/applicant will implement the BMPs required by this chapter for the activity at issue, including but not limited to the applicable BMPs required by subsection (D) below.

D. Additional Minimum BMPs for Land Disturbance Activity. Whether a City permit or approval is required or not and whether a Storm Water Management Plan is required to be submitted or not, all dischargers engaged in land disturbance activity shall implement BMPs as detailed in the manual in the following additional areas if applicable to the project:

1. Erosion control on slopes
2. Erosion control on flat areas; or BMPs to desilt runoff from flat areas
3. Runoff velocity reduction
4. Sediment control
5. Offsite sediment tracking control
6. Materials management
7. Waste management
8. Vehicle and equipment management
9. Water conservation
10. Structure construction and painting
11. Paving operations
12. Dewatering operations
13. Planned construction operations
14. Downstream erosion control
15 Prevention of non-storm water discharges
16. Protection of ground water

E. Control to the MEP. All dischargers engaged in land disturbance activity must install, implement and maintain those additional BMPs, if any, that are needed to prevent or reduce pollutant discharges in storm water from land disturbance to the MEP.

F. Notice of Intent. Dischargers required to comply with the state construction general storm water permit shall maintain on site and make available for inspection on request by the City any state-issued waste discharge identification number (WDID) for the site and a copy of the notice of intent (NOI) filed with the SWRCB pursuant to that permit.

G. Storm Water Pollution Prevention Plan. Dischargers required to prepare a SWPPP under the state general construction storm water permit must prepare the plan, implement the plan and maintain it at the site, readily available for review. Failure to comply with an applicable state-required SWPPP is a violation of this chapter.

H. Facility Monitoring. Dischargers required to conduct monitoring under the state construction general storm water permit must conduct such monitoring in conformance with requirements specified by the state, retain records of such monitoring on site and make such records available for inspection by an authorized enforcement official.

I. Additional Controls. Where necessary to prevent discharges from causing or contributing to violations of water quality standards, the City may require the implementation of additional controls for dischargers engaged in land disturbance activity tributary to 303(d) listed

water body segments where the land disturbance area or activity generates pollutants for which the water body segment is impaired or for dischargers engaged in land disturbance activity within or directly adjacent to or discharging directly to receiving waters within ESAs. Additional controls may include but are not limited to implementation of BMPs more stringent than the applicable minimum BMPs listed in this chapter.

14.22.160 Additional planning, design and post-construction requirements for all land development and redevelopment projects.

A. Application to Development and Redevelopment Projects. No land owner or development project proponent in the City shall receive any City permit or approval listed in Section 14.22.040(F) of this chapter for land development activity or significant redevelopment activity unless the project meets or will meet the requirements of this chapter. Post-construction BMP requirements imposed by this section and by the manual shall not apply to those physical aspects of the project that have been completed or substantially completed pursuant to and as required by a valid City permit or approval, at the time a complete application for a subsequent permit or approval is submitted.

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

C. Post-Construction BMPs Required. Land development and redevelopment projects with the potential to add pollutants to storm water or to affect the flow rate or velocity of storm water runoff after construction is completed, shall be designed to include and shall implement post-construction BMPs to ensure that pollutants and runoff from the development will be reduced to the MEP, will not significantly degrade receiving water quality and will not cause or contribute to an exceedance of receiving water quality objectives.

D. Natural BMPs. 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.

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

F. Storm Water Management Plan Review Fee and Deposit. Fees for storm water management plan review and deposit thereof shall be adopted by resolution.

G. Additional Minimum Post-Construction BMPS for Land Development Activity. 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. Low Impact Development (LID) site design BMPs, such as impervious surface minimization; and appropriate use of buffer areas to protect natural water bodies.

5. LID 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. Treatment Control 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. Off-site structural BMPs may be used for treatment and infiltration necessary to meet water quality standards only if the conveyance of run-off 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 on-site source control BMPs required by the manual.

9. When an infiltration BMP is used, related BMPs set out in the manual (including but not limited to siting constraints), to protect present uses of ground water and future uses of that ground water as currently designated in the applicable RWQCB Basin Plan. (Discharges to infiltration BMPs may also require an RWQCB permit and additional state requirements may also be applicable to these discharges.)

10. Other applicable BMPs required by the manual.

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

14.22.170 Maintenance of BMPs.

A. Existing Development. Residential, commercial, industrial, agricultural and municipal dischargers shall maintain the BMPs they rely upon to achieve and maintain compliance with this chapter.

B. New Development. The owners and occupants of lands on which structural post-construction BMPs have been installed to meet the requirements of this chapter shall ensure the maintenance of those BMPs and shall maintain those BMPs by contract or covenant or pursuant to this chapter. The owners of lands on which BMPs have been installed to meet the requirements of this chapter and applicable SUSMP requirements are responsible for maintenance of those BMPs, shall enter into a BMP maintenance agreement contract or equivalent agreement with the City, and shall provide annual verification that appropriate maintenance is conducted for all treatment control BMPs.

C. Maintenance Obligations. Primary responsibility to maintain a BMP may be transferred through a contract or other agreement. If that contract provides that it will be submitted to the City pursuant to this chapter as part of a development permit application and if that contract is so submitted, the person or entity accepting a maintenance obligation in such a contract or agreement will also be legally obliged to maintain that BMP pursuant to this chapter.

D. Obligation to Maintain BMPs Not Avoided by Contracts or Other Agreements. For purposes of City enforcement, no contract or other agreement imposing an obligation to

maintain a BMP can relieve a person or entity of any obligation to maintain a BMP imposed by this chapter.

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

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

G. Access Easement/Agreement. The proponents of any land development project, or significant redevelopment project that requires a discretionary City permit, shall agree to a condition of approval that provides the City access for inspection and maintenance of BMPs or, at the discretion of the City, shall provide to the City for review and approval prior to issuance of such permit an executed, permanent, easement onto the land on which post-construction structural BMPs will be located (and across other lands as necessary for access), to allow inspection and/or maintenance of those BMPs.

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

14.22.180 Inspection and sampling.

A. Regulatory Inspections. Authorized enforcement officials may inspect facilities, activities and residences subject to this chapter at reasonable times and in a reasonable manner to carry out the purposes of this chapter. If entry for a regulatory inspection is refused by the facility owner or operator or by the occupant of a residence, an inspection warrant shall be obtained prior to inspection.

B. Access Easements. When any new structural BMP is installed on private property as part of a project that requires a City permit, in order to comply with this chapter, the property owner shall agree to a condition of approval that provides the City access for inspection and maintenance of BMPs or, at the discretion of the City, shall provide to the City for review an easement to enter the property at reasonable times and in a reasonable manner to ensure that the BMP is working properly. This includes the right to enter the property without prior notice once per year for routine inspections, to enter as needed for additional inspections when the City has a reasonable basis to believe that the BMP is not working properly, to enter for any needed follow-up inspections and to enter when necessary for abatement of a nuisance or correction of a violation of this chapter.

C. Scope of Inspections. Inspections may include all actions necessary to determine whether any illegal discharges or illegal connections exist, whether the BMPs installed and implemented are adequate to comply with this chapter, whether those BMPs are being properly maintained and whether the facility or activity complies with the other requirements of this chapter. This may include but may not be limited to sampling, metering, visual inspections and

records review. Where samples are collected, the owner or operator may request and receive split samples. Records, reports, analyses or other information required under this chapter may be inspected and copied and photographs taken to document a condition and/or a violation of this chapter.

14.22.190 Enforcement. The City Engineer shall be the primary enforcement official for this chapter. When appropriate or necessary, this chapter may also be enforced by any other official or officer who is charged by the municipal code with code enforcement authority. The enforcement of this chapter shall be accomplished in the same manner as provided in Chapter 7.32 of this code except that reference to the term “code conformance officer” in Chapter 7.32 shall include the enforcement official as defined in this chapter and that all references to “Title 7” shall mean this storm water management and control ordinance for the purposes of enforcement of this chapter only.

The authorized enforcement official may exercise any of the following supplemental enforcement powers as may be necessary to effectively implement and enforce this chapter:

1. Carry out any sampling activities, including taking samples from the property of any person or from any vehicle which any authorized representative of the enforcement agency reasonably believes is currently, or has in the past, caused or contributed to causing an illicit storm-water discharge to the storm water conveyance system. Upon request, split samples shall be given to the person from whose property or vehicle the samples were obtained;

2. Stop and inspect any vehicle reasonably suspected of causing or contributing to an illicit discharge to the storm water conveyance system when accompanied by a uniformed police officer in a clearly marked vehicle;

3. Conduct tests, analyses and evaluations to determine whether a discharge of storm water is an illicit discharge or whether the requirements of this chapter are met;

4. Photograph any effluent stream, material or waste, material or waste container, container label, vehicle, waste treatment process, waste disposal site or condition contributing to storm water pollution and constituting a violation of this chapter found during an inspection;

5. Review and obtain a copy of the storm water pollution prevention plan prepared by an owner and/or occupant or facility operator, if such a plan is required;

6. Require the owner and/or occupant or facility operator to retain evidence, as instructed by the inspector, for a period not to exceed thirty days;

7. Review and obtain copies of all storm water monitoring data complied by the owner and/or occupant or facility operator, if such monitoring is required;

8. The authorized enforcement official may issue warning notices to any person owning or occupying a premise to clean up and abate any release of pollutants on the premise, which may result in a violation of this chapter. The authorized enforcement official may also order the abatement of pollutant storage practices, which may reasonably result in such a violation;

9. The authorized enforcement official may require reasonable monitoring of discharges from any premises to the storm water conveyance system and shall have the authority to order the mitigation of circumstances which may result in illegal discharges to the MEP.

10. Enter upon and conduct inspections or samplings as may be required of any premises, facilities or equipment, including monitoring and control equipment, to ensure compliance with the SUSMP and Jurisdictional Urban Runoff Management Program (JURMP). The authority to conduct reasonable inspections and the obligation of an owner or occupant to

allow such inspection upon presentation of official credential is conferred and shall be exercised pursuant to Chapters 1.12 and 1.20 of this code.

14.22.200 Enforcement authority. Authorized enforcement officials may enforce this chapter and abate public nuisances as follows.

A. Administrative Authorities.

1. Administrative Penalties. Administrative penalties may be imposed in accordance with the provisions for administrative penalties set forth in Chapter 1.48. Administrative penalties may include the recovery of fines assessed against the City of National City by the RWQCB. Any later-enacted administrative penalty provision in this code shall also be applicable to this chapter, unless otherwise provided therein.

2. Cease and Desist Orders. Written and/or verbal orders pursuant to Section 1.12.030 may be issued to stop illegal discharges and/or remove illegal connections. If it is determined by an authorized enforcement official that the public interest requires the posting of bond or other security to assure the violation is corrected, such bond or security may be required by the authorized enforcement official.

3. Notice and Order to Clean, Test or Abate. Written and/or verbal orders may be issued to perform any act required by this chapter.

4. Public Nuisance Abatement. Violations of this chapter are deemed a threat to public health, safety and welfare; and constitute a public nuisance. If actions ordered under subsections 14.22.200(A) (2) and (3) are not performed, the authorized enforcement official may abate any public nuisance pursuant to this code. City costs for pollution detection and abatement, if not paid in full by the discharger in addition to any other penalties, may be made a lien against the property in accordance with the abatement procedure.

5. Stop Work Orders. Whenever any work is being done contrary to the provisions of this chapter or other laws implemented through enforcement of this chapter, an authorized enforcement official may order the work stopped by notice in writing in accordance with Section 1.12.030 served on any person engaged in the doing or causing such work to be done, and any such person shall immediately stop such work until authorized by the authorized enforcement official to proceed with the work.

6. Permit Suspension or Revocation. Violations of this chapter may be grounds for permit and/or other City license suspension or revocation in accordance with this code.

B. Judicial Authorities.

1. Civil Penalties and Remedies. The City Attorney is hereby authorized to file criminal and civil actions to enforce this chapter and to seek civil penalties and/or other remedies as provided in this section and in Section 14.22.220 of this chapter. There is no requirement that administrative enforcement procedures be pursued before such actions are filed.

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

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

14.22.210 Other acts and omissions that are violations. In addition to the violations identified in Sections 14.22.010 through 14.22.200 of this chapter, the following acts and

omissions are violations of this chapter, whether committed by a discharger or by another person or entity:

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

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

C. Failure to Promptly Correct Noncompliance. Violations of this chapter must be corrected within the time period specified by an authorized enforcement official. Each day (or part thereof) in excess of that period during which action necessary to correct a violation is not initiated and diligently pursued is a separate violation of this chapter.

D. City Permits and SWPPPs. Any failure to conform to an applicable SWPPP prepared pursuant to this chapter; any failure to comply with storm water-related provisions of a City-issued grading permit or grading plan prepared to secure such a permit; and any failure to comply with storm water related provisions in any other City permit or approval, is also a violation of this chapter. For purposes of this chapter a permit provision or condition of approval is “storm water-related” if compliance with the provision or condition would have the effect of preventing or reducing contamination of storm water or of moderating run-off flows rates or velocities, whether or not the provision or condition was initially imposed to promote those outcomes.

14.22.220 Penalties.

A. Administrative Penalties. Administrative penalties may be imposed pursuant to this code. Any later-enacted administrative penalty provision in the Code shall also be applicable to violations of this chapter, unless otherwise provided therein.

B. Misdemeanor Penalties. Non-compliance with any part of this chapter may be charged as a misdemeanor and may be enforced and punished as prescribed in the Penal Code and Government Code of the state of California and this code.

C. Penalties for Infractions. Any violation of this chapter may be charged as an infraction at the discretion of the prosecutor. Infractions may be abated as a nuisance or enforced and punished as prescribed in the Penal Code and Government Code of the state of California and this code.

D. For Civil Actions. In addition to other penalties and remedies permitted in this chapter, a violation of this chapter may result in the filing of a civil action by the City. Except where a maximum monetary amount is specified, the following may also be awarded without monetary limitations in any civil action:

1. Injunctive relief;
2. Costs to investigate, inspect, monitor, survey or litigate;
3. Costs to place or remove soils or erosion control materials, costs to correct any violation and costs to restore environmental damage or to end any other adverse effects of a violation;
4. Compensatory damages for losses to the City or any other plaintiff caused by violations; and/or restitution to third parties for losses caused by violations;
5. Civil penalties;
6. Reasonable attorney fees; and
7. Fines assessed against the City by the RWQCB.

As part of a civil action filed by the City to enforce provisions of this chapter, a court may assess a maximum civil penalty of two thousand five hundred dollars per violation of this chapter for each day during which any violation of any provision of this chapter is committed, continued, permitted or maintained by such person(s).

In determining the amount of any civil liability to be imposed pursuant to this chapter, the court shall take into consideration the nature, circumstances, extent and gravity of the violation or violations, whether any discharge caused the violation is susceptible to cleanup or abatement and, with respect to the violator, the ability to pay, the effect on ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic savings, if any resulting from the violation, and such other matters as justice may require.

E. Penalties and Remedies Not Exclusive. Penalties and remedies under this section may be cumulative and in addition to other administrative, civil or criminal remedies.

14.22.230 Restrictions and conditions on issuance of ministerial and discretionary development permits. All development permits issued by City departments shall be subject to review and compliance with SUSMP and best management practices for storm water management. The City Engineer may require conditions for SUSMP compliance for development permit issuance, and no permit shall be issued by any department or City agency without those conditions being incorporated into the permit. Conditions which may be required for new construction, alterations to existing structures, land grading or excavation may include, but shall not be limited to the following:

1. Installation of rain gutters, brow ditches, curbing and berms;
2. Drainage flow, flow redirection and directional flow control;
3. Installation of French drains;
4. Installation of clarifiers, filters or liquid traps;
5. Installation of reservoirs, holding and settling tanks or filtration systems;
6. Maintenance and monitoring programs and adequate funding for required systems and programs;
7. Payment of program compliance monitoring fees;
8. Any other requirements as may reasonably and rationally relate to meeting SUSMP objectives and requirements.

This authority shall also include the right to require monitoring and compliance programs on each project to be guaranteed by adequate security and servitudes or conditions running with the land on which the project is located to be recorded with the county recorder. If an off-site system is used, appropriate easements shall be required to be obtained and recorded against that site to ensure the maintenance and inspection of any required system and its installed facilities on the project site.

PASSED and ADOPTED this 19th day of February, 2008.

_____
Ron Morrison, Mayor

ATTEST:

_____
Michael R. Dalla, City Clerk

APPROVED AS TO FORM:

_____
George H. Eiser, III
City Attorney

ORDINANCE NO. 2008 – 2306

AN ORDINANCE OF THE CITY COUNCIL
OF THE CITY OF NATIONAL CITY
ADOPTING APPENDIX J OF THE 2007
CALIFORNIA BUILDING CODE AND
AMENDING CHAPTER 15.70 (GRADING)
OF THE NATIONAL CITY MUNICIPAL CODE

The City Council of the City Of National City does ordain as follows:

Section 1. The City Council of the City of National City hereby adopts Appendix J of the 2007 California Building Code.

Section 2. The City Council of the City Of National City hereby amends Title 15, Chapter 15.70 of the National City Municipal Code to read as follows:

Chapter 15.70

GRADING

Sections:

15.70.005 Adoption of Appendix J of the 2007 California Building Code — Amended.

15.70.010 Purpose.

15.70.015 Appendix J of the 2007 California Building Code, Section J101 General, Subsection 1 Scope — Amended.

15.70.020 Appendix J of the 2007 California Building Code, Section J102 Definitions — Amended.

15.70.025 Hazards and safety precautions.

15.70.030 Appendix J of the 2007 California Building Code, Section J103, Permits Required, Subsection 2.1 Exemptions – Amended.

15.70.035 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.2 – Amended.

15.70.040 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.5 – Amended.

15.70.045 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.6 – Amended.

15.70.050 Appendix J of the California Building Code Exemptions, Section J103.2.8 – Added.

15.70.055 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.9 – Added.

15.70.060 Appendix J of the 2007 California Building Code, Section J104.5 – Engineered Grading Requirements – Added.

15.70.065 Appendix J of the 2007 California Building Code, Section J104.6 Regular Grading and Retaining Wall Construction Requirements – Added.

15.70.070	Appendix J of the 2007 California Building Code, Section J104.7 Licenses and Insurance – Added.
15.70.075	Appendix J of the 2007 California Building Code, Section J104.8 Conditions – Added.
15.70.080	Appendix J of the 2007 California Building Code, Section J105.3 Inspections – Added.
15.70.085	Appendix J of the 2007 California Building Code, Section J106.1 (2) Exemptions– Amended.
15.70.090	Appendix J of the 2007 California Building Code, Section J107 Fills, Subsection 1 General – Amended.
15.70.095	Appendix J of the 2007 California Building Code, Section J107 Fills, Subsection 2 Surface Preparation – Amended.
15.70.100	Appendix J of the 2007 California Building Code, Section J107 Fills, Subsection 4 – Amended.
15.70.105	Appendix J of the 2007 California Building Code, Section J108 Setbacks, Subsection 1 – Amended.
15.70.110	Appendix J of the 2007 California Building Code, Section J108 Setbacks, Subsection 2 Top of Slope – Amended.
15.70.115	Appendix J of the 2007 California Building Code, Section J108 Setbacks, Figure J108.1, Drainage Dimensions – Amended.
15.70.120	Appendix J of the 2007 California Building Code, Section J108 Setbacks, Subsection 3 Slope Protection – Amended.
15.70.125	Appendix J of the 2007 California Building Code, Section J109 Drainage and Terracing, Subsection 4 Drainage – Amended.
15.70.130	Appendix J of the 2007 California Building Code, Section J109 Drainage and Terracing, Subsection 5 Surface Run-off Interception – Added.
15.70.135	Appendix J of the 2007 California Building Code, Section J109 Drainage and Terracing, Subsection 6 Easements and Encumbrances – Added.
15.70.140	Appendix J of the 2007 California Building Code, Section J110 Erosion Control, Subsection 3 Stormwater Erosion and Sediment– Added.
15.70.145	Grading fees.
15.70.150	Completion of work.
15.70.155	Rough grading permit.
15.70.160	Parking lots.
15.70.0165	Bonds.
15.70.170	Violation a misdemeanor.

15.70.005 Adoption of Appendix J of the 2007 California Building Code – Amended.

There is adopted by the city council for the purpose of prescribing regulations governing the excavation and grading on private property, and the issuance of permits and providing for the inspection thereof, Appendix J of the 2007 California Building Code, subject to the amendments, additions and deletions set forth in this chapter. A copy of this adopted code is on file in the office of the City Engineer.

15.70.010 Purpose. The purpose of this ordinance is to safeguard life, limb, property, and the public welfare by regulating grading and other earthwork activities, or by controlling existing fills and excavations, and the construction of retaining walls, drainage facilities on private property and to ensure that soil erosion, sedimentation, and storm water runoff are regulated to reduce, to the Maximum Extent Practicable, Pollutants entering the Storm Water Conveyance System and Waters of the State to protect water quality.

15.70.015 Appendix J of the 2007 California Building Code, Section J101 General, Subsection 1 Scope – Amended. Section J101, Subsection 1 of the 2007 California Building Code is amended to read as follows:

> J101.1 Scope. This ordinance sets forth rules and regulations to control excavation, grading, drainage, earthwork construction, including fills and embankments, and retaining wall construction; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading and retaining wall construction.

15.70.020 Appendix J of the 2007 California Building Code, Section J102 Definitions – Amended. The following shall be supplementary to, or modify certain definitions given in the 2007 California Building Code in Appendix J Section J102. All other definitions listed in the 2007 Building Code shall remain applicable. Section J102 of the 2007 California Building Code is amended to read as follows:

> APPROVAL. The term "approval" does not constitute certification of the project as a whole in terms of completeness, accuracy, design and construction standards, as shown on the plans.
>
> AUTHORITY HAVING JURISDICTION**.** The Authority Having Jurisdiction means the City Engineer of the City of National City and any duly authorized representative.
>
> BEST MANAGEMENT PRACTICES OR BMPS - means schedules of activities, pollution treatment practices or devices, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices or devices to prevent or reduce the discharge of pollutants directly or indirectly to Storm Water, Receiving Waters, or the Storm Water Conveyance System. Best Management Practices also include but are not limited to treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage. Best Management Practices may include any type of pollution prevention and pollution control measure that can help to achieve compliance with this Chapter. Best Management Practices may include any type of pollution prevention and pollution control measure, which the City Engineer finds, is necessary to reduce pollutants entering the Waters of the State to the Maximum Extent Practicable.
>
> BUILDING OFFICIAL - Means the City Engineer.

CIVIL ENGINEER - Is a professional engineer registered in the state to practice in the field of civil works. He or she is the person directly responsible for the project design, plan certification, and construction supervision.

DRAINAGE PLAN - A plan which shows existing and proposed site drainage within a property that is to be developed or rough graded. The drainage plan shall be prepared by a Registered Civil Engineer, an Architect, or other qualified and licensed professionals, and shall comply with the standards and requirements of the City Engineer. If, for a given development, no grading is proposed, or the earthwork quantity involved in the grading is below the established limit of this ordinance, and for which a grading plan is not required, then as a minimum, a drainage plan shall be submitted for the development.

EROSION CONTROL PLAN - is a plan prepared under the direction of and signed by a Civil Engineer competent in the preparation of such plans and knowledgeable about current erosion control methods. The plan shall provide for protection of exposed soils, prevention of discharge of sediment, and desiltation of runoff at frequent intervals along flowage areas, at entrances to storm drains, at entrances to streets and driveways, and at the exit of the area being graded.

EROSION CONTROL SYSTEM - means any combinations of desilting facilities, retarding basins, flow decelerates, and/or erosion protection (including effective planning and the maintenance thereof) to protect the project site, adjacent private property, watercourses, public facilities, graded improvements, existing natural facilities, archaeological artifacts, and relieve waters of suspended sediments or debris prior to discharge from the site.

GRADE - Means the vertical location of the ground surface, in relation to a National City benchmark elevation.

MAXIMUM EXTENT PRACTICABLE OR MEP - means the standard established by Congress in Clean Water Act section 402(p)(3)(B)(iii) that municipal dischargers of Storm Water must meet. MEP is an acceptability standard for Best Management Practices based on a level of pollutant reduction that can be achieved by the most effective set of BMPs that can be implemented and still remain practicable; MEP generally emphasizes pollution prevention and source control BMPs as the first line of defense in combination with treatment methods as a backup.

PERMITTEE - means any person, corporation, partnership, limited liability company, non-profit entity, joint venture, association of any type, public entity or any other legal entity, which submits an application for a permit pursuant to this Chapter.

POLLUTANT - means any agent that may cause or contribute to the degradation of water quality, including, but not limited to, Earth Materials.

RAINY SEASON - means the period beginning October 1st and ending April 30th in the next calendar year. The remainder of the year is the Dry Season.

RETAINING WALL PLAN - A plan prepared by a registered Civil Engineer, an architect, or other qualified professional, which shows pertinent top and bottom of wall elevations and the wall profile, together with the existing and proposed ground elevations and profile at the wall. The plan shall be prepared in accordance with the requirements set forth by the City Engineer, and shall be subject to approval by the City Engineer. The plan shall be required for walls in excess of 3 feet in height, measured from the top of the footing, to the top of the wall, and for walls less than or equal to 3 feet in height measured from the top of the footing, to the top of the wall, supporting a surcharge or a sloped backfill. The retaining walls shall be in accordance with the Regional Standard Drawings, and the Standard Specifications, or shall be specially engineered.

STORM WATER CONVEYANCE SYSTEM - means private and public drainage facilities within the City of National City by which Storm Water may be conveyed to Waters of the United States, including but not limited to, streets, roads, catch basins, natural and artificial channels, natural and artificial drainage features, aqueducts, canyons, stream beds, gullies, curbs, gutters, ditches, and storm drains. Historic and current development makes use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are part of the Storm Water Conveyance System regardless of whether they are natural, man-made, or partially modified features.

WATERS OF THE STATE means any water, surface or underground, including saline waters within the boundaries of California. The definition of the "Waters of the State" is broader than that for the "Waters of the United States" in that all water in the State is considered to be a "Waters of the State" regardless of circumstances or condition. Under this definition, a municipal storm sewer system (MS4) is always considered to be a "Waters of the State". [California Water Code Section 13050 (e)].

WATERS OF THE UNITED STATES means water subject to the regulatory jurisdiction of the United States under the Federal Clean Water Act and applicable case law. In general, this includes "navigable" waters, waters tributary to "navigable" waters, and adjacent wetlands. [40 Code of Federal Regulations section 122.2.]"

15.70.025 Hazards and safety precautions. If, at any stage of work, the City Engineer determines that authorized grading is likely to endanger any public or private property or result in the deposition of debris on any public way or interfere with any existing drainage course, the City Engineer may specify and require reasonable safety precautions to avoid the danger. The Permittee shall be responsible for removing excess soil and debris deposited upon adjacent and downstream public or private property resulting from Permittee's grading operations. Soil and debris shall be removed and damage to adjacent and downstream property repaired as directed by the City Engineer. Erosion and siltation control shall require temporary or permanent siltation basins, energy dissipaters, or other measures as field conditions warrant, whether or not such measures are a part of approved plans. The Permittee shall incur cost associated with any work outlined in this section.

The City Engineer shall not issue a grading permit in any case where the City Engineer finds that the work, as proposed by the applicant, will damage any private or public property, or interfere with any existing drainage course in a manner which may cause damage to any adjacent property, or result in the depositing of debris on any public way, or create an unreasonable hazard to person or property, or cause or contribute to an exceedance of state water quality objectives, or fail to reduce pollutants from the site to the Maximum Extent Practicable.

15.70.030 Appendix J of the 2007 California Building Code, Section J103 Permits Required, Subsection.2.1 Exemptions – Amended. Section J103.2.1 of the 2007 California Building Code is amended to read as follows:

1. When approved by City Engineer, grading in an isolated or self-contained area, provided there is no danger to the public, and such grading will not adversely affect adjoining properties.

15.70.035 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.2 – Amended. Section L103.2.2 of the 2007 California Building Code is amended to read as follows:

2. AMENDED - An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation or exempt any excavation having an unsupported height greater than 5 feet (1525 mm) after the completion of such structure.

15.70.040 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.5 – Amended. Section J103.2.5 of the 2007 California Building Code is amended to read as follows:

5. Excavations for wells or trenches for utilities on private property.

15.70.045 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.6 – Amended. Section J103.2.6 of the 2007 California Building Code is amended to read as follows:

6. Mining, quarrying, excavating, processing or stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property, excepting the dumping and stockpiling of dirt and rubble, which is strictly prohibited in National City.

15.70.050 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.8 – Added. Section J103.2.8 of the 2007 California Building Code is added to read as follows:

8. A retaining wall less than or equal to three (3) feet in height measured from the top of the footing to the top of the wall, when no surcharge is present, the backfill is level, and when not an integral part of a building. However, the construction of the retaining wall shall comply with the Regional Standard Drawings.

15.70.055 Appendix J of the 2007 California Building Code Exemptions, Section J103.2.9 – Added. Section J103.2.9 of the 2007 California Building Code is added to read as follows:

9. A fill less than 1 foot (305 mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical in 5 units horizontal (20% slope), or less than 3 feet (914 mm) in depth, not intended to support structures, that does not exceed 50 cubic yards (38.3 m^3) on any one lot and does not obstruct a drainage course.

15.70.060 Appendix J of the 2007 California Building Code, Section J104.5 Engineered Grading Requirements – Added. Section J104.5 of the 2007 California Building Code is added to read as follows:

J104.5 Engineered Grading Requirements - Application for a grading permit shall be accompanied by a work schedule including details of the hauling

operation, size of trucks, haul route, dust and debris control measures and time and frequency of haul trips; four sets of plans and specifications; and two sets of supporting data consisting of a soils engineering report, engineering geology report (if necessary), drainage study, structural calculations, cost estimate, and other pertinent information as may be required by the City Engineer and all relevant information listed in the plan checklists as developed by the City Engineer.

15.70.065 Appendix J of the 2007 California Building Code, Section J104.6 Regular Grading and Retaining Wall Construction Requirements – Added. Section J104.6 of the 2007 California Building Code is added to read as follows:

J104.6 Regular Grading and Retaining Wall Construction Requirements – Each application for a grading or retaining wall permit shall be accompanied by four sets of plans and specifications, in sufficient clarity to indicate the nature and extent of the work, supporting data consisting of a soils engineering report, engineering geology report (if necessary), drainage study, structural calculations, cost estimate, and other pertinent information as required by the City Engineer. The plans shall give the location of the work, the name of the owner and the name of the person who prepared the plans. The plans shall be prepared and signed by a registered Civil Engineer when required by the City Engineer, and shall include the following information:

1. General vicinity of the proposed site.
2. Limiting dimensions and depth of cut and fill.
3. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet of the proposed grading.
4. All other relevant information listed in the plan checklists as developed by the City Engineer.

15.70.070 Appendix J of the 2007 California Building Code, Section J104.7 Licenses and Insurance – Added. Section J104.7 of the 2007 California Building Code is added to read as follows:

J104.7 Licenses and Insurance – Prior to the issuance of a permit, the applicant or the applicant's contractor shall present to the City Engineer evidence of the following:

I. Coverage of general liability insurance and worker's compensation in the amounts required by the City Engineer. Such insurance policy shall name the City of National City and its officers, agents and employees as additional insured.

II. City Business License, to be obtained from the City Revenue and Recovery Coordinator.

III. Appropriate State Contractor License

15.70.075 Appendix J of the 2007 California Building Code, Section J104.8 Conditions – Added. Section J104.8 of the 2007 California Building Code is added to read as follows:

A. Standards. All grading, drainage, and retaining wall work done under this ordinance shall be in accordance with the approved plans and the conditions of the required permits. The work shall conform to the Standards of

the City of National City, the County of San Diego Regional Standard Drawings (latest adopted edition), the Standard Specifications for Public Works

Construction (latest adopted edition), and any other conditions as may be determined by the City Engineer to be applicable to the work. Deviations from the requirements of these standards may be permitted by the City Engineer, based upon written reports and recommendations by qualified authorities.

B. Water Quality. It shall be a condition of every permit issued under this Chapter that the Permittee shall comply with all the provisions of the City of National City Watercourse Protection, Storm Water Management and Discharge Control Ordinance in Chapter 14.22 of this Code.

C. Minimum BMPs. The BMPs required by the City of National City Storm Water Best Management Practices Manual adopted in this Municipal Code shall be the minimum BMPs required for issuance of a grading permit and additional BMPs may be required by the City Engineer as a condition of issuance of the grading permit.

D. Grading Plan Requirements. All grading plans, regardless of the date of submittal, shall include an erosion control plan designed to limit erosion of all disturbed portions of the property and to eliminate the transport of soil onto adjacent properties or into streets, storm drains, or drainage ways.

E. Standard Urban Storm Water Mitigation Plan (SUSMP) Checklist**.** A SUSMP checklist as created by the City Engineer shall be submitted with plans

15.70.080 Appendix J of the 2007 California Building Code, Section J105.3 Inspections – Added**.** Section J105.3 of the 2007 California Building Code is added to read as follows:

J105.3 The Permittee or his agent shall notify the City Engineer:

A. Initial inspection (pre-construction conference) - when he is ready to begin grading and not less than forty-eight (48) hours before any grading is to be commenced. The pre-construction meeting shall be attended by the owner of the property, the soils engineer and the engineering geologist (when necessary) the design engineer, the grading contractor, and the building and engineer inspectors.

B. Toe of fill inspection. After the natural ground is exposed and prepared to receive fill, but before any fill is placed.

C. Excavation Inspection - After excavation and placement is started, but before the vertical depth of the excavation exceeds 10 feet.

D. Fill Inspection. After fill and placement is started, but before the vertical height of the lifts exceeds 10 feet.

E. Drainage Device Inspection - Before and after forms and reinforcement are in place, but before any concrete is placed

F. Rough Grading. Upon completion of all rough grading, including installation of all drainage structures and other protective devices, at least twenty-four hours before inspection is to be made.

G. Final Inspection. Upon completion and approval by the project Civil Engineer and Soils Engineer of all work shown on the plans and the permit including the installation of all drainage or other structures.

H. In addition to the above, inspections for retaining walls shall be per the San Diego County Regional Standard Drawings or special Engineering.

I. Modification of approved plans. if changes are to be made in the approved plans during construction, the applicant, or his agent, shall submit an engineering change order to the inspector or to the City Engineer, for review and approval.

15.70.085 Appendix J of the 2007 California Building Code, Section J106.1 (2) Exceptions – Added. Section J106.1 (2) of the 2007 California Building Code is added to read as follows:

J106.1 (2) A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100%) only when approved by the City Engineer.

15.70.090 Appendix J of the 2007 California Building Code, Section J107 Fills. Subsection 1 General – Amended. Subsection J107.1 of the 2007 California Building Code is amended to read as follows:

J107.1 General. Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section.

In the absence of an approved soils engineering report, these provisions may be waived for minor fills not intended to support structures.

15.70.095 Appendix J of the 2007 California Building Code, Section J107 Fills, Subsection 2 Surface Preparation, – Amended. Subsection J107.2 of the 2007 California Building Code is amended to read as follows:

J107.2 Surface preparation. Fill slopes shall not be constructed on natural slopes steeper than 1 unit vertical in 2 units horizontal (50% slope). The ground surface shall be prepared to receive fill by removing vegetation, non-complying fill, topsoil and other unsuitable materials scarifying to provide a bond with the new fill and, where slopes are steeper than 1 unit vertical in 5 units horizontal (20% slope) and the height is greater than 5 feet (1524 mm), by benching into sound bedrock or other competent material as determined by the soils engineer. The bench under the toe of fill shall be at least 10 feet (3048 mm) wide. The area beyond the toe of fill shall be at least 10 ft (3048 mm) wide but the cut shall be made before placing the fill and acceptance by the soils engineer or engineering geologist or both, as a suitable foundation for fill.

15.70.100 Appendix J of the 2007 California Building Code, Section J107 Fills, Subsection 4 – Amended. Subsection J107.4 of the 2007 California Building Code is amended to read as follows:

J107.4 Fill Material. Organic material shall not be permitted in fills. Except as permitted by the City Engineer, no rock or similar irreducible material with a maximum dimension greater than 12 inches (305 mm) shall be buried or placed in fills

Exception: The City Engineer may permit placement of larger rock when the soils engineer properly devises a method of placement, and continuously inspects its placement and approved the fill stability. The following conditions shall also apply:

1 Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.

2 Rock sizes greater than 12 inches (305 mm) in maximum dimension shall be 10 feet (3048 mm) or more below grade, measured vertically.

3 Rocks shall be placed so as to assure filling of all voids with well-graded soil.

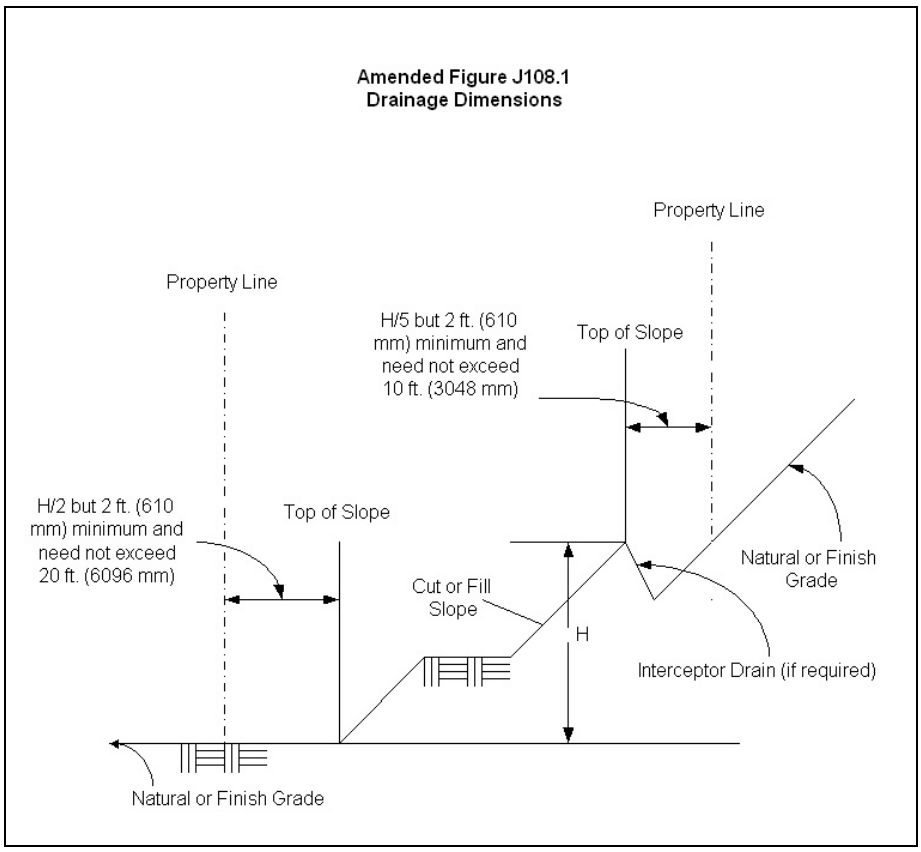
15.70.105 Appendix J of the 2007 California Building Code, Section J108 Setbacks, Subsection 1 General – Amended. Subsection J108.1 of the 2007 California Building Code is amended to read as follows:

J108.1 General. Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in amended FIGURE J108.1 as shown in this chapter.

15.70.110 Appendix J of the 2007 California Building Code, Section J108.Setbacks, Subsection 2 Top of Slope – Amended. Subsection J108.2 of the 2007 California Building Code is amended to read as follows:

J108.2 Top of slope. The setback at the top of a cut slope shall not be less than that shown in amended Figure J108.1 as shown in this chapter, or than is required to accommodate any required interceptor drains, whichever is greater.

15.70.115 Appendix J of the 2007 California Building Code, Section J108 Setbacks, Figure J108.1, Drainage Dimensions – Amended. Figure J108.1 of the 2007 California Building Code is amended to read as follows:



15.70.120 Appendix J of the 2007 California Building Code, Section J108 Setbacks, Subsection.3 Slope Protection – Amended. Subsection J108.3 of the 2007 California Building Code is amended to read as follows:

J108.3 Slope Protection. The toe of fill slope shall be made not nearer to the site boundary line than one half the height of the slope with a minimum of 2 feet (610 mm) and a maximum of 20 feet (6096 mm). Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the City Engineer deems necessary to protect the adjoining property from damage as a result of such grading. These precautions may include but are not limited to:

1. Additional setbacks
2. Provision for retaining or slough walls.
3. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
4. Provisions for the control of surface waters.

15.70.125 Appendix J of the California Building Code, Section J109 Drainage and Terracing, Subsection.4 Drainage – Amended. Subsection J109.4 of the 2007 California Building Code is amended to read as follows:

J109.4 Drainage Across property lines. Surface runoff shall not be permitted to flow from one lot to another, unless proper drainage agreements between affected property owners are executed and submitted to the City Engineer. Such agreements shall be subject to approval by the City Engineer, and recorded prior to issuance of the grading permit.

15.70.130 Appendix J of the California Building Code, Section J109 Drainage and Terracing, Subsection.5 Surface Run-off Interception – Added. Subsection J109.5 of the 2007 California Building Code is added to read as follows:

J109.5 Surface Run-off Interception. Surface run-off from new landscaping areas shall be intercepted by and directed to approved drainage facilities.

15.70.135 Appendix J of the California Building Code, Section J109 Drainage and Terracing, Subsection.6 Easements and Encumbrances – Added. Subsection J109.6 of the 2007 California Building Code is added to read as follows:

J109.6 Easements and Encumbrances. For all private water courses where the continuous functioning of the drainageway is essential to the protection and use of multiple properties, a covenant, a maintenance agreement and/or deed restriction shall be recorded by the applicant, placing the responsibility for the maintenance of the drainageway(s) on the owners of record of each respective lot affected. Permanent off-site drainage easements, as required by the City Engineer, shall be acquired by the applicant. Such easements shall be subject to approval by the City Engineer and recorded prior to issuance of the grading permit.

15.70.140 Appendix J of the California Building Code, Section J110 Erosion Control, Subsection 3 Stormwater Erosion and Sediment – Added. Subsection J110.3 of the 2007 California Building Code is added to read as follows:

J110.3 Stormwater Erosion and Sediment.

A. Plans for an erosion control system shall be prepared and submitted for the review and approval of the City Engineer as a part of any application for a grading permit. The erosion control system shall comply with the requirements of the latest National Pollutant Discharge Elimination System permit and Chapter 14.22 of this Code to satisfy the requirements for erosion control and eliminate the discharge of sediment and pollutants. The erosion control plan shall include, but not be limited to, the following information:

1. Name, address, and a twenty-four-hour phone number of the owner or responsible party, and the person or contractor responsible for installing and maintaining the erosion control system and performing emergency erosion control work;

2. The name, address and signature of the Civil Engineer or person who prepared the plan;

3. All desilting basins, debris basins, silt traps, and other desilting, velocity retarding and protection facilities necessary to adequately protect the site and downstream properties from erosion and its effects, preserve natural hydrologic features, and preserve riparian buffers and corridors;

4. The streets, easements, drains, and other improvements;

5. The location and placement of gravel bags, diverters, check dams, slope planting, drains, and other erosion controlling devices and measures;

6. Access routes to all such erosion control facilities and how access shall be maintained during inclement weather.

B. Erosion control system standards shall be as follows:

1. The faces of cut-and-fill slopes and the project site shall be prepared and maintained to control against erosion. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted upon approval of the City Engineer.

2. Where necessary, temporary and/or permanent erosion control devices such as desilting basins, check dams, cribbing, riprap, or other devices or methods as approved by the City Engineer, shall be employed to control erosion, prevent discharge of sediment, and provide safety.

3. Temporary desilting basins constructed of compacted earth shall be compacted to a relative compaction of ninety percent of maximum density. A gravel bag or plastic spillway must be installed for overflow, as designed by the engineer of work, to avoid failure of the earthen dam. A soils engineering report prepared by the Soils Engineer, including the type of field-testing performed, location and results of testing shall be submitted to the City Engineer for approval upon completion of the desilting basins.

4. Desilting facilities shall be provided at drainage outlets from the graded site, and shall be designed to provide a desilting capacity capable of containing the anticipated runoff for a period of time adequate to allow reasonable settlement of suspended particles.

5. Desilting basins shall be constructed around the perimeter of projects, whenever feasible, and shall provide improved maintenance access from paved roads during wet weather. Grading cost estimates must include maintenance and ultimate removal costs for temporary desilting basins.

6. The erosion control provisions shall take into account drainage patterns during the current and future phases of grading.

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

8. At any time of year, an inactive site shall be fully protected from erosion and discharges of sediment. Flat areas with less than five percent grade shall be fully covered unless sediment control is provided through desiltation basins at all project discharge points. A site is considered inactive if construction activities have ceased for a period of ten or more consecutive days.

9. Permittee shall implement the following minimum erosion prevention methods to minimize the erosion potential:

a. If feasible, Permittee shall grade only during the dry season, especially in areas at high risk for erosion.

b. Permittee shall minimize the length of time that soils are left exposed to elements of wind and water.

c. If grading must occur during the rainy season, the total area of exposed soil shall be reduced during the rainy season.

d. Critical areas, such as drainage channels, streams and natural watercourses shall be properly protected.

e. Exposed areas shall be stabilized as quickly as feasible.

f. Sufficient waste disposal facilities shall be provided for all proposed activities.

g. Sufficient storage facilities shall be provided for all materials and equipment.

h. Permittee shall ensure that materials used for erosion and sediment control are on site at all times during the rainy season.

i. All slopes shall be protected against erosion and any unstable slopes shall be stabilized.

j. Erosion prevention shall be considered the most important erosion control measure with sediment controls as a backup.

10. During Dry Season (May 1 through September 30), Permittee shall implement the following minimum erosion prevention methods to minimize the erosion potential:

a. Adequate perimeter protection BMPs must be installed and maintained.

b. Adequate sediment control BMPs must be installed and maintained.

c. Adequate BMPs designed to control off-site sediment tracking must be installed and maintained.

d. At a minimum, 125% of the materials needed to install standby BMPs necessary to completely protect exposed portions of the site from erosion and prevent sediment discharges must be stored on the site.

e. An approved “weather triggered” response plan is mandated for implementation in the event that a predicted storm event has a 50% chance of rain. The proponent must have the capacity to deploy the standby BMPs within 48 hours of the predicted storm event.

f. All slopes must be equipped with erosion prevention BMPs as soon as slopes are completed for any portion of the site.

g. Cleared or graded areas left exposed at any given time are limited to the amount of acreage that the project proponent can adequately protect prior to a predicted storm event.

11. During Wet Season (October 1 through April 30), Permittee shall implement the following BMPs, in addition to the Dry Season Requirements:

a. Perimeter protection and sediment control BMPs must be upgraded if necessary to provide sufficient protection for storms.

b. Adequate erosion prevention BMPs must be installed and established for all completed slopes prior to October 1 and maintained throughout the wet season. If a BMP fails, it must be repaired, improved, or replaced with an acceptable alternate as soon as it is safe to do so.

c. The amount of exposed soil allowed at one time shall not exceed standby erosion and sediment control BMP capacity

d. An incomplete disturbed area that is not being actively graded must be fully protected from erosion if left for 10 days or more.

12. BMP Maintenance. All BMPs for erosion prevention and sediment control shall be functional at all times. Prior to the rainy season and after each major storm, all source control and structural treatment BMPs shall be inspected by the Permittee to assure the functionality and effectiveness. Proper BMP maintenance shall be conducted throughout the life of the project.”

13. No grading shall be allowed from October 1st thru 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 control system has been implemented on the site. If the City determines that it is necessary for the City to cause erosion control measures to be installed or cleanup to be done, the Permittee shall pay all of the City's direct and indirect costs including extra inspection, supervision, and reasonable overhead charges.

14. Preservation Of Natural Hydrologic Features, Riparian Buffers and Corridors. All natural hydrologic features and riparian buffer zones and corridors must be preserved to eliminate or minimize runoff from construction sites.

15. Phased Grading. Grading shall be phased whenever the City Engineer finds that phasing is feasible and necessary to protect the Waters of the State. Areas that are cleared and graded shall be minimized to only portions of the site that are necessary for construction, and the exposure time of disturbed soil areas shall be minimized.

16. Cleared or graded areas left exposed at any given time are limited to the amount of acreage that the project proponent can adequately protect prior to a predicted storm event or 17 acres, which ever is smaller, unless the disturbance of a larger area is approved in writing by the City engineer. In the event that a project proponent requests approval to disturb an area greater than 17 acres, the project proponent shall first submit to the City Engineer, written documentation describing how it will ensure that discharges of pollutants

are reduced to the Maximum Extent Practicable (MEP) and prevents discharges of pollutants that would cause or contribute to a violation of water quality standards despite the larger disturbed area.

17. Advanced Treatment.

a. Treatment for sediment is required. For the purpose of this requirement, exceptional threat to water quality shall be defined as a site, which meets all of the following, except as provided in number 16 above:

1. A portion of the site is located within or directly adjacent to receiving waters listed on the CWA Section 303(d) list of Water Quality Limited Segments as impaired for sedimentation or turbidity;

2. Disturbance is greater than five acres, including all phases of the development;

3. Disturbed slopes are steeper than 4:1 (horizontal: vertical), higher than 10 feet, and drain to the 303(d) listed receiving water;

4. Contains a predominance of soils with USDA-NRCS Erosion factors k_f greater than or equal to 0.4.

Alternatively, applicants may perform a RUSLE or MUSLE analysis to prove to the City Engineer's satisfaction that advanced treatment is not required.

b. Even if based on the criteria in number 16, above, advanced treatment would not ordinarily be required, advanced treatment may be required at the discretion of the City Engineer based on a record of noncompliance.

c. Treatment effluent water quality shall meet or exceed the water quality objectives for turbidity, pH, toxicity, and any other parameter deemed necessary by the City Engineer, as listed in the Water Quality Control Plan for the San Diego Basin for inland surface waters and lagoons and estuaries for the appropriate hydrologic unit.

d. Applicant shall provide design, operations and maintenance schedule, monitoring plan, certification of training of staff to the satisfaction of the City Engineer.

18. Establishment of Permanent Vegetation.

a. General. The face of all cut and fill slopes, in excess of 3 feet in vertical height, but only final slopes of any borrow pit, shall be planted and maintained with a ground cover or other planting to protect the slopes against erosion and instability. Planting shall commence as soon as slopes are completed on any portion of the site and shall be established upon all slopes prior to the final approval of the grading. In order to minimize the period during which a cut or filled surface remains exposed, such planting shall provide for rapid short-term coverage of the slope as well as long-term permanent coverage. Planting materials and procedures shall conform to regulations adopted by the City Engineer. The City Engineer may approve other plant materials as specified by a landscape architect. The Permittee shall maintain such planting until it is well established as determined by the City Engineer.

a. Minimum Requirements. In addition to planting with ground cover, slopes in excess of fifteen (15) feet in vertical height shall be planted with shrubs in 2-1/4 inch pots or trees having a one (1) gallon minimum size at ten (10) feet on center in both directions on the slope. The City Engineer may vary the plant and planting pattern, but not the quantity, upon the recommendation of landscape architect and approval.

c. Where cut slopes are not subject to erosion due to their rocky character or where the slopes are protected with pneumatically applied concrete mortar or otherwise treated to protect against erosion and instability to the satisfaction of the City Engineer, the requirement of this subsection may be waived by the City Engineer.

d. The City Engineer may require the applicant to temporarily stabilize and reseed disturbed soil areas to protect the Waters of the State. If grass or ground cover is not established by the beginning of the wet season, temporary erosion control measures such as erosion control mats or blankets shall be installed on the slopes. If grass or ground cover is not

established by the beginning of the wet season, temporary erosion control measures such as erosion control mats or blankets shall be installed on the slopes.

19. Irrigation System Requirements.

a. General. Except for agricultural grading permits, all slopes to be constructed, but only final slopes of any borrow pit, shall be provided with an irrigation system which shall be used by the Permittee to promote the growth of plants to protect the slopes against erosion. The Permittee shall be responsible for installation and maintenance of the irrigation system until the City Engineer determines that the system has been properly installed and meets the minimum requirements of this section. When the City Engineer finds that a slope less than fifteen (15) feet in height is located in an area as to make hand watering possible, conveniently located hose bibs may be accepted in lieu of the required irrigation system when a hose no longer than fifty (50) feet would be required.

b. Minimum Requirements (1) Plans for the irrigation system shall be in accordance with San Diego Regional Standard Specifications for Sprinkler Irrigation Systems and shall be approved by the National City, City Engineer prior to installation. (2) The irrigation system shall be located relative to existing and proposed property lines to insure that the irrigation system and the slopes sprinkled thereby will both be within the same property boundaries. The irrigation system shall be supplied or be readily converted so as to be supplied through the metered water service line serving each individual property. (3) The irrigation system shall provide uniform coverage for the slope area at a rate of not less than 0.03 inches per hour, nor greater than 0.30 inches per hour. A functional test of the irrigation systems shall be performed to the satisfaction of the City Engineer prior to final approval of the grading. (4) A check valve and balance cock shall be installed in the system where drainage from sprinkler heads will create an erosion problem. (5) Adequate back flow protection devices shall be installed in each irrigation system. Such devices shall be protected against physical damage during construction operations.

20. Waiver Of Planting And Irrigation Requirements.

The City Engineer may modify or waive the requirements for planting and/or irrigation systems if he/she finds that said requirements would be unreasonable or unnecessary for any of the following reasons: (a) the area is subject to periodic inundation, or (b) water is unavailable to the area such that irrigation would be impractical or impossible, or (c) the area is naturally devoid of vegetation.

21. General Construction Permit Requirements.

a. Notice of Intent. Permittees required to comply with the State Construction General Storm Water Permit shall maintain on site and make available for inspection on request by the City any state-issued Waste Discharge Identification Number (WDID) for the site, and a copy of the Notice of Intent (NOI) filed with the State Water Resources Control Board (SWRCB) pursuant to that permit.

b. Storm Water Pollution Prevention Plan. Permittes required to prepare a SWPPP under the State General Construction Storm Water Permit must prepare the Plan, implement the Plan and maintain it at the site, readily available for review. Failure to comply with an applicable state-required SWPPP is a violation of this Chapter.

c. Facility Monitoring. Permittees required to conduct monitoring under the State Construction General Storm Water Permit must conduct such monitoring in conformance with requirements specified by the State, retain records of such monitoring on site, and make such records available for inspection by the City Engineer.

15.70.145 Grading fees. The plan review and permit fees shall be assessed in accordance with City Ordinance No. 1929 and the National City Fee Schedule.

15.70.150 Completion of work. Final approval shall not be given, grading securities shall not be released, and a notice of completion or certificate of use and occupancy shall not be issued, until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and the required reports and the as-built plans have been submitted.

15.70.155 Rough grading permit. When grading is to be performed on a property for which no prior site development plans have been approved, and on which no other construction is proposed, the applicant shall obtain special approval of the City Engineer, as well as the Director of the Planning Department for such grading. The rough-grading permit thus issued shall be subject to the special requirements of both the City Engineer and the Planning Director.

15.70.160 Parking lots. Existing or new parking lots, which are exempted from the requirements of a grading permit, shall be paved or resurfaced in accordance with an approved drainage plan.

15.70.165 Bonds. The City Engineer may require bonds in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.

In lieu of a surety bond the applicant may file a cash deposit or instrument of credit with the City Engineer in an amount equal to that which would be required in the surety bond.

15.70.170 Violation a misdemeanor. Any person who commences or does any grading in violation of this Chapter is guilty of a misdemeanor. Every day that a violation of this Chapter is committed, continued or permitted to exist is a separate violation, punishable as provided in this Code.

-- Signature Page to Follow --

PASSED and ADOPTED this 19th day of February, 2008.

_____
Ron Morrison, Mayor

ATTEST:

_____
Michael R. Dalla, City Clerk

APPROVED AS TO FORM:

_____
George H. Eiser, III
City Attorney

ORDINANCE NO. 2008 – 2307

AN ORDINANCE OF THE CITY COUNCIL
OF THE CITY OF NATIONAL CITY ADOPTING THE STANDARD
URBAN STORMWATER MITIGATION PLAN (SUSMP),
AND REPEALING ORDINANCE NO. 2002-2213

WHEREAS, the San Diego Regional Water Quality Control Board issued the National Pollutant Discharge Elimination System (NPDES) permit No. CAS0108758, Order No. R9-2007-001, requiring changes to the City's Standard Urban Stormwater Mitigation Plan (SUSMP).

NOW, THEREFORE, the City Council of the City Of National City does hereby ordain as follows:

Section 1. Introduction of the Standard Urban Stormwater Mitigation Plan (SUSMP). The City Council of the City of National City introduces the Standard Urban Stormwater Mitigation Plan (SUSMP) attached hereto as Appendix "A", hereafter abbreviated as "SUSMP", as the City of National City's program for management of stormwater runoff. A cop of Appendix "A" shall be kept on file in the Office of the City Engineer.

Section 2. Implementation and administration. All City departments, under the direction of the City Manager, shall implement, administer and enforce the provisions of the SUSMP, and shall modify their administrative procedure for permit issuance and plan approval accordingly, In case of conflict between a provision of the Municipal Code and the SUSMP, the SUSMP, shall take precedence, unless the City Manager determines that compliance is impossible, impractical or is not in the public's best interest. In this event, the City Manager shall immediately advise the City Council and recommend appropriate measures for resolution.

Section 3. Department review. To the extent not already provided for, City department directors under the direction of the City Manager will review and propose amendments to the Municipal Code that are or may become necessary for the further implementation of the SUSMP.

Section 4. Criminal and administrative enforcement. The mandatory provisions and prohibitions of the SUSMP shall be enforceable as misdemeanors pursuant to Section 1.20.010 of the National City Municipal Code, and administrative penalties may be imposed in accordance with Chapters 1.44 or 1.48 of the National City Municipal Code, as appropriate.

Section 5. Repeal of previous ordinance. Ordinance No. 2002-2213 is hereby repealed.

-- Signature Page to Follow --

PASSED and ADOPTED this 19th day of February, 2008.

_____
Ron Morrison, Mayor

ATTEST:

_____
Michael R. Dalla, City Clerk

APPROVED AS TO FORM:

_____
George H. Eiser, III
City Attorney

The City of National City

STANDARD URBAN STORM WATER MITIGATION PLAN

Adopted February 19, 2008

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NATIONAL CITY URBAN STORM WATER MITIGATION PLAN

I. BACKGROUND

The municipal storm water National Pollutant Discharge Elimination System (NPDES) permit (Order No. R9-2007-0001, NPDES No. CAS0108758, hereinafter referred to as "Municipal Permit") issued to San Diego County, the Port of San Diego, San Diego County Regional Airport Authority, and 18 cities (Copermittees) by the San Diego Regional Water Quality Control Board (Regional Board) on January 24, 2007, requires the development and implementation of a program addressing urban runoff pollution issues in development planning for public and private projects.

The requirement to implement a program for development planning is based on federal and state statutes including: Section 402 (p) of the Clean Water Act, Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 ("CZARA"), and the California Water Code. The Clean Water Act amendments of 1987 established a framework for regulating urban runoff discharges from municipal, industrial, and construction activities under the NPDES program. The Municipal Permit requires the implementation of a Jurisdictional Urban Runoff Management Program (URMP). The primary objectives of the Jurisdictional URMP requirements are to:

1. Ensure that discharges from municipal urban runoff conveyance systems do not cause or contribute to a violation of water quality standards;
2. Effectively prohibit non-storm water discharges in urban runoff; and
3. Reduce the discharge of pollutants from urban runoff conveyance systems to the Maximum Extent Practicable (MEP statutory standard).

II. SUMMARY

The Model Standard Urban Storm Water Mitigation Plan (SUSMP) was collectively developed by the Copermittees to address post-construction urban runoff pollution from new development and redevelopment projects that fall under "priority project" categories. The goal of the Model SUSMP is to develop and implement practicable policies to ensure to the maximum extent practicable that development does not increase pollutant loads from a project site and considers urban runoff flow rates, velocities, and durations. This goal may be achieved through site-specific controls and/or drainage area-based or shared structural treatment controls. The Model SUSMP identifies appropriate Best Management Practices (BMPs) for certain designated project types to achieve this goal. The City of National City's (City) SUSMP has been reviewed and approved by the City Council in a public process.

The City will approve SUSMP project plan(s) as part of the development plan approval process for discretionary projects, and prior to issuing permits for ministerial projects. To allow flexibility in meeting SUSMP design standards, structural treatment control BMPs may be located on or off-site, used singly or in combination, or shared by multiple developments, provided certain conditions are met.

All new development and significant redevelopment projects that fall into one of the following "Priority Project" categories are subject to these SUSMP requirements, subject to the lawful prior approval provisions of the Municipal Permit. In the instance where a project feature, such as a parking lot, falls into a Priority Project category, the entire project footprint is subject to these SUSMP requirements. These "Priority Project Categories" are:

- Residential development of 10 units or more
- Commercial development greater than one acre
- Industrial development greater than one acre
- Automotive repair shops
- Restaurants
- Hillside development greater than 5,000 square feet
- Projects discharging to receiving waters within environmentally sensitive areas
- Parking Lots > 5,000 square feet of impervious surface or with > 15 parking spaces and potentially exposed to urban runoff
- Streets, roads, highways, and freeways which would create a new paved surface that is 5,000 square feet or greater of impervious surface.
- Retail gasoline outlets 5,000 square feet or more or with a projected Average Daily Traffic (ADT) of 100 or more vehicles per day

Limited Exclusion: Trenching and resurfacing work associated with utility projects are not considered priority projects such as resurfacing and reconfiguring surface parking lots and existing roadways, new sidewalk construction, pedestrian ramps, or bike lane on existing roads, and routine replacement of damage pavement, such as pothole repair**.** Parking lots, buildings and other structures associated with utility projects are subject to SUSMP requirements if one or more of the criteria for the above categories are met.

III. DEFINITIONS

- "Attached Residential Development," means any development that provides residential units that share an interior/exterior wall. This category includes, but is not limited to: dormitories, condominiums and apartments.

- "Automotive Repair Shop" means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

- "Commercial Development" means any development on private land that is not exclusively industrial or residential uses. The category includes, but is not limited to: mini-malls and other business complexes, shopping malls, hotels, office buildings, public warehouses, hospitals, laboratories and other medical facilities, educational institutions, recreational facilities, plant nurseries, car wash facilities, and other light industrial complexes.

- "Commercial Development greater than one acre" means any commercial development that results in the disturbance of one acre or more of land.

- "Detached Residential Development," means any development that provides freestanding residential units. This category includes, but is not limited to: detached homes, such as single-family homes and detached condominiums.

- "Directly Connected Impervious Area (DCIA)" means the area covered by a building, impermeable pavement, and/or other impervious surfaces, which drains directly into the storm drain without first flowing across permeable vegetated land area (e.g., lawns).

- "Environmentally Sensitive Areas" means areas that include, but are not limited to, all Clean Water Act 303(d) impaired water bodies ("303[d] water bodies"); areas designated as an "Area of Special Biological Significance" (ASBS) by the State Water Resources Control Board (*Water Quality Control Plan for the San Diego Basin* (1994) and amendments); water bodies designated as having a RARE beneficial use by the State Water Resources Control Board (*Water Quality Control Plan for the San Diego Basin* (1994) and amendments), or areas designated as preserves or their equivalent under the Multiple Species Conservation Program (MSCP) within the Cities and County of San Diego. The limits of Areas of Special Biological Significance are those defined in the *Water Quality Control Plan for the San Diego Basin* (1994 and amendments). Environmentally sensitive area is defined for the purposes of implementing SUSMP requirements, and does not replace or supplement other environmental resource-based terms, such as "Environmentally Sensitive Lands," employed by Copermittees in their land development review processes. As appropriate, National City will distinguish between environmentally sensitive area and other similar terms in its SUSMP.

- "Hillside" means lands that have a natural gradient of 25 percent (4 feet of horizontal distance for every 1 foot of vertical distance) or greater and a minimum elevation differential of 50 feet, or a natural gradient of 200 percent (1 foot of horizontal distance for every 2 feet of vertical distance) or greater and a minimum elevation differential of 10 feet.

- "Hillside development greater than 5,000 square feet" means any development that would create more than 5,000 square feet of impervious surfaces in hillsides with known erosive soil conditions.

- "Hydromodification" means the change in the natural hydrologic processes and runoff characteristics (i.e. interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased stream

flows and changes in sediment transport. In addition, alternation of stream and river channels, installation of dams and water impoundments, and excessive streambank and shoreline erosion are also considered hydromodification, due to their disruption of natural watershed hydrologic processes.

- "Industrial development greater than one acre" means development of industrial facilities that results in the disturbance of over one acre of land. Industrial facilities include those defined at 40 CFR 122.26(b)(14), including those subject to the General Industrial Permit or other individual NPDES permit, operating and closed landfills, facilities subject to SARA Title III, and hazardous waste treatment, disposal, storage and recovery facilities. Examples of industrial facilities includes manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas (bus, truck, etc.).

- "Infiltration" means the downward entry of water into the surface of the soil.

- "Integrated Management Practice (IMP)" means a facility (BMP) that provides small-scale treatment, retention, or detention and is integrated into site layout, landscaping, and drainage design.

- "Low Impact Development (LID)" means a storm water management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic features.

- "Maximum Extent Practicable (MEP)" means the technology-based standard established by Congress in the Clean Water Act 402(p)(3)(B)(iii) that municipal dischargers of urban runoff must meet. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional lines of defense).

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

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

- "Parking Lot" means land area or facility for the temporary parking or storage of motor vehicles used personally, or for business or commerce.

- "Projects Discharging to Receiving Waters within Environmentally Sensitive Areas" means all development and significant redevelopment that would create 2,500 square feet of impervious surfaces or increase the area of imperviousness of a project site to 10% or more of its naturally occurring condition, and is located within or directly adjacent to (where any portion of the project footprint is located within 200 feet of the environmentally sensitive area) an environmentally sensitive area (where discharges from the development or redevelopment will enter receiving waters within the environmentally sensitive area) or discharges to a receiving water within an environmentally sensitive

area without mixing with flows from adjacent lands (where the project footprint is located more than 200 feet from the environmentally sensitive area).

- "Project Footprint" means the limits of all grading and ground disturbance, including landscaping, associated with a project.

- "Receiving Waters" means surface bodies of water, which directly or indirectly receive discharges from urban runoff conveyance systems, including naturally occurring wetlands, streams (perennial, intermittent, and ephemeral [exhibiting bed, bank, and ordinary high water mark]), creeks, rivers, reservoirs, lakes, lagoons, estuaries, harbors, bays and the Pacific Ocean. National City will determine the definition for wetlands and the limits thereof for the purposes of this definition as protective as the United States Environmental Protection Agency. Constructed wetlands are not considered wetlands under this definition, unless the wetlands were constructed as mitigation for habitat loss. Other constructed BMPs are not considered receiving waters under this definition, unless the BMP was originally constructed in receiving waters. Construction of treatment control BMPs in "Receiving Waters" is prohibited and therefore may not be used to satisfy SUSMP requirements.

- "Residential Development" means any development on private land that provides living accommodations for one or more persons. This category includes, but is not limited to: single-family homes, multi-family homes, condominiums, and apartments.

- "Residential Development of 10 units or more" means any development that provides 10 or more residential units. Residential units can be attached or detached.

- "Restaurant" means a stand-alone facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirement and hydromodification requirement.

- "Sediment" means soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organism survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

- "Significant Redevelopment" means development that would create or add or replace at least 5,000 square feet of impervious surfaces on an already developed site that falls under one or more priority development project categories. Where redevelopment results in an increase of less than 50 percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numberic sizing criteria identified in Section 2, Step 8 apply only to the addition, and not the entire development. When redevelopment results in an increase of more than 50 percent of the impervious surfaces of a previously existing development, the numeric

sizing criteria applies to the entire development. Significant redevelopment includes, but is not limited to: the expansion of a building footprint; addition to or replacement of a structure; replacement of an impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Significant redevelopment does not include trenching and resurfacing associated with utility work, resurfacing and reconfiguring surface parking lots, new sidewalk, pedestrian ramps or bike lane construction on existing roads, and replacement of damaged pavement.

- "Site Design BMP" known as a significant part of Low Impact Development (LID), means any project design feature that reduces the amount of impervious surfaces, disconnects impervious surfaces, reduces creation or severity of potential pollutant sources and/or reduces the alteration of the project site's natural flow regime. Redevelopment projects that are undertaken to remove pollutant sources (such as existing surface parking lots and other impervious surfaces) or to reduce the need for new roads and other impervious surfaces (as compared to conventional or low-density new development) by incorporating higher densities and/or mixed land uses into the project design, are also considered site design BMPs.

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

- "Storm Water Best Management Practice (BMP)" means any schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, structural treatment BMPs, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants directly or indirectly to receiving waters. Storm Water BMPs also include treatment requirements, operating procedures and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. This SUSMP groups storm water BMPs into the following categories: site design; source control; and treatment control (pollutant removal).

- "Storm Water Conveyance System" means private and public drainage facilities by which storm water may be conveyed to Receiving Waters, such as: natural drainages, roads, streets, constructed channels, aqueducts, storm drains, pipes, street gutters, or catch basins.

- "Streets, Roads, Highways, and Freeways" means any project that is not part of a routine maintenance activity, and would create a new paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles and other vehicles. For the purposes of SUSMP requirements, Streets, Roads, Highways and Freeways do not include trenching and resurfacing associated with utility work; applying asphalt

overlay to existing pavement; new sidewalk, pedestrian ramps, or bike lane construction on existing roads; and replacement of damaged pavement.

- "Treatment Control (Structural) BMP" means any engineered system designed and constructed to remove pollutants from urban runoff. Pollutant removal is achieved by simple gravity settling of particulate pollutants, filtration, biological uptake, media adsorption or any other physical, biological, or chemical process.

IV. CONFLICTS WITH LOCAL PRACTICES OR MUNICIPAL PERMIT

Where requirements of the local SUSMP conflict with established local codes, (e.g., specific language of signage used on storm drain stenciling), National City may continue the local practice and modify the SUSMP to be consistent with the code, except that to the extent that the standards in the SUSMP are more stringent than those under local codes, such more stringent standards shall apply.

This SUSMP is based on the Municipal Permit as it was in force in January 2007, except as that Municipal Permit was directed to be revised by the State Water Resources Control Board. If as a result of court action any part of the Municipal Permit is invalidated, stayed, or required to be revised by a final judgment, National City's SUSMP and local ordinances may be appropriate.

V. IMPLEMENTATION PROCESS

National City has identified the department(s) responsible for ensuring SUSMP requirements are implemented in its Jurisdictional URMP, and the roles and responsibilities each department possesses. At a minimum, for discretionary projects, SUSMP requirements shall be incorporated into the project design and shown on the plans prior to decision-maker approval of discretionary permits. For projects requiring only ministerial permits, SUSMP requirements shall be incorporated into the project design and shown on the plans prior to the issuance of any ministerial permits. National City's departments carrying out public projects that are not required to obtain permits shall be responsible for ensuring SUSMP requirements are incorporated into the project design and shown on the plans prior to bidding for construction contracts, or equivalent. For public projects SUSMP requirements must be incorporated into the project design and shown on the plans before allowing the project to commence.

VI. STORM WATER BMP SELECTION PROCEDURE

Section VI provides a procedure for identifying a project's pollutants and conditions of concern, and addressing these through site design, source control, and treatment control storm water BMPs. All priority projects shall implement one or a combination of storm water BMPs, including, 1) LID and site design BMPs, 2) source control BMPs and, 3) structural treatment BMPs after the pollutants and conditions of concern have been identified. Storm water BMPs, from those listed in Appendix A: "Approved Storm Water Best Management Practices", shall be considered and implemented where determined applicable and feasible by National City. Additional information on BMPs is included in the notes to Table 3 and in the references in Appendix B. The storm water BMPs shall adhere to the requirements in Section VI of this Model SUSMP, and shall be correctly designed so as to remove pollutants to the maximum extent practicable. A flow chart summarizing the storm water BMP selection procedure is provided in Figure 1.

Site Design Storm Water Treatment Credits

National City agrees it may develop and submit for Regional Board review and approval a Site Design Storm Water Treatment Credits program that allows reductions in the volume or flow of storm water that must be captured or treated on a project in return for the inclusion of specified project design features in the project, and further agree that any such submittal shall be deemed to be a part of this Model SUSMP jointly submitted to the Regional Board for review and approval. Any such model program shall specify the conditions under which project proponents can be credited for the use of site design features and low impact development techniques that can reduce the volume of storm water runoff, preserve natural areas, and minimize the pollutant loads generated and potentially discharged from the site. Provided, however that if a method for determining site design credits is developed on a time schedule that will permit further National City review prior to submission to the Regional Board, that proposal shall first be submitted to the Copermittees and if agreed to by the Copermittees will be submitted to the Regional Board as a single regional model. Any Copermittee may adopt and implement a Storm Water Credit Program consistent with this model approved by the Regional Board.

Alternative Methods for Achieving Treatment Requirements

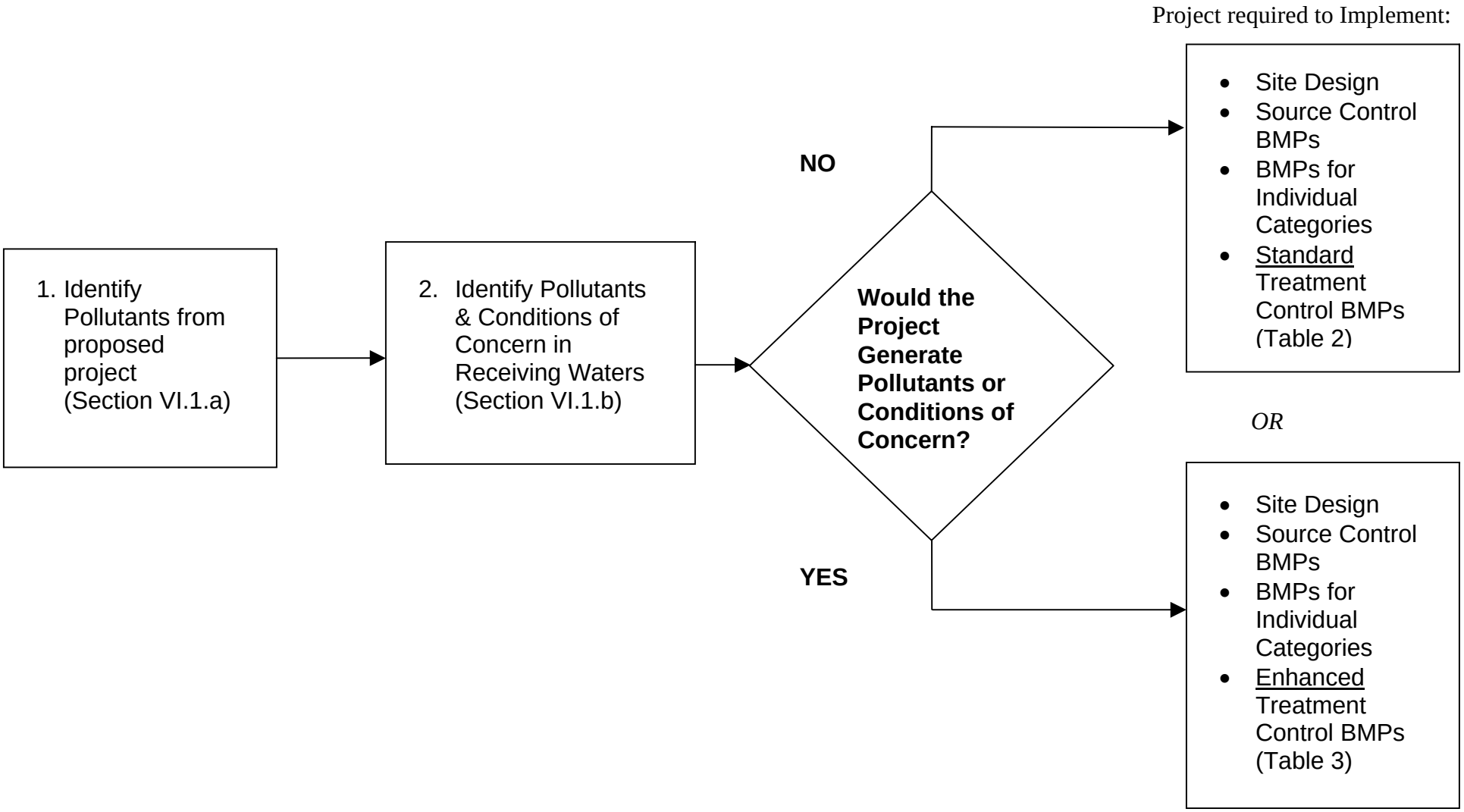
National City may implement the Local Equivalent Area Drainage (LEAD) Method, as proposed by the City of San Diego in its May 16, 2002 letter (Appendix C), for meeting the BMP requirements in Section VI.2.c, Step 8, "Design to Treatment Control BMP Standards." The alternative method must minimally meet the following criteria:

- The alternative treatment area shall be located within the proximity of the project;
- The alternative treatment area shall discharge to the same receiving water as the project;
- The alternative treatment area shall be equivalent or greater than the project footprint;
- The alternative treatment area shall have an equivalent or greater impervious surface area than the project;

- The alternative treatment area shall have an equivalent or greater pollutant load than the project;
- Site Design and Source Control BMPs (Section VI.2.a & b) shall be required in the project design;
- Alternative treatments shall be limited to redevelopment and/or infill projects.

National City may implement the alternative LEAD method for no more than three pilot projects within its jurisdiction during this permit cycle. For each project where an alternative method is implemented, the effectiveness of the alternative method shall be monitored and reported on to the Regional Board by the end of the permit cycle.

Figure 1. Storm Water BMP Selection Procedure Flow Chart



1. IDENTIFY POLLUTANTS & CONDITIONS OF CONCERN

Priority project proponents shall use this guidance to identify pollutants and conditions of concern, for which they need to mitigate or protect against. Once identified, appropriate control measures for these pollutants and conditions are specified in Section VI.2, "Establish Storm Water BMPs." Standard control measures are required based on pollutants commonly associated with the proposed project type (see Table 2, "Standard Storm Water BMP Selection Matrix"). Priority projects required to implement structural treatment control BMPs using the standard BMP selection procedure should use Table 3, "Enhanced Treatment Control BMP Selection Matrix," to aid in selecting the structural treatment BMP(s) from Appendix A that would have the greatest pollutant removal efficiency for projects. Enhanced control measures are required for projects anticipated to generate pollutants that are also identified as pollutants of concern in the project's downstream receiving water(s) (see Table 3).

National City will incorporate the requirements listed in Sections VI.1.a-c in the procedure for identifying pollutants and conditions of concern in its SUSMP. For private priority projects, National City shall require the information to be provided with the project application prior to being deemed complete. For public priority projects, National City shall approve the information prior to bidding for construction contracts.

General Categories of Water Pollution

Urban runoff from a developed site has the potential to contribute pollutants, including oil and grease, suspended solids, metals, gasoline, pesticides, and pathogens to the storm water conveyance system and receiving waters. For the purposes of identifying pollutants of concern and associated storm water BMPs, pollutants are grouped in nine general categories as follows:

1. **Sediments** – Sediments are soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.
2. **Nutrients** – Nutrients are inorganic substances, such as nitrogen and phosphorus. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. Primary sources of nutrients in urban runoff are fertilizers and eroded soils. Excessive discharge of nutrients to water bodies and streams can cause excessive aquatic algae and plant growth. Such excessive production, referred to as cultural eutrophication, may lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms.
3. **Metals** – Metals are raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. Primary source of metal pollution in storm water are typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. At low concentrations naturally occurring in soil, metals are not toxic. However, at higher

concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources, and bioaccumulation of metals in fish and shellfish. Environmental concerns, regarding the potential for release of metals to the environment, have already led to restricted metal usage in certain applications.

4. **Organic Compounds** – Organic compounds are carbon-based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds can, at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects, toxic levels of solvents and cleaning compounds can be discharged to storm drains. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life.

5. **Trash & Debris** – Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash & debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. Also, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

6. **Oxygen-Demanding Substances** – This category includes biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen-demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

7. **Oil and Grease** – Oil and grease are characterized as high-molecular weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to the water bodies are very possible due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

8. **Bacteria and Viruses** – Bacteria and viruses are ubiquitous micro-organisms that thrive under certain environmental conditions. Their proliferation is typically caused by the transport of animal or human fecal wastes from the watershed. Water containing excessive bacteria and viruses can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.

9. **Pesticides** – Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Excessive application of a pesticide may result in runoff containing toxic levels of its active component.

a. Identify Pollutants from the Project Area

Using Table 1, identify pollutants that are anticipated to be generated from the proposed priority project categories. Pollutants associated with any hazardous material sites that have been remediated or are not threatened by the proposed project are not considered a pollutant of concern.

Table 1. Anticipated and Potential Pollutants Generated by Land Use Type.

	General Pollutant Categories								
Priority Project Categories	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P(1)	P(2)	P	X
Commercial Development > One Acre	P(1)	P(1)		P(2)	X	P(5)	X	P(3)	P(5)
Industrial development > One Acre	X		X	X	X	X	X		
Automotive Repair Shops			X	X(4)(5)	X		X		
Restaurants					X	X	X	X	
Hillside Development >5,000 ft^2	X	X			X	X	X		X
Parking Lots	P(1)	P(1)	X		X	P(1)	X		P(1)
Retail Gasoline Outlets			X	X	X	X	X		
Streets, Highways & Freeways	X	P(1)	X	X(4)	X	P(5)	X		

X = anticipated
P = potential
(1) A potential pollutant if landscaping exists on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

b. Identify Pollutants of Concern in Receiving Waters

Pollutants generated by the proposed priority project that exhibits one or more of the following characteristics are considered primary pollutants of concern:

- Current loadings or historical deposits of the pollutant are impairing the beneficial uses of a receiving water;
- Elevated levels of the pollutant are found in water or sediments of a receiving water and/or have the potential to be toxic or to bioaccumulate in organisms therein; and
- Inputs of the pollutant are at a level high enough to be considered potentially toxic.

To identify pollutants of concern in receiving waters, each priority project shall, at a minimum, do the following:

1. For each of the proposed projects discharge points, identify the receiving water(s) that each discharge point proposes to discharge to, including hydrologic unit basin number(s), as identified in the most recent version of the *Water Quality Control Plan for the San Diego Basin*[1], prepared by the San Diego Regional Water Quality Control Board.
2. Identify any receiving waters, into which the developed area would discharge to, listed on the most recent list of Clean Water Act Section 303(d) impaired water bodies[2]. List any and all pollutants for which the receiving waters are impaired.
3. Compare the list of pollutants for which the receiving waters are impaired with the pollutants anticipated to be generated by the project (as identified in Table 1). Any pollutants identified by Table 1, which are also causing impairment of receiving waters, shall be considered primary pollutants of concern.

For projects where no primary pollutants of concern exist, those pollutants identified through the use of Table 1 shall be considered secondary pollutants of concern.

c. Identify Conditions of Concern in Receiving Waters

Common impacts to the hydrologic regime resulting from development typically include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality degradation. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to a priority project site's hydrologic regime would be considered a condition of concern if the change would impact downstream channels and habitat integrity.

1. http://www.swrcb.ca.gov/~rwqcb9/Programs/Planning_and_Services/SD_Basin/sd_basin.html
2. http://www.swrcb.ca.gov/tmdl/303d_lists.html, San Diego is in Region 9

Because of these potential impacts, municipal staff may require that the following steps be followed for Priority Projects which, in their judgment, may impact the hydrologic regime:

1. Evaluate the project's conditions of concern in a drainage study report prepared by a registered civil engineer in the State of California, with experience in fluvial geomorphology and water resources management. The report shall consider the project area's location (from the larger watershed perspective), topography, soil and vegetation conditions, percent impervious area, natural and infrastructure drainage features, , wet season groundwater depth, and any other relevant hydrologic and environmental factors to be protected specific to the project area's watershed.
2. As part of the drainage study, a qualified, licensed professional shall provide a report on proposed infiltration techniques (trenches, basins, dry wells, permeable pavements with underground reservoir for infiltration) regarding any potential adverse geotechnical concerns. Geotechnical conditions such as slope stability, expansive soils, compressible soils, seepage, groundwater depth, and loss of foundation or pavement subgrade strength should be addressed, and mitigation measures should be provided.
3. As part of the drainage study, the civil engineer shall conduct a field reconnaissance to observe and report on downstream conditions, including undercutting erosion, slope stability, vegetative stress (due to flooding, erosion, water quality degradation, or loss of water supplies) and the area's susceptibility to erosion or habitat alteration as a result of an altered flow regime.
4. The drainage study shall compute rainfall runoff characteristics from the project area including, at a minimum, runoff volume, time of concentration, and retention volume. These characteristics shall be developed for the two-year and 10-year frequency, Type I storm, of six-hour or 24-hour duration (whichever is the closer approximation of the site's time of concentration), during critical hydrologic conditions for soil and vegetative cover[3]. The drainage study shall report the project's conditions of concern based on the hydrologic and downstream conditions discussed above. Where downstream conditions of concern have been identified, the drainage study shall establish that pre-project hydrologic conditions affecting downstream conditions of concern would be maintained by the proposed project, satisfactory to National City, by incorporating the site design, source control, and treatment control requirements identified in Section VI.2.

Priority Development Projects that disturb 50 acres or more are subject to the City's Interim Hydromodification Criteria (IHC). The IHC was developed regionally and was modified from the Contra Costa Hydromodification Plan. Two compliance options are provided – curve-matching based on continuous simulation modeling, and implementation of LID. The curve-matching approach as described below is currently available for use by Priority Development Projects within the City's jurisdiction. The range of flows to be managed under the curve-matching option is expressed as a percentage of the 5-year peak flow (Q5) based on the

3. Design storms can be found at http://www.wrcc.dri.edu/pcpnfreq.html. The Copermittees may calculate the storm events using local rain data. In addition, isopluvial maps contained in the County of San Diego Hydrology Manual may be used to extrapolate rainfall data to areas where insufficient data exists. If isopluvial maps are selected, Copermittees shall describe their method for using isopluvial maps in their Jurisdictional SUSMP.

understanding that dominant discharge for southern California streams is in the vicinity of Q5. The LID implementation option may become available later if design and sizing procedures are created and approved regionally during the course of developing the final Hydromodification Plan. If LID design guidance is not approved during the period that the IHC are in place, the curve-matching standard is the default compliance standard.

1. Curve-matching based on continuous simulation modeling: Estimated post-project runoff durations and peak flows do not exceed pre-project durations and peak flows. The project proponent must use a continuous simulation hydrologic computer model such as USEPA's Hydrograph Simulation Program—Fortran (HSPF) to simulate pre-project and post-project runoff, including the effect of proposed Integrated Management Practices (IMPs), detention basins, or other storm water management facilities. To use this method, the project proponent shall compare the pre-project and post-project model output for a rainfall record of at least 30 years, and shall show the following criteria are met:

    a. For flow rates from 20% of the pre-project 5-year runoff event (0.2Q5) to the pre-project 10-year runoff event (Q10), the post-project discharge rates and durations shall not deviate above the pre-project rates and durations by more than 10% over more than 10% of the length of the flow duration curve.

    b. For flow rates from 0.2Q5 to Q5, the post-project peak flows shall not exceed pre-project peak flows. For flow rates from Q5 to Q10, post-project peak flows may exceed pre-project flows by up to 10% for a 1-year frequency interval. For example, post-project flows could exceed pre-project flows by up to 10% for the interval from Q9 to Q10 or from Q5.5 to Q6.5, but not from Q8 to Q10. (Note that the 0.2Q5 end of the range may be modified).

2. Implementation of LID IMPs. The project proponent may implement LID IMPs to manage hydrograph modification impacts, using design procedures, criteria, and sizing factors (ratios of LID IMP volume or area to tributary area) as specified by the City of National City once standard design procedures, criteria, and sizing factors are accepted by the City. The LID IMP designs and sizing factors shall be determined using continuous simulation of runoff from a long-term rainfall record.

Priority Development Projects disturbing 50 acres of more are exempt from the above IHC when:

1. The project would discharge into channels that are concrete-lined or significantly hardened (e.g., with rip-rap, sackcrete, etc.) downstream to their outfall in bays or the ocean;
2. The project would discharge into underground storm drains discharging directly to bays or the ocean; or
3. The project would discharge to a channel where the watershed areas below the project's discharge points are highly impervious (e.g. >70%)."

4. The applicant conducts an assessment incorporating sediment transport modeling across the range of geomorphically-significant flows that demonstrates to the permitting agencies satisfaction that the project flows and sediment reductions will not detrimentally affect the receiving water.

2. ESTABLISH STORM WATER BMPs

Site design BMPs reduce the need for source and/or treatment control BMPs, and source control BMPs may reduce the amount of treatment control BMPs needed. Throughout all the following sections, all priority projects shall consider, and incorporate and implement where expressly required by the Permit and if not so required where determined applicable and feasible by National City, storm water BMPs into the project design, in the following progression:

- Site Design BMPs
- Source Control BMPs
- Treatment Control BMPs

At a minimum, priority projects must implement LID site design BMPs and source control BMPs, and must also implement treatment control BMPs unless a waiver is granted based on the infeasibility of all treatment control BMPs. LID BMPs must meet minimum requirements in municipal permit section D.1.d.(4). BMPs must also achieve certain performance standards set out in the municipal permit section D.1.d.(5) and (6). Selection of BMPs from the menus included in this SUSMP, using the rules set out in this SUSMP, must fulfill these requirements.

In addition, runoff treated by LID and site design or source control BMPs, such as rooftop runoff treated in landscaping, may be useful in reducing the quantity of runoff required to be treated in Section VI.2.c, “Treatment Control BMPs.”

To select a structural treatment BMP using the Treatment Control BMP Selection Matrix, each priority project shall compare the list of pollutants for which the downstream receiving waters are impaired (if any), with the pollutants anticipated to be generated by the project (as identified in Table 1). Any pollutants identified by Table 1 which also cause a Clean Water Act section 303(d) impairment of the receiving waters of the project shall be considered primary pollutants of concern. Priority projects that are anticipated to generate a primary pollutant of concern shall meet all applicable requirements in Section VI.2, and shall select a singe or combination of storm water BMPs from Table 3 that are effective for pollutant removal of the particular primary pollutant(s) of concern.

Alternatively, a project proponent may elect to implement a combination of LID BMPs that either disperse and infiltrate, or direct to bioretention facilities, the flows from all impervious areas on-site. These BMPs are presumed to provide maximum extent practicable treatment for all pollutants of concern; therefore no further documentation of the treatment BMP selection process is required.

Priority projects that are not anticipated to generate a pollutant for which the receiving water is Clean Water Act Section 303(d) impaired shall meet applicable standard requirements in Section VI.2, and shall select a single or combination of storm water BMPs from Table 3 which are effective for pollutants removal of the identified secondary pollutants of concern, consistent with the "maximum extent practicable" standard defined in Attachment C of the Municipal Permit.

Where a site generates both primary and secondary pollutants of concern, primary pollutants of concern receive priority of BMP selection. For such sites, selected BMPs must only maximize pollutants removal for the primary pollutants of concern. Where a site generates only secondary pollutants of concern selected BMPs shall target the secondary pollutants of concern to be the most significant for the project. Selected BMPs must be effective for the widest range of pollutants of concern with the maximum extent practicable standard defined in Attachment C of the municipal Permit.

Treatment control BMPs with a high or medium pollutant removal efficiency for the project's most significant pollutant of concern shall be selected. Treatment control BMPs with a low removal efficiency ranking shall only be approved by the Copermittee when a feasibility analysis has been conducted which exhibits that implementation of treatment control BMPs with a high or medium removal efficiency ranking are infeasible. Treatment control BMPs shall not be constructed within a receiving water.

Alternative storm water BMPs not identified in Table 3 may be approved at the discretion of National City, provided the alternative BMP is as effective in removal of pollutants of concern as other feasible BMPs listed in Table 3.

Table 2. Standard Storm Water BMP Selection Matrix.

Priority Project Category	***Site Design BMPs(1)***	***Source Control BMPs(2)***	***Requirements Applicable to Individual Priority Project Categories(4)***										
			a. Private Roads	b. Residential Driveways & Guest Parking	c. Dock Areas	d. Maintenance Bays	e. Vehicle Wash Areas	f. Outdoor Processing Areas	g. Equipment Wash Areas	h. Parking Areas	i. Roadways	j. Fueling Areas	k. Hillside Landscaping
Detached Residential Development	R	R	R	R									R
Attached Residential Development	R	R	R										
Commercial Development > One Acre	R	R			R	R	R	R					
Industrial Development > One Acre	R	R			R	R	R	R	R			R	
Automotive Repair Shop	R	R			R	R	R		R			R	
Restaurants	R	R			R				R				
Hillside Development >5,000 ft^2	R	R	R										R
Parking Lots	R	R								R(4)			
Streets, Highways & Freeways	R	R									R		
Retail Gasoline Outlets	R	R					R					R	

R = Required; select BMPs as required from the applicable steps in Section VI.2a & b, or equivalent in Appendix A.
(1) Refer to Section VI.2.a.
(2) Refer to Section VI.2.b.
(3) Priority project categories must apply specific storm water BMP requirements, where applicable. Projects are subject to the requirements of all priority project categories that apply.
(4) Applies if the paved area totals>5,000 square feet or with >15 parking spaces and is potentially exposed to urban runoff.

Table 3. Treatment Control BMP Selection Matrix.

Pollutants of Concern	Bioretention Facilities (LID)	Settling Basins (Dry Ponds)	Wet Ponds and Wetlands	Infiltration Facilities or Practices (LID)	Media Filters	High-rate biofilters	High-rate media filters	Trash Racks & Hydro -dynamic Devices
Coarse Sediment and Trash	High	High	High	High	High	High	High	High
Pollutants that tend to associate with fine particles during treatment	High	High	High	High	High	Medium	Medium	Low
Pollutants that tend to be dissolved following treatment	Medium	Low	Medium	High	Low	Low	Low	Low

<u>Notes on Treatment Control BMP Categories</u>

All rankings are relative. Ranking of all facilities assumes proper sizing, design, and periodic maintenance. Following are general descriptions of each category.

- Bioretention Facilities (infiltration planters, flow-through planters, bioretention areas, and bioretention swales). Facilities are designed to capture runoff and infiltrate slowly through soil media which also supports vegetation. Bioretention facilities, except for flow-through planters, effectively promote infiltration into native soils. In clay soils, facilities may capture excess treated runoff in an underdrain piped to the municipal storm drain system. Typical criteria: an infiltration surface area at least 4% of tributary impervious area, 6-inch average depth of top reservoir, 18-inch soil layer, 12-inch to 18-inch gravel subsurface storage layer.

- Settling Basins and Wetlands (extended detention basins, “wet” basins, decorative or recreational lakes or water features also used for storm water treatment, constructed wetlands). Facilities are designed to capture a minimum water quality volume of 80% of total runoff and detain for a minimum of 48 hours. Some wetland designs have proven effective in removing nutrients, but performance varies.

- Infiltration Facilities or Practices (infiltration basins, infiltration trenches, dry wells, dispersal of runoff to landscape, pervious pavements). These facilities and landscape designs capture, retain, and infiltrate a minimum of 80% of runoff into the ground. Infiltration facilities are generally only feasible in permeable (Hydrologic Soil Group A or B) soils. Volume and area of infiltration facilities depends on soil permeability and safety factor used. Typical criteria: Infiltration facilities should have pretreatment to remove silt to prolong life of the facility. A 10-foot vertical separation from average seasonal groundwater depth is required. Dispersal to landscape may be accomplished in any soil type and generally requires a maximum 2:1 ratio impervious:pervious and concave topography to ensure the first 1 inch of rainfall is retained.

- Media Filters (sand filters). Filters designed to treat runoff produced by a rainfall of 0.2 inches per hour (or 2 85th percentile hourly rainfall intensity) by slow infiltration through sand or other media. Typical criteria: Surface loading rate not to exceed 5 inches/hour. Entire surface of the sand must be accessible for maintenance.

- High Rate Biofilters (tree wells, typically proprietary). Biofilters with specially designed media to rapidly filter runoff while removing some pollutants. Filterra® (proprietary version) recommends surface loading rates of up to 100 inches/hour.

- High-rate Media Filters (typically proprietary). Vaults with replaceable cartridge filters filled with inorganic media.

Notes on Pollutants of Concern:
In Table 3, Pollutants of Concern are grouped as gross pollutants, pollutants that tend to associate with fine particles, and pollutants that remain dissolved.

Table 4. Pollutants and Associated Particle Sizes

Pollutant	Coarse Sediment and Trash	Pollutants that tend to associate with fine particles during treatment	Pollutants that tend to be dissolved following treatment
Sediment	X	X	
Nutrients		X	X
Heavy Metals		X	
Organic Compounds		X	
Trash & Debris	X		
Oxygen Demanding		X	
Bacteria		X	
Oil & Grease		X	
Pesticides		X	

a. Low Impact Development (LID) and Site Design BMPs

Priority projects shall be designed so as to minimize, directly connected impervious surfaces and to promote infiltration using LID techniques. Priority projects shall, to the maximum extent practicable, minimize the introduction of pollutants and conditions of concern that may result in significant impacts, generated from site runoff to the storm water conveyance system. Priority Projects shall also control post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion and protect stream habitat. Although not mandatory, priority projects can address these objectives through the creation of a hydrologically functional project design that attempts to mimic the natural hydrologic regime. Many of these techniques are outlined and reviewed in the County of San Diego's LID Handbook and Appendices. Mimicking a site's natural hydrologic regime can be pursued by:

- Reducing imperviousness, conserving natural resources and areas, maintaining and using natural drainage courses in the storm water conveyance system, and minimizing clearing and grading.

- Providing runoff storage measures dispersed uniformly throughout a site's landscape with the use of bioretention facilities and detention, retention, and infiltration practices.

These design principles offer an innovative approach to urban storm water management, one that does not rely on the conventional end-of-pipe or in-the-pipe structural methods but instead uniformly or strategically integrates storm water controls throughout the urban landscape. Useful resources for applying these principles, referenced in the appendix, include the County of San Diego's LID Handbook (2007), *Start at the Source* (1999), and *Low-Impact Development Design Strategies* (1999)), the City of Portland's Stormwater Manual (2004), and the Contra Costa Clean Water Program's Stormwater C.3 Guidebook (2006)..

Step 1: Objective: Maintain Pre-Development Rainfall Runoff Characteristics

Priority projects shall control post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development development downstream erosion. In addition, projects should control runoff discharge volumes and durations to the maximum extent practicable using the site design, source control, and treatment control requirements identified in Section VI.2.

Design Concept 1: Minimize Project's Impervious Footprint & Conserve Natural Areas

The following site design options shall be considered and shall be incorporated and implemented where determined applicable and feasible by National City, during the site planning and approval process, consistent with applicable General Plan policies and other development regulations.

1. Minimize and disconnect impervious surfaces. This can be achieved in various ways, including, but not limited to increasing building density (number of stories above or below ground) and developing land use regulations seeking to limit impervious surfaces. Decreasing the project's footprint can substantially reduce the project's impacts to water quality and hydrologic conditions.

2. Conserve natural areas, soils, and vegetation where feasible. Concentrating or clustering development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural, undisturbed condition can achieve this. The following list provides a guideline for determining the least sensitive portions of the site, in order of increasing sensitivity. Jurisdictions should also refer to their Multiple Species Conservation Plans or other biological regulations, as appropriate.

    a. Areas devoid of vegetation, including previously graded areas and agricultural fields.
    b. Areas of non-native vegetation, disturbed habitats and eucalyptus woodlands.
    c. Areas of chamise or mixed chaparral, and non-native grasslands.
    d. Areas containing coastal scrub communities.
    e. All other upland communities.
    f. Occupied habitat of sensitive species and all wetlands (as both are defined by National City).
    g. All areas necessary to maintain the viability of wildlife corridors. Within each of the previous categories, areas containing hillsides (as defined in this SUSMP) should be considered more sensitive than the same category without hillsides.

3. Construct walkways, trails, patios, overflow parking lots and alleys and other low-traffic areas with permeable surfaces, such as pervious concrete, permeable asphalt, unit pavers and granular materials.
4. Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
5. Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.
6. Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.
7. Use natural drainage systems to the maximum extent practicable.
8. Minimize soil compaction
9. Other site design options, which are comparable, and equally effective.

Design Concept 2: Minimize Directly Connected Impervious Areas (DCIAs)

Priority projects shall consider, and incorporate and implement the following design characteristics, where determined applicable and feasible:

1. Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm drain.
2. Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.
3. Other design characteristics that is comparable and equally effective.

Step 2: Protect Slopes and Channels

Project plans shall include storm water BMPs to decrease the potential for erosion of slopes and/or channels, consistent with local codes and ordinances and with the approval of all agencies with jurisdiction, e.g., the U.S. Army Corps of Engineers, the San Diego Regional Water Quality Control Board, and the California Department of Fish and Game. The following design principles shall be considered, and incorporated and implemented where determined applicable and feasible by National City:

1. Minimize disturbances to Natural Drainages
2. Convey runoff safely from the tops of slopes.
3. Vegetate slopes with native or drought tolerant vegetation.
4. Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.
5. Stabilize permanent channel crossings.
6. Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.
7. Other design principles, which are comparable and equally effective.

b. Source Control BMPs

Step 3: Provide Storm Drain System Stenciling and Signage

Storm drain stencils are highly visible source control messages, typically placed directly adjacent to storm drain inlets. The stencils contain a brief statement that prohibits the dumping of improper materials into the urban runoff conveyance system. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the anti-dumping message. Priority projects shall include the following requirements in the project design, where determined applicable and feasible by National City.

1. Provide stenciling or labeling of all storm drain inlets and catch basins within the project area with prohibitive language (such as: "**NO DUMPING – I LIVE DOWNSTREAM"**) and/or graphical icons to discourage illegal dumping.
2. Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.
3. Maintain legibility of stencils and signs.

Step 4: Design Outdoor Material Storage Areas to Reduce Pollution Introduction

Improper storage of materials outdoors may increase the potential for toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to enter the urban runoff conveyance system. Where the priority project plans include outdoor areas for storage of hazardous materials that may contribute pollutants to the urban runoff conveyance system, the following storm water BMPs are required:

~~1.~~ Hazardous materials with the potential to contaminate urban runoff shall either be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.

~~2.~~ The storage area shall be paved and sufficiently impervious to contain leaks and spills.

~~3.~~ The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.

Step 5: Design Trash Storage Areas to Reduce Pollution Introduction

All trash container areas shall meet the following requirements (limited exclusion: detached residential homes):

1. The area shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash; or,
2. Attached lids shall be mounted on all trash containers that exclude rain, or a roof or awning be installed to minimize direct precipitation.

Step 6: Use Efficient Irrigation Systems & Landscape Design

Priority projects shall design the timing and methods of application of irrigation water to minimize the runoff of excess irrigation water into the storm water conveyance system (with the limited exclusion of detached residential homes.) In compliance with the Water Conservation in Landscaping Act, the following methods to reduce excessive irrigation runoff shall be considered, and shall be incorporated and implemented where determined applicable and feasible by National City:

1. Employment of rain shutoff devices to prevent irrigation after precipitation.
2. Design of irrigation systems to each landscape area's specific water requirements.
3. Use of flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
4. Employment of other comparable, equally effective, methods to reduce irrigation water runoff.

Step 7: Incorporate Requirements Applicable to Individual Priority Project Categories

Where identified in Table 2, the following requirements shall be incorporated into applicable priority projects during the storm water BMP selection and design process. Projects shall adhere to each of the individual priority project category requirements that apply to the project (e.g., a restaurant with more than 15 parking spaces would be required to incorporate the requirements for " g. Equipment Wash Areas" and "h. Parking Areas" into the project design).

a. Private Roads

The design of private roadway drainage shall use at least one of the following (for further guidance, see *Start at the Source* [1999]):

1. Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings;
2. Urban curb/swale system: street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter;
3. Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to storm water conveyance system.
4. Other methods, which are comparable and equally effective within the project may be used.

b. Residential Driveways & Guest Parking

The design of driveways and private residential parking areas shall incorporate at least one of the following features:

1. Design driveways with shared access, flared (single lane at street) or wheelstrips (paving only under tires); or, draining into landscaping prior to discharging to the storm water conveyance system.
2. Pave temporary or guest parking on private residential lots with a permeable surface; or be, designed to drain into landscaping prior to discharging to the storm water conveyance system.
3. Other features which are comparable and equally effective.

c. Dock Areas

Loading/unloading dock areas shall include or observe the following:

1. Loading dock areas shall be covered or drainage designed to preclude urban run-on and runoff.
2. Direct connections to storm drains from depressed loading docks (truck wells) shall be prohibited.
3. Other features may be used which are comparable and equally effective.

d. Maintenance Bays

Maintenance bays shall include and observe the following:

1. Repair/maintenance bays shall be installed indoors; or, be designed to preclude urban run-on and runoff.
2. The repair/maintenance bay drainage system shall be designed to capture all wash water, leaks and spills. Drains shall be connected to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system shall be prohibited. If required by National City, an Industrial Waste Discharge Permit shall be obtained by the business.

   OR

3. Other features which are comparable and equally effective may be used.

e. Vehicle Wash Areas

Priority projects that include areas for washing/steam cleaning of vehicles shall consider, and shall incorporate and implement where determined applicable and feasible by National City, the following:

1. Be self-contained; or covered with a roof or overhang;
2. Be equipped with a clarifier or other pretreatment facility;
3. Be properly connected to a sanitary sewer.
4. Consider other features which are comparable and equally effective for design and use.

f. Outdoor Processing Areas

Outdoor process equipment operations, such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, landfills, waste piles, and wastewater and solid waste treatment and disposal, and other operations determined to be a potential threat to the water quality by National City shall adhere and observe the following requirements:

1. Areas that would be the most significant source of pollutants are to be covered or enclosed; or, slope the area toward a dead-end sump; or be discharged to the sanitary sewer system following appropriate treatment in accordance with conditions established by the applicable sewer agency.
2. Grade or berm the area to prevent run-on from surrounding areas.
3. Storm drains shall not be installed in areas of equipment repair.
4. Other features, which are comparable or equally effective, may be used.

g. Equipment Wash Areas

Outdoor equipment/accessory washing and steam cleaning activities at priority projects shall use or observe at least one of the following:

1. Be self-contained, or be covered with a roof or overhang;
2. Be equipped with a clarifier, grease trap or other pretreatment facility, as appropriate;
3. Be properly connected to a sanitary sewer.
4. Use other features, which are comparable or equally effective.

h. Parking Areas

To minimize the offsite transport of pollutants from parking areas, the following design concepts shall be considered, and shall be incorporated and implemented where determined applicable and feasible by National City:

1. Where landscaping is proposed in parking areas, landscape areas are to be incorporated into the drainage design.
2. Construct overflow parking (parking stalls provided in excess of National City's minimum parking requirements) with permeable paving.
3. Use other design concepts, which are comparable and equally effective.

i. Roadways

Priority roadway projects shall select treatment control BMPs following the enhanced treatment control selection procedure identified in Section VI.2, "Establish Storm Water BMPs."

j. Fueling Areas

Fuel dispensing areas shall contain the following:

1. Use an overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area shall drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.
2. Be paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.
3. An appropriate slope to prevent ponding shall be provided, and must be separated from the rest of the site by a grade break that prevents run-on of urban runoff.
4. At a minimum, the concrete fuel dispensing area shall extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.

k. Hillside Landscaping

Hillside areas, as defined in this SUSMP, that are disturbed by project development shall be landscaped with deep-rooted, drought tolerant plant species selected for erosion control, satisfactory to National City.

a. Treatment Control BMPs

Minimizing a development's detrimental effects on water quality can be most effectively achieved through the use of a combination of site design, source and treatment control storm water BMPs. Priority projects shall be designed to remove pollutants of concern from the storm water conveyance system to the maximum extent practicable through the incorporation and implementation of treatment control BMPs.

In meeting the requirements in this section, priority projects shall implement a single or combination of storm water BMPs that will remove anticipated pollutants of concern, as identified by the procedure in Section VI.1, in site runoff to the maximum extent practicable. Treatment control BMPs with a high or medium pollutant removal efficiency for the project's most significant pollutant of concern shall be selected. Treatment control BMPs with a low removal efficiency ranking shall only be approved by the City when a feasibility analysis has been conducted which exhibits that implementation of treatment control BMPs with a high or medium removal efficiency ranking are infeasible. Treatment control BMPs must be implemented unless a waiver is granted to the project by National City based on the infeasibility of any treatment control BMP.

Step 8: Design to Treatment Control BMP Standards

All priority projects shall be designed, constructed and shall implement structural treatment control BMPs that meet the design standards of this section, unless specifically exempted by the limited exclusions listed at the end of **Step 8**. Structural treatment control BMPs required by this section shall be operational prior to the use of any dependent development, and shall be located

and designed in accordance with the requirements in **Step 8** and **Step 9**. National City may choose to eliminate one or more of the numeric volume or flow sizing methods listed below.

Volume

1. Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

   i. The volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record (0.6 inch approximate average for the San Diego County area)[4]; or

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

   iii. The volume of annual runoff based on unit basin storage volume, to achieve 90 percent or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook – Industrial/ Commercial, (1993),* or

   iv. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event,[5]

OR

Flow

2. Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

   i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour for each hour of a storm event; or

   ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or

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4. This volume is not a single volume to be applied to all of San Diego County. The size of the 85th percentile storm event is different for various parts of the County. National City has calculated the 85th percentile storm event using local rain data. In addition, isopluvial maps contained in the County of San Diego Hydrology Manual may be used to extrapolate rainfall data to areas where insufficient data exists. If isopluvial maps are selected, Copermittees shall describe their method for using isopluvial maps in their Jurisdictional SUSMP.
5. Under this volume criterion, hourly rainfall data may be used to calculate the 85th percentile storm event, where each storm event is identified by its separation from other storm events by at least six hours of no rain. If hourly rainfall data is selected, National City shall describe the method using hourly rainfall data in its Jurisdictional SUSMP.

iii. The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

Limited Exclusions:

1. Proposed restaurants, where the land area for development or redevelopment is less than 5,000 square feet, are excluded from the numerical sizing criteria requirements listed in Section VI.2.c, **Step 8**.
2. Where significant redevelopment results in an increase of less than 50 percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed in Section VI.2.c, **Step 8** shall apply only to the addition, and not to the entire development.

Step 9: Locate BMPs Near Pollutant Sources

Structural treatment control storm water BMPs should be implemented close to pollutant sources to minimize costs and maximize pollutant removal prior to runoff entering receiving waters. Such BMPs may be located on- or off-site, be used singly or in combination, or be shared by multiple new developments, pursuant to the following requirements:

1. All structural treatment control BMPs shall be so located as to infiltrate, filter, and/or treat the required runoff volume or flow prior to its discharge to any receiving water body supporting beneficial uses;
2. Multiple post-construction structural treatment control BMPs for a single priority development project shall collectively be designed to comply with the design standards of Step 8;
3. Shared storm water BMPs shall be operational prior to the use of any dependent development or phase of development. The shared BMPs shall only be required to treat the dependent developments or phases of development that are in use;
4. Interim storm water BMPs that provide equivalent or greater treatment than is required by Section 3.a may be implemented by a dependent development until each shared BMP is operational. If interim BMPs are selected, the BMPs shall remain in use until permanent BMPs are operational.

Step 10: Restrictions on Use of Infiltration BMPs

Three factors significantly influence the potential for urban runoff to contaminate ground water. They are: (i) pollutant mobility; (ii) pollutant abundance in urban runoff, and, (iii); soluble fraction of pollutant. The risk of contamination of groundwater may be reduced by pretreatment of urban runoff. A discussion of limitations and guidance for infiltration practices is contained in Potential *Groundwater Contamination from Intentional and Non-Intentional Stormwater Infiltration, Report No. EPA/600/R-94/051, USEPA (1994).*

To protect groundwater quality, National City shall apply restrictions to the use of any BMPs that are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins). As additional ground water basin data is obtained, National City may develop additional restrictions on the use of any BMPs that allow incidental infiltration. At a minimum, the use of structural treatment BMPs designed to primarily function as infiltration devices shall meet or observe the following conditions[6]:

1. Urban runoff from commercial developments shall undergo pretreatment to remove both physical and chemical contaminants, such as sedimentation or filtration, prior to infiltration.
2. All dry weather flows shall be diverted from infiltration devices except for those non-storm water discharges authorized pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1): diverted stream flows, rising ground waters, uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to storm water conveyance systems, uncontaminated pumped ground water, foundation drains, springs, water from crawl space pumps, footing drains, air conditioning condensation, flow from riparian habitats and wetlands, water line flushing, landscape irrigation, discharges from potable water sources other than water main breaks, irrigation water, individual residential car washing, and dechlorinated swimming pool discharges.
3. Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration structural treatment BMPs are to be used.
4. The vertical distance from the base of any infiltration structural treatment BMP to the seasonal high groundwater mark shall be at least 10 feet or as determined on an individual, site-specific basis by the Copermittee. Where groundwater does not support beneficial uses, this vertical distance criterion may be reduced, provided groundwater quality is maintained.
5. The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) that are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses.
6. Infiltration structural treatment BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by National City in its SUSMP.
7. The horizontal distance between the base of any infiltration structural BMP and any water supply wells shall be 100 feet or as determined on an individual, site-specific basis by National City.

Where infiltration BMPs are authorized, their performance shall be evaluated for impacts on

6. These conditions do not apply to structural treatment BMPs which allow incidental infiltration and are not designed to primarily function as infiltration devices (such as grassy swales, detention basins, vegetated buffer strips, constructed wetlands, etc.)

groundwater quality. In developing the Jurisdictional SUSMP, National City shall develop additional restrictions on the use of treatment control BMPs that are designed to primarily function as infiltration devices. National City shall consider the Section D.1.g. permit requirements to control the contribution of pollutants from one portion of the watershed to another portion of the watershed through interagency agreements among the Copermittees. In those instances where National City determines that implementation of proposed infiltration BMPs within their jurisdiction has a potential impact to groundwater quality in another jurisdiction, National City will require a notification to by those proposing such use, in addition to requiring the above protection measures.

3. PROVIDE PROOF OF ONGOING STORM WATER BMP MAINTENANCE

National City shall not consider structural BMPs "effective," and therefore shall not accept storm water BMPs as meeting the MEP standard, unless a mechanism is in place that will ensure ongoing long-term maintenance of all structural BMPs. This mechanism may be provided by National City or be required by the project proponent. As part of project review, if a project proponent is required to include interim or permanent structural BMPs in project plans. National City shall require that the applicant to provide verification of maintenance requirements through such means as may be appropriate, at the discretion of National City, including, but not limited to covenants, legal agreements, maintenance agreements, and/or conditional use permits.

Maintenance Mechanisms

1. **Public entity maintenance:** National City may approve a public or acceptable quasi-public entity (e.g., the County Flood Control District, or annex to an existing assessment district, an existing utility district, a state or federal resource agency, or a conservation conservancy) to assume responsibility for maintenance, repair and replacement of the BMP. Unless acceptable to National City, public entity maintenance agreements shall ensure estimated costs are front-funded or reliably guaranteed, (e.g., through a trust fund, assessment district fees, bond, letter of credit or similar means). In addition, National City may seek protection from liability by appropriate releases and indemnities. National City shall have the authority to approve storm water BMPs proposed for transfer to any other public entity within its jurisdiction before installation. National City shall be involved in the negotiation of maintenance requirements with any other public entities accepting maintenance responsibilities within their respective jurisdictions; and in negotiations with the resource agencies responsible for issuing permits for the construction and/or maintenance of the facilities. National City must be identified as a third party beneficiary empowered to enforce any such maintenance agreement within their respective jurisdictions.
2. **Project proponent agreement to maintain storm water BMPs:** National City may enter into a contract with the project proponent obliging the project proponent to maintain, repair and replace the storm water BMP as necessary into perpetuity. Security or performance bonds may be required.

3. **Assessment districts:** National City may approve an Assessment District or other funding mechanism created by the project proponent to provide funds for storm water BMP maintenance, repair and replacement on an ongoing basis. Any agreement with such a District shall be subject to the Public Entity Maintenance Provisions above.
4. **Lease provisions:** In those cases where National City holds title to the land in question, and the land is being leased to another party for private or public use, National City may assure storm water BMP maintenance, repair and replacement through conditions in the lease.
5. **Conditional use permits:** For discretionary projects only, National City may assure maintenance of storm water BMPs through the inclusion of maintenance conditions in the conditional use permit. Security may or performance bond may be required.
6. **Alternative mechanisms:** National City may accept alternative maintenance mechanisms if such mechanisms are as protective those listed above.

Verification Mechanisms

For discretionary projects, National City-approved methods of storm water BMP maintenance shall be incorporated into the project's permit, and shall be consistent with permits issued by resource agencies before approval of discretionary permits. For projects requiring only ministerial permits, National City approved method of storm water BMP maintenance shall be incorporated into the permit conditions before the issuance of any ministerial permits. In all instances, the project proponent shall provide proof of execution of National City approved method of maintenance repair and replacement before the issuance of construction approvals. Public projects that are not required to obtain National City permits shall be required and be responsible for ensuring that National City approved methods of storm water BMP maintenance, repair and replacement is executed prior to the commencement of construction. For all properties, the verification mechanism will include the project proponent's signed statement, as part of the project application, accepting and guaranteeing responsibility for all structural BMP maintenance, repair and replacement, until a National City approved entity agrees to assume responsibility for structural BMP maintenance, repair and replacement.

Maintenance Requirements

1. **Operation & Maintenance (O&M) Plan:** National City shall ensure that a copy of an Operation & Maintenance (O&M) plan, prepared by the project proponent satisfactory to National City, is attached to the approved maintenance agreement, which describes the designated responsible party to manage the storm water BMP(s), employee's training program and duties, operating schedule, maintenance frequency, routine service schedule, specific maintenance activities, copies of resource agency permits, and any other necessary activities. At a minimum, maintenance agreements shall require the inspection and servicing of all structural BMPs on an annual basis. The project proponent or National City approved maintenance entity shall complete and maintain O&M forms to document all maintenance requirements. Parties responsible for the O&M plan shall retain records for at least 5 years. These documents shall be made available to National City for inspection upon request at any time.

2. **Access Easement/Agreement:** As part of the maintenance mechanism selected above, National City shall require an executed access easement that is binding on the land throughout the life of the project, or until such time that the storm water BMP requiring access is replaced.

4. WAIVER OF STRUCTURAL TREATMENT BMP REQUIREMENTS

National City may provide for a project to be waived from the requirement of implementing structural treatment BMPs (Section VI.2.c, "Design to Treatment Control BMP Standards") if infeasibility can be established. National City shall only grant a waiver of infeasibility when all available structural treatment BMPs have been considered and rejected as infeasible. National City shall notify the Regional Board within 5 days of each waiver issued and shall include the name of the person granting each waiver.

Waivers may only be granted from structural treatment BMP and structural treatment BMP sizing requirements. Priority development projects, whether or not granted a waiver may not cause or contribute to an exceedance of water quality objectives. Pollutants in runoff from projects granted a waiver must still be reduced to the maximum extent practicable.

National City will implement a waiver program or at its option also develop a SUSMP waiver impact fee program to require project proponents who have received waivers to transfer the savings in cost, or a proportionate share thereof, as determined by the Copermittee, to a storm water mitigation fund. National City shall notify the RWQCB if a SUSMP waiver impact fee program is developed pursuant to this model SUSMP. SUSMP waiver impact fee program set out in jurisdictional SUSMP submissions, or in supplemental submissions if multiple Copermittees establish a joint mitigation fund program for that watershed may be substituted.

The Jointly Developed by San Diego Copermitees SUSMP does not preclude National City from imposing any other fees or charges on development projects that are permitted by law, or from managing or expending the monies received from such non-SUSMP programs in any other manner authorized by law.

VII. RESOURCES AND REFERENCES

APPENDIX A

STORM WATER BEST MANAGEMENT PRACTICES

The following are a list of BMPs to minimize the introduction of pollutants of concern that may result in significant impacts to receiving waters. Other BMPs approved by National City as being equally or more effective in pollutant reduction than comparable BMPs identified below are acceptable. See Appendix B: *Suggested Resources* for additional sources of information. All BMPs must comply with local zoning and building codes and other applicable regulations.

Site Design BMPs

Minimizing Impervious Areas

- Reduce sidewalk widths
- Incorporate landscaped buffer areas between sidewalks and streets.
- Design residential streets for the minimum required pavement widths
- Minimize the number of residential street cul-de-sacs and incorporate landscaped areas within cul-de-sac centers with curb-cuts or equivalent and equally effective methods to reduce their impervious cover.
- Use open space development that incorporates smaller lot sizes
- Increase building density while decreasing the building footprint
- Reduce overall lot imperviousness by promoting alternative driveway surfaces and shared driveways that connect two or more homes together
- Reduce overall imperviousness associated with parking lots by providing compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, and using pervious materials in spillover parking areas

Increase Rainfall Infiltration

- Use permeable materials for private sidewalks, driveways, parking lots, and interior roadway surfaces (examples: hybrid lots, parking groves, permeable overflow parking, etc.)
- Use curb-cuts or equivalent and equally effective methods that convey runoff into swales, landscaping, and natural areas prior to entering the MS4
- Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas, and avoid routing rooftop runoff to the roadway or the urban runoff conveyance system
- Pitch driveways and parking areas toward yards and vegetated areas prior to draining into the MS4. Conserve and utilize natural soils and/or use amended soils to encourage light infiltration/percolation
- Minimize disturbances to natural drainages

- Minimize soil compaction in planned green space (landscaped areas, lawns, etc.) and re-till soils when compacted by grading/construction equipment

Maximize Rainfall Interception

- Maximizing canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.
- Cisterns / Rain barrels
- Foundation landscaping

Minimize Directly Connected Impervious Areas (DCIAs)

- Draining rooftops into adjacent landscaping prior to discharging to the storm drain
- Use curb-cuts or equivalent and equally effective methods that allow parking lots to drain into landscape areas co-designed as biofiltration areas and/or swales prior to draining into the MS4
- Draining roads, sidewalks, and impervious trails into adjacent landscaping

Slope and Channel Protection

- Use of natural drainage systems to the maximum extent practicable
- Stabilized permanent channel crossings
- Planting native or drought tolerant vegetation on slopes
- Energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels

Maximize Rainfall Interception

- Cisterns
- Foundation planting

Increase Rainfall Infiltration

- Dry wells

Source Control BMPs

- Storm drain system stenciling and signage
- Outdoor material and trash storage area designed to reduce or control rainfall runoff
- Efficient irrigation system

Treatment Control BMPs

Biofilters

- Bioretention Swale (detains and infiltrates water through soil)
- Storm water Planter Box (open-bottomed)
- Storm water Flow-Through Planter (sealed bottom)
- Vegetated filter strip
- Bioretention area
- Vegetated Roofs / Modules / Walls

Detention Basins

- Extended/dry detention basin with grass/vegetated lining
- Extended/dry detention basin with impervious lining

Infiltration Facilities

- Infiltration basin
- Infiltration trench
- Dry well

Permeable Paving

- Gravel
- Permeable asphalt
- Pervious concrete
- Unit pavers, ungrouted, set on sand or gravel
- Subsurface Reservoir Bed

Wet Ponds and Wetlands

- Wet pond (permanent pool)
- Constructed wetland

Drainage Inserts

- Oil/Water separator
- Catch basin insert
- Storm drain inserts
- Catch basin screens

Filtration Systems

- Media filtration
- Sand filtration

Hydrodynamic Separation Systems

- Swirl Concentrator
- Cyclone Separator

Trash Racks and Screens

APPENDIX B

SUGGESTED RESOURCES	HOW TO GET A COPY
The County of San Diego Low Impact Development Handbook; Stormwater Management Strategies . (2007). Presents guidance for LID stormwater planning and management techniques. Fact Sheets on LID BMPs are provided in the Appendices.	The County of San Diego The Department of Planning and Land Use 5201 Ruffin Road, Suite B San Diego, CA 92123 http://www.sdcounty.ca.gov/dplu/LID_PR.html www.sdcounty.ca.gov/dplu/
Better Site Design: A Handbook for Changing Development Rules in Your Community (1998) Presents guidance for different model development alternatives.	Center for Watershed Protection 8391 Main Street Ellicott City, MD 21043 410-461-8323 www.cwp.org
California Urban runoff Best Management Practices Handbooks (2003) for Construction Activity, Municipal, and Industrial/Commercial Presents a description of a large variety of Structural BMPs, Treatment Control, BMPs and Source Control BMPs	Los Angeles County Department of Public Works Cashiers Office 900 S. Fremont Avenue Alhambra, CA 91803 626-458-6959 www.cabmphandbooks.org
Caltrans Urban runoff Quality Handbook: Planning and Design Staff Guide (Best Management Practices Handbooks (1998) Presents guidance for design of urban runoff BMPs	California Department of Transportation P.O. Box 942874 Sacramento, CA 94274-0001 916-653-2975
Bioretention Manual (updated 2002) Presents guidance for designing, building, and maintaining bioretention facilities.	Prince George's County Watershed Protection Branch 9400 Peppercorn Place, Suite 600 Landover, MD 20785 http://www.co.pg.md.us/Government/AgencyIndex/DER/ESD/Bioretention/bioretention.asp
Contra Costa Clean Water Program *Stormwater C.3 Guidebook* Includes an integrated design approach to meet California Stormwater NPDES treatment and hydrograph modification management requirements using Low Impact Development site design techniques and facilities.	Contra Costa Clean Water Program 255 Glacier Drive Martinez, CA 94553 www.cccleanwater.org/construction/nd.php
Design of Stormwater Filtering Systems (1996) by Richard A. Claytor and Thomas R. Schuler Presents detailed engineering guidance on ten different urban runoff-filtering systems.	Center for Watershed Protection 8391 Main Street Ellicott City, MD 21043 410-461-8323
Development Planning for Stormwater Management, A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), (May 2000)	Los Angeles County Department of Public Works http://dpw.co.la.ca.us/epd/ or http://www.888cleanLA.com

SUGGESTED RESOURCES	HOW TO GET A COPY
Florida Development Manual: A Guide to Sound Land and Water Management (1988) Presents detailed guidance for designing BMPs	Florida Department of the Environment 2600 Blairstone Road, Mail Station 3570 Tallahassee, FL 32399 850-921-9472
Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (1993) Report No. EPA–840-B-92-002. Provides an overview of, planning and design considerations, programmatic and regulatory aspects, maintenance considerations, and costs.	National Technical Information Service U.S. Department of Commerce Springfield, VA 22161 800-553-6847
Guide for BMP Selection in Urban Developed Areas (2001)	ASCE Envir. and Water Res. Inst. 1801 Alexander Bell Dr. Reston, VA 20191-4400 (800) 548-2723
Low-Impact Development Design Strategies - An Integrated Design Approach (June 1999)	Prince George's County, Maryland Department of Environmental Resource Programs and Planning Division 9400 Peppercorn Place Largo, Maryland 20774 *http://www.co.pg.md.us/Government/DER/PPD/pgcounty/lidmain.htm*
Maryland Stormwater Design Manual (1999) Presents guidance for designing urban runoff BMPs	Maryland Department of the Environment 2500 Broening Highway Baltimore, MD 21224 410-631-3000
National Stormwater Best Management Practices (BMP) Database, Version 1.0 Provides data on performance and evaluation of urban runoff BMPs	American Society of Civil Engineers 1801 Alexander Bell Drive Reston, VA 20191 703-296-6000
National Stormwater Best Management Practices Database (2001)	Urban Water Resources Research Council of ASCE Wright Water Engineers, Inc. (303) 480-1700
Operation, Maintenance and Management of Stormwater Management (1997) Provides a thorough look at storm water practices including, planning and design considerations, programmatic and regulatory aspects, maintenance considerations, and costs.	Watershed Management Institute, Inc. 410 White Oak Drive Crawfordville, FL 32327 850-926-5310
Portland Stormwater Management Manual (2004) Includes design illustrations and criteria for bioretention facilities.	Environmental Services 1120 SW 5th Ave., Rm. 1000 Portland, OR 97204 503-823-7740 http://www.portlandonline.com/bes/index.cfm?c=35122&
Potential Groundwater Contamination from Intentional and Non-Intentional Stormwater Infiltration	Report No. EPA/600/R-94/051, USEPA (1994).

SUGGESTED RESOURCES	HOW TO GET A COPY
Preliminary Data Summary of Urban runoff Best Management Practices (August 1999) EPA-821-R-99-012	*http://www.epa.gov/ost/stormwater/*
Reference Guide for Stormwater Best Management Practices (July 2000)	City of Los Angeles Urban runoff Management Division 650 South Spring Street, 7th Floor Los Angeles, California 90014 *http://www.lacity.org/san/swmd/*
Second Nature: Adapting LA's Landscape for Sustainable Living (1999) by Tree People Detailed discussion of BMP designs presented to conserve water, improve water quality, and achieve flood protection.	Tree People 12601 Mullholland Drive Beverly Hills, CA 90210 (818) 623-4848 Fax (818) 753-4625
Start at the Source (1999) Detailed discussion of permeable pavements and alternative driveway designs presented.	Bay Area Stormwater Management Agencies Association 2101 Webster Street Suite 500 Oakland, CA 510-286-1255 www.basmaa.org
Stormwater Management in Washington State (1999) Vols. 1-5 Presents detailed guidance on BMP design for new development and construction.	Department of Printing State of Washington Department of Ecology P.O. Box 798 Olympia, WA 98507-0798 360-407-7529
Stormwater, Grading and Drainage Control Code, Seattle Municipal Code Section 22.800-22.808, and Director's Rules, Volumes 1-4. (Ordinance 119965, effective July 5, 2000)	City of Seattle Department of Design, Construction & Land Use 700 5th Avenue, Suite 1900 Seattle, WA 98104-5070 (206) 684-8880 *http://www.ci.seattle.wa.us/dclu/Codes/sgdccode.htm*
Texas Nonpoint Source Book – Online Module (1998)www.txnpsbook.org Presents BMP design and guidance information on-line	Texas Statewide Urban runoff Quality Task Force North Central Texas Council of Governments 616 Six Flags Drive Arlington, TX 76005 817-695-9150
The Practice of Watershed Protection by Thomas R. Shchuler and Heather K. Holland	Center for Watershed Protection 8391 Main Street Ellicott City, MD 21043 410-461-8323 www.cwp.org
Urban Storm Drainage, Criteria Manual – Volume 3, Best Management Practices (1999) Presents guidance for designing BMPs	Urban Drainage and Flood Control District 2480 West 26th Avenue, Suite 156-B Denver, CO 80211 303-455-6277

APPENDIX C

City of San Diego
Localized Equivalent Area Drainage Method
Pilot Study Proposal

Introduction

The San Diego National Pollutant Discharge Elimination System Municipal Storm Water Permit (Municipal Permit) contains requirements for certain new development and redevelopment projects to comply with Standard Urban Storm Water Mitigation Plans (SUSMPs). SUSMPs include requirements to implement pollutant source controls, to incorporate site design features, and to infiltrate or treat using structural control measures a portion of the storm water runoff to be generated by the new development or redevelopment project. The City of San Diego's Storm Water Pollution Prevention Program (Storm Water Program) developed, through collaboration with the Regional Water Quality Control Board (Regional Board), the development industry, and environmental organizations, a process designed to provide more efficient, integrated storm water treatment, resulting in water quality improvements more quickly. This process is called the Localized Equivalent Area Drainage method or "LEAD" method. Fundamental to the LEAD method is the protection of receiving water quality and support of designated beneficial uses through implementation of structural treatment control measures, also known as Best Management Practices (BMPs), to the maximum extent practicable. The LEAD method provides numerous benefits:

- Promotes an integrated, watershed-based storm water treatment by treating runoff from entire sub-drainages once.
- Protects receiving water quality and supports designated beneficial uses through implementation of structural BMPs to the maximum extent practicable.
- Provides for accelerated benefits to receiving waters through implementation of structural BMPs in advance of new development or redevelopment projects.
- Provides the flexibility required for projects being implemented in developed areas of the City where existing infrastructure limits opportunities for efficient BMP implementation.
- Provides increased and more cost-effective opportunities for BMPs to reside in the public domain where BMP operation and maintenance can be assured.
- Promotes efficient and integrated implementation of regional solutions in lieu of end-of-pipe solutions.

II. LEAD Method – Overview

Key aspects for consideration of the LEAD method include the following:

- The LEAD method is applicable to infill development and redevelopment projects located within existing developed areas.

- The LEAD method is applicable when implementation of BMPs to treat the runoff from an entire watershed or drainage area that would not otherwise require treatment is more feasible, practical, or beneficial to receiving waters than implementation of BMPs to treat the runoff from an individual project's footprint.

- The LEAD method drainage area must be treated prior to discharging to a receiving water supporting beneficial uses.

- All development and redevelopment projects subject to regulation under the SUSMP and which are qualified for the LEAD method must continue to address pollutants and conditions of concern at the project site through site design and source control: only the treatment control BMP requirements would be met at the alternative LEAD watershed.

All development and redevelopment projects subject to regulation under the SUSMP are required to assess the pollutants and conditions of concern associated with the proposed project, and to address these pollutants and conditions through site design, source control, and treatment control BMPs.

When the LEAD method is elected, estimates of pollutant load reductions obtained by treating the runoff from the project footprint in accordance with the SUSMP are made to quantify the reduction goal for the project. Then, an alternative treatment area is identified where an equivalent or greater pollutant load reduction can be obtained. The alternative treatment areas must meet the following requirements:

- Located within the proximity of the project.

- Discharge to the same receiving water as the project.

- Provide for equivalent or greater pollutant load reduction than at the project site.

- Located in a drainage basin where no other requirement for treatment exists and treat the entire flow from the drainage basin.

- BMPs must be implemented and operational before the project is complete.

- Treat runoff from an area equivalent or greater than the project footprint.

- Treat runoff from an equivalent or greater impervious area than the project.

In all cases, the pollutant load reductions obtainable at the alternative LEAD method treatment area must be greater than that obtained at the project site.

III. LEAD Method Pilot Study

The City of San Diego proposes to conduct a pilot study to test the LEAD method and to determine the ability of the LEAD method to promote and to achieve the pollution control objectives of the Municipal Permit. The City of San Diego's Storm Water Pollution Prevention Program is proposed as the pilot study lead agency and will be responsible for carrying out all elements of the study. Key attributes of the pilot study include the following:

- Eligible projects would be limited to areas located within existing developed areas of the City of San Diego. Projects would be limited to urbanized areas to ensure potential LEAD watersheds would not drain into receiving waters supporting beneficial uses prior to treatment at the LEAD method BMP location.

- Eligible projects will be limited to projects permitted by the City of San Diego to ensure adequate oversight by the City of San Diego.

- A LEAD method pilot study annual report will be submitted to the Regional Board each year of the study. The annual report will include a summary of progress of the pilot study over the previous year, changes proposed for the next year, and lists of projects where the method was applied, including a discussion of the results for each project. The annual report will keep the Regional Board apprised of the progress and results of the pilot study.

The remainder of this pilot study proposal describes a proposed methodology that would be used to develop a project under the LEAD method. The document also presents a proposed methodology for completing the details of the methodology through collaboration between the City, the Regional Board, the development industry, and environmental organizations.

IV. LEAD Methodology

The general methodology for developing a project under the LEAD method is described in this section and illustrated in Figure 1.

Step 1 – Determine Project Pollutant Reduction Treatment Goal

1a – Identify Pollutants and Conditions of Concern

Using the process identified in the Final Model SUSMP and repeated in the City's Local SUSMP, determine whether the project would generate pollutants and/or conditions of concern. This step includes:

- Identify proposed project type or category and anticipated and potential pollutants generated (SUSMP Section VI.1.a).

- Identify pollutants of concern in the receiving waters to which the project would discharge (SUSMP Section VI.1 b and c).

- Identify those constituents that are potentially generated from the project or land use type and are pollutants of concern in the receiving waters. These are the pollutants of concern for this project. If project would discharge to receiving water that does not have specific listed pollutants of concern, select representative pollutants for the project category as shown in Table 1 of the SUSMP.

Determine if project qualifies for the LEAD method. For a project to qualify for the LEAD method, it must meet all of the following criteria:

- The LEAD method is applicable to infill development and redevelopment projects located within existing developed areas of the City of San Diego where acceptable potential LEAD sub-drainages are located in the project's immediate vicinity.

- The LEAD method is applicable when implementation of BMPs to treat the runoff from an entire watershed or drainage area that would not otherwise require treatment is more feasible, practical, or beneficial to receiving waters than implementation of BMPs to treat the runoff from an individual project's footprint.

- The LEAD method is limited to projects within and permitted by the City of San Diego.

- The project must propose adequate site design and source controls in the original project design.

1b – Estimate Project Site Pollutant Loading

Estimate the pollutant loading for the developed qualifying project based on proposed site land use, characterization data, and water quality design volume. This includes:

- Delineate project drainage area into land use types.

- Determine the water quality design volume for each land use type based on drainage areas, impervious factors, runoff coefficient, and the methods prescribed in the SUSMP.

- Determine representative pollutant event mean concentration for each pollutant of concern and land use type using Table A (to be developed). Calculate Average Pollutant Loading = Event Mean Concentration x Water Quality Design Volume (repeat for each pollutant of concern).

1c – Determine Candidate Treatment Control BMPs for Project

Using the process identified in the SUSMP, and the pollutants of concern identified in Step 1a, select appropriate BMPs from either Table 2 - Standard Storm Water BMP Selection Matrix, or Table 3 – Enhanced Treatment Control BMP Selection Matrix. The BMP selection should take into account both the pollutants of concern and site factors.

1d – Determine Pollutant Reductions

Calculate the pollutant load reduction resulting from the selected BMPs for each of the pollutants for which pollutant loadings were determined under Step 1b. This includes:

- Determine the average percentage pollutant reduction for the BMPs using Table B (to be developed).

- Apply the pollutant load percent reduction to the average pollutant load estimate developed under Step 1b to determine the average load reduction with BMPs.

This average load reduction is the minimum pollutant reduction treatment goal for an alternative LEAD method treatment area.

Step 2 – Evaluate LEAD Method Treatment Area

2a – Determine LEAD Project Characteristics

Locations for candidate LEAD method BMPs will be identified in master drainage plans and will drain to the same receiving water as the qualifying project(s). Once the LEAD method treatment area is selected from the master drainage plan, key characteristics of the LEAD method treatment area watershed/sub-watershed must be determined. This includes:

- Existing land use(s) and area(s) and impervious factor.
- Drainage area.
- Rainfall characteristics.

2b – Determine Water Quality Design Volume

Estimate the water quality design volume for the LEAD method treatment area using the methods prescribed in the SUSMP. This includes:

- Delineate project drainage area into land use types.
- Determine the water quality design volume for each land use type based on drainage areas, impervious factors, runoff coefficient, and the methods prescribed in the SUSMP.

2c – Determine Loading for LEAD Method Treatment Area Pollutants of Concern

Determine representative pollutant event mean concentration for each pollutant of concern and land use type using Table A (to be developed). Calculate Average Pollutant Loading = Event Mean Concentration x Water Quality Design Volume (repeat for each pollutant of concern). This calculation must be made for the potential LEAD method treatment area for the same pollutants of concern identified in Step 1a for the project site.

2d – Determine Candidate Treatment Control BMPs for LEAD Method Treatment Area

LEAD method treatment area BMPs will be identified in master drainage plans. The BMPs identified in the master drainage plans will take into account the pollutants of concern identified in Step 1a, and will have been selected from either Table 2 - Standard Storm Water BMP Selection Matrix, or Table 3 – Enhanced Treatment Control BMP Selection Matrix.

2e – Determine Pollutant Reductions

Calculate the pollutant load reduction resulting from the selected LEAD method treatment area BMPs for each of the pollutants for which average pollutant loadings were determined under Step 2c. This includes:

- Determine the average percentage pollutant reduction for the BMPs using Table B (to be developed).

- Apply the pollutant load percent reduction to the average pollutant load estimate developed under Step 2c to determine the average load reduction with the BMPs for each of the pollutants.

2f – Compare LEAD Method Treatment Area with Qualifying Project Requirements

Compare the pollutant load reduction for the LEAD method treatment area with the pollutant reduction treatment goal for the qualifying project determined under Step 1d:

- If LEAD method Treatment Area Pollutants of Concern Load < Project Pollutants of Concern Load, repeat process with another LEAD site.

- If LEAD method Treatment Area Pollutants of Concern Load = Project Pollutants of Concern Load, LEAD method Treatment Area is acceptable – Implement BMPs at LEAD method treatment area.

- If LEAD method Treatment Area Pollutants of Concern Load > Project Pollutants of Concern Load, LEAD method Treatment Area is acceptable – Implement BMPs at LEAD method treatment area.

While the comparison must be made for all pollutants of concern, there will typically be one pollutant of concern that will govern the comparison for any given combination of qualifying and LEAD project characteristics.

V. LEAD Method Pilot Study Evaluation

Fundamental to the LEAD method pilot study is the annual evaluation of the program. The City of San Diego proposes to develop the monitoring and evaluation methodology with San Diego BayKeeper, the American Public Works Association, and technical experts. The methodology would include a descriptive, qualitative component to evaluate indirect measures, which would minimally include the factors listed below. If funding becomes available, the evaluation methodology would include monitoring of the LEAD watershed and a similar watershed with treatment of an individual project site. As lead agency responsible for carrying out the pilot study, the City of San Diego's Storm Water Pollution Prevention Program will report the results of the program evaluation in an annual report to the Regional Board.

The annual program report will include the following elements:

- Listing and description of project(s) to date where the LEAD method was applied. The listing will include the name and location of each project site and associated LEAD method treatment area. The description will include for each project site and associated LEAD method treatment area: identification of receiving waters; identification of pollutants and conditions of concern; a tabulation of post-project land use; a tabulation of pollutant loading estimates for each pollutant of concern, both without and with BMPs; a listing of the maintenance requirements and evaluation of how effectively the requirements have been fulfilled; and a listing of site design, source control, and structural treatment control BMPs implemented at the project site or LEAD method treatment area.

- Listing and description of projects currently in the planning stage that are being evaluated for application of the LEAD method during the next 12-month period, where these are known at the time the annual report is submitted.

- Proposed changes in the LEAD method to be implemented during the next 12-month period.

The primary criterion for evaluating the effectiveness of the LEAD method will be to compare the loading of pollutants of concern that are removed at LEAD method treatment areas compared to pollutants of concern that would have been removed at the project site. A secondary criterion for evaluating the effectiveness of the LEAD method will be to compare the timing of BMPs implemented under the LEAD method with the timing under which BMPs might have been implemented outside the program. In general, the LEAD method will be considered to be effective when, 1) pollutant of concern loadings removed as a result of application of the LEAD method exceed loadings that would have been removed at the project site, and 2) BMPs are implemented in advance of the timing that would have been required without the LEAD method.

Additional criteria for evaluating the effectiveness of the LEAD method will be developed as part of the pilot study and will be discussed in the first annual report.

VI. LEAD Method Issues to be Further Developed

This LEAD method pilot study proposal provides a detailed framework for discussion between the City, the Regional Board, the development industry, and environmental organizations toward creating an acceptable LEAD method program. In addition to reaching agreement on the overall framework, several key issues will require significant additional development during the initial implementation of the pilot study. Several specific topics include:

- Establishing land use or project category based event mean concentrations.

- Establishing BMP performance standards for common BMP types.

- Determining how to compare a LEAD method treatment area with a qualifying project when one or both projects propose a flow-based BMP methodology.

Each of these is briefly discussed further.

Establishing Event Mean Concentrations for Calculating Pollutant Loads

In order to calculate pollutant loads, typical event mean concentrations for the potential pollutants of concern must be established for land uses and/or project categories to populate a table such as the suggested Table A.

- For a number of the common land uses, sufficient land-use based monitoring has been conducted within San Diego County and throughout Southern California (e.g., data compiled by the Southern California Coastal Watershed Research Project) that a set of reasonable values for use in equivalent calculations can be established for a number of the potential pollutants of concern. This is true for such pollutants as total suspended sediment, nutrients, heavy metals, oxygen demanding substances (e.g., biological oxygen demand or carbonaceous oxygen demand), oil and grease, and certain indicator bacteria.

- Data on other organic compounds is by and large below detection limits and it would be difficult to establish meaningful factors, so it is recommended that this not be included in an analysis.

- Data on pesticides is highly variable and often non-detectable and would be difficult to establish meaningful values.

Data on trash is just now beginning to be compiled and will be highly variable. It is assumed that both a qualifying project and a LEAD method treatment area would incorporate trash/debris removal as part of the overall plan, and therefore calculating trash loads is also not recommended.

Establishing BMP Performance

In order to calculate pollutant loads, removal performance data for the potential pollutants of concern must be established for BMP categories to populate a table such as the suggested Table B.

- Sufficient data has been published for both operating BMPs and pilot plant research from a number of sources throughout the country that a set of reasonable values for use in equivalent calculations can be established for a number of the potential pollutants of concern. This is true for such pollutants as total suspended sediment, nutrients, heavy metals, oxygen demanding substances (e.g., biological oxygen demand and carbonaceous oxygen demand), oil and grease and to a lesser extent certain indicator bacteria.

- BMP performance data for removal of other organic compounds suggests performance is by and large below detection limits and it would be difficult to establish meaningful factors, so it is recommended that this not be included in an analysis.

- BMP performance data for the removal of low levels of pesticides is generally not available.

- Data on trash removal through BMPs is just now beginning to be compiled and will be highly variable. It is assumed that both a qualifying project and a LEAD method treatment area would incorporate trash/debris removal as part of the overall plan, and therefore calculating trash loads is also not recommended.

Comparing Flow-Based BMPs

If a flow-based BMP approach (e.g. vegetated swales, biofilters, hydrodynamic separator) is proposed for either the qualifying project or the LEAD method treatment area, a direct calculation of volume of runoff treated and pollutant load reduced is substantially more complex than for volume-based BMPs (e.g., detention, retention). Methods can be established by evaluating hydrologic data and to develop an approximate relationship between maximum flow treatment capacity and estimated volume treated or continuous simulation models such as the Storage Treatment Overflow Model could be run for each site.

Appendix B

Inventories

B.1 **Treatment Control BMP Inventory**

B.2 **Construction Inventory**

B.3 **Municipal Inventory**

B.4 **Industrial Inventory**

B.5 **Commercial Inventory**

B.1 Treatment Control BMP Inventory

INVENTORY OF COMPLETED DEVELOPMENT PROJECTS WITH APPROVED TREATMENT CONTROL BMPS

ALL PROJECTS ARE LOCATED IN THE SAN DIEGO BAY WATERSHED

			Treatment Control BMP									
#	Project Name	Project Location	Biofilters	Detention Basins	Porous Pavement	Wet Ponds or Wetlands	Drainage Inserts	Filtration	Hydrodynamic Separators	Project Type	Receiving Water Body	Priority
1	Advanced Plastics	225 W. 30th St					X	X		Industrial	Sweetwater River	Medium
2	Bell Kia	1940 National City Blvd			X					Commercial	Paradise Creek	Medium
3	Bonita Creek	Sweetwater Road	X				X			Residential	Sweetwater River	Medium
4	Estrella Walk	Plaza Blvd. & L Street							X	Residential	Paradise Creek	Medium
5	Jack In The Box	18th & Highland Avenue					X			Commercial	Paradise Creek	Medium
6	Mariposa Walk	E. 7th St and R St					X			Residential	Paradise Creek	Medium
7	National City Batch Plant	12th St & McKinley Ave				X	X			Industrial	La Paleta Creek/7th Street Channel	Medium
8	National City Fire Station #34	333 East 16th Street					X		X	Municipal	Paradise Creek	Medium
9	National City Library	1401 National City Blvd					X			Municipal	Paradise Creek	Medium

INVENTORY OF COMPLETED DEVELOPMENT PROJECTS WITH APPROVED TREATMENT CONTROL BMPS (CONTINUED)

			Treatment Control BMP									
#	Project Name	Project Location	Biofilters	Detention Basins	Porous Pavement	Wet Ponds or Wetlands	Drainage Inserts	Filtration	Hydrodynamic Separators	Project Type	Receiving Water Body	Priority
10	Paradise Creek Park	Harding Ave, West 19th St, & West 22nd St					X			Municipal	Paradise Creek	High
11	Paradise Ridge	Hollyhock Lane	X							Residential	Paradise Creek	Medium
12	Penske Truck Leasing	3132 Hoover Avenue					X			Commercial	Paradise Creek	High
13	Plaza Village	L Avenue and Plaza Blvd					X			Residential	Paradise Creek	Medium
14	Sweetwater Town & Country Mall	Sweetwater Road					X			Commercial	Sweetwater River	High
15	Tremont Court Condominiums	Euclid Ave & Division St	X				X		X	Residential	La Paleta Creek/7th Street Channel	Medium
16	Walgreens	885 Euclid Ave					X			Commercial	Paradise Creek	High
17	WalMart	1200 Highland Ave							X	Commercial	Paradise Creek	High

B.2 Construction Inventory

INVENTORY OF HIGH TTWQ CONSTRUCTION SITES

(SITES ACTIVE AS OF JANUARY 2008)

#	Project Description	Project Location	Watershed
1	Pacific View Estates, 37 Single Family Homes	Division and Laurel	San Diego Bay

INVENTORY OF MEDIUM TTWQ CONSTRUCTION SITES

(ACTIVE SITES AS OF JANUARY 2008)

#	Project Description	Project Location	Watershed
1	Canyon Ridge, Residential Development	Rachael Avenue at Blue Ridge Street	San Diego Bay
2	Cypress Glen Condos	3229 Cypress Street	San Diego Bay
3	H & H Townhomes, 7 Townhouses	3102 E. 16th St (16th and Harbison)	San Diego Bay
4	Harbor View Condos 75 Units	8th and 404 D St	San Diego Bay
5	On-site Improvements: Grading: 1120 CY, Retaining Wall: per plan, Others: storm drain, BMPs, per plan	1209 & 1215 K Avenue	San Diego Bay
6	Paradise Walk Condos 96 Units	8th and Arcadia	San Diego Bay
7	Plaza Bonita Mall Expansion, Commercial Re-development	Plaza Bonita Rd.	San Diego Bay
8	Plaza Senior Apartments Residential Housing	1535 E. Plaza Blvd	San Diego Bay

INVENTORY OF LOW TTWQ CONSTRUCTION SITES

(ACTIVE SITES AS OF JANUARY 2008)

#	Project Description	Project Location	Watershed
1	1 bedroom, 1 bath addition	1843 B. Avenue	San Diego Bay
2	2 Single Family Residences	416 & 422 Palm Avenue	San Diego Bay
3	K Avenue Homes	1209 & 1215 K Avenue	San Diego Bay
4	New Single Family Home and Garage	2831 E. 18th Street	San Diego Bay
5	Public Improvement, sidewalk, curb gutter	Multiple Locations	San Diego Bay
6	Public Improvements, 9 boring soil test	Harbor Drive, between Civic Center Dr and Wooden St	San Diego Bay
7	Public Improvements, water main tie-in and St. trench resurface	4th street at Hill Street	San Diego Bay
8	Public Improvements, 6" sewer lateral	1808 F Avenue	San Diego Bay
9	Public Improvements, 6" Sewer main	3033 C Ave National City	San Diego Bay
10	Public Improvements, bikeway, striping, fence, and guard rails, relocate street lights	Plaza Bonita Road at Bonita Mesa Road	San Diego Bay
11	Public Improvements, Driveway	2130 J. Avenue National City	San Diego Bay
12	Public Improvements, Sidewalk, Curb & Gutter, Driveway	Intersection of 8th Street and Plaza Blvd	San Diego Bay
13	Public Improvements, Sidewalk, Curb & Gutter, Driveway, Pedestrian Ramp, Street pavement and medians	National City Blvd. 1st to 12th streets	San Diego Bay
14	Public Improvements, Sidewalk	2532 J Ave	San Diego Bay
15	Public Improvements, Sidewalk, Curb & Gutter, Driveway, Residential, Grading, Sewer lateral	3055 E. 20th Street	San Diego Bay
16	R/R Driveway	325 Drexel Ave	San Diego Bay
17	Single Family Residence	3425 Cagle St	San Diego Bay

INVENTORY OF LOW TTWQ CONSTRUCTION SITES

(ACTIVE SITES AS OF JANUARY 2008)

#	Project Description	Project Location	Watershed
18	Single Family Home	2221 E. 16th Street	San Diego Bay
19	Single Family Home, 22743 SQ. ft	2429 Prospect St.	San Diego Bay

B.3 Municipal Inventory

HIGH TTWQ MUNICIPAL FACILITIES AND ACTIVITIES

#	Facility Name	Facility Address	Watershed	Facility Category
1	El Toyon Park	2005 East 4th Street	San Diego Bay	Parks, Recreational Facilities, and other Landscaped Areas
2	Graffiti Removal	Throughout City	San Diego Bay	Mobile Municipal Activities, Including Power Washing
3	Kimball Park	12th Street and D Avenue	San Diego Bay	Parks, Recreational Facilities, and other Landscaped Areas
4	Las Palmas Park	1800 Newell Street	San Diego Bay	Parks, Recreational Facilities, and other Landscaped Areas
5	Municipal Separate Storm Sewer	19 miles of storm drains, storm drain boxes, and open channel sections throughout the City	San Diego Bay	MS4
6	Municipal Swimming Pool	1800 East 22nd Street	San Diego Bay	Parks, Recreational Facilities, and other Landscaped Areas
7	National City Municipal Golf Course	1439 Sweetwater Road	San Diego Bay	Parks, Recreational Facilities, and other Landscaped Areas
8	Power Washing	Throughout City	San Diego Bay	Mobile Municipal Activities, Including Power Washing
9	Public Works East Yard	2100 Hoover Avenue	San Diego Bay	Public Works Facilities
10	Public Works West Yard	2100 Hoover Avenue	San Diego Bay	Public Works Facilities
11	Road, Streets, and Highways	110 miles of roadways throughout the City	San Diego Bay	Road, Streets, and Highways
12	Special Events	Throughout City	San Diego Bay	Special Events
13	Sweetwater Heights Park	Cagle Street and Stockman Street	San Diego Bay	Parks, Recreational Facilities, and other Landscaped Areas

MEDIUM TTWQ MUNICIPAL FACILITIES AND ACTIVITIES

#	Facility Name	Facility Address	Watershed	Facility Category
1	Fire Station 31	24th Street and Euclid Avenue	San Diego Bay	Fire Stations
2	George H. Waters Nutrition Center	1514 D Avenue	San Diego Bay	Other Fixed Facilities
3	Infrastructure Maintenance	Throughout City	San Diego Bay	Mobile Municipal Activities, Including Power Washing
4	Landscape Maintenance	Throughout City	San Diego Bay	Mobile Municipal Activities, Including Power Washing
5	National City Fire Department Headquarters - Station 34	333 East 16th Street	San Diego Bay	Fire Stations
6	Police Station	1200 National City Boulevard	San Diego Bay	Other Fixed Facilities

LOW TTWQ MUNICIPAL FACILITIES AND ACTIVITIES

#	Facility Name	Facility Address	Watershed	Facility Category
1	Camacho Recreational Gymnasium	1810 East 22nd Street	San Diego Bay	Other Fixed Facilities
2	Casa De Salud	1408 Harding Avenue	San Diego Bay	Other Fixed Facilities
3	Civic Center	1243 National City Boulevard	San Diego Bay	Other Fixed Facilities
4	El Toyon Recreational Center	2005 East 4th Street	San Diego Bay	Other Fixed Facilities
5	Kimball Recreation Center	148 East 12th Street	San Diego Bay	Other Fixed Facilities
6	Martin Luther King Community Center	140 East 12th Street	San Diego Bay	Other Fixed Facilities
7	National City Public Library	1401 National City Boulevard	San Diego Bay	Other Fixed Facilities
8	Senior Services Center	1221 D Avenue	San Diego Bay	Other Fixed Facilities

B.4 Industrial Inventory

INDUSTRIAL FACILITIES

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
1	GREG'S FIBERGLASS AND PAINTING	1804 CLEVELAND AVENUE, A	HIGH	3732	BOAT REPAIR	908.31		X		X
2	TITAN MARINE, INC	2236 MCKINLEY AVE	HIGH	3732	BOAT REPAIR	908.31		X		X
3	SUN DIEGO CHARTER CO.	2020 HOOVER AVENUE	HIGH	4141	GROUND TRANSPORTATION	908.32	9 37I018361		X	X
4	WEST COAST CAB	121 E 31ST STREET	HIGH	4121	GROUND TRANSPORTATION	909.12				X
5	MOTOR MACHINE & SUPPLY	1602 HOOVER AVENUE	HIGH	3519	MANUFACTURING, EQUIPMENT	908.31		X		X
6	ROB NORTH FAB	1605 HOOVER AVENUE	HIGH	3751	MANUFACTURING, EQUIPMENT	908.31		X		X
7	HYPERBARIC TECHNOLOGIES	3224 HOOVER AVENUE	HIGH	3499	MANUFACTURING, FABRICATED METAL	908.32				X
8	NATIONAL IRON WORKS	832 HOOVER AVENUE	HIGH	3446	MANUFACTURING, FABRICATED METAL	908.31		X		X
9	UNIVERSAL STEEL FABRICATION	1702 HARDING AVENUE	HIGH	3449	MANUFACTURING, FABRICATED METAL	908.31		X		X
10	LA ESPIGA DE ORO BAKERY	320 HIGHLAND AVENUE	HIGH	2051	MANUFACTURING, FOOD/DRINK	908.31		X		X
11	SAN DIEGO SEAFOOD	1842 MCKINLEY AVENUE	HIGH	2092	MANUFACTURING, FOOD/DRINK	908.31		X		X
12	VALENCIA STONE AND TILE	1124 COOLIDGE AVENUE	HIGH	3281	MANUFACTURING, STONE/GLASS	908.31	9 37I020515			X
13	CARROLL METAL WORKS, INC.	740 W 16TH STREET	HIGH	3441	MANUFACTURING, STRUCTURAL STEEL	908.32	9 37I021165			X

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
14	MELHORN CONSTRUCTION	410 W 30TH STREET, B	HIGH	2434	MANUFACTURING, WOOD/FURNITURE	908.32			X	X
15	A-1 ALLOYS RECYCLING CENTER	724 CIVIC CENTER DRIVE	HIGH	5093	RECYCLING	908.31	9 37I020171	X		X
16	PACIFIC STEEL, INC.	1700 CLEVELAND AVENUE	HIGH	5093	RECYCLING	908.31	9 37I000615	X		X
17	BAY CITY MARINE INC.	1625 CLEVELAND AVENUE	MEDIUM	3731	BOAT REPAIR	908.31	9 37I014819	X		X
18	FUTURA FIBERGLASS	730 W 19TH STREET	MEDIUM	3732	BOAT REPAIR	908.31	9 37I015572	X		X
19	PACIFIC DEFENSE SYSTEMS (2)	1411 HARDING AVENUE	MEDIUM	3731	BOAT REPAIR	908.31	9 37I019619	X		X
20	CONTACTOURS AND CHARTER SERVICE (SAN DIEGO MINI TOURS INC)	1726 WILSON AVENUE	MEDIUM	4141	GROUND TRANSPORTATION	908.31	9 37I001275	X		X
21	HANSON AGGREGATES NATIONAL CITY BATCH PLANT (2003 NC LLC)	601 W 12TH STREET	MEDIUM	3273	MANUFACTURING, CONCRETE	908.31	9 37I020195			X
22	L3 COMMUNICATIONS PACORD SAN DIEGO	225 W 30TH STREET	MEDIUM	3812	MANUFACTURING, ELECTRONICS	909.12	9 37I019840			X
23	L3 COMMUNICATIONS/PACO RD SAN DIEGO	240 W 30TH STREET	MEDIUM	3812	MANUFACTURING, ELECTRONICS	909.12	9 37I015864			X
24	COLLINS MARINE REPAIR, INC	1400 CLEVELAND AVENUE	MEDIUM	3599	MANUFACTURING, EQUIPMENT	908.31				X

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
25	CP MANUFACTURING	1300 WILSON AVENUE	MEDIUM	3559	MANUFACTURING, EQUIPMENT	908.31	9 37I016543	X		X
26	WESTERN LIFT, INC/WESTERN HOIST, INC.	W 19TH ST & CLEVELAND AVE	MEDIUM	3536	MANUFACTURING, EQUIPMENT	908.31	9 37I000699	X		X
27	FABRICATION TECHNOLOGIES INDUSTRIES	2401 HAFFLEY AVENUE, A	MEDIUM	3499	MANUFACTURING, FABRICATED METAL	908.31		X		X
28	MASTER MACHINE CORPORATION (VANTAGE ASSOCIATES)	900 CIVIC CENTER DRIVE	MEDIUM	3499	MANUFACTURING, FABRICATED METAL	908.31	9 37I019349	X		X
29	SOUTH BAY BOILER REPAIR, INC.	1224 ROOSEVELT AVENUE	MEDIUM	3498	MANUFACTURING, FABRICATED METAL	908.31	9 37I019728	X		X
30	ROYCE CABINETS & GRANITE INC	2120 WILSON AVE	MEDIUM	3281	MANUFACTURING, STONE/GLASS	908.32			X	X
31	DIXIELINE LUMBER COMPANY	3450 HIGHLAND AVENUE	MEDIUM	2439	MANUFACTURING, WOOD/FURNITURE	909.12	9 37I015245			X
32	RANSOM BROS. LUMBER & SUPPLY CO.	1740 CLEVELAND AVENUE	MEDIUM	2499	MANUFACTURING, WOOD/FURNITURE	908.31	9 37I018392			X
33	HAWTHORNE RENT-IT SERVICE	2000 MCKINLEY AVENUE	MEDIUM	7359	VEHICLE/EQUIPMENT RENTAL	908.31	9 37I005920	X		X
34	J. C. ENVIRONMENTAL COMPANY	2504 TRANSPORTATION AVENUE, C	MEDIUM	4953	WASTE MANAGEMENT	908.32		X		X
35	AMEE BAY LLC	2105 CLEVELAND AVE	MEDIUM	3732	BOAT REPAIR	908.31		X		

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
36	CHAE & NAM UNIVERSE, INC	1625 CLEVELAND AVE	MEDIUM	3731	BOAT REPAIR	908.31		X		
37	CALIFORNIA MOVING & STORAGE	1305 WILSON AVENUE	MEDIUM	4214	GROUND TRANSPORTATION	908.31		X		
38	CHRISTIAN TRANSPORTATION SERVICE	616 E 8TH ST	MEDIUM	4119	GROUND TRANSPORTATION	908.32				
39	COSTCO WHOLESALE CORP.	1001 W 19TH STREET, C , D	MEDIUM	4783	GROUND TRANSPORTATION	908.31		X		
40	E P I ENTERPRISES LLC	1434 EUCLID AVE	MEDIUM	4119	GROUND TRANSPORTATION	908.32			X	
41	HAULING	328 D AVENUE	MEDIUM	4212	GROUND TRANSPORTATION	908.31		X		
42	L B C MUNDIAL CORP	1420 E PLAZA BLVD., D-9	MEDIUM	4731	GROUND TRANSPORTATION	908.32			X	
43	M + E LIMOUSINES	438 Q AVE	MEDIUM	4119	GROUND TRANSPORTATION	908.32				
44	MAC'S TRANSFER & STORAGE	1305 WILSON AVE	MEDIUM	4214	GROUND TRANSPORTATION	908.31		X		
45	NATALINA ENTERPRISES	1840 HARRISON AVENUE	MEDIUM	4214	GROUND TRANSPORTATION	908.31		X		
46	NATIONAL CITY TRANSFER & STORAGE	2150 MCKINLEY AVENUE	MEDIUM	4214	GROUND TRANSPORTATION	908.31		X		
47	NEW AGE TRANSPORT INC	2120 E 10TH ST	MEDIUM	4119	GROUND TRANSPORTATION	908.32				
48	PRESIDENTIAL LIMOUSINE LLC	1428 MCKINLEY AVE	MEDIUM	4119	GROUND TRANSPORTATION	908.31		X		

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
49	SAN DIEGO MEDICAL TRANSPORT	1516 ROOSEVELT AVE	MEDIUM	4119	GROUND TRANSPORTATION	908.31			X	
50	WAGGONEERS TRUCKING	1545 TIDELAND AVENUE	MEDIUM	4212	GROUND TRANSPORTATION	908.31		X		
51	CAL AM MANUFACTURING	1215 WILSON AVE	MEDIUM	2821	MANUFACTURING, CHEMICALS	908.31				
52	OMNI PHASE RESEARCH LABS INC	3200 HIGHLAND AVE STE 308	MEDIUM	3577	MANUFACTURING, ELECTRONICS	909.12			X	
53	SMARTRUNK SYSTEMS INC.	337 W 35TH STREET, R	MEDIUM	3669	MANUFACTURING, ELECTRONICS	909.12				
54	THE MOBILE SOLUTION	3030 PLAZA BONITA RD	MEDIUM	3663	MANUFACTURING, ELECTRONICS	909.12				
55	US-MEX	2500 HOOVER AVENUE, G	MEDIUM	3679	MANUFACTURING, ELECTRONICS	908.32				
56	COSTCO WHOLESALE GROUP	1001 W 19TH STREET, B	MEDIUM	3827	MANUFACTURING, EQUIPMENT	908.31				
57	CREATIVE MOBILITY INC	320 CIVIC CENTER DRIVE	MEDIUM	3799	MANUFACTURING, EQUIPMENT	908.31				
58	CUSTOM METAL ENTERPRISES	1625 COOLIDGE AVENUE	MEDIUM	3599	MANUFACTURING, EQUIPMENT	908.31				
59	DIMA-TECH	205 W 35TH STREET, H	MEDIUM	3612	MANUFACTURING, EQUIPMENT	909.12				
60	DISCOUNT WATER SUPPLY	3403 E PLAZA BLVD STE H	MEDIUM	3589	MANUFACTURING, EQUIPMENT	908.32			X	
61	G V INDUSTRIES	1346 CLEVELAND AVENUE	MEDIUM	3599	MANUFACTURING, EQUIPMENT	908.31				

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
62	H&B PRODUCTS	337 W 35TH ST G	MEDIUM	3559	MANUFACTURING, EQUIPMENT	909.12				
63	LEADING CONCEPTS	1535 TIDELAND AVENUE, D	MEDIUM	3535	MANUFACTURING, EQUIPMENT	908.31				
64	M & M CONVERTER SHOP	301 W 28TH STREET, X	MEDIUM	3568	MANUFACTURING, EQUIPMENT	908.32				
65	RYAN HYDRAULIC SERVICES, INC	1817 CLEVELAND AVENUE	MEDIUM	3599	MANUFACTURING, EQUIPMENT	908.31				
66	SOUTHLAND CLUTCH EXCHANGE	101 E 18TH STREET	MEDIUM	3599	MANUFACTURING, EQUIPMENT	908.32				
67	TOD TOOL INC	2601 HOOVER AVENUE, K	MEDIUM	3728	MANUFACTURING, EQUIPMENT	908.32				
68	WESTERN LIFT INC	2200 HAFFLEY AVE	MEDIUM	3536	MANUFACTURING, EQUIPMENT	908.31				
69	ALLGEAR SCREEN PRINTING	914 E 8TH ST #105	MEDIUM	2396	MANUFACTURING, FABRIC/CLOTHES	908.32				
70	APPAREL ENTERPRISES CO., INC.	2712 TRANSPORTATION AVENUE, H	MEDIUM	2389	MANUFACTURING, FABRIC/CLOTHES	908.32				
71	DESIGNER'S WORK ROOM	100 W 35TH STREET, V/W	MEDIUM	2392	MANUFACTURING, FABRIC/CLOTHES	909.12			X	
72	E.L.A BEDSPREADS ETC.	3200 HIGHLAND AVENUE, 408	MEDIUM	2392	MANUFACTURING, FABRIC/CLOTHES	909.12				
73	GLOBAL KNITTING, MILLS USA,INC	340 W 26TH ST STE F	MEDIUM	2252	MANUFACTURING, FABRIC/CLOTHES	908.32				
74	HIGH 5 TEAM SALE	2835 HIGHLAND AVE STE A	MEDIUM	2396	MANUFACTURING, FABRIC/CLOTHES	909.12				
75	OOH LA LA	2504 TRANSPORTATION AVE STE D	MEDIUM	2339	MANUFACTURING, FABRIC/CLOTHES	908.32				

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
76	RAS FASHIONS	2605 HOOVER AVENUE, B	MEDIUM	2399	MANUFACTURING, FABRIC/CLOTHES	908.32				
77	SEWING SAAVEDRA	2525 SOUTHPORT WAY, R	MEDIUM	2399	MANUFACTURING, FABRIC/CLOTHES	908.32				
78	STARK MFG. CO.	206 W 35TH STREET, C , D	MEDIUM	2394	MANUFACTURING, FABRIC/CLOTHES	909.12				
79	VANARI KNITTING MILLS INC.	340 W 26TH STREET, L	MEDIUM	2399	MANUFACTURING, FABRIC/CLOTHES	908.32				
80	WINDOW CLASSICS	1921 CLEVELAND AVENUE	MEDIUM	2391	MANUFACTURING, FABRIC/CLOTHES	908.31				
81	DAN FAB	1110 FLARDING AVENUE	MEDIUM	3499	MANUFACTURING, FABRICATED METAL	908.31		X		
82	EHMCKE SHEET METAL CORP	840 W 19TH STREET	MEDIUM	3444	MANUFACTURING, FABRICATED METAL	908.31		X		
83	EZ SPRING AND STAMPING	231 W 11TH STREET	MEDIUM	3499	MANUFACTURING, FABRICATED METAL	908.31		X		
84	GOULET INDUSTRIES	340 W 26TH STREET, J	MEDIUM	3499	MANUFACTURING, FABRICATED METAL	908.32				
85	MILLER MARINE	1430 HOOVER AVENUE	MEDIUM	3498	MANUFACTURING, FABRICATED METAL	908.31	9 37I018090	X		
86	NEW LIFE BARRIER (HOA MY INC. DBA)	1616 HOOVER AVENUE	MEDIUM	3449	MANUFACTURING, FABRICATED METAL	908.31		X		
87	PROTO MACHINING	105 W 35TH STREET, L	MEDIUM	3499	MANUFACTURING, FABRICATED METAL	909.12				
88	CENTLI	221 W 33RD ST	MEDIUM	2099	MANUFACTURING, FOOD/DRINK	909.12		X		
89	FAMILY LOOPYA CORP	2525 SOUTHPORT WAY, E	MEDIUM	2038	MANUFACTURING, FOOD/DRINK	908.32		X		

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
90	FIESTA PACIFIC PRODUCTS, INC	2855 A AVENUE	MEDIUM	2037	MANUFACTURING, FOOD/DRINK	908.32		X		
91	NIEDERFRANK'S ICE CREAM INC.	726 A AVENUE	MEDIUM	2024	MANUFACTURING, FOOD/DRINK	908.31		X		
92	SAN DIEGO PRETZEL	224 W 12TH STREET	MEDIUM	2051	MANUFACTURING, FOOD/DRINK	908.31		X		
93	FTC	1433 ROOSEVELT AVENUE	MEDIUM	3999	MANUFACTURING, MISC	908.31				
94	ADVANCE PLASTICS	225 W 30TH STREET	MEDIUM	3089	MANUFACTURING, PLASTIC/RUBBER	909.12				
95	IDENTITY PLUS	1120 HOOVER AVENUE	MEDIUM	3069	MANUFACTURING, PLASTIC/RUBBER	908.31				
96	PUPPET SAFARI	326 W 11TH STREET	MEDIUM	3942	MANUFACTURING, PLASTIC/RUBBER	908.31				
97	INNOVATIVE CUTTING DESIGNS COR	1805 CLEVELAND AVE	MEDIUM	3312	MANUFACTURING, PRIMARY METAL	908.31		X		
98	BECKY BEEZ BISQUE & CERAMICS	2424 HOOVER AVE STE T	MEDIUM	3269	MANUFACTURING, STONE/GLASS	908.32				
99	GLASSWOOD STUDIO	907 A AVENUE	MEDIUM	3231	MANUFACTURING, STONE/GLASS	908.32				
100	BORDER STEEL INTERNATIONAL	1505 CLEVELAND AVE	MEDIUM	3441	MANUFACTURING, STRUCTURAL STEEL	908.31		X		
101	SUPERIOR METAL WORKS, INC	1703 HOOVER AVE STE B	MEDIUM	3441	MANUFACTURING, STRUCTURAL STEEL	908.32			X	
102	WESTERN MANUFACTURING COMPANY	2200 HAFFLEY AVE	MEDIUM	3441	MANUFACTURING, STRUCTURAL STEEL	908.31		X		

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
103	COURRINGTON WOODWORKS	1535 TIDELAND AVENUE, A-E	MEDIUM	2541	MANUFACTURING, WOOD/FURNITURE	908.31				
104	D F DESIGNS	1228 HOOVER AVENUE	MEDIUM	2434	MANUFACTURING, WOOD/FURNITURE	908.31				
105	M & N FURNITURE	125 W 22ND STREET	MEDIUM	2519	MANUFACTURING, WOOD/FURNITURE	908.32				
106	MOTIVATIONAL SYSTEMS INC. (MSI)	2200 CLEVELAND AVENUE	MEDIUM	2599	MANUFACTURING, WOOD/FURNITURE	908.31				
107	POSTURE CARE MATTRESS MFG.	34 E 17TH STREET, A	MEDIUM	2515	MANUFACTURING, WOOD/FURNITURE	908.32				
108	UPHOLSTERY FABRIC OUTLET (UFO)	1918 ROOSEVELT AVENUE	MEDIUM	2512	MANUFACTURING, WOOD/FURNITURE	908.32				
109	WITHOUSKI CABINET	1535 TIDELAND AVENUE, P	MEDIUM	2434	MANUFACTURING, WOOD/FURNITURE	908.31				
110	ACTIVE SIGN CO.	2827 HOOVER AVENUE, J	MEDIUM	3993	PRINTING	908.32				
111	AZTEC PRINTING COMPANY	710 E 3RD STREET	MEDIUM	2759	PRINTING	908.31				
112	BEST WAY PRINTING	2602 TRANSPORTATION AVE STE E	MEDIUM	2759	PRINTING	908.32				
113	DURRA INK	303 W 35TH STREET, E	MEDIUM	2752	PRINTING	909.12				
114	IMAGEN PUBLISHING	539 HIGHLAND AVENUE	MEDIUM	2721	PRINTING	908.31				
115	INDUSTRIAL & ARCHITECTURAL SIGN PRODUCTION, INC	1440 HARDING AVE STE B	MEDIUM	3993	PRINTING	908.31				
116	INDUSTRIAL AND ARCHITECTURAL	1440 HARDING AVE STE B	MEDIUM	3993	PRINTING	908.31				

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
117	JB LITHO	2602 TRANSPORTATION AVENUE, EAST	MEDIUM	2752	PRINTING	908.32				
118	K.D.R. COMPANY	301 W 28TH ST STE H	MEDIUM	2752	PRINTING	908.32				
119	THE LINE DESIGN	728 E 8TH ST	MEDIUM	2759	PRINTING	908.32				
120	VALMER GRAPHICS INC.	1400 E PLAZA BLVD.	MEDIUM	2759	PRINTING	908.32			X	
121	A-AMERICAN SELF STORAGE	525 W 20TH STREET	MEDIUM	4225	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
122	AMSEC LLC	3201 , 3239 HOOVER AVENUE	MEDIUM	4226	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
123	ANCON TRANSPORTATION	1800 HARRISON AVENUE	MEDIUM	4226	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
124	ATOMIC INVESTMENTS	3200 HIGHLAND AVENUE	MEDIUM	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
125	CASA SANCHEZ FOODS	131 W 33RD ST STE 11	MEDIUM	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
126	COASTAL DECKING, INC.	2050 WILSON AVENUE	MEDIUM	4225	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
127	HEARTLAND MEAT CO., INC.	224 W 12TH STREET	MEDIUM	4222	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
128	NATIONAL CITY DISCOUNT SELF STORAGE	131 W 33RD STREET	MEDIUM	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
129	SAN DIEGO AUTOMOTIVE MUSEUM	600 W 12TH ST	MEDIUM	4226	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
130	SOUTH COAST HARLEY-DAVIDSON	1640 HOOVER AVE A	MEDIUM	4225	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
131	PATRICK SHAW ENGRAVING	1533 TIDELAND AVENUE, J	LOW	2796	PRINTING	908.31				X

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
132	CONNECTION MEDICAL TRANSPORT	2504 TRANSPORTATION AVE STE E	LOW	4789	GROUND TRANSPORTATION	908.32				
133	L B C MUNDIAL CORP	914 E 8TH STREET, 201	LOW	4731	GROUND TRANSPORTATION	908.32				
134	PENTAGON CARGO	3200 HIGHLAND AVENUE	LOW	4731	GROUND TRANSPORTATION	909.12				
135	SUNCARGO INC	1457 E PLAZA BLVD.	LOW	4731	GROUND TRANSPORTATION	908.32				
136	CORONADO ISLAND DESIGN & STAMPS	303 W 35TH STREET, G	LOW	3953	MANUFACTURING, CHEMICALS	909.12				
137	PROCHEM SPECIALTY PRODUCTS, INC.	115 E 18TH STREET	LOW	2841	MANUFACTURING, CHEMICALS	908.32				
138	MICROWAVE SOLUTIONS INC.	3200 HIGHLAND AVENUE	LOW	3663	MANUFACTURING, ELECTRONICS	909.12				
139	H & B BAJA FILTERS, LLC	337 W 35TH STREET, G	LOW	3559	MANUFACTURING, EQUIPMENT	909.12				
140	THE MACHINE SHOP & FABRICATORS	1925 CLEVELAND AVENUE	LOW	3599	MANUFACTURING, EQUIPMENT	908.31				
141	WSI METAL SUPPLY	1839 CLEVELAND AVENUE	LOW	3599	MANUFACTURING, EQUIPMENT	908.31				
142	ASSAF SAWAYA FASHION	301 W 28TH STREET, P	LOW	2311	MANUFACTURING, FABRIC/CLOTHES	908.32				
143	DRAPERY MANUFACTURER	2605 HOOVER AVENUE, A	LOW	2391	MANUFACTURING, FABRIC/CLOTHES	908.32				
144	EZERA CLOTHING	220 W 25TH STREET, E	LOW	2331	MANUFACTURING, FABRIC/CLOTHES	908.32				
145	JESSICA'S FASHIONS	2605 HOOVER AVENUE	LOW	2335	MANUFACTURING, FABRIC/CLOTHES	908.32				

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
146	KIM'S WEAR	3200 B4-2 HIGHLAND AVENUE, 303	LOW	2269	MANUFACTURING, FABRIC/CLOTHES	909.12				
147	LUCERO'S DRAPERIES	3200 HIGHLAND AVENUE, 408	LOW	2391	MANUFACTURING, FABRIC/CLOTHES	909.12				
148	MYLYN'S FASHION OF SAN DIEGO	901 COOLIDGE AVENUE	LOW	2339	MANUFACTURING, FABRIC/CLOTHES	908.31				
149	OOH LA LA (WEST KID'S GEAR)	2602 TRANSPORTATION AVENUE, G	LOW	2339	MANUFACTURING, FABRIC/CLOTHES	908.32				
150	SMART CUTTING SERVICES	220 W 25TH STREET, A	LOW	2399	MANUFACTURING, FABRIC/CLOTHES	908.32				
151	TEAM SPORTS BEACH WEAR	2601 HOOVER AVENUE, D	LOW	2339	MANUFACTURING, FABRIC/CLOTHES	908.32				
152	TOGETHER-WEST INC	220 W 25TH STREET, D	LOW	2331	MANUFACTURING, FABRIC/CLOTHES	908.32				
153	VIMONE'S GARMET CO.	220 W 25TH STREET, G	LOW	2329	MANUFACTURING, FABRIC/CLOTHES	908.32				
154	OLSEN-SIMMONS CABINETRY	426 E 30TH STREET	LOW	2599	MANUFACTURING, WOOD/FURNITURE	908.32				
155	R. HARRIS AND CO.	2520 HOOVER AVENUE, A	LOW	2599	MANUFACTURING, WOOD/FURNITURE	908.32				
156	SILVA CASEWORKS INC	1337 ROOSEVELT AVENUE	LOW	2434	MANUFACTURING, WOOD/FURNITURE	908.31				
157	STUDIO EUROPA INC	313 W 33TH STREET, B	LOW	2434	MANUFACTURING, WOOD/FURNITURE	909.12				
158	COPY POST PRINTING	100 W 35TH STREET, B	LOW	2759	PRINTING	909.12				
159	CREST OFFSET PRINTING CO,	921 COOLIDGE AVENUE	LOW	2759	PRINTING	908.31				

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
160	INDUSTRIAL & ARCHITECTURAL SIGN PRODUCTION	1535 TIDELAND AVENUE, G	LOW	3993	PRINTING	908.31				
161	K D R COMPANY PRINTING	301 W 28TH STREET, D	LOW	2752	PRINTING	908.32				
162	MIKE'S PRINTING	2827 HOOVER AVENUE, K	LOW	2752	PRINTING	908.32				
163	PRECISION BINDERY & PRINTING	301 W 28TH STREET, E	LOW	2731	PRINTING	908.32				
164	BEAR'S VM MACHINE	241 W 35TH STREET, E	LOW	5015	RECYCLING	909.12				
165	ACROPOLIS SPACE CENTER	3200 HIGHLAND AVENUE	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
166	AMSEC, LLC	131 W 33RD STREET	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
167	HIGHWAY 54/NATIONAL SELF STORAGE LLC	132 W 33RD STREET	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
168	HWY 54/NATIONAL SELF STOR. LLC	152 W 33TH STREET	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
169	NATIONAL CITY SELF STORAGE	430 W 30TH STREET	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
170	PLANNED PARENTHOOD OF SD & RIV	337 W 35TH STREET, S	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
171	POTTER ELECTRIC, INC. WAREHOUSE	105 W 35TH STREET, A	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
172	SOUTH BAY MOTORSPORTS WAREHOUSE 1	337 W 35TH STREET, H	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				

INDUSTRIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	WDID	Likely Source	<200 feet	Inspect in 2007-2008
173	SOUTH BAY MOTORSPORTS WAREHOUSE 2	105 W 35TH STREET, B	LOW	4225	WHOLESALE/STORAGE/ WAREHOUSING	909.12				

Notes

TTWQ – Threat to Water Quality
SIC –Standard Industrial Classification Code
HSA – Hydrologic Subarea
WDID – Waste Discharge Identification Number
Likely Source – Has a pollutant discharge potential of "Likely" for one or more of the pollutants of concern associated with the receiving water
<200 feet – Less than 200 feet from the nearest receiving water body

B.5 Commercial Inventory

COMMERCIAL FACILITIES

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
1	CIVIC CENTER AUTO BODY	1304 ROOSEVELT AVENUE	HIGH	7532	AUTO PAINT/BODY	908.31	X			X
2	GREENWALD'S AUTOBODY & FRAMEWORKS, INC	1814 ROOSEVELT AVENUE	HIGH	7532	AUTO PAINT/BODY	908.32		X		X
3	JOCSON'S AUTO BODY & PAINT INC.	1320 COOLIDGE AVENUE	HIGH	7532	AUTO PAINT/BODY	908.31	X			X
4	MEZA AUTO BODY	420 W 12TH STREET	HIGH	7532	AUTO PAINT/BODY	908.31	X			X
5	VIKING'S AUTO REPAIR	1503 ROOSEVELT AVENUE, A	HIGH	7532	AUTO PAINT/BODY	908.31	X			X
6	*UNKNOWN NAME*	2130 ROOSEVELT AVENUE	HIGH	7538	AUTO REPAIR	908.32	X			X
7	C&M MOTORS INC.	904 ROOSEVELT AVENUE	HIGH	7538	AUTO REPAIR	908.31	X			X
8	CROWN TRANSMISSION CENTER	1339 HOOVER AVENUE	HIGH	7537	AUTO REPAIR	908.31	X			X
9	FREDY AUTO REPAIR	923.5 COOLIDGE AVENUE	HIGH	7538	AUTO REPAIR	908.31	X			X
10	GHETTO FAB HYDRAULICS	1339 HOOVER AVENUE	HIGH	7539	AUTO REPAIR	908.31	X			X
11	HOPSING AUTO	1540 ROOSEVELT AVENUE	HIGH	7538	AUTO REPAIR	908.31	X			X
12	JACOBS ENGINE REBUILDING	938 COOLIDGE AVENUE	HIGH	7538	AUTO REPAIR	908.31				X
13	JOSE AUTO ELECTRIC	140 W 18TH STREET	HIGH	7538	AUTO REPAIR	908.32		X		X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
14	MLZ AUTO SALE	130 W 30TH STREET	HIGH	7549	AUTO REPAIR	908.32				X
15	SOUTHLAND TRANSMISSION CENTER	1400 HOOVER AVENUE	HIGH	7537	AUTO REPAIR	908.31	X			X
16	SPECIALTY TIRES AND BRAKES	1 WEST 35TH STREET	HIGH	7539	AUTO REPAIR	909.12	X	X		X
17	STEVE'S WEST COAST AUTOMOTIVE	1732 COOLIDGE AVENUE	HIGH	7538	AUTO REPAIR	908.32				X
18	TINO'S AUTO TECH	1 WEST 35TH STREET STE D	HIGH	7538	AUTO REPAIR	909.12	X	X		X
19	TRANS PROS	130 E 17TH STREET	HIGH	7537	AUTO REPAIR	908.32		X		X
20	TURBO TRANSMISSIONS	1411 COOLIDGE AVENUE	HIGH	7537	AUTO REPAIR	908.31	X			X
21	WEST COAST TRUCK SERVICE	201 W 18TH STREET	HIGH	7538	AUTO REPAIR	908.32				X
22	WILLIAM PAKCHUEN LAU	1918 CLEVELAND AVENUE	HIGH	7538	AUTO REPAIR	908.31	X			X
23	FIRESTONE TIRE & SERVICE CENTER	943 HIGHLAND AVENUE	HIGH	5531	AUTO SUPPLIES	908.32				X
24	IMPORT CAR PARTS & MOTOR MACHI	106 E 17TH ST	HIGH	5013	AUTO SUPPLIES	908.32		X		X
25	KEN'S VW	1408 MCKINLEY AVENUE	HIGH	5013	AUTO SUPPLIES	908.31				X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
26	EXPO BUILDERS SUPPLY	500 W 16TH STREET	HIGH	5211	BUILDING MATERIALS	908.32				X
27	FOREST PLYWOOD SALES DBA BAKER HARDWOOD LUMBER CO.	3131 HOOVER AVENUE	HIGH	5031	BUILDING MATERIALS	908.32				X
28	99 CENT ONLY STORES	1320 HIGHLAND AVENUE	HIGH	5999	EATING/DRINKING ESTABLISHMENTS	908.32		X		X
29	ASIAN MARKET	3400 E 8TH ST STE 111-112	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
30	ASIAN NOODLES	1430 E PLAZA BLVD., E-12	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
31	ASWAN HALL CATERING & BANQUET	401 MILE OF CARS WAY	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
32	BEN'S 1615	1615 SWEETWATER ROAD, A	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			X
33	BREAD BASKET BAKER, THE	1471 E PLAZA BL	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
34	BREAD DELUX BAKERY, ETC.	1420 E PLAZA BLVD., D-1	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
35	CAFE LA MAZE	1441 HIGHLAND AVENUE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
36	CALIFORNIA PRODUCE CORPORATION	1736 E PLAZA BL	HIGH	5431	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
37	CARL'S JR.	1502 SWEETWATER ROAD	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X	X		X
38	CARLS JR. #120	1280 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
39	CASA DE ORO RESTAURANT	1510 SWEETWATER ROAD, A	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X	X		X
40	CENTRO DE NUTRICION	1247 HIGHLAND AVE #7	HIGH	5499	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
41	CHINESE CANTON BAKERY	1132 E PLAZA BLVD., 204	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
42	CHOWKING	2220 E PLAZA BLVD., T	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
43	CHU-CHU EXPRESS	401 MILE OF CARS WAY	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
44	CHUCK E CHEESE'S	1143 HIGHLAND AVENUE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
45	CONCHING'S CAFÉ	3400 E 08TH STREET, 216 , 116	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
46	COTIJAS MEXICAN FOOD	740 E 30TH STREET	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			X
47	COZINES GROCERY	402 CIVIC CENTER DRIVE	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			X
48	DA KINES	1635 SWEETWATER ROAD	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X	X		X
49	DESSERTS PLUS	2220 E PLAZA BLVD., Q	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
50	EL PESCADITO MEXICAN AND SEAFOOD	2401 HIGHLAND AVENUE, 104	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			X
51	FAMILY HOUSE OF PANCAKES	1900 E PLAZA BLVD	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
52	FAMILY LOOMPYA SEAFOOD MARKET	2720 E PLAZA BLVD., A	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
53	FOODLAND IGA	303 HIGHLAND AVENUE	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			X
54	GAPO RESTO AND KARAOKE	933 SO HARBISON AVE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
55	GINZA SUSHI	925 E PLAZA BLVD., G	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
56	GOLDEN CHOPSTICKS RESTAURANT	1430 E PLAZA BLVD., E-22-23	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
57	GOLDILOCKS BAKERY & RESTAURANT	1420 E PLAZA BLVD D-7	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
58	INTERNATIONAL HOUSE OF PANCAKES	1430 E PLAZA BLVD., E-1	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
59	JACK IN THE BOX #80	3138 PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
60	JOLLIBEE	1401 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
61	KARIHAN FILIPINO FOOD	2220 E PLAZA BLVD., T	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
62	KARINA'S MEXICAN STYLE SEAFOOD	1705 HIGHLAND AVENUE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
63	LA TAQUIZA	1641 HIGHLAND AVENUE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
64	LAI THAI RESTAURANT	1430 E PLAZA BLVD., E-10	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
65	LOLLICUP TEAZONE	1105 E PLAZA BLVD., A	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
66	LOS GIRASOLES MEXICAN RESTAURA	1231 HIGHLAND AVE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
67	LOS PANCHOS	2030 HIGHLAND AVENUE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
68	MAHARLIKA CAFÉ & GRILL	1819 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
69	MANILA SEAFOOD ORIENTAL MARKET	2220 E PLAZA BLVD., K	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
70	MANILA SUNSET RESTAURANT	925 E PLAZA BLVD., E	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
71	MC DONALDS #6773	2145 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
72	MIKE'S GIANT NY PIZZA #5	1635 SWEETWATER ROAD, C-1	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X	X		X
73	NATIONAL CITY MARKET	240 E 18TH STREET	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
74	OHANA HAWAIIAN ISLAND BBQ	1430 E PLAZA BLVD., E7A	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
75	PANCHO VILLA'S MEXICAN GRILL	3100 8TH STREET	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
76	PANDA PALACE	1105 E PLAZA BLVD., D , E	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
77	PAPA JOHN'S PIZZA #1335	1130 PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
78	PINOY RANCH	3403 E PLAZA BLVD., E	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
79	POINT POINT JOINT (TURO-TURO)	916 E 8TH STREET, 1 , 2	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
80	POPEYES CHICKEN	2210 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
81	RETRED RESTAURANT GROUP, LLC	1200 HIGHLAND AVENUE	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
82	ROYAL MANDARIN RESTAURANT	1132 E PLAZA BLVD., 205	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
83	SAN DIEGO'S WORLD FAMOUS LINKS AND CRAB CAKES	3142 E PLAZA BLVD STE J	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
84	SAVE-A-LOT	1035 HARBINSON AVENUE	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
85	SEAFOOD CITY SUPERMARKET	1420 E PLAZA BLVD., C-E	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
86	SEVEN-ELEVEN #17265	1601 E 18TH STREET	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
87	SEVEN-ELEVEN #18218C	807 E 8TH STREET	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			X
88	SEVEN-ELEVEN #18978D	3100 E PLAZA BLVD.	HIGH	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
89	SIZZLER FAMILY STEAK HOUSE #45	1325 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
90	STAR EXPRESS	3124 E PLAZA BLVD.	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
91	SUBMARINA	1210 E. PLAZA BOULEVARD	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
92	SUNGA FOOD TO GO	3403 E PLAZA BLVD A-1	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
93	TACO SALSA TACO SHOP	925 E PLAZA BLVD., B	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
94	TORTAS OASIS	1210 E PLAZA BLVD STE 404	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
95	TROPICAL DELI	2808 18TH STREET	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
96	VALERIOS FAMILY BAKE SHOP	2720 E PLAZA BLVD., H	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
97	VILLA MANILA	500 E 8TH STREET	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
98	WINGS N THINGS	1499 E PLAZA BLVD	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
99	YUM YUM DONUT FRANCHISE #502	3122 E PLAZA BLVD.	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
100	ZARLITOS FAMILY RESTAURANT	505 E 8TH STREET	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			X
101	SAN DIEGO CRANE & HOIST	1606 COOLIDGE AVENUE	HIGH	7699	EQUIPMENT REPAIR	908.31	X	X		X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
102	BLUE COAST CONSTRUCTION, INC.	1804 CLEVELAND AVENUE, B	HIGH	1542	OTHER CONTRACTOR	908.31				X
103	C & W DIVING	1706 HOOVER AVENUE	HIGH	1629	OTHER CONTRACTOR	908.32	X	X		X
104	DE-LUX ROOFING	1107 HARDING AVENUE	HIGH	1761	OTHER CONTRACTOR	908.31				X
105	FURBY CONSTRUCTION CO, INC.	801 CIVIC CENTER DRIVE	HIGH	1799	OTHER CONTRACTOR	908.31				X
106	NELLANS CARPET AND DRAPERIES	426 W 15TH STREET	HIGH	1752	OTHER CONTRACTOR	908.31				X
107	ROMERO'S ROOFING SERVICE, INC.	1827 CLEVELAND AVENUE	HIGH	1761	OTHER CONTRACTOR	908.31				X
108	SID'S CARPET BARN	132 W 8TH STREET	HIGH	1752	OTHER CONTRACTOR	908.31				X
109	SOUTH BAY MECHANICAL SERVICES	221 W 16TH STREET	HIGH	1711	OTHER CONTRACTOR	908.32				X
110	CAR SOURCE	1 W 35TH STREET	HIGH	5521	VEHICLE DEALERS	909.12		X		X
111	FRANK MOTORS HYUNDAI	3150 NATIONAL CITY BLVD.	HIGH	5511	VEHICLE DEALERS	909.12				X
112	SAN DIEGO DODGE	2829 NATIONAL CITY BLVD.	HIGH	5511	VEHICLE DEALERS	908.32				X
113	CALIFORNIA AUTO DETAILING	1509.5 NATIONAL CITY BLVD.	HIGH	7542	VEHICLE WASHING	908.32		X		X
114	CARRERA'S AUTO DETAIL	2130 ROOSEVELT AVENUE	HIGH	7542	VEHICLE WASHING	908.32				X
115	NATIONAL CITY CAR WASH	2550 E PLAZA BLVD.	HIGH	7542	VEHICLE WASHING	908.32	X	X		X
116	SAN DIEGO AUTO DETAIL	110 W 11TH STREET	HIGH	7542	VEHICLE WASHING	908.31				X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
117	HERTZ EQUIPMENT RENTAL	415 W 30TH STREET	HIGH	7353	VEHICLE/EQUIPMENT RENTAL	908.32				X
118	HAPPY BAKERY	3142 E PLAZA BLVD., L	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		
119	TITA'S KITCHENETTE	2720 E PLAZA BLVD., E , F	HIGH	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		
120	WINCHELL'S DONUT HOUSE #484	2447 E PLAZA BLVD.	HIGH	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		
121	BAR BET CONSTRUCTION	3348 CYPRESS STREET	HIGH	1623	OTHER CONTRACTOR	909.12			X	
122	DEWEY PEST CONTROL	324 CIVIC CENTER DRIVE	HIGH	7342	PEST CONTROL	908.31			X	
123	SANTANA MOBILE TRUCK WASH	1741 NATIONAL CITY BLVD.	HIGH	7349	POWER WASHING	908.32			X	
124	VALUE CARS	13 NATIONAL CITY BLVD.	HIGH	5521	VEHICLE DEALERS	909.12		X		
125	FINISHING TOUCH AUTO DETAILING		HIGH	7542	VEHICLE WASHING				X	
126	VALDEZ MOBILE AUTO DETAILING	910 HIGHLAND AVENUE	HIGH	7542	VEHICLE WASHING	908.32			X	
127	AUTO TECK	1023 COOLIDGE AVENUE	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			X
128	CRASH AND FIX AUTOBODY	202 , 210 W 11TH STREET	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			X
129	NATIONAL CITY AUTO BODY	24 E 4TH STREET	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			X
130	PLATINUM AUTO BODY & PAINT	223 CIVIC CENTER DR	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			X

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
131	STYLER'S AUTO BODY	38 E 16TH STREET	MEDIUM	7532	AUTO PAINT/BODY	908.32		X		X
132	THE NEW LOOK	340 W. 11TH STREET	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			X
133	ANAYA'S NATIONAL AUTOMOTIVE	2125 ROOSEVELT AVENUE	MEDIUM	7538	AUTO REPAIR	908.32				X
134	DISCOUNT TIRE CO. (SO. CA.)	1309 E PLAZA BLVD.	MEDIUM	7534	AUTO REPAIR	908.32		X		X
135	LIVELY BRAKE SERVICE	115 E 17TH STREET STE B	MEDIUM	7539	AUTO REPAIR	908.32		X		X
136	FIRESTONE	2531 E PLAZA BLVD.	MEDIUM	5531	AUTO SUPPLIES	908.32		X		X
137	POWER TIRE #4	1615 E 8TH STREET	MEDIUM	5531	AUTO SUPPLIES	908.32				X
138	ACI DISTRIBUTION	131 W 33RD AVENUE, A	MEDIUM	5039	BUILDING MATERIALS	909.12				X
139	SMART AND FINAL	1220 E PLAZA BLVD.	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X	X		X
140	SUBWAY SANDWICH & SALAD	925 E PLAZA BLVD., A	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
141	THE BARBEQUE PIT	920 E PLAZA BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			X
142	FLEETWASH	1508 HOOVER AVENUE	MEDIUM	7542	VEHICLE WASHING	908.31				X
143	NATIONAL CITY DETAIL SHOP	108 W 18TH STREET	MEDIUM	7542	VEHICLE WASHING	908.32				X
144	WORLD TERMINAL PARKING INC	200 HIGHLAND AVENUE	MEDIUM	7542	VEHICLE WASHING	908.31				X
145	PLAZA BOULEVARD PET CLINIC	2415 E PLAZA BLVD.	MEDIUM	0742	ANIMAL FACILITIES	908.32	X			
146	BALL AUTOMOTIVE GROUP	2426 A AVENUE	MEDIUM	7532	AUTO PAINT/BODY	908.32				
147	MC CUNE MOTORS	3000 NATIONAL CITY BLVD.	MEDIUM	7532	AUTO PAINT/BODY	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
148	NATIONAL CITY AUTO TRIM INC	15 E 5TH STREET	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			
149	SCHEIB, EARL OF CA INC #189	111 NATIONAL CITY BLVD.	MEDIUM	7532	AUTO PAINT/BODY	908.31	X			
150	SOUTHWEST PAINT AND BODY	1616 WEST AVENUE	MEDIUM	7532	AUTO PAINT/BODY	908.32		X		
151	TED'S UPHOLSTERY	115 E 17TH STREET, D	MEDIUM	7532	AUTO PAINT/BODY	908.32		X		
152	ALL PRO AUTO REPAIR	517 NATIONAL CITY BLVD.	MEDIUM	7538	AUTO REPAIR	908.31	X			
153	ARROYO BROTHERS	128 NATIONAL CITY BLVD.	MEDIUM	7538	AUTO REPAIR	908.31	X			
154	AUTO ACCESS	1609 NATIONAL CITY BLVD.	MEDIUM	7538	AUTO REPAIR	908.32		X		
155	AUTOCOMM, INC.	2525 SOUTHPORT WAY STE C	MEDIUM	7549	AUTO REPAIR	908.32		X		
156	BAXTER AUTOMOTIVE & MACHINE	1400 HOOVER AVENUE	MEDIUM	7539	AUTO REPAIR	908.31	X			
157	BJ MOTOR & BODY SHOP	1338 ROOSEVELT AVENUE	MEDIUM	7538	AUTO REPAIR	908.31	X			
158	BRAKE DEPOT	910 HIGHLAND AVENUE	MEDIUM	7539	AUTO REPAIR	908.32				
159	CLASSIC AUTO RESTORATION INC	1400 HOOVER AVE	MEDIUM	7539	AUTO REPAIR	908.31	X			
160	COMMERCIAL FLEET SERVICE	1521 COOLIDGE AVENUE	MEDIUM	7539	AUTO REPAIR	908.31	X			
161	DE LA CRUZ AUTO REPAIR	36 W CIVIC CENTER DRIVE	MEDIUM	7538	AUTO REPAIR	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
162	ESPECIAL TIRES	1 W 35TH ST STE C	MEDIUM	7534	AUTO REPAIR	909.12		X		
163	IDEAL SMOG	10 OSBORN ST	MEDIUM	7549	AUTO REPAIR	908.31	X			
164	JETCLEAN USA, INC	1541 ROOSEVELT AVE	MEDIUM	7549	AUTO REPAIR	908.31	X			
165	M & T AUTO	1731 WILSON AVENUE	MEDIUM	7538	AUTO REPAIR	908.31	X			
166	MICKEY'S COMPLETE AUTO REPAIR	415 NATIONAL CITY BLVD.	MEDIUM	7538	AUTO REPAIR	908.31	X			
167	MOTOR WORKS	1625 COOLIDGE AVENUE	MEDIUM	7538	AUTO REPAIR	908.31	X			
168	NATIONAL CITY SMOG, BRAKE & LI	705 1/2 E 8TH ST	MEDIUM	7539	AUTO REPAIR	908.31	X			
169	NATIONAL CITY SMOG, BRAKE & LIGHTS	705.5 E 8TH STREET, A	MEDIUM	7539	AUTO REPAIR	908.31	X			
170	NATIONAL MECHANICAL SERVICES	1640 HOOVER AVENUE, B	MEDIUM	7539	AUTO REPAIR	908.31	X			
171	NATIONAL MOTOR WORKS	1440 HARDING AVE STE A	MEDIUM	7538	AUTO REPAIR	908.31	X			
172	NILS HALL DBS THUNDERBIRD	705 E 8TH STREET	MEDIUM	7553	AUTO REPAIR	908.31	X			
173	PACIFIC AUTO REPAIRS	315 W 11TH STREET	MEDIUM	7538	AUTO REPAIR	908.31	X			
174	RAY BROCK AUTO SERVICE	25 W 11TH STREET	MEDIUM	7539	AUTO REPAIR	908.31	X			
175	RELIABLE SPRING AND SUSPENSION	225 W 16TH STREET	MEDIUM	7539	AUTO REPAIR	908.32		X		
176	RONNIE'S ELECTRONICS - AUTO	1309 HIGHLAND AVENUE	MEDIUM	7549	AUTO REPAIR	908.32		X		
177	RPM TRANSMISSIONS	1620 HARDING AVE	MEDIUM	7537	AUTO REPAIR	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
178	SAM'S ALIGNMENT SERVICE	1028 COOLIDGE AVENUE	MEDIUM	7539	AUTO REPAIR	908.31	X			
179	SMOG CENTRO	404 HIGHLAND AVENUE	MEDIUM	7539	AUTO REPAIR	908.31	X			
180	SOLAR ECLIPSE PERFORMANCE	507 G AVENUE	MEDIUM	7549	AUTO REPAIR	908.31	X			
181	SOUTH BAY AUTO SHOP	1112 COOLIDGE AVENUE	MEDIUM	7538	AUTO REPAIR	908.31	X			
182	TAB SERVICE	1 W 35TH ST STE A	MEDIUM	7538	AUTO REPAIR	909.12		X		
183	THUNDERBIRD MUFFLER SHOP	705 E 8TH STREET	MEDIUM	7533	AUTO REPAIR	908.31	X			
184	UNITED AUTOSPORT	49 E 16TH ST	MEDIUM	7536	AUTO REPAIR	908.32		X		
185	VALUE AUTO REPAIR & TIRES	115 E 17TH ST STE A	MEDIUM	7538	AUTO REPAIR	908.32		X		
186	AUTO ZONE #5659	2500 E PLAZA BLVD.	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
187	CARQUEST AUTOPARTS	1300 HIGHLAND AVENUE	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
188	JT MOTORSPORTS	1531 NATIONAL CITY BLVD	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
189	KAY AUTOMOTIVE	2121 HOOVER AVE	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
190	PACIFIC COAST DIESEL	100 W 35TH STREET	MEDIUM	5531	AUTO SUPPLIES	909.12		X		
191	PRO STREET LIGHTING INC	2145 WILSON AVENUE	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
192	SOUTH BAY DIESEL & HYDRAULIC, INC	100 W 35TH ST STE J	MEDIUM	5531	AUTO SUPPLIES	909.12		X		
193	STREET DREAMS AUTO STYLING	1509 1/2 NATIONAL CITY BLVD B	MEDIUM	5531	AUTO SUPPLIES	908.32		X		

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
194	TRI CARE MOTORS	5 W 18TH ST	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
195	TRICARE MOTORS	5 W 8TH STREET, B , C	MEDIUM	5531	AUTO SUPPLIES	908.31		X		
196	XCLUSIVE MOTORSPORTS	1717 NATIONAL CITY BLVD	MEDIUM	5531	AUTO SUPPLIES	908.32		X		
197	ABC SUPPLY COMPANY	135 W 30TH STREET	MEDIUM	5033	BUILDING MATERIALS	908.32				
198	BLUELINX DISTRIBUTION	901 BAY MARINA DRIVE	MEDIUM	5031	BUILDING MATERIALS	908.31				
199	MAC ARTHUR CO	2101 HAFFLEY AVE STE B	MEDIUM	5033	BUILDING MATERIALS	908.31	X			
200	ROYCE CABINETS & GRANITE INC	10 E 1ST STREET	MEDIUM	5211	BUILDING MATERIALS	908.31	X			
201	ROYCE WINDOWS & DOORS INC	10 E 1ST STREET	MEDIUM	5211	BUILDING MATERIALS	908.31	X			
202	PREMIER CHEM DRY	311 S DREXEL AVE	MEDIUM	7217	CARPET/FURNITURE CLEANING	908.31			X	
203	SANDOVAL CONCRETE	827 E 13TH ST	MEDIUM	1771	CEMENT MIXING/CUTTING	908.32		X		
204	VACA'S CONCRETE	1826 BETA STREET	MEDIUM	1771	CEMENT MIXING/CUTTING	908.31		X		
205	ZAVALA'S CONCRETE WORK	2840 N AVE	MEDIUM	1771	CEMENT MIXING/CUTTING	909.12		X		
206	A.B.C ICE CREAM TRUCK CO.	1447 PARAISO CT	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	908.31	X			
207	ALOTTAS COCKTAIL LOUNGE	419 PALM AV	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.32	X			
208	APPLEBEE'S NEIGHBORHOOD	3030 PLAZA BONITA RD	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	909.12	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
209	ARIDO MARKET	1643 WILSON AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
210	AUNTIE ANNE'S PRETZEL'S	3030 PLAZA BONITA RD STE 2440	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12				
211	BIG B MARKET & DELI	1540 COOLIDGE AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
212	BIG BEN MARKET	22 E 8TH STREET	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
213	BIG DADDY	1922 C AVE	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	908.32	X			
214	BIRRIAS	2401 HIGHLAND AVE STE 104	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
215	BURGER KING	815 HIGHLAND AVENUE, 780	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
216	CAFE ESTELAS	1524 MCKINLEY AV	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.31	X			
217	CALIFORNIA ICE CREAM	1021 COOLIDGE AVENUE	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	908.31	X			
218	CALIFORNIA'S TACO SHOP	51 N HIGHLAND AVENUE, H	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
219	CARNIVAL SUPERMARKET	1750 E 8TH STREET	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
220	CASA DEL TACO	1635 SWEETWATER ROAD, A	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
221	CESAR'S TACO SHOP	3123 D AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
222	CHANG DONG SUPERMARKET ORIENTAL SEAFOOD	600 E 8TH STREET, 7 , 8	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
223	CHINA KING	3007 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
224	CHINESE CITY RESTAURANT #2	1025 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
225	CHING'S FAMOUS HOPIA	1722 E 8TH STREET	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
226	CHURCH'S CHICKEN	3040 E 8TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
227	CITY HALL DELI	1302 NATIONAL CITY BLVD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
228	CLUB 13	640 CIVIC CENTER DR	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.31	X			
229	COLD STONE CREAMERY #1483	925 E PLAZA BLVD., I	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32		X		
230	COSINA DE EMMA	2503 SWEETWATER RD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
231	DAIRY QUEEN/ORANGE JULIUS	3030 PLAZA BONITA ROAD, 2138	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
232	DAKOTA INN	831 E 08TH ST	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.31	X			
233	DECKER'S SUBS & TORTAS	3030 PLAZA BONITA RD #2185	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
234	DENNIS'S BAKERY	832 E 18TH STREET	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
235	DENNY'S RESTAURANT	1904 SWEETWATER ROAD, 1473	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
236	DENNY'S RESTAURANT	424 MILE OF CARS WAY	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
237	DIPPIN DOTS	3030 PLAZA BONITA ROAD, 9008	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
238	DOMINO'S PIZZA	702 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
239	DON JOHN MARKET	431 N HIGHLAND AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
240	DULCERIA FIESTA	640 HIGHLAND AVENUE STE B	MEDIUM	5441	EATING/DRINKING ESTABLISHMENTS	908.31	X			
241	DULCERIA LA PINATA	140 HIGHLAND AVE	MEDIUM	5441	EATING/DRINKING ESTABLISHMENTS	908.31	X			
242	EAT & GO TROLLEY DELI	530 W 21ST STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
243	EL AGUILA MEXICAN FOOD	640 HIGHLAND AVE STE A	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
244	EL GRANO DE ORO	730 E 7TH STREET	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	908.31	X			
245	EL JAUN CAFE	2316 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
246	EL NUEVO MILLENIO MEXICAN FOOD	2323 E DIVISION STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
247	EL PARAISO	2708 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
248	EL POLLO LOCO #3430	1710 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
249	EL PORTILLO TACO SHOP	321 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
250	EL SUPER MARKET	1811 L AVE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	909.12	X			
251	ELBO REST	309 HIGHLAND AV	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.31	X			
252	ENYS CAFE	1021 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
253	ETHNIC DELI & CAFE	404 W MILE OF CARS WAY, F	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
254	FARMERS DISCOUNT MARKET	1535 E 18TH STREET	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
255	FRESCA DELI	1021 HIGHLAND AV P/B	MEDIUM	5431	EATING/DRINKING ESTABLISHMENTS	908.32	X			
256	GAMA PRODUCE	1605 E 04TH ST	MEDIUM	5431	EATING/DRINKING ESTABLISHMENTS	908.31	X			
257	GEMMAE BAKESHOP & CAFE	450 E 8TH STREET, A , B	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
258	GENGIS KHAN #1	3030 PLAZA BONITA ROAD, 2128	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
259	GEORGE'S MARKET	2540 E 18TH STREET	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
260	GEORGE'S WONDERFUL WORLD OF CAKES	1519 HIGHLAND AVENUE	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
261	GIANT NEW YORK PIZZA	8 N EUCLID AVENUE, 8-B	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
262	GOLDEN DONUTS	36 N EUCLID AVENUE, E	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
263	GREAT STEAK & POTATOE	3030 PLAZA BONITA RD STE 2154	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
264	HANAOKA RESTAURANT	1528 SWEETWATER ROAD, C	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
265	HAPPY WAGON III	2024 LA SIESTA WAY	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	909.12	X			
266	HAWAIIAN EXPRESS BBQ	3030 PLAZA BONITA RD #2122	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
267	HICKORY FARMS INC	3030 PLAZA BONITA ROAD	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	909.12	X			
268	HILBERTOS MEXICAN FOOD	835 PALM AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
269	HOMETOWN BUFFET #714	1135 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
270	HONEY BANANA	443 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
271	HOT DOG ON A STICK #052	3030 PLAZA BONITA ROAD, 2136	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
272	IHAW IHAW GRILL & RESTAURANT	3421 E PLAZA BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
273	IMELDA'S	2325 HIGHLAND AVENUE	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	909.12	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
274	IMPERIAL FISH MARKET RESTAURAN	1903 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
275	IMPERIAL PALACE	1630 E 8TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
276	IN N OUT BURGER	500 MILE OF CARS WAY	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
277	JACK IN THE BOX	700 ROOSEVELT AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
278	JACK IN THE BOX #3	1745 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
279	JESUS & CECILIA LOYA CAFE	524 HIGHLAND AV	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
280	KENTUCKY FRIED CHICKEN	840 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
281	KENTUCKY FRIED CHICKEN	3005 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
282	KER FRESH PRODUCE	1610 E 8TH ST C-1	MEDIUM	5431	EATING/DRINKING ESTABLISHMENTS	908.32	X			
283	KIM KOREAN BARBEQUE	1141 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
284	L & L HAWAIIAN BARBEQUE	1860 SWEETWATER ROAD, B	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
285	LA PLACITA	1860 SWEETWATER RD STE A2	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
286	LA SIERRA CAFFE	306 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
287	LAS UVAS DELI	632 NATIONAL CITY BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
288	LISA'S DESSERTS	2720 E PLAZA BLVD., Q	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
289	LITTLE DRAGON CHINESE	2424 HOOVER AVENUE, K	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
290	LIVING ROOM CAFE	880 NATIONAL CITY BLVD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
291	LOS AROS	543 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
292	LOS PANCHOS TACO SHOP	2441 NATIONAL CITY BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
293	LUEMMA'S KITCHEN SOUTHERN STYL	36 EUCLID AVE STE 36-F	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
294	LUPITAS MEAT MARKET	2239 HIGHLAND AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	909.12	X			
295	LUTONG BAHAY CAFE & BAKERY	2344 E 8TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
296	MADLAIN INC DBA WRIGLEYS SUPER	34 N EUCLID AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
297	MAMA FINA'S PIZZA	916 E 8TH STREET, 4	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
298	MARISCOS SINALOA #2	2435 NATIONAL CITY BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
299	MARY J'S CAFE	1930 CLEVELAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
300	MC DINI'S BAJA	105 E 08TH ST	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.31	X			
301	MCDINI'S BAJA	105 E 8TH STREET	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	908.31	X			
302	MCDONALDS	1630 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
303	MCDONALD'S	3400 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
304	MCDONALDS #20311	3030 PLAZA BONITA ROAD, 2168	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
305	MENUDERIA DON VICENTE	2637 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
306	MI TIERRA SUPER TACO	1835 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
307	MOTHER'S NUTRITIONAL CENTER	924 HIGHLAND AVE	MEDIUM	5499	EATING/DRINKING ESTABLISHMENTS	908.32	X			
308	MR JOEY'S TACO SHOP	1554 TAFT ST	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
309	NADEL HOUSE OF FILIPINO CAKES	914 E 8TH STREET, 202	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
310	NATIONAL CITY GROCERY OUTLET	3446 HIGHLAND AVENUE, 6	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	909.12	X			
311	NATIONAL CITY NUTRITION STORE	925 PLAZA BLVD.	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
312	NEWTOWN EXPRESS CHINESE FOOD	4 N EUCLID AVE STE B	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
313	OCEAN JAVA	916 E 8TH ST STE 3	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
314	ORIENTAL CAFE	39 E 7TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
315	OUTBACK STEAK HOUSE	2980 PLAZA BONITA ROAD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
316	PANADERIA GUADALAJARA	2401 HIGHLAND AVENUE, 105	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	909.12	X			
317	PANDA EXPRESS	3030 PLAZA BONITA RD 2172	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
318	PAT & OSCAR'S	3030 PLAZA BONITA ROAD, 1106	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
319	PETER PIPER PIZZA STORE #212	3007 HIGHLAND AVENUE, 11	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
320	PHO EXPRESS	3030 PLAZA BONITA RD STE 2132	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
321	PICKLE BARREL DELI RESTAURANT	340 W 26TH STREET, E	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
322	PINOY FIESTA	550 E 8TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
323	PIZZA HUT #315044	2437 E PLAZA BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
324	PIZZA MIA	916 E 8TH ST	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
325	PLANET SMOOTHIE	2220 E PLAZA BLVD STE D	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32		X		

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
326	PLAY BALL	2305 HIGHLAND AVE	MEDIUM	5813	EATING/DRINKING ESTABLISHMENTS	909.12	X			
327	PLAZA DONUTS	1548 HIGHLAND AVENUE	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
328	POLLO AMIGO #2	1604 E 18TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
329	POPEYES FAMOUS FRIED CHICKEN	2333 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
330	QUIZNOS SUB	928 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
331	RAINBOW FRUITS EXPRESS	3030 PLAZA BONITA RD #2176	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12				
332	RALPH'S GROCERY STORE NO. 101	901 EUCLID AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
333	RASPADOS MICHOACAN	115 8TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
334	RED BIRD MARKET	2035 HIGHLAND AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
335	RED RIBBON BAKE SHOP, INC.	2220 PLAZA BLVD., T-1	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
336	RESTAURANT YAKATA	2424 HOOVER AVE STE F/P	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
337	ROBERTO'S TACO SHOP	1406 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
338	ROCKY MOUNTAIN CHOCOLATE FACTO	3030 PLAZA BONITA RD 9249	MEDIUM	5441	EATING/DRINKING ESTABLISHMENTS	909.12				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
339	RODEO'S MEAT MARKET	422 HIGHLAND AVENUE	MEDIUM	5421	EATING/DRINKING ESTABLISHMENTS	908.31	X			
340	SAN DIEGO CHICKEN ROTISSERIE	2220 E PLAZA BLVD., D	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
341	SAN JOSE RESTAURANT	213 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
342	SBARRO	3030 PLAZA BONITA ROAD, 2162	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
343	SEE'S CANDIES	3030 PLAZA BONITA SHOPPING CTR SPC 22	MEDIUM	5441	EATING/DRINKING ESTABLISHMENTS	909.12				
344	SEVEN ELEVEN #13583 D	2425 SWEETWATER ROAD	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	909.12	X			
345	SEVEN ELEVEN #20785-B	2400 HIGHLAND AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	909.12	X			
346	SEVEN-ELEVEN #13564E	15 N EUCLID AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
347	SIETE DIAS MARKET	151 N HIGHLAND AVENUE, A	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
348	STARBUCKS COFFEE #2922	3030 PLAZA BONITA ROAD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
349	STARBUCKS COFFEE #6487	1860 SWEETWATER ROAD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
350	STARBUCK'S COFFEE #6783	2230 E PLAZA BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32		X		
351	STONEY'S BAR & GRILL	108 W 25TH ST D, E, F, G	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
352	STONEY'S BAR & GRILL	108 W 25TH STREET D,E,F AND G	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
353	SUBWAY SANDWICH & SALAD	1860 SWEETWATER ROAD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
354	SUBWAY SANDWICH AND SALADS	3030 PLAZA BONITA ROAD, 2176	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
355	SUNNY DONUTS	724 HIGHLAND AVENUE	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.31	X			
356	SURF CITY SQUEEZE	3030 PLAZA BONITA ROAD, 9003	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
357	SWEET CHEEKS BAKING CO	224 W 12TH ST	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.31	X			
358	SWEET SPOT	1021 HIGHLAND AVE	MEDIUM	5441	EATING/DRINKING ESTABLISHMENTS	908.32	X			
359	SWIRLY CUP	1860 SWEETWATER RD STE A-2	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
360	TACO BELL #106	2425 DIVISION STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
361	TACO BELL #2800	1737 SWEETWATER ROAD	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
362	TACOS EL GORDO DE TIJUANA	1940 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
363	TACOS EL REY	505 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
364	TACOS Y TIENDITA "EL FLACO"	1539 E 8TH ST	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
365	THE ORIGINAL RICHARD'S BAKERY	3400 E 8TH STREET, 114	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
366	TIJUANA TACO FACTORY	505 HIGHLAND AVE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.31	X			
367	TROPICAL ICE CREAM AND JUICE BAR	3104 E PLAZA BLVD.	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
368	VALERIOS CITY BAKERY	1631 E 8TH STREET, 182	MEDIUM	5461	EATING/DRINKING ESTABLISHMENTS	908.32	X			
369	VICTOR'S TAQUERIA	1602 E 4TH STREET	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
370	VIETNAMESE CHINESE NOODLE HOUSE	600 E 8TH STREET, 5	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
371	WEBCO HALE	2202 HAFFLEY AVENUE	MEDIUM	5963	EATING/DRINKING ESTABLISHMENTS	908.31	X			
372	WETZEL'S PRETZELS	3030 PLAZA BONITA ROAD, 2032	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	909.12	X			
373	WIENERSCHNITZEL	1825 HIGHLAND AVENUE	MEDIUM	5812	EATING/DRINKING ESTABLISHMENTS	908.32	X			
374	WILSON MARKET AND LIQUOR	916 E 8TH STREET STE 9	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.32	X			
375	WONDER/HOSTESS BAKERY OUTLET	1626 SWEETWATER ROAD, E - H	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	909.12		X		
376	WRIGLEY'S SUPER	34 N EUCLID AVENUE	MEDIUM	5411	EATING/DRINKING ESTABLISHMENTS	908.31	X			
377	ACIM, INC	1429 WILSON AVE STE A	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
378	ALLIED PIPING & WELDING, INC.	1120 HOOVER AVENUE	MEDIUM	7692	EQUIPMENT REPAIR	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
379	BAE SYSTEMS LAND & ARMAMENTS	155 W 35TH STREET	MEDIUM	7699	EQUIPMENT REPAIR	909.12		X		
380	CA WELDING IRON WORKS	1630 HARDING AVENUE	MEDIUM	7692	EQUIPMENT REPAIR	908.31	X			
381	FAIRBANKS MORSE ENGINE	1545 TIDELAND AVENUE, J	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
382	FEDERAL EQUIPMENT WEST	2101 WILSON AVENUE	MEDIUM	7699	EQUIPMENT REPAIR	908.32		X		
383	GORMSEN APPLIANCE	718 E 18TH STREET	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
384	HORN'S WELDING	1840 WILSON AVENUE, A	MEDIUM	7692	EQUIPMENT REPAIR	908.31	X			
385	LEFORT'S CONSTRUCCION & LANDSC	34 E 17TH STREET #B	MEDIUM	7699	EQUIPMENT REPAIR	908.32		X		
386	NATIONAL CITY MOTORCYCLE INC	1504 NATIONAL CITY BLVD., A	MEDIUM	7699	EQUIPMENT REPAIR	908.32				
387	NEVWEST	1636 WILSON AVENUE	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
388	OUCHI'S POWER EQUIPMENT	225 W 9TH STREET	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
389	S & S WELDING	1442 MCKINLEY STREET	MEDIUM	7692	EQUIPMENT REPAIR	908.31	X			
390	SAN DIEGO HYDRAULICS INC	1720 CLEVELAND AVE	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
391	SEAWARD MARINE SERVICE INC.	424 W 8TH STREET	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
392	SERVICE MASTER AA ADVANCES RES	100 W 35TH STREET	MEDIUM	7699	EQUIPMENT REPAIR	909.12		X		
393	SOUTHLAND LAUNDRY SYSTEMS	1729 COOLIDGE AVENUE, B	MEDIUM	7699	EQUIPMENT REPAIR	908.32		X		

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
394	STANDARD CALIBRATIONS INC	1535 TIDELANDS AVE STE H	MEDIUM	7699	EQUIPMENT REPAIR	908.31	X			
395	TINO'S IRON WORK	1014 COOLIDGE AVE	MEDIUM	7692	EQUIPMENT REPAIR	908.31	X			
396	ARCO AM PM #6523	133 W 8TH STREET	MEDIUM	5541	FUELING	908.31	X			
397	ARCO AM/PM #9566	1606 E PLAZA BLVD.	MEDIUM	5541	FUELING	908.32		X		
398	ARCO AM/PM #9570	1139 HARBINSON AVENUE	MEDIUM	5541	FUELING	908.32		X		
399	SHELL STATION	2401 E DIVISION STREET	MEDIUM	5541	FUELING	908.31	X			
400	SMSA INC	10 OSBORN ST	MEDIUM	5541	FUELING	908.31	X			
401	NATIONAL CITY GOLF COURSE	1439 SWEETWATER ROAD	MEDIUM	7992	GOLF COURSES/PARKS	909.12		X		
402	DE LA TORRE	2137 WILSON AVENUE	MEDIUM	0782	LANDSCAPING	908.32		X		
403	CALIFORNIA SALES	205 W 35TH ST #B	MEDIUM	1799	OTHER CONTRACTOR	909.12		X		
404	EXLINE, DENNIS L	243 E 16TH ST	MEDIUM	1542	OTHER CONTRACTOR	908.32		X		
405	J J & K BUILDERS INC	2050 WILSON AVE STE C	MEDIUM	1542	OTHER CONTRACTOR	908.32		X		
406	LA RUE PLUMBING	1515 WILSON AVENUE	MEDIUM	1711	OTHER CONTRACTOR	908.31				
407	STEVENS CONSTRUCTION	125 E 17TH STREET	MEDIUM	1542	OTHER CONTRACTOR	908.32		X		
408	UNDERWRITERS LABORATORIES INC	333 PFINGSTEN RD	MEDIUM	7389	POOL/FOUNTAIN CLEANING				X	
409	COCO'S HOUSEKEEPING	2830 PROSPECT ST	MEDIUM	7349	POWER WASHING	909.12			X	
410	COLONIA F.C. SERVICE	133 N CLAIRMONT AVENUE	MEDIUM	7349	POWER WASHING	908.31			X	
411	KAREN CLEAN UPS	1722 GAMMA ST	MEDIUM	7349	POWER WASHING	908.31			X	
412	MISSED A SPOT CLEANING SERVICES	630 F AVE	MEDIUM	7349	POWER WASHING	908.31			X	

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
413	MONTELO'S CLEANING SERVICES	1107 D AVE	MEDIUM	7349	POWER WASHING	908.32			X	
414	N.G. COMERCL & RSDNTL CLEANING	1705 L AVE	MEDIUM	7349	POWER WASHING	908.32			X	
415	SUPERIOR CLEANING SYSTEMS	1037 A AVENUE	MEDIUM	7349	POWER WASHING	908.32			X	
416	VORTEX MAINTENANCE INC	2504 TRANSPORTATION AVE STE F	MEDIUM	7349	POWER WASHING	908.32			X	
417	BALL AUTOMOTIVE GROUP	2729 NATIONAL CITY BLVD.	MEDIUM	5511	VEHICLE DEALERS	908.32				
418	BIG BEAR AUTO SALES	1635 COOLIDGE AVE	MEDIUM	5521	VEHICLE DEALERS	908.31	X			
419	BOAT SELLERS	1730 CLEVELAND AVENUE	MEDIUM	5551	VEHICLE DEALERS	908.31	X			
420	CHIEF AUTO SALES	5 W 18TH STREET	MEDIUM	5521	VEHICLE DEALERS	908.32				
421	CUADROS MOTORS	1800 NATIONAL CITY BLVD STE S	MEDIUM	5012	VEHICLE DEALERS	908.32		X		
422	DIAMANTE MOTORS	10 OSBORN ST	MEDIUM	5521	VEHICLE DEALERS	908.31	X			
423	GRAND MOTORS	423 NATIONAL CITY BLVD	MEDIUM	5012	VEHICLE DEALERS	908.31	X			
424	KARZ PLUS RV	1605 NATIONAL CITY BLVD.	MEDIUM	5511	VEHICLE DEALERS	908.32		X		
425	MARK MOTORS	905 HOOVER AVENUE	MEDIUM	5511	VEHICLE DEALERS	908.31	X			
426	MC CUNE II	325 MILE OF CARS WAY	MEDIUM	5511	VEHICLE DEALERS	908.32		X		
427	NATIONAL CITY AUTO CENTER INC	1010 NATIONAL CITY BLVD	MEDIUM	5012	VEHICLE DEALERS	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
428	NELGEN DISTRIBUTORS	204 SO KENTON AVENUE	MEDIUM	5551	VEHICLE DEALERS	908.31	X			
429	O.K. WHOLESALE	1605 NATIONAL CITY BLVD STE A	MEDIUM	5012	VEHICLE DEALERS	908.32		X		
430	PERRY FORD (TRUCK)	1610 NATIONAL CITY BLVD.	MEDIUM	5511	VEHICLE DEALERS	908.32		X		
431	PHAT CITY AUTO SALES	1741 NATIONAL CITY BLVD	MEDIUM	5521	VEHICLE DEALERS	908.32		X		
432	PRECISION BIKE PARTS	421 NATIONAL CITY BLVD	MEDIUM	5571	VEHICLE DEALERS	908.31	X			
433	PRIME MOTOR CENTER	1619 NATIONAL CITY BLVD	MEDIUM	5012	VEHICLE DEALERS	908.32		X		
434	PRIME MOTOR CENTER	28 E 16TH ST	MEDIUM	5012	VEHICLE DEALERS	908.32		X		
435	QUALITY AUTO SALES & SERVICE	423 NATIONAL CITY BLVD., A	MEDIUM	5521	VEHICLE DEALERS	908.31	X			
436	REYNOSO AUTO SALES	438 NATIONAL CITY BLVD.	MEDIUM	5521	VEHICLE DEALERS	908.31	X			
437	SOUTH BAY VOLKSWAGON	3131 NATIONAL CITY BLVD.	MEDIUM	5511	VEHICLE DEALERS	909.12				
438	SOUTHWESTERN AUTO BROKERS, INC.	333 NATIONAL CITY BLVD.	MEDIUM	5521	VEHICLE DEALERS	908.31	X			
439	SOUTHWESTERN AUTOBROKERS INC	1535 NATIONAL CITY BLVD	MEDIUM	5521	VEHICLE DEALERS	908.32		X		
440	SPORTS AUTO SALES	1040 NATIONAL CITY BLVD.	MEDIUM	5511	VEHICLE DEALERS	908.31	X			
441	STAR AUTOMOTIVE	423 NATIONAL CITY BLVD.	MEDIUM	5511	VEHICLE DEALERS	908.31	X			

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
442	US SAVE AUTO	639 NATIONAL CITY BLVD.	MEDIUM	5521	VEHICLE DEALERS	908.31	X			
443	VALUE CARS INC	1807 NATIONAL CITY BLVD	MEDIUM	5521	VEHICLE DEALERS	908.32		X		
444	STANDARD PARKING	235 E 8TH STREET	MEDIUM	7521	VEHICLE PARKING/STORAGE	908.31	X			
445	ASAP HAULING & DEMO	1804 CLEVELAND AVE STE B	MEDIUM	7353	VEHICLE/EQUIPMENT RENTAL	908.31	X			
446	AVIS RENT A CAR	1536-B SWEETWATER ROAD	MEDIUM	7512	VEHICLE/EQUIPMENT RENTAL	909.12		X		
447	HERTZ LOCAL EDITION	1814 ROOSEVELT AVENUE	MEDIUM	7514	VEHICLE/EQUIPMENT RENTAL	908.32		X		
448	HERTZ LOCAL EDITION	2001 SWEETWATER ROAD	MEDIUM	7514	VEHICLE/EQUIPMENT RENTAL	909.12				
449	ICEBERG ENTERPRISES, INC.	1410 CLEVELAND AVENUE	MEDIUM	7359	VEHICLE/EQUIPMENT RENTAL	908.31	X			
450	RENT-A-CENTER #01072	1043 HIGHLAND AVE	MEDIUM	7359	VEHICLE/EQUIPMENT RENTAL	908.32		X		
451	ARCTIC SUPPLY	213 CIVIC CENTER DRIVE	MEDIUM	5078	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
452	CHRISTIAN DURABLE MEDICAL EQUI	3400 E 8TH STREET	MEDIUM	5047	WHOLESALE/STORAGE/ WAREHOUSING	908.32		X		
453	DIESEL POWER TRADE CORP	1720 CLEVELAND AVENUE	MEDIUM	5084	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
454	GALOREN SOUTHWESTERN INC	3200 HIGHLAND AVE STE 303	MEDIUM	5046	WHOLESALE/STORAGE/ WAREHOUSING	909.12		X		

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
455	HUB CONSTRUCTION SUPPLY & EQUIPMENT	402 W 35TH STREET, A	MEDIUM	5082	WHOLESALE/STORAGE/ WAREHOUSING	909.12		X		
456	K SURPLUS SALES, INC.	1403 CLEVELAND AVENUE	MEDIUM	5072	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
457	XPEDX	1010 W 19TH STREET	MEDIUM	5113	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
458	MORE BRAKES N TUNE	1902 HIGHLAND AVE. #A	LOW	7538	AUTO REPAIR	908.32				X
459	PRO SMOG TEST ONLY	34 E 17TH ST STE C	LOW	7538	AUTO REPAIR	908.32		X		X
460	BASKIN ROBBINS ICE CREAM	1493 E PLAZA BLVD.	LOW	5812	EATING/DRINKING ESTABLISHMENTS	908.32		X		X
461	A-1 HYDRAULICS SERVICE	2100 ROOSEVELT AVENUE	LOW	7699	EQUIPMENT REPAIR	908.32				X
462	A-1 ALLOYS/ABC METALS, INC	1401 CLEVELAND AVENUE	LOW	5051	WHOLESALE/STORAGE/ WAREHOUSING	908.31				X
463	WESTAIR GASES & EQUIP, INC	2300 HAFFLEY AVE	LOW	5084	WHOLESALE/STORAGE/ WAREHOUSING	908.31				X
464	OROZCO QUALITY XMAS TREES	715 HIGHLAND AVE	LOW	0811	AGRICULTURE	908.31				
465	1-DAY PAINT & BODY CENTERS INC	1146 NATIONAL CITY BLVD.	LOW	7532	AUTO PAINT/BODY	908.32				
466	CALIBER COLLISION CENTER	3131 NATIONAL CITY BLVD.	LOW	7532	AUTO PAINT/BODY	909.12				
467	SOUTHLAND AUTOBODY & PAINT	141 W 18TH STREET	LOW	7532	AUTO PAINT/BODY	908.32				
468	AUDIO CITY	2907 HIGHLAND AVE	LOW	7549	AUTO REPAIR	909.12				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
469	BALL AUTO REPAIR	910 HIGHLAND AVENUE, B	LOW	7539	AUTO REPAIR	908.32				
470	BALL SMOG CHECK ONLY	910 HIGHLAND AVENUE, B	LOW	7549	AUTO REPAIR	908.32				
471	BOB'S NATIONAL CITY AUTO	1504 NATIONAL CITY BLVD.	LOW	7539	AUTO REPAIR	908.32				
472	BUSH POWER BRAKE, INC.	25 E 17TH STREET, A , B	LOW	7539	AUTO REPAIR	908.32				
473	CAR HEALTH PLAN, INC.	1532 NATIONAL CITY BLVD.	LOW	7538	AUTO REPAIR	908.32				
474	DOUBLE J AUTO REPAIR SHOP	29 E 17TH STREET	LOW	7538	AUTO REPAIR	908.32				
475	EQUIPMENT ENGINEERING CO.	2704 TRANSPORTATION AVENUE, E	LOW	7539	AUTO REPAIR	908.32				
476	EVANS TIRES	3009 HIGHLAND AVENUE	LOW	7534	AUTO REPAIR	909.12				
477	EXPRESS TIRE	1705 SWEETWATER ROAD	LOW	7534	AUTO REPAIR	909.12				
478	HIGHLAND SERVICE CENTER	1803 HIGHLAND AVENUE	LOW	7538	AUTO REPAIR	908.32				
479	JD BROTHERS AUTO REPAIRS	41 E 18TH STREET	LOW	7538	AUTO REPAIR	908.32				
480	LEX-TEK	2704 TRANSPORTATION AVE STE G	LOW	7538	AUTO REPAIR	908.32				
481	LOU'S AUTOMOTIVE & PARTS	1509 NATIONAL CITY BLVD., C	LOW	7538	AUTO REPAIR	908.32				
482	MCMILLIAN MANAGEMENT SERV., L.P.	2807 HOOVER AVENUE, G-K	LOW	7538	AUTO REPAIR	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
483	MIKE'S AUTOMOTIVE	115 E 17TH STREET, A	LOW	7538	AUTO REPAIR	908.32				
484	MOYNAHAN TOWING	3200 NATIONAL CITY BLVD.	LOW	7549	AUTO REPAIR	909.12				
485	PACIFIC COAST AUTO & CUSTOMIZING	710 E 8TH ST	LOW	7549	AUTO REPAIR	908.32				
486	PATRIOT AUTO CARE AND BRAKES	910 HIGHLAND AVE STE A	LOW	7539	AUTO REPAIR	908.32				
487	R.G. MOBILE AUTOMOTIVE SERV	1135 DELAWARE ST	LOW	7538	AUTO REPAIR				X	
488	REVELS STRIPING	2602 TRANSPORTATION AVENUE, J	LOW	7549	AUTO REPAIR	908.32				
489	S D D MAINTENANCE	2829 NATIONAL CITY BLVD	LOW	7539	AUTO REPAIR	908.32				
490	SHAFT MASTER	1031 NATIONAL CITY BLVD., C	LOW	7539	AUTO REPAIR	908.32				
491	SHOW TIME AUTO INC	710 E 8TH STREET	LOW	7539	AUTO REPAIR	908.32				
492	STEREO DISCOUNT CENTER INC	2907 HIGHLAND AVENUE	LOW	7539	AUTO REPAIR	909.12				
493	T N H AUTO REPAIR	25 E 17TH STREET	LOW	7539	AUTO REPAIR	908.32				
494	TOM MOYNAHAN TOWING	3200 NATIONAL CITY BLVD.	LOW	7549	AUTO REPAIR	909.12				
495	TUNEUP MASTERS INC #408	1902 HIGHLAND AVE	LOW	7539	AUTO REPAIR	908.32				
496	AB&A CUSTOM WHEELS & ACCESSORIES	1840 HIGHLAND AVENUE	LOW	5531	AUTO SUPPLIES	908.32				
497	AUTO ZONE #5658	1539 HIGHLAND AVENUE	LOW	5531	AUTO SUPPLIES	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
498	C L F WAREHOUSE INC	2702 SOUTHPORT WAY, B	LOW	5013	AUTO SUPPLIES	908.32				
499	CAR AUDIO EXCHANGE	1316 NATIONAL CITY BLVD.	LOW	5531	AUTO SUPPLIES	908.32				
500	CENTURY WHEEL & RIM	2101 HAFFLEY AVENUE, B	LOW	5013	AUTO SUPPLIES	908.31				
501	DON GROSS WAREHOUSE OF SAN DIEGO	301 W 30TH STREET	LOW	5013	AUTO SUPPLIES	909.12				
502	EXPRESS TIRE	820 HIGHLAND AVENUE	LOW	5531	AUTO SUPPLIES	908.32				
503	FIBER-WORLD PRODUCTS	2440 HIGHLAND AVENUE	LOW	5013	AUTO SUPPLIES	909.12				
504	HIGH END PERFORMANCE	337 W 35TH STREET STE K	LOW	5531	AUTO SUPPLIES	909.12				
505	ISLAND EQUIPMENT	303 35TH ST STE B	LOW	5531	AUTO SUPPLIES	909.12				
506	KRAGEN AUTO SUPPLY #1722	1202 E PLAZA BLVD.	LOW	5531	AUTO SUPPLIES	908.32				
507	NAPA AUTO PARTS	1810 HIGHLAND AVENUE	LOW	5013	AUTO SUPPLIES	908.32				
508	P B E WAREHOUSE INC	190 E 26TH STREET	LOW	5013	AUTO SUPPLIES	908.32				
509	PACIFIC COAST DIESEL PARTS	100 W 35TH STREET, H	LOW	5531	AUTO SUPPLIES	909.12				
510	PRO TIRES	1031 NATIONAL CITY BLVD B	LOW	5531	AUTO SUPPLIES	908.32				
511	RADIATOR DEPOT	1533 WILSON AVENUE, A	LOW	5013	AUTO SUPPLIES	908.31				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
512	SCOTT'S PORSCHE PARTS	705 CIVIC CENTER DRIVE	LOW	5531	AUTO SUPPLIES	908.31				
513	THE SPEED SHOP	623 NATIONAL CITY BLVD.	LOW	5531	AUTO SUPPLIES	908.31				
514	TOPECO PRODUCTS	2525 SOUTHPORT WAY	LOW	5013	AUTO SUPPLIES	908.32				
515	TRANSMISSION SUPPLY	338 W 12TH STREET	LOW	5531	AUTO SUPPLIES	908.32				
516	VEE PARTS & ACCESSORIES	704 A AVENUE	LOW	5531	AUTO SUPPLIES	908.31				
517	MONIN MARBLE AND GRANITE STORE	1105 E 17TH ST	LOW	5211	BUILDING MATERIALS	908.32				
518	RIVERSIDE CEMENT CO.	920 BAY MARINA DRIVE	LOW	5032	BUILDING MATERIALS	908.32				
519	A & F ASPHALT PAVING	215 E 30TH STREET	LOW	1611	CEMENT MIXING/CUTTING	909.12				
520	JB CONCRETE CONSTRUCTION	1425 K AVE	LOW	1771	CEMENT MIXING/CUTTING	908.32				
521	JMB ASPHALT & CONCRETE INC	1818 WILSON AVE	LOW	1771	CEMENT MIXING/CUTTING	908.31				
522	MCMAHON CONSTRUCTION, INC	605 WEST 12TH	LOW	1611	CEMENT MIXING/CUTTING	908.31				
523	BAY SYSTEMS, INC.	303 W 35TH STREET, B	LOW	7699	EQUIPMENT REPAIR	909.12				
524	CALIFORNIA COMM'L SECURITY	1727 SWEETWATER RD STE R	LOW	7699	EQUIPMENT REPAIR	909.12				
525	EMERGENCY KEYS, LOCKS	1007 NATIONAL CITY BLVD	LOW	7699	EQUIPMENT REPAIR	908.32				
526	LOPEZ, PEDRO	1527 E 18TH ST	LOW	7699	EQUIPMENT REPAIR	908.32				
527	MORE GLASS	910 HIGHLAND AVENUE, C	LOW	7699	EQUIPMENT REPAIR	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
528	PAL'S PUMP CLINIC	1015 NATIONAL CITY BLVD	LOW	7699	EQUIPMENT REPAIR	908.32				
529	RICK'S MOBILE GLASS	507 G AVENUE	LOW	7699	EQUIPMENT REPAIR	908.31			X	
530	RODRIGUEZ APPLIANCE	2629 HIGHLAND AVENUE	LOW	7699	EQUIPMENT REPAIR	909.12				
531	TECNICO SYSTEMS CORPORATION	206 W 35TH STREET, B	LOW	7699	EQUIPMENT REPAIR	909.12				
532	HIGHLAND ARCO	2336 HIGHLAND AVENUE	LOW	5541	FUELING	909.12				
533	HIGHLAND MOBILE	2945 HIGHLAND AVENUE	LOW	5541	FUELING	909.12				
534	HIGHLAND VALERO	804 E 08TH ST	LOW	5541	FUELING	908.32				
535	S & L OIL INC.	1601 E 8TH STREET	LOW	5541	FUELING	908.32				
536	THRIFTY ARCO AM/PM #9569	1734 HIGHLAND AVENUE	LOW	5541	FUELING	908.32				
537	EDDY'S LANDSCAPING	1945 LANOITAN AVENUE	LOW	0781	LANDSCAPING	909.12			X	
538	LANDSCAPE DEVELOPMENT INC	28447 WITHERSPOON PKWY	LOW	0782	LANDSCAPING				X	
539	LUNA, MAURICIO	1432 E 06TH ST	LOW	0782	LANDSCAPING	908.32			X	
540	RUIZ TREE SERVICE	2016 E AVENUE	LOW	0783	LANDSCAPING	908.32			X	
541	GALLEGOS PLASTERING CO. INC.	1524 HARDING AVENUE	LOW	1741	MASONRY	908.31				
542	EL PARAISO/CHRISTMAS TREES	2708 HIGHLAND AVE	LOW	5261	NURSERIES/GREENHOUSES	909.12				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
543	A MIRROR DÉCOR (AKA NATIONAL GLASS & MIRROR CO.)	821 E 2ND STREET	LOW	1793	OTHER CONTRACTOR	908.31				
544	ALATORRE TELECOM-SUBCONTRACTOR	4126 E PLAZA BLVD.	LOW	1731	OTHER CONTRACTOR	908.32		X	X	
545	ALCEM FENCE CO. INC	1440 COOLIDGE AVENUE	LOW	1799	OTHER CONTRACTOR	908.31				
546	ALLSPORTS FLOORING	301 W 28TH STREET, K	LOW	1752	OTHER CONTRACTOR	908.32				
547	ALM WINDOW & DOOR INC	337 W 35TH ST STE A	LOW	1799	OTHER CONTRACTOR	909.12				
548	AMERICAN PEST CONTROL CO	8100 BROADWAY STE E	LOW	1799	OTHER CONTRACTOR				X	
549	AMERICAN RES SVC OF CALIF INC	6162 NANCY RIDGE DR STE 100	LOW	1711	OTHER CONTRACTOR				X	
550	ARC ROOFING	537 FRONT ST	LOW	1761	OTHER CONTRACTOR				X	
551	B & B PLUMBING AND ELECTRIC	2425 J AVENUE	LOW	1711	OTHER CONTRACTOR	909.12			X	
552	BARRIOS LANDSCAPE	1604 HARTWELL CT	LOW	1799	OTHER CONTRACTOR				X	
553	BAYVIEW ELECTRIC	2827 HOOVER AVENUE, D	LOW	1731	OTHER CONTRACTOR	908.32				
554	BONITA PIPELINE INC	2209 HIGHLAND AVENUE	LOW	1711	OTHER CONTRACTOR	908.32				
555	BRAMMER ELECTRIC	1920 MCKINLEY AVENUE	LOW	1731	OTHER CONTRACTOR	908.31				
556	BURRIS PLUMBING INC	1305 I AVENUE	LOW	1711	OTHER CONTRACTOR	908.32		X	X	
557	CAROLINO CONST & DEV CORP	3035 E 8TH STREET	LOW	1521	OTHER CONTRACTOR	908.32			X	

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
558	CLEAN HARBORS ENVIRONMENTAL SE	131 W 33RD ST	LOW	1799	OTHER CONTRACTOR	909.12				
559	COASTAL MARINE SERVICE, INC	1533 WILSON AVENUE, B	LOW	1772	OTHER CONTRACTOR	908.31				
560	COLBRESE MATERIAL HANDLING INC	12600 STOWE DR STE 3	LOW	1799	OTHER CONTRACTOR				X	
561	DEMOLITION MAN	2127 PROSPECT STREET, 4	LOW	1795	OTHER CONTRACTOR	909.12			X	
562	DESIGN/BUILD TENANT	9770 CARROLL CENTRE RD STE B	LOW	1599	OTHER CONTRACTOR				X	
563	DISCOUNT SEWER & DRAIN CLEANIN	1414 ROOSEVELT AVE STE 40	LOW	1711	OTHER CONTRACTOR	908.31				
564	DOOR-MAN	910 HOOVER AVENUE	LOW	1799	OTHER CONTRACTOR	908.31				
565	FIERRO CONTRUCTION COMPANY	1815 SWEETWATER RD SPC 131	LOW	1599	OTHER CONTRACTOR	909.12			X	
566	FINE LINE STRIPING & PAINTING	2608 MICHELLE CT UNIT A	LOW	1799	OTHER CONTRACTOR	909.12			X	
567	FINE ORNAMENTAL	1010 COOLIDGE AVE	LOW	1799	OTHER CONTRACTOR	908.31				
568	FLEETWOOD PLUMBING/ELECTRIC INC	1416 HOOVER AVENUE	LOW	1731	OTHER CONTRACTOR	908.31				
569	G. P. MAY COMPANY	2424 HOOVER AVENUE, L	LOW	1751	OTHER CONTRACTOR	908.32				
570	GALLERY BUILDERS GROUP	2220 EAST PLAZA BLVD STE P	LOW	1799	OTHER CONTRACTOR	908.32		X	X	
571	HAGENBACK CONSTRUCTION SERVICE	1915 VIA LAS PALMAS, 27	LOW	1751	OTHER CONTRACTOR	909.12			X	

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
572	HARDWOOD DESIGNS PLUS, INC.	105 W 35TH STREET, F	LOW	1799	OTHER CONTRACTOR	909.12				
573	JACKSON & BLANC	7929 ARJONS DR	LOW	1711	OTHER CONTRACTOR				X	
574	KAMPS PROPANE INC	16245 ALPINE BLVD	LOW	1799	OTHER CONTRACTOR				X	
575	LAMPERT, MURRAY M, COMPANY	3545 CAMINO DEL RIO S STE C	LOW	1599	OTHER CONTRACTOR				X	
576	LARRY'S ELECTRICAL SERVICE INC	1043 WORTHINGTON ST	LOW	1731	OTHER CONTRACTOR				X	
577	LUNA CONSTRUCTION INC	1410 COOLIDGE AVENUE	LOW	1542	OTHER CONTRACTOR	908.31				
578	MAS CONSTRUCTION	1808 LA POSADA ST	LOW	1599	OTHER CONTRACTOR	908.31			X	
579	MATA ENTERPRISES	328 E 9TH STREET	LOW	1731	OTHER CONTRACTOR	908.32			X	
580	MITSUBISHI ELECTRIC &	5665 PLAZA DR	LOW	1796	OTHER CONTRACTOR	908.32			X	
581	NATIONAL CITY ELECTRIC	2424 J AVENUE	LOW	1731	OTHER CONTRACTOR	909.12			X	
582	NELSON INDUSTRIAL SERVICES INC	2827 HOOVER AVENUE, F	LOW	1799	OTHER CONTRACTOR	908.32				
583	ORTIZ & ALLDS SANDBLASTING &	1313 BAY MARINA DRIVE	LOW	1799	OTHER CONTRACTOR	908.30		X	X	
584	PACIFIC DESIGN GROUP	1620 HARDING AVE	LOW	1751	OTHER CONTRACTOR	908.31				
585	R.A. CONSTRUCTION	1232 EARLE DRIVE	LOW	1521	OTHER CONTRACTOR	908.32		X	X	
586	R.E. STAITE ENGINEERING, INC.	2140 TIDELANDS AVE	LOW	1629	OTHER CONTRACTOR	908.30			X	
587	RICK VILLARIN AUTOMATIC FIRE	1620 B AVENUE	LOW	1799	OTHER CONTRACTOR	908.32			X	
588	ROYCE CONSTRUCTION INC	10 E 1ST STREET	LOW	1542	OTHER CONTRACTOR	908.31				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
589	SHOWCASE SERVICES, INC	13100 KIRKHAM WAY STE 207	LOW	1799	OTHER CONTRACTOR				X	
590	STERLING CORP CUSTOM ELEVATOR INTERIORS	340 W 26TH STREET, I	LOW	1796	OTHER CONTRACTOR	908.32				
591	SWIFT COMMUNICATIONS INC	4365 MEADE AVE	LOW	1731	OTHER CONTRACTOR				X	
592	TEYSSIER & TEYSSIER INC.	3200 B4-2 HIGHLAND AVENUE	LOW	1542	OTHER CONTRACTOR	908.31				
593	TEYSSIER CONSTRUCTION, INC	3200 B-3 HIGHLAND AVENUE	LOW	1521	OTHER CONTRACTOR	908.31				
594	TOM REED GENERAL CONTRACTOR	1721 YALE ST	LOW	1599	OTHER CONTRACTOR				X	
595	TRI-COUNTY DRILLING , INC.	9631 CANDIDA ST	LOW	1781	OTHER CONTRACTOR				X	
596	UNIDYNE CORPORATION	2702 SOUTHPORT WAY, F	LOW	1799	OTHER CONTRACTOR	908.32				
597	VILLARINO CONSTRUCTION SVC. INC	430 W 12TH STREET	LOW	1542	OTHER CONTRACTOR	908.31				
598	VISTA DEL SOL APARTMENTS	1545 Q AVE	LOW	1599	OTHER CONTRACTOR	908.32			X	
599	WEATHERITE CORPORATION	21211 COMMERCE POINTE DR	LOW	1711	OTHER CONTRACTOR				X	
600	ALVAREZ HOME IMPROVEMENTS	1705 L AVENUE	LOW	1742	PAINTING/COATING	908.32			X	
601	COLUMN ONE, INC.	241 W 35TH STREET, K	LOW	1721	PAINTING/COATING	909.12				
602	CUSTOM PAINTING	530 C AVENUE	LOW	1721	PAINTING/COATING	908.31			X	
603	JENSEN DRYWALL	3714 LYNDA PLACE	LOW	1742	PAINTING/COATING	909.12			X	

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
604	THE HANDYMAN PAINTERS	2208 E 8TH ST	LOW	1721	PAINTING/COATING	908.32				
605	TUFF ACOUSTICAL AND THERMAL	1623 CLEVELAND AVENUE	LOW	1742	PAINTING/COATING	908.31				
606	Y.Y.K. ENTERPRISES, INC.	726 W 19TH STREET	LOW	1721	PAINTING/COATING	908.31				
607	ALLSTOP PEST CONTROL	108 W 25TH ST STE B	LOW	7342	PEST CONTROL	908.32			X	
608	COLUMBIA PEST CONTROL CO. OF SAN DIEGO	127 W 9TH STREET	LOW	7342	PEST CONTROL	908.31			X	
609	RUSS' BEE REMOVAL	3421 NEWBERRY STREET	LOW	7342	PEST CONTROL	909.12			X	
610	A B C AUTOBUYERS	40 W PLAZA BLVD.	LOW	5012	VEHICLE DEALERS	908.32				
611	AUTO BUYERS PLUS	110 W. PLAZA BLVD	LOW	5521	VEHICLE DEALERS	908.32				
612	AUTOBUYERS PLUS	110 W PLAZA BLVD.	LOW	5521	VEHICLE DEALERS	908.32				
613	BALL AUTOMOTIVE GROUP	2001 NATIONAL CITY BLVD	LOW	5511	VEHICLE DEALERS	908.32				
614	BALL AUTOMOTIVE GROUP	1935 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
615	BALL AUTOMOTIVE GROUP	1940 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
616	BALL AUTOMOTIVE GROUP	2115/2135 NATIONAL CITY BLVD	LOW	5511	VEHICLE DEALERS	908.32				
617	BALL RENEGADE	1935 NATIONAL CITY BLVD	LOW	5511	VEHICLE DEALERS	908.32				
618	BJ MOTORS	1705 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
619	FRANK TOYOTA	2400 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
620	ISLAND SALES & LEASING	100 W 8TH STREET	LOW	5511	VEHICLE DEALERS	908.32				
621	ISLAND SALES & LEASING	1900 NATIONAL CITY BLVD #B	LOW	5511	VEHICLE DEALERS	908.32				
622	JACK HARRISON BUICK	2601 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
623	MCCUNE CHRYSLER JEEP	2340 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
624	MODENA MOTORS	2626 SOUTHPORT WAY STE B	LOW	5511	VEHICLE DEALERS	908.32				
625	MOSSY NISSAN	2700, 2626 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
626	NATIONAL CITY MOTORCARS	1900 NATIONAL CITY BLVD., A	LOW	5521	VEHICLE DEALERS	908.32				
627	OLYMPIC AUTO SALES	1800 NATIONAL CITY BLVD.	LOW	5521	VEHICLE DEALERS	908.32				
628	PARK MOTORS	2125 ROOSEVELT AVENUE	LOW	5511	VEHICLE DEALERS	908.32				
629	PERRY FORD - NATIONAL CITY	2050 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
630	PRESTIGE AUTO BROKERS	2125 ROOSEVELT AVENUE, A	LOW	5521	VEHICLE DEALERS	908.32				
631	PRESTIGE AUTO BROKERS	1001 NATIONAL CITY BLVD.	LOW	5521	VEHICLE DEALERS	908.32				
632	PRESTIGE AUTO BROKERS	2225 ROOSEVELT AVE STE A	LOW	5521	VEHICLE DEALERS	908.32				
633	PUBLIC AUTO GROUP/ DEALER DIRE	45 E 26TH STREET	LOW	5521	VEHICLE DEALERS	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
634	RON BAKER CHEVROLET	2301 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
635	SATURN OF NATIONAL CITY	2202 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
636	SOUTH BAY PRE-OWNED	2401 NATIONAL CITY BLVD	LOW	5511	VEHICLE DEALERS	908.32				
637	SOUTH COUNTY VOLVO	2940 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	909.12				
638	SPORTS AUTO SALES	1112 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
639	SWEETWATER HARLEY-DAVIDSON	3201 HOOVER AVENUE	LOW	5571	VEHICLE DEALERS	908.32				
640	THE AUTO SPOT, INC	1017 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
641	WESTCOTT MAZDA	2800 NATIONAL CITY BLVD.	LOW	5511	VEHICLE DEALERS	908.32				
642	WORLD TERMINAL PARKING INC.	510 HIGHLAND AVENUE	LOW	7542	VEHICLE WASHING	908.31				
643	ENTERPRISE RENT A CAR #32FP	1145 NATIONAL CITY BL	LOW	7512	VEHICLE/EQUIPMENT RENTAL	908.32				
644	ENTERPRISE RENT-A-CAR	2700 NATIONAL CITY BLVD	LOW	7514	VEHICLE/EQUIPMENT RENTAL	908.32				
645	ENTERPRISE RENT-A-CAR OF L.A.	3000 NATIONAL CITY BLVD	LOW	7514	VEHICLE/EQUIPMENT RENTAL	908.32				
646	PENSKE TRUCK LEASING	3131 HOOVER AVENUE	LOW	7513	VEHICLE/EQUIPMENT RENTAL	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
647	SEVILLA'S PARTY RENTALS	2303 F AVE	LOW	7359	VEHICLE/EQUIPMENT RENTAL	908.32				
648	CIRCUS MAN ICE CREAM	1037 HARDING AVENUE	LOW	5142	WHOLESALE FOOD	908.31				
649	MAIN SQUEEZE JUICES	2712 TRANSPORTATION AVENUE	LOW	5149	WHOLESALE FOOD	908.32				
650	SAN DIEGO ORGANIC SUPPLY INC	100 W 35TH STREET, E	LOW	5159	WHOLESALE FOOD	909.12				
651	TOM THUMB WHOLESALE ICE CREAM	1021 COOLIDGE AVENUE	LOW	5143	WHOLESALE FOOD	908.31				
652	Y & M WHOLESALER	2626 SOUTHPORT WAY, A	LOW	5145	WHOLESALE FOOD	908.32				
653	A & T WHOLESALE ELECTRIC & L	205 W 35TH STREET, B	LOW	5063	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
654	ADVANCE PRODUCTS INTERNATIONAL	2626 SOUTHPORT WAY STE C	LOW	5099	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
655	ALL AMERICAN PLASTIC BAGS	3020 HOOVER AVENUE	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
656	AMERMEX	241 W 35TH STREET, J	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
657	BANTRY INDUSTRIAL & MARINE CRP	241 W 35TH STREET, F	LOW	5085	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
658	BERLIN WALL WHOLESALE	301 W 28TH STREET, R	LOW	5139	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
659	BOSTROM INSTRUMENT COMPANY	208 CIVIC CENTER DRIVE	LOW	5084	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
660	CALIFORNIA AIR COMPRESSOR	1630, 1635, 1640 COOLIDGE AVE	LOW	5084	WHOLESALE/STORAGE/ WAREHOUSING	908.31				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
661	CAMSAL ENTERPRISES	1705 HOOVER AVENUE, C , D	LOW	5099	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
662	COLORINO DISTRIBUTORS	131 W 33RD STREET STE 4	LOW	5182	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
663	CONSOLIDATED INTERNATIONAL COR	436 W 8TH STREET STE A	LOW	5085	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
664	CSI SUPPLY	337 35TH STREET, M	LOW	5085	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
665	DANYA B	205 W 35TH STREET, E	LOW	5023	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
666	DISCOUNT FLOORING 2U, INC	829 HOOVER AVE STE A	LOW	5023	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
667	ENCOMPASS DESIGN	301 W 28TH STREET, S	LOW	5137	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
668	ESKAY, G, COMPANY	712 E 18TH ST	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
669	EUROSYTEMS MONTGOMERY CO.	139 ROOSEVELT AVENUE	LOW	5072	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
670	FAMILY LOOMPYA WHOLESALE	2626 SOUTHPORT WAY, F	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
671	FREE FORM CLAY AND SUPPLY	1912 CLEVELAND AVENUE	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
672	GROOMTECH	225 W 30TH ST	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
673	H & R HARDWARE SUPPLY	2602 TRANSPORTATION AVENUE, D	LOW	5072	WHOLESALE/STORAGE/ WAREHOUSING	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
674	HERNANDEZ'S ELECTRICAL SUPPLY	2135 E 9TH STREET	LOW	5072	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
675	INTERNATIONAL SURF VENTURE INC	301 W 28TH STREET STE B , C	LOW	5091	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
676	J & L DISTRIBUTION INC	2601 HOOVER AVENUE, D	LOW	5169	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
677	JOSEPH T RYERSON & SON, INC	2300 HAFFLEY AVE	LOW	5051	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
678	JOY AIR	2601 HOOVER AVENUE	LOW	5064	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
679	KOOL FIT AMERICA INC.	1725 HARDING AVENUE	LOW	5091	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
680	N. GLANTZ & SON	2530 SOUTHPORT WAY, C	LOW	5099	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
681	NICOLLS INC	1535 TIDELAND AVENUE, J	LOW	5099	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
682	ONE SOURCE DISTRIBUTOR INC	326 W 30TH STREET	LOW	5063	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
683	ONE SOURCE DISTRIBUTORS	2530 SOUTHPORT WAY, A	LOW	5065	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
684	PELL MELL SUPPLY INC	402 W 35TH STREET, E	LOW	5072	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
685	PHILIPPINE MABUHAY NEWS	3142 E PLAZA BLVD., N	LOW	5192	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
686	POTTER ELECTRIC, INC.	1343 WILSON AVENUE	LOW	5063	WHOLESALE/STORAGE/ WAREHOUSING	908.31				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
687	RAD ELECTRIC SUPPLY INC.	1904 MCKINLEY AVENUE	LOW	5065	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
688	RANGER COMMUNICATIONS	401 W 35TH STREET, B	LOW	5065	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
689	RELIANCE METAL CENTER	2100 CLEVELAND AVENUE	LOW	5051	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
690	RSD TOTAL CONTROL	402 W 35TH STREET, G	LOW	5075	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
691	RTM INTERNATIONAL LLC	301 W 28TH STREET, V	LOW	5099	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
692	RUBY'S EMBROIDERY	2525 SOUTHPORT WAY, S	LOW	5131	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
693	S & K SALES COMPANY	2626 SOUTHPORT WAY, C-E	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
694	S L FUSCO INC.	2530 SOUTHPORT WAY	LOW	5085	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
695	SAN DIEGO METRO PUBLISHING LLC	2602 TRANSPORTATION AVE STE O	LOW	5111	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
696	SAN DIEGO PLASTICS, INC.	2220 MCKINLEY AVENUE	LOW	5099	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
697	SAN DIEGO PUMP & COMPRESSOR	301 W 28TH STREET, A	LOW	5085	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
698	SEACOAST SHIPPING & RECEIVING	2702 SOUTHPORT WAY, C , D	LOW	5063	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
699	SOUTH BAY LEATHER CORP	1900 WILSON AVENUE	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.32				

COMMERCIAL FACILITIES (CONTINUED)

#	Facility Name	Address	TTWQ	SIC	Category	HSA	Likely Source	<200 feet	Mobile	Inspect in 2007-2008
700	SUPERIOR FOAM & UPHOLSTERY CORP.	105 W 35TH STREET, D	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	909.12				
701	UNITED BARBER & BEAUTY	2807 HOOVER AVENUE, C	LOW	5087	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
702	UNIVAR USA	2100 HAFFLEY AVENUE	LOW	5169	WHOLESALE/STORAGE/ WAREHOUSING	908.31				
703	VERNON SHIP SUPPLIES	1705 HOOVER AVENUE, B	LOW	5199	WHOLESALE/STORAGE/ WAREHOUSING	908.32				
704	WESTFLEX INDUSTRIAL	325 W 30TH STREET	LOW	5085	WHOLESALE/STORAGE/ WAREHOUSING	909.12				

Notes

TTWQ – Threat to Water Quality
SIC –Standard Industrial Classification Code
HSA – Hydrologic Subarea
Likely Source – Has a pollutant discharge potential of "Likely" for one or more of the pollutants of concern associated with the receiving water
<200 feet – Less than 200 feet from the nearest receiving water body

Appendix C

BMP Manual

CITY OF NATIONAL CITY

STORM WATER BEST MANAGEMENT PRACTICES MANUAL

MARCH 2008

PREPARED BY:

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1.0 INTRODUCTION

The City of National City has established best management practice (BMP) requirements for different Jurisdictional Urban Runoff Management Program (JURMP) components. BMPS are practices, activities, or structures designed to prevent or reduce the discharge of pollutants in to the City's storm water conveyance system. The City's storm water conveyance system consists of public and private drainage facilities designed to collect and convey water from storm events. This includes, but is not limited to, roads, streets, storm drains, gutters, inlets, catch basins, pipes, and natural waterways.

Included in this BMP Manual (Manual) are BMPs related to construction sites, industrial and commercial facilities, municipal facilities, and residents. For each of the aforementioned components, there is a discussion of BMP requirements applicable to all dischargers and BMPs for specific activities associated with the corresponding component. Dischargers, as discussed throughout this Manual, refers to any person or entity engaged in activities or operations or owning facilities, which will or may result in pollutants entering storm water, the storm water conveyance system, or receiving waters; and the owners of property on which such activities, operations or facilities are located, which includes, but is not limited to, construction site project proponents and owners, industrial and commercial owners and operators, municipal facility operators, and landlords, property management agencies, and residents residing within the City.

Note that the discussion of BMP requirements applicable to all dischargers is discussed at the beginning of each section, and is largely the same for each section. Though this may seem redundant, the Manual is structured in this way so that each section contains complete BMP requirements when separated from other sections of the Manual. This facilitates using sections of this Manual as educational outreach material.

2.0 CONSTRUCTION

2.1 BMP REQUIREMENTS FOR ALL DISCHARGERS

2.1.1 NON-STORM WATER DISCHARGES

Non-storm water discharges refer to water flows that are not associated with storm events (i.e. the product of precipitation). The following categories of non-storm water discharges are exempt from discharge prohibitions established by the City's ordinance, but BMPs must maintained to keep prevent these discharges from being a source of or transporting pollutants to the City's storm water conveyance system. Such discharges are listed below:

- Discharges from potable water sources other than water main breaks;
- Diverted stream flows (provided required permits are obtained);
- Flows from riparian habitats and wetlands;
- Foundation drains (not including active groundwater dewatering systems);
- Individual residential washing of vehicles;
- Irrigation water including recycled water used for irrigation;
- Landscape irrigation;
- Lawn watering;
- Rising groundwater;
- Swimming pool discharges (if dechlorinated to less than one PPM chlorine);
- Uncontaminated groundwater infiltration to storm drains;
- Uncontaminated pumped groundwater;
- Water from crawl space pumps; and
- Water from footing drains (not including active groundwater dewatering systems).
- Air conditioning condensate
- Flows from emergency fire fighting activities
- Springs
- Water line flushing

2.1.2 BMP REQUIREMENTS APPLICABLE TO ALL DISCHARGERS

Good Housekeeping BMPs

Good housekeeping consists of practices implemented to prevent pollutants from being carried in either non-storm water dischargers or with storm water during a storm event and include the practices below. These practices should be implemented by all dischargers, when applicable:

- Report prohibited non-storm water discharges to the City's storm water hotline (619) 336-4389.

    - Prohibited non-storm water discharges include industrial and commercial businesses hosing down their sites or washing vehicles or equipment where water reaches the City's storm water conveyance system, or anyone dumping solid or liquid waste directly into or where it may reach the City's storm water conveyance system.

- Regularly clean and maintain outdoor areas
    - Eliminate the accumulation of pollutants (dirt, surplus materials, spilled or dropped substances, litter, and debris) that collect in areas that can be carried in runoff to the storm water conveyance system.
    - Keep dumpster, trashcan, and recycling bin lids closed to prevent the wind from carrying trash out of the receptacles and to prevent wind, rain, and scavengers from transporting pollutants to the storm water conveyance system.

- Choose dry cleaning methods
    - Eliminate hosing down the site unless all wash water is contained and disposed of to a pervious area, like a lawn, or the sanitary sewer system. Note that some kinds of wash water (i.e. containing significant amounts of pollutants) may not be allowed to be disposed of to a pervious area. Additionally, sewer permits may be necessary for disposing of significant amounts of wash water to the sewer system.
    - Sweeping of paved areas is a dry cleaning method that helps prevent trash, debris, and particulate matter such as dirt from accumulating on paved surfaces and being carried to the storm water conveyance system during a rain event.

- Reduce the use of toxic materials
    - Substitute non-toxic or less-toxic cleaning materials and solvents, use non-caustic and phosphate-free detergents, water-based degreasers, non-chlorinated solvents, when possible.

- Store materials in a manner where they do not contact storm water
    - Move into a building or provide a cover, berm, or similar structure to prevent storm water from contacting materials stored outdoors.

Erosion Control

- Remove or secure any significant accumulations of eroded soils from slopes, or other exposed areas. Such areas may be secured through the use of vegetation, geotextiles, erosion control blankets, etc.

Illegal Connections and Discharges

- Illegal connections to the storm water conveyance system, including, but not limited to sinks and toilets plumbed to the storm water conveyance system, and other systems that convey prohibited discharges to the storm water conveyance system must be eliminated (even if the connection was established pursuant to a valid permit and was legal at the time it was constructed).

- Illegal discharge practices must be eliminated. If a discharge is not include on the list of allowed discharges discussed in section 2.1.1, and is not water resulting from a storm event, it is most likely an illegal discharge.

2.2 BMP REQUIREMENTS FOR CONSTRUCTION SITES

The City has developed a set of minimum BMPs that must be implemented at all construction sites. Every construction site within the City's jurisdiction is required to select, install, and maintain general site management, soil stabilization and erosion prevention, and sediment containment BMPs to reduce, retain, and manage pollutant discharges to the MEP. All implemented BMPs must be adequately maintained until they are removed. Table 2-1 outlines the minimum construction BMPs required by the City along with the corresponding current fact sheets obtained from the Caltrans Storm Water Quality Handbooks Construction Site BMP Manual (2003), where applicable. The fact sheets can be found at the Caltrans website at the following web address: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm. BMPs without relevant Caltrans fact sheets are discussed following the table.

Table 2-1
Minimum Required BMPs for Construction Sites

BMP Type	Minimum Required BMP(s)	Caltrans Fact sheet
General Site Management		
Project Planning	Preserve natural hydrologic features where feasible	**-**
	Preserve riparian buffers and corridors where feasible	**-**
	Minimize areas that are cleared and graded to only the portion of the site that is necessary for construction	**-**
	Minimize exposure time of disturbed soil areas	**SS-1**
	Minimize grading during the wet season and correlate grading with seasonal dry weather periods to the extent feasible	**SS-1**
	Temporarily stabilize and reseed disturbed soil areas as rapidly as feasible	**SS-1**
	Educate construction site employees and subcontractors on minimum BMP requirements	**-**
Pollution Prevention	Prevent the contamination of storm water from vehicles and equipment through proper management of the following types of activities: - Cleaning - Fueling - Maintenance	 **NS-8** **NS-9** **NS-10**

BMP Type	Minimum Required BMP(s)	Caltrans Fact sheet
Pollution Prevention	Prevent the contamination of storm water from construction materials through proper management of the following types of activities: - Material Delivery and Storage - Material Use - Stockpile Management[1] - Spill Prevention and Control	 **WM-1** **WM-2** **WM-3** **WM-4**
	Prevent the contamination of storm water by wastes through proper management of the following types of wastes: - Solid Waste - Hazardous Waste - Contaminated Soil - Concrete - Sanitary Waste - Liquid	 **WM-5** **WM-6** **WM-7** **WM-8** **WM-9** **WM-10**
	Prevent the contamination of storm water through proper management of the follow activities: - Water Conservation Practices - Dewatering Operations - Paving and Grinding - Potable Water/Irrigation and Flushing	 **NS-1** **NS-2** **NS-3** **NS-7**
Erosion Prevention and Sediment Containment		
Soil Stabilization and Erosion Prevention	Preserve existing vegetation where feasible	**SS-2**
	Prevent erosion and sediment runoff from exposed graded areas through physical stabilization and/or vegetation stabilization[2] by implementing one or more of the following BMPs: - Hydraulic Mulch - Hydroseeding - Soil Binders - Straw Mulch - Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats - Wood Mulch - Earth Dikes/Drainage Swales	 **SS-3** **SS-4** **SS-5** **SS-6** **SS-7** **SS-8** **SS-**
	Reduce the velocity of storm water by using one or more of the following: - Outlet Protection/Velocity Dissipation - Slope Drains	 **SS-10** **SS-11**
	Establish permanent re-vegetation or landscaping as early as feasible	**SS-1**

BMP Type	Minimum Required BMP(s)	Caltrans Fact sheet
Sediment Containment	Protect the Perimeter of the site or exposed area from sediment discharge using one or more of the following: - Silt Fence - Gravel Bag Berm - Fiber Rolls	 **SC-1** **SC-6** **SC-5**
	Capture sediments in channeled storm water by using one or more of the following: - De-silting Basin[3] - Storm Drain Inlet Protection - Sediment Trap - Gravel Bag Barrier	 **SC-2** **SC-10** **SC-3** **SC-8**
	Prevent sediment from being tracked off-site by using one or more of the following: - Stabilized Construction Entrance - Construction Road Stabilization - Entrance/Exit Tire Wash - Street Sweeping	 **TC-1** **TC-2** **TC-3** **SC-7**

1. Stockpiles should be fully covered when materials are not being added or removed.
2. Vegetation stabilization BMPs must be installed, irrigated, and established (uniform vegetative coverage with 70% coverage established) prior to October 1st. In the event stabilizing vegetation has not been established by October 1st, other forms of physical stabilization must be employed to prevent erosion until the stabilizing vegetation is established.
3. De-silting basins must be designed in accordance with industry standards such as Caltrans. If the project is one acre or greater the de-silting basin must be designed in accordance with the current State General Construction Permit.

Minimization of areas cleared and graded for construction and preservation of natural hydrologic features and riparian buffers and corridors are concepts that are typically addressed during the development planning process. It is the responsibly of project proponents to propose effective means of protecting planned preservation areas during construction. The Caltrans fact sheet for Preservation of Existing Vegetation (SS-2) provides some useful information that can be applied to all proposed preservation areas.

Slope stabilization is required on all inactive slopes during the rainy season and during rain events in the dry season. Slope stabilization is also required on all active slopes during rain events regardless of the season.

In addition to the construction BMPs included in the above table, the City also requires construction sites to recycle construction wastes. Chapter 14.27 of the City's Municipal Code requires all construction projects greater than 2,5000 square feet, as well as demolition and roofing projects, to divert 50 percent of construction wastes during the time that no mixed-use recycling facility exists in the City, and pursuant to the construction of such a facility, 75 percent of construction wastes must be diverted. The City developed this ordinance in order to help mitigate the environmental hazards, including potential hazards to the City's water bodies, associated with the large amount of waste produced at construction sites.

2.2.1 SITE MANAGEMENT REQUIREMENTS

To ensure that all approved construction BMPs are properly implemented and maintained at construction sites, the City has established specific site management requirements, which include the following:

- A qualified person who is trained and competent in the use of BMPs shall be on site daily, although not necessarily full time, to evaluate the conditions of the site with respect to storm water pollution prevention. This qualified contact person shall represent the contractor/owner on storm water issues.
- A qualified person shall implement the conditions of all approved plans, contract documents, and local ordinances with respect to erosion and sediment control and other waste management regulations.
- A qualified person is responsible for monitoring the weather and implementation of any emergency plans as needed. The weather shall be monitored on a five-day forecast plan and a full BMP protection plan shall be activated when there is a 40% chance of rain reported in the local media
- A qualified person is responsible for overseeing any site grading and operations and evaluating the effectiveness of the BMPs. This person shall modify the BMPs as necessary to keep the dynamics of the site in compliance. The person or other qualified persons are responsible for checking the BMPs routinely for maintenance and documenting the BMPs being implemented.

2.2.1.1 SEASONAL REQUIREMENTS

Construction sites are required to implement all minimum construction BMPs as necessary to prevent pollution discharges to the MEP regardless of the season. More details on the implementation of BMPs by season are listed below.

<u>Dry Season (May 1st through September 30th)</u>

- All exposed disturbed areas must have erosion prevention controls properly installed including building pads, unfinished roads, and slopes. (Slopes greater than 33.3% or 3:1 vertical vs. horizontal may use properly designed and installed de-silting basins at all discharge points in lieu of this requirement)
- Adequate perimeter protection BMPs must be installed and maintained.
- Adequate sediment containment BMPs must be installed and maintained.
- Adequate BMPs designed to control off-site sediment tracking must be installed and maintained.
- At a minimum, 125% of the materials needed to install standby BMPs necessary to completely protect exposed portions of the site from erosion and to prevent sediment discharges must be stored on the site. Areas that have already been protected from erosion using physical stabilization or vegetation stabilization BMPs are not considered to be "exposed" for purposes of this requirement.
- The owner/contractor must have an approved "weather triggered" action plan and have the ability to deploy standby BMPs as needed to completely protect the

exposed portions of the site within 24 hours of prediction of a storm event (a forecasted 40% chance of rain).

- Deployment of physical or vegetation erosion control BMPs must commence as soon as grading and/or excavation is completed for any portion of the site. The project proponent may not continue to rely on the ability to deploy standby BMP materials to prevent erosion of graded areas that have been completed.
- The amount of cleared or graded areas left exposed at any given time is limited to 17 acres or to the alternate maximum area approved by the City in writing. Areas that have already been protected from erosion using physical stabilization or vegetation stabilization BMPs are not considered to be "exposed" for purposes of this requirement.
- A washout area shall be designated and maintained for materials such as concrete, stucco, paint, caulking, sealants, drywall plaster, etc.
- Properly protected, designated storage areas are required for materials and wastes.
- All stockpiles of materials and wastes should be covered when materials are not being actively added or removed.
- Remnant trash and debris shall be removed and/or properly stored/disposed of daily.
- Storage, service, cleaning, and maintenance areas for vehicles and equipment shall be identified and protected accordingly.
- Materials for spill control/containment must be stockpiled onsite.
- Non-storm water discharges must be eliminated or controlled to the MEP.

Wet Season (October 1st through April 30th)

All dry season requirements are required in addition to the following:

- Erosion control BMPs must be upgraded if necessary to provide sufficient protection for storms likely to occur during the rainy season.
- Perimeter protection and sediment containment BMPs must be upgraded if necessary to provide sufficient protection for storms likely to occur during the rainy season.
- Adequate soil stabilization and erosion prevention BMPs must be installed and established for all completed slopes prior to October 1 and maintained throughout the wet season. If a selected BMP fails, it must be repaired, improved, or replaced with an acceptable alternate as soon as it is safe to do so.
- All vegetation erosion prevention BMPs must be established prior to the rainy season to be considered as a BMP.
- A disturbed area that is not completed but that is not being actively graded must be fully protected from erosion if left for seven or more calendar days. The ability to deploy standby BMP materials is not sufficient for these areas.

2.2.2 ADDITIONAL CONTROLS FOR CONSTRUCTION SITES

The Municipal Permit requires implementation of additional controls for construction sites tributary to 303(d) listed water body segments impaired for sediment or within, adjacent to, or discharging directly to coastal lagoons or other receiving waters within ESAs. Additional requirements for such sites will be determined by the City as needed on a site-by-site basis. Additional controls may include required de-silting basins, increased inspection frequency, and/or stronger penalties for non-compliance. Currently, there are no water bodies 303(d) listed for sediment in or downstream of the City, and there are no ESAs in the City.

2.2.3 MAXIMUM DISTURBED AREA FOR EROSION CONTROLS

The City requires that temporary or permanent erosion controls be implemented before a construction site has disturbed a total of 17 acres. This 17 acre maximum is comparable to the current Caltrans soil disturbance limitation of 750,000 square feet. If the site is in compliance with applicable storm water regulations and has adequate control practices implemented to prevent storm water pollution, the City has the option to give the site written authorization to disturb beyond the 17 acre maximum. The City will require as necessary additional controls for construction sites allowed to disturb more than 17 acres, which could include additional BMPs, increased inspection frequency, and/or stronger penalties for non-compliance.

2.2.4 ADVANCED TREATMENT METHODS

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

- Is located within, adjacent to, or a portion of the site is within 200 feet of waters listed on the CWA Section 303(d) list of Water Quality Limited Segments as impaired for sedimentation, and 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;
- Contains a predominance of soils with USDA-NRCS Erosion factors k_f greater than or equal to 0.4.

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

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.

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

For projects where advanced treatment is required, the applicant must submit the design, operations and maintenance schedule, monitoring plan, and certification of training of staff to the satisfaction of the City.

3.0 MUNICIPAL

3.1 BMP REQUIREMENTS FOR ALL DISCHARGERS

3.1.1 NON-STORM WATER DISCHARGES

Non-storm water discharges refer to water flows that are not associated with storm events (i.e. the product of precipitation). The following categories of non-storm water discharges are exempt from discharge prohibitions established by the City's ordinance, but BMPs must maintained to keep prevent these discharges from being a source of or transporting pollutants to the City's storm water conveyance system. Such discharges are listed below:

- Discharges from potable water sources other than water main breaks;
- Diverted stream flows (provided required permits are obtained);
- Flows from riparian habitats and wetlands;
- Foundation drains (not including active groundwater dewatering systems);
- Individual residential washing of vehicles;
- Irrigation water including recycled water used for irrigation;
- Landscape irrigation;
- Lawn watering;
- Rising groundwater;
- Swimming pool discharges (if dechlorinated to less than one PPM chlorine);
- Uncontaminated groundwater infiltration to storm drains;
- Uncontaminated pumped groundwater;
- Water from crawl space pumps; and
- Water from footing drains (not including active groundwater dewatering systems).
- Air conditioning condensate
- Flows from emergency fire fighting activities
- Springs
- Water line flushing

3.1.2 BMP REQUIREMENTS APPLICABLE TO ALL DISCHARGERS

Good Housekeeping BMPs

Good housekeeping consists of practices implemented to prevent pollutants from being carried in either non-storm water dischargers or with storm water during a storm event and include the practices below. These practices should be implemented by all dischargers, when applicable:

- Report prohibited non-storm water discharges to the City's storm water hotline (619) 336-4389.

    - Prohibited non-storm water discharges include industrial and commercial businesses hosing down their sites or washing vehicles or equipment where water reaches the City's storm water conveyance system, or anyone dumping solid or liquid waste directly into or where it may reach the City's storm water conveyance system.

- Regularly clean and maintain outdoor areas
    - Eliminate the accumulation of pollutants (dirt, surplus materials, spilled or dropped substances, litter, and debris) that collect in areas that can be carried in runoff to the storm water conveyance system.
    - Keep dumpster, trashcan, and recycling bin lids closed to prevent the wind from carrying trash out of the receptacles and to prevent wind, rain, and scavengers from transporting pollutants to the storm water conveyance system.

- Choose dry cleaning methods
    - Eliminate hosing down the site unless all wash water is contained and disposed of to a pervious area, like a lawn, or the sanitary sewer system. Note that some kinds of wash water (i.e. containing significant amounts of pollutants) may not be allowed to be disposed of to a pervious area. Additionally, sewer permits may be necessary for disposing of significant amounts of wash water to the sewer system.
    - Sweeping of paved areas is a dry cleaning method that helps prevent trash, debris, and particulate matter such as dirt from accumulating on paved surfaces and being carried to the storm water conveyance system during a rain event.

- Reduce the use of toxic materials
    - Substitute non-toxic or less-toxic cleaning materials and solvents, use non-caustic and phosphate-free detergents, water-based degreasers, non-chlorinated solvents, when possible.

- Store materials in a manner where they do not contact storm water
    - Move into a building or provide a cover, berm, or similar structure to prevent storm water from contacting materials stored outdoors.

Erosion Control

- Remove or secure any significant accumulations of eroded soils from slopes, or other exposed areas. Such areas may be secured through the use of vegetation, geotextiles, erosion control blankets, etc.

Illegal Connections and Discharges

- Illegal connections to the storm water conveyance system, including, but not limited to sinks and toilets plumbed to the storm water conveyance system, and other systems that convey prohibited discharges to the storm water conveyance system must be eliminated (even if the connection was established pursuant to a valid permit and was legal at the time it was constructed).

- Illegal discharge practices must be eliminated. If a discharge is not include on the list of allowed discharges discussed in section 2.1.1, and is not water resulting from a storm event, it is most likely an illegal discharge.

3.2 BMP Requirements For Municipal Facilities

Key BMPs generally applicable to municipal facilities and activities include the following:

- Reducing the exposure of pollutants to storm water and non-storm water discharges. This is often done through
    - Covering the pollutants and/or
    - Keeping pollutants away from typical flow paths of water
- Good housekeeping: generally keeping work and storage areas clean and well organized
- Prompt, proper cleanup of spills
- Preventing illegal discharges, such as vehicle wash water

The City utilizes the California Storm Water Quality Association (CASQA) Municipal Handbook to guide its implementation of applicable BMPs for specific municipal areas and activities. Table 3-1 at the end of this section provides a checklist that includes which fact sheets in the CASQA Municipal Handbook are used as a source of BMPs based on municipal area and/or activity. The CASQA fact sheets can be accessed at www.cabmphandbooks.com. If it is not feasible to implement the required BMPs at specific sites and/or during specific activities, the City implements other equivalent BMPs as necessary to comply with the Municipal Permit. More stringent BMP requirements may need to be applied where necessary to reduce discharges of pollutants to sensitive water bodies and/or comply with total maximum daily load (TMDL) regulations.

The City implements more specific BMPs for landscaping activities, activities related to fire fighting, and special events. Those BMPs are described in the following subsections. This handbook does not directly discuss the City's methods of BMPs for street sweeping, sanitary sewer maintenance, and MS4 maintenance, which are routine maintenance operations with established protocols.

3.2.1 Landscaping Activities

The City has a comprehensive program aimed at preventing or reducing pesticides, herbicides, and fertilizers from entering the storm water system and causing direct or indirect harm on non-target flora and fauna and receiving water. The following BMPs should be implemented during all landscaping activities, when applicable.

- City personnel who participate in the application of pesticides/herbicides should be trained and licensed (Qualified Applicator License) and follow guidelines set by the California Department of Pesticide Regulations and the County Agricultural Commission. Every two years, Qualified Applicator

Certificate holders must show proof that they have secured a minimum of 20 hours of continuing education.

- Pesticide application has not been administered in the past several years by City personnel. Diseased plants should be rinsed off with water, pulled out and replaced, or treated with systemic pesticides in fertilizers that eliminate pests. Special fertilizers for rose bushes contain pesticide products. These should be kept in limited quantities to minimize the storage of these products.
- Use less persistent herbicides such as glyphosphate products rather than organophosphate herbicides.
- Manually pull weeds, mow weeds, mulch, and disk and till twice a year to minimize the amount of herbicides used.
- All herbicides should be stored in fire safe, self-closing, weatherproof metal cabinets. Material Safety Data Sheets (MSDS) and spill kits are kept in the storage area.
- Mixing of herbicides, if necessary, should be conducted on site to minimize areas of exposure.
- Minimizes the use of fertilizers and use fertilizing with a slow-release fertilizer on a less frequent basis (this allows more of the product to be accepted with less leaching; the reduced frequency creates less chance for the product to exit the target area)
- Fertilizer stock should be purchased as needed and quantities should be used up within a reasonable amount of time so that it is not necessary to stockpile the material
- All fertilizers and green landscape debris should be kept within the target areas
- Pesticides, herbicides, and fertilizers should be applied during or directly prior to storm events.
- Use drought tolerant plants and native vegetation for landscaping new areas
- Recycle all hardwood (except for palm trees) to use as mulch in landscaping areas.
- In place of vegetation for erosion control, use mulching in select areas. Mulching not lonely serves as an effective erosion control measure, but it does not require irrigation, herbicides, pesticides, or fertilizers.
- Aerate the soil and apply soil treatments with gypsum to increase the absorptive capacity of the soil and reduce runoff
- Inspect irrigation systems so that necessary repairs can be made immediately
- Adjust timers for irrigation systems with multiple start times to allow water time to percolate into the soil and prevent runoff
- Ensure irrigation schedules are seasonal; the winter schedule and amount of water usage should be half of the summer schedule
- Use low angle nozzles on sprinklers in order to prevent drift of water

- Replace old sprinklers with low volume heads with in-line checks to prevent excessive runoff if the sprinkler head is broken
- Provide formal workshops and training for City personnel who store and handle pesticides, herbicides, and fertilizers
- Provide bi-weekly refresher sessions regarding proper storage and handling of pesticides, herbicides, and fertilizers.

3.2.2 FIRE STATIONS

BMPs should be implemented when conducting the following activities:

Regular Maintenance of Fire and Emergency Vehicles and Equipment

- Vehicles and equipment should be cleaned where runoff is directed either to the sanitary sewer system or to a drain with an oil/water separator system
- Vehicles and equipment should be cleaned where runoff will pond and evaporate and/or where runoff will filter through landscaped areas
- Used-oil, hydraulic fluids, and antifreeze should be stored in containers for recycling or will be disposed as hazardous waste
- Spill kits should be available to promptly cleanup and contain leaking or spilled vehicle fluids
- Use of soaps, cleaners, and detergents should be minimized, and general cleaning solutions will be disposed of into the sanitary sewer system
- Caustics, flammables, and solvents should be contained and disposed of properly as hazardous waste

Training Exercises

- Water used in training exercises should be directed to landscaped areas whenever possible, and runoff from the training exercises should be allowed to discharge to the MS4.
- Live fire training activities should be pre-planned to allow integration of barriers to off-site runoff that could contribute to non-storm water discharges

Facilities Maintenance

- Impervious areas such as apparatus floors, maintenance bays, driveways, patios, and walkways should be swept to remove debris. Debris should be placed in the trash. Interior floors should be mopped as necessary, and the wastewater discharged into the sanitary sewer system or onto landscaped areas
- Landscaped areas should be maintained as required to reduce introduction of leaves and other landscape waste into the MS4
- Irrigation systems should be monitored and maintained as required to reduce irrigation water from going off-site
- Spills should be cleaned up using spill kits provided at the work site, and disposal of spilled material should be in accordance with applicable regulations
- Spills that require a cleanup beyond the ability of the on-site employees should be reported to the City Public Works Department for assistance with appropriate resources

- Maintenance and repair of structures should be conducted using methods that do not contribute pollutants to the MS4
- General non-hazardous cleaning solutions should be disposed of in a utility sink that drains into the sanitary sewer system

Post-Emergency Rehabilitation of Response Equipment
Tools, fire hoses, ladders, and other equipment utilized at the scene of an emergency should be restored to a response-ready state in a manner that does not delay the ability of the apparatus to be available for another emergency response. The use of water that could contribute to storm water discharges may be used unless another practical and immediately available method is identified.

3.2.3 SPECIAL EVENTS

The City implements the following BMPs during and/or after special events, *where applicable*:

- Proper management of trash and litter including extra trash receptacles situated throughout the event site and emptied throughout the day
- Recycling containers for plastic, cardboard, glass, and aluminum, should be placed near trash receptacles throughout the site
- Events with more than 300 attendees require the use of a dumpster
- Portable toilets must have secondary containment
- Clean-up throughout and at the end of each event (or at the end of each day, depending on the length of the event) by removing trash and power washing paved areas, if necessary
- City personnel should be immediately available to resolve any storm water-related problems that may arise
- Temporary screens should be placed on catch basins and storm drain inlets
- Temporary fencing should be installed to prevent windblown trash from entering adjacent water bodies and MS4 channels
- Catch basins should be cleaned following the special event, as needed
- Perform street sweeping after the event, if necessary

TABLE 3-1

MINIMUM BMP SELECTION CHECKLIST FOR MUNICIPAL AREAS/ACTIVITIES

Required Minimum BMPs as discussed in the CASQA Municipal BMP Handbook

Facility Type	SC-10 Non-Stormwater Discharges	SC-11 Spill Prevention, Control & Cleanup	SC-20 Vehicle and Equipment Fueling	SC-21 Vehicle and Equipment Cleaning	SC-22 Vehicle and Equipment Repair	SC-30 Outdoor Loading/Unloading	SC-31 Outdoor Container Storage	SC-32 Outdoor Equipment Maintenance	SC-33 Outdoor Storage of Raw Materials	SC-34 Waste Handling & Disposal	SC-41 Building & Grounds Maintenance	SC-43 Parking/Storage Area Maintenance	SC-50 Over Water Activities	SC-60 Housekeeping Practices	SC-61 Safer Alternative Products	SC-70 Road and Street Maintenance	SC-71 Plaza and Sidewalk Cleaning	SC-72 Fountain & Pool Maintenance	SC-73 Landscape Maintenance	SC-74 Drainage System Maintenance	SC-75 Waste Handling and Disposal	SC-76 Water & Sewer Utility Maintenance
Fire Stations	X	X		X						X	X	X		X	X							
Mobile Municipal Activities, Including Power Washing																	X	X	X			
MS4																				X		
Other Fixed Facilities	X	X								X	X	X		X					X			
Parks, Recreational Facilities, and Other Landscaped Areas	X	X					X		X	X	X	X		X	X							
Public Works Facilities	X	X	X	X	X	X	X	X	X	X	X	X		X	X							
Roads, Streets, Highways, and Parking Facilities		X										X				X						
Sanitary Sewer System																						X
Special Events	X	X								X				X								

Please note that this checklist is designed to select minimum BMPs for particular facility and/or activity categories. If a municipal facility is conducting activities associated with a number of different categories, the City requires minimum BMPs for each category to be implemented. The City may also require the implementation of additional BMPs not included on CASQA municipal fact sheets depending on compliance history, site conditions, or other applicable factors.

4.0 INDUSTRIAL AND COMMERCIAL

4.1 BMP REQUIREMENTS FOR ALL DISCHARGERS

4.1.1 NON-STORM WATER DISCHARGES

Non-storm water discharges refer to water flows that are not associated with storm events (i.e. the product of precipitation). The following categories of non-storm water discharges are exempt from discharge prohibitions established by the City's ordinance, but BMPs must maintained to keep prevent these discharges from being a source of or transporting pollutants to the City's storm water conveyance system. Such discharges are listed below:

- Discharges from potable water sources other than water main breaks;
- Diverted stream flows (provided required permits are obtained);
- Flows from riparian habitats and wetlands;
- Foundation drains (not including active groundwater dewatering systems);
- Individual residential washing of vehicles;
- Irrigation water including recycled water used for irrigation;
- Landscape irrigation;
- Lawn watering;
- Rising groundwater;
- Swimming pool discharges (if dechlorinated to less than one PPM chlorine);
- Uncontaminated groundwater infiltration to storm drains;
- Uncontaminated pumped groundwater;
- Water from crawl space pumps; and
- Water from footing drains (not including active groundwater dewatering systems).
- Air conditioning condensate
- Flows from emergency fire fighting activities
- Springs
- Water line flushing

4.1.2 BMP REQUIREMENTS APPLICABLE TO ALL DISCHARGERS

Good Housekeeping BMPs

Good housekeeping consists of practices implemented to prevent pollutants from being carried in either non-storm water dischargers or with storm water during a storm event and include the practices below. These practices should be implemented by all dischargers, when applicable:

- Report prohibited non-storm water discharges to the City's storm water hotline (619) 336-4389.

    - Prohibited non-storm water discharges include industrial and commercial businesses hosing down their sites or washing vehicles or equipment where water reaches the City's storm water conveyance system, or anyone dumping solid or liquid waste directly into or where it may reach the City's storm water conveyance system.

- Regularly clean and maintain outdoor areas
    - Eliminate the accumulation of pollutants (dirt, surplus materials, spilled or dropped substances, litter, and debris) that collect in areas that can be carried in runoff to the storm water conveyance system.
    - Keep dumpster, trashcan, and recycling bin lids closed to prevent the wind from carrying trash out of the receptacles and to prevent wind, rain, and scavengers from transporting pollutants to the storm water conveyance system.

- Choose dry cleaning methods
    - Eliminate hosing down the site unless all wash water is contained and disposed of to a pervious area, like a lawn, or the sanitary sewer system. Note that some kinds of wash water (i.e. containing significant amounts of pollutants) may not be allowed to be disposed of to a pervious area. Additionally, sewer permits may be necessary for disposing of significant amounts of wash water to the sewer system.
    - Sweeping of paved areas is a dry cleaning method that helps prevent trash, debris, and particulate matter such as dirt from accumulating on paved surfaces and being carried to the storm water conveyance system during a rain event.

- Reduce the use of toxic materials
    - Substitute non-toxic or less-toxic cleaning materials and solvents, use non-caustic and phosphate-free detergents, water-based degreasers, non-chlorinated solvents, when possible.

- Store materials in a manner where they do not contact storm water
    - Move into a building or provide a cover, berm, or similar structure to prevent storm water from contacting materials stored outdoors.

Erosion Control

- Remove or secure any significant accumulations of eroded soils from slopes, or other exposed areas. Such areas may be secured through the use of vegetation, geotextiles, erosion control blankets, etc.

Illegal Connections and Discharges

- Illegal connections to the storm water conveyance system, including, but not limited to sinks and toilets plumbed to the storm water conveyance system, and other systems that convey prohibited discharges to the storm water conveyance system must be eliminated (even if the connection was established pursuant to a valid permit and was legal at the time it was constructed).

- Illegal discharge practices must be eliminated. If a discharge is not include on the list of allowed discharges discussed in section 2.1.1, and is not water resulting from a storm event, it is most likely an illegal discharge.

4.2 BMP Requirements For Industrial And Commercial Sites

Key BMPs generally applicable to industrial and commercial facilities and activities include the following:

- Reducing the exposure of pollutants to storm water and non-storm water discharges. This is often done through
    - Covering the pollutants and/or
    - Keeping pollutants away from typical flow paths of water
- Good housekeeping: generally keeping work and storage areas clean and well organized.
- Prompt, proper cleanup of spills
- Preventing illegal discharges, such as vehicle wash water.

4.2.1 Pollution Prevention

The City requires incorporation of such strategies into the standard operating procedures of all industrial and commercial facilities, whether a large or small industrial facility, a corporate chain store, a franchise, or an independent or family run shop. The following pollution prevention methods shall be considered and implemented to the MEP, where applicable:

- Reduce quantity of toxic materials used or substitute less-toxic materials
- Use minimal cleaning water to decrease wastewater generation
- Display pollution prevention methods prominently to remind or instruct employees and customers
- Implement a spill response plan
- Segregate and recycle wastes
- Provide a schedule of preventive maintenance procedures
- Reduce waste through more efficient production processes
- Recycle wastes as part of the production process (most preferred), off site or on site (least preferred)
- Treat wastes on site to decrease volume and/or toxicity
- Dispose of wastes properly
- Continually train employees as needed

4.2.2 General and Activity Specific BMPs

In addition to the pollution prevention BMPs described above, the City has also established a set of minimum BMPs based on the CASQ California Stormwater BMP Handbook – Industrial & Commercial (CASQA, 2003) for all industrial and commercial

sites. Businesses are required to use an effective combination of general BMPs and activity-specific BMPs. General BMPs and activity-specific BMPs are required where applicable and are briefly listed below. The relevant CASQA BMP fact sheet reference is given in parentheses after each listing; the BMP fact sheets are available online at www.cabmphandbooks.com. In some cases the City does not agree with some of the specific recommended BMP options listed in the CASQA fact sheets. Those exceptions are listed later in this section.

Note that more stringent BMP requirements may need to be applied where necessary to reduce discharges of pollutants to sensitive water bodies and/or comply with total maximum daily load (TMDL) regulations. The City also reserves the right to require the development of Storm Water Pollution Prevention Plans (SWPPP) and/or storm water monitoring if deemed necessary by City inspectors.

- **General BMPs**
  - Non-Storm Water Discharge Control (SC-10)
  - Spill Prevention, Control/Cleanup (SC-11)
  - Waste Handling and Disposal (SC-34)
  - Sediment/Erosion Control (SC-40)
  - Building/Grounds Maintenance (SC-41)
  - Parking Area Maintenance (SC-43)
  - Drainage System Maintenance (SC-44)
  - Employee Training
    - As appropriate to their positions, staff must be trained to avoid prohibited discharges.
    - Staff must be trained in proper implementation of the BMPs applicable to the activities they regularly conduct.
- **Activity-Specific BMPs**
  Appropriate BMPs depend on the type of activities, pollutants and potential source of pollutants. BMPs requirements for the following activities and areas, which are relatively common at industrial and commercial sites, follow the CASQA BMP noted in parentheses after each activity.
  - Vehicle/Equipment Fueling (SC-20)
  - Vehicle/Equipment Cleaning (SC-21)
  - Vehicle/Equipment Repair (SC-22)
  - Outdoor Loading/Unloading (SC-30)
  - Outdoor Liquid Container Storage (SC-31)
  - Outdoor Equipment Operations (SC-32)
  - Outdoor Storage of Raw Materials (SC-33)

In addition to the minimum BMPs listed above, the City may require additional BMPs based on specific site conditions observed during an inspection. The City also may require the implementation of treatment control BMPs, including but not limited to the following:

- Infiltration Trench (TC-10)
- Infiltration Basin (TC-11)
- Retention/Irrigation (TC-12)
- Wet Pond (TC-20)
- Constructed Wetland (TC-21)
- Extended Detention Basin (TC-22)
- Vegetated Swale (TC-30)
- Vegetated Buffer Strip (TC-31)
- Bioretention (TC-32)
- Media Filter (TC-40)
- Water Quality Inlet (TC-50)
- Multiple Systems (TC-60)
- Wetland (MP-20)
- Media Filter (MP-40)
- Wet Vault (MP-50)
- Vortex Separator (MP-51)
- Drain Inlet (MP-52)

4.2.3 City Exceptions to CASQA Fact Sheets

Section 3 of the CASQA Industrial and Commercial Storm Water BMP Handbook consists of the following fact sheets:

SC-10	Non-storm water discharges
SC-11	Spill Prevention, Control, and Cleanup
SC-20	Vehicle and Equipment Fueling
SC-21	Vehicle and Equipment Cleaning
SC-22	Vehicle and Equipment Repair
SC-30	Outdoor Loading/Unloading
SC-31	Outdoor Liquid Container Storage
SC-32	Outdoor Equipment Operations
SC-33	Outdoor Storage of Raw Materials
SC-34	Waste Handling and Disposal
SC-35	Safer Alternative Products
SC-40	Contaminated or Erodible Areas
SC-41	Building and Grounds Maintenance
SC-42	Building Repair and Construction
SC-43	Parking/Storage Area Maintenance
SC-44	Drainage System Maintenance
--	Food Service Facilities

The City has noted some exceptions to some BMPs listed on some of the aforementioned CASQA Industrial and Commercial Fact Sheets, which are discussed below.

Please note that although CASQA fact sheets state that listed BMPs are "suggested protocols," the City requires the implementation of such protocols as minimum BMPs, when applicable to the business.

There are no fact sheets specific to disposal of hazardous waste included in the CASQA Industrial and Commercial Handbook. Industrial and commercial businesses must follow appropriate waste disposal BMPs (SC-34) and applicable laws and regulations when disposing of hazardous waste.

CASQA fact sheet SC-11 states that industrial and commercial businesses should develop and regularly update a spill prevention control and countermeasure (SPCC) Plan. A formal SPCC document is not required, but is encouraged. However, other BMPs listed on SC-11 must be implemented when preventing and responding to spills.

SC-22, Vehicle and Equipment and Repair, states, "Incoming vehicles [should be] checked for leaking oil and fluids. Do not allow leaking vehicles or equipment on site." Due to the nature of vehicle equipment and repair facilities, leaking vehicles or equipment may be allowed on site. BMPs must be implemented to prevent vehicle and equipment fluids from contacting, or potentially contacting, storm water.

SC-43, Parking/Storage Area Maintenance, states, "Follow the procedures below when cleaning oily deposits: use a screen or filter fabric over inlet, then wash surfaces." Non-storm water discharges of this nature, even if filtered, are not allowed to enter the storm water conveyance system. Water must be contained, collected, and disposed of properly.

SC-41 - Building and Grounds Maintenance, states (in regards to pressure washing), "If soaps or detergents are not used, and the surrounding area is paved, waste runoff does not have to be collected but must be screened. Pressure washers must use filter fabrics or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff." As previously mentioned, non-storm water discharges of this nature, even if filtered, are not allowed to enter the storm water conveyance system. Water must be contained, collected, and disposed of properly.

Note that the City does not require the use of treatment control BMPs as minimum BMPs for existing industrial and commercial facilities. Treatment control BMPs may be necessary at industrial and commercial facilities to reduce pollutants to the MEP. Treatment control BMPs are required for all high priority development projects as required by the Municipal Permit and the City's SUSMP ordinance. Any business implementing treatment control BMPs should be aware of regulations that regulate the removal of silt, sediment, and/or vegetation from naturally lined ponds and detention basins.

5.0 RESIDENTIAL

5.1 BMP REQUIREMENTS FOR ALL DISCHARGERS

5.1.1 NON-STORM WATER DISCHARGES

Non-storm water discharges refer to water flows that are not associated with storm events (i.e. the product of precipitation). The following categories of non-storm water discharges are exempt from discharge prohibitions established by the City's ordinance, but BMPs must maintained to keep prevent these discharges from being a source of or transporting pollutants to the City's storm water conveyance system. Such discharges are listed below:

- Discharges from potable water sources other than water main breaks;
- Diverted stream flows (provided required permits are obtained);
- Flows from riparian habitats and wetlands;
- Foundation drains (not including active groundwater dewatering systems);
- Individual residential washing of vehicles;
- Irrigation water including recycled water used for irrigation;
- Landscape irrigation;
- Lawn watering;
- Rising groundwater;
- Swimming pool discharges (if dechlorinated to less than one PPM chlorine);
- Uncontaminated groundwater infiltration to storm drains;
- Uncontaminated pumped groundwater;
- Water from crawl space pumps; and
- Water from footing drains (not including active groundwater dewatering systems).
- Air conditioning condensate
- Flows from emergency fire fighting activities
- Springs
- Water line flushing

5.1.2 BMP REQUIREMENTS APPLICABLE TO ALL DISCHARGERS

Good Housekeeping BMPs

Good housekeeping consists of practices implemented to prevent pollutants from being carried in either non-storm water dischargers or with storm water during a storm event and include the practices below. These practices should be implemented by all dischargers, when applicable:

- Report prohibited non-storm water discharges to the City's storm water hotline (619) 336-4389.

    - Prohibited non-storm water discharges include industrial and commercial businesses hosing down their sites or washing vehicles or equipment where water reaches the City's storm water conveyance system, or anyone dumping solid or liquid waste directly into or where it may reach the City's storm water conveyance system.

- Regularly clean and maintain outdoor areas
    - Eliminate the accumulation of pollutants (dirt, surplus materials, spilled or dropped substances, litter, and debris) that collect in areas that can be carried in runoff to the storm water conveyance system.
    - Keep dumpster, trashcan, and recycling bin lids closed to prevent the wind from carrying trash out of the receptacles and to prevent wind, rain, and scavengers from transporting pollutants to the storm water conveyance system.

- Choose dry cleaning methods
    - Eliminate hosing down the site unless all wash water is contained and disposed of to a pervious area, like a lawn, or the sanitary sewer system. Note that some kinds of wash water (i.e. containing significant amounts of pollutants) may not be allowed to be disposed of to a pervious area. Additionally, sewer permits may be necessary for disposing of significant amounts of wash water to the sewer system.
    - Sweeping of paved areas is a dry cleaning method that helps prevent trash, debris, and particulate matter such as dirt from accumulating on paved surfaces and being carried to the storm water conveyance system during a rain event.

- Reduce the use of toxic materials
    - Substitute non-toxic or less-toxic cleaning materials and solvents, use non-caustic and phosphate-free detergents, water-based degreasers, non-chlorinated solvents, when possible.

- Store materials in a manner where they do not contact storm water
    - Move into a building or provide a cover, berm, or similar structure to prevent storm water from contacting materials stored outdoors.

Erosion Control

- Remove or secure any significant accumulations of eroded soils from slopes, or other exposed areas. Such areas may be secured through the use of vegetation, geotextiles, erosion control blankets, etc.

Illegal Connections and Discharges

- Illegal connections to the storm water conveyance system, including, but not limited to sinks and toilets plumbed to the storm water conveyance system, and other systems that convey prohibited discharges to the storm water conveyance system must be eliminated (even if the connection was established pursuant to a valid permit and was legal at the time it was constructed).

- Illegal discharge practices must be eliminated. If a discharge is not include on the list of allowed discharges discussed in section 2.1.1, and is not water resulting from a storm event, it is most likely an illegal discharge.

5.2 BMP Requirements For All Residential Sites

Residents are responsible for complying with general BMP requirements to which all parties in the City are subject, including illegal discharge prohibitions. Specific BMPs applicable to activities of City residents are listed below.

- **Automobile Repair and Maintenance**
  Residents are encouraged to:
  - Use routine preventive maintenance practices to prevent vehicle leaks and spills from entering urban runoff
  - Reduce vehicle use by:
    - Changing driving habits
    - Carpooling
    - Increasing use of public transportation
    - Biking or walking for short trips
    - Make timely vehicle inspections and repairs
  - Leaks and Spills
    Residents are required to
    Prevent leaks and spills from contacting urban runoff by using the following BMPs or their equivalent:
    - Use drip pans, plastic sheeting, or other materials to contain spills
    - Work indoors or under shelter
    - If working outdoors, do not conduct maintenance during rain events
    - Clean up leaks and spills when they occur
    - Clean tools and parts only in contained areas
  - Materials and Waste Management
    Residents are required to:
    Properly manage and dispose of automotive wastes and materials by using the following BMPs or their equivalent:
    - Properly and lawfully dispose of all wastes
    - Recycle or properly dispose of oil and antifreeze
    - Store materials and wastes indoors or under cover
    - Use secure and watertight containers when storing materials and wastes outside
  - Restrictions on Activity
    Residents are encouraged to:
  - Use commercial repair and maintenance facilities to avoid the potential for pollution in residential areas.

- **Automobile Washing**
    - Residents are encouraged to do all of the following activities, except where it is stated "required":
      Use preventive practices to keep vehicles clean (park in garage, under cover, etc.)
    - Reduction of Wash Water
        - Dry cleaning methods to avoid the generation of wash and rinse water
        - Turn off the water when not in use or to use a controllable spray nozzle
        - Contain, capture, or divert wash water from the conveyance system
        - Wash vehicles over pervious surfaces such as lawns or gravel areas
        - Establish neighborhood wash areas where wash water and contaminants can be properly managed
    - Materials and Waste Management
        - Use minimal amounts of soap, detergents, and other cleaners when washing vehicles
        - Residents are required to properly dispose of soapy water or bucket rinse water into the sanitary sewer or soak into the lawn
        - Launder rags and towels or dispose of them in the trash
        - Use dry methods to degrease or clean especially dirty parts prior to wet washing and rinsing. For example, grease or brake dust can be removed using towels.
    - Restrictions on Activity
        - Use commercial wash facilities to avoid the potential for pollution in residential neighborhoods (e.g., during a complaint investigation).
- **Automobile Parking**
    - Minimize leaks and spills in driveways and parking areas by repairing oil, water, and fuel leaks in vehicles
    - Use routine preventative maintenance practices and to make timely vehicle repairs
  - Proper design and construction of parking areas in residences during major redevelopment is required. Further details are given in the Development Planning Component (Section 4 of this document).
    - Clean parking areas using dry methods, particularly where sediments and/or debris has accumulated
- **Garden Care Activities and Product Use**
    Residents are encouraged to do all of the following activities, except where it is stated "required":
    - Leaks and Spills

        - Clean up spills of gardening chemicals, fertilizers, and soils immediately
        - Return spilled materials to the container for future use or to properly dispose if them
    - Materials and Waste Management
        - Use safe substitutes and alternative methods for garden use including
            - IPM techniques
            - Use of native plants and drought-tolerant species to reduce water use and the amount of green waste produced
            - Planting techniques to attract beneficial insects
            - Use of biological controls
            - Composting, vermiculture, and yard waste recycling
        - Employ practical purchasing for pesticides and fertilizers:
    - Use minimal amounts of pesticides and fertilizers, to help prevent unnecessary pollutant runoff to the MS4
    - Always read label instructions and follow the instructions for garden care products
        - Conserve water through the use of xeriscape gardening, drip irrigation, soaker hoses, and micro-spray systems
        - Repair or adjust irrigation systems that allow excessive runoff
        - Prevent erosion by planting and mulching hillsides and slopes
        - Store lawn care products in closed, labeled containers and in covered areas
        - Residents are discouraged from using materials during windy or rainy days
        - Effectively cover stockpiles of soil, compost or fertilizers with plastic tarps or equivalent methods to prevent dispersal by wind or rain
        - Use dry sweeping techniques for clean up
        - Recycle lawn clippings and greenery waste through local programs
        - Residents are required to properly dispose of HHW. The City maintains a HHW disposal facility, which is described later in this section.
        - Not hose off paved surfaces to the street or gutter
    - Restrictions on Activities
        - Residents are prohibited from disposing of hazardous waste into the trash, landfill, or storm drain
- **Home Care and Maintenance**
    - Leaks and Spills

      Residents are required to
        - Clean up hazardous materials spills immediately

        - Use proper techniques for spill cleanup and waste disposal
    - Materials and Waste Management

      Residents are encouraged to do all of the following activities, except where it is stated "required":
        - Use practical purchasing for home cleaning and maintenance products to reduce waste. For example, purchase only what is needed for specific projects.
        - Use safe substitutes for home cleaning and maintenance
        - Read and abide by product label instructions
        - Use water based paints
        - Store HHW in closed labeled containers in a covered area
        - Recycle latex paint through community programs
        - Residents are required to properly dispose of unwanted HHW
        - Recycle unused, unwanted products
        - Recycle unwanted appliances and household equipment
    - Restrictions
        - Residents are prohibited from disposing of wash waters (carpet cleaning, mop water, paint wash-up, etc.) to the street, gutter, or storm drain
        - Residents are required to ensure swimming pool water is clear, de-chlorinated, and free of chemicals, sediments, or other pollutants before discharging to the storm drain
        - Residents are prohibited from washing pool filter where discharges may enter storm drainage systems
- **Disposal of Pet Waste**
    - Waste Management/ Disposal
        - Pet owners are required to clean up after their pets in the public right of way and on private property not belonging to them. Many Home Owners Associations (HOA) provide pet waste bags and have posted signs to encourage proper waste disposal.
        - Residents are required to dispose of pet waste to the toilet trash, or other acceptable means
        - Residents are encouraged to clean up pet waste on their private property if pets are allowed to defecate outside
    - Pet Management
        - Residents are prohibited from allowing their pets to run free in residential neighborhoods
- **Disposal of Trash**
    - Residents are prohibited from littering
    - Residents are prohibited from dumping trash, including large appliances, furniture, hazardous waste, and other unwanted items, into the MS4
    - Residents are encouraged to:

- Dispose of trash in provided trash cans or shared dumpsters and ensure that trash bags are not leaking prior to disposal
- Recycle waste products where possible
- Compost food scraps and green waste where possible
- Pick up, sweep up, and mop up trash and spills surrounding the trash can/dumpster, using minimal water and cleaning products, if necessary. No discharge to the MS4 is allowable during this process.
- Keep trash can and/or dumpster lids closed

Appendix D

Implementation Tools and Procedures

D.1 Development

D.2 Construction

D.3 Municipal

D.4 Industrial and Commercial

D.1 Development

City Of National City

1243 National City Blvd.
National City, CA 91950
(619) 336-4580

National Pollutant Discharge Elimination System (NPDES) Project Applicability Form

No project will be accepted by the City without this form completed in its entirety

Project Name: _____ Project Area: _____ acres/sq ft

Project Address: _____

APN: _____ Proposed Impervious Area:_____ acres/sq ft

Description of Project: _____

Description of Location: _____

Section 1 – Permanent Storm Water BMP Requirements:

PART A: Determine Subjectivity to SUSMP Requirements

Is the project new development? □ *Yes* □ *No*

Is the project redevelopment that adds/replaces/creates 5,000 ft^2 of impervious surface[1]? □ *Yes* □ *No*

If both of the above answers are "no", go to Part B. If either of the above answers is "yes," answer the questions below (check all that apply).

Is the Project…

1. *Detached or attached residential development of 10 or more units?* □ *Yes* □ *No*
2. *Commercial development greater than one acre?* □ *Yes* □ *No*
3. *Industrial development greater than one acre?* □ *Yes* □ *No*
4. *Automotive repair shop?* □ *Yes* □ *No*
5. *Restaurant?* □ *Yes* □ *No*
6. *Steep (slope of 25% or more) hillside development that will create greater than 5,000 square feet of impervious surface?* □ *Yes* □ *No*
7. *Project located within or directly adjacent to (within 200 feet) or directly discharges to Environmentally Sensitive Area (ESA) and creates at least 2,500 square feet of impervious area or increases impervious area to 10% or more of its naturally occurring condition?* □ *Yes* □ *No*
8. *Parking lot greater than or equal to 5,000 square feet of impervious surface OR with at least 15 parking spaces and potentially exposed to urban runoff?* □ *Yes* □ *No*
9. *Streets, roads, highways, and freeways which would create a new paved surface that is 5,000 square feet or greater?* □ *Yes* □ *No*
10. *Retail gasoline outlets 5,000 square feet or more or with a project Average Daily Traffic (ADT of 100 or more vehicles per day* □ *Yes* □ *No*

[1] See the City's SUSMP Ordinance for more detail on the definition of "significant redevelopment."

[2] Limited exclusion: trenching and resurfacing work associated with utility projects are not considered Priority Projects. Parking lots, buildings and other structures associated with utility projects are Priority Projects if one or more of the criteria in Part A is met.

If any of the answers to Part A is "Yes", your project is a "Priority Project" and must meet the requirements of the City's Standard Urban Storm Water Mitigation Plan (SUSMP) Ordinance.[2]

Is this a PRIORITY PROJECT that requires a SUSMP report? □ **Yes** □ **No**

If all answers to Part A are "No", continue to PART B.
If any of the answers to Part A is "Yes", skip PART B and go to Section 2.

PART B: Determine Non-SUSMP Standard Permanent Storm Water BMP Requirements

Does the project require any of the following permits or approvals? □ ***Yes*** □ ***No***

- *Discretionary: Conditional use permit (including modification or extension); Coastal development permit; Parcel map (and modifications); Reclamation plan; Planned development permits; Planned unit development permits; Planning commission approval of plans; Site plan review; Tentative map (and amendments to conditions of approval or time extension); Tentative parcel map; or Variance OR*
- *Ministerial: Administrative clearing permit; Lot line adjustment; Final map modification; Grading plan (including modification or renewal); Improvement plan (including modification); Landscape plan; Building permit; Construction right-of-way permit; Encroachment permit; Excavation permit; On-site wastewater system permit; Underground tank permit; or Well permit*

Will the project include exterior construction beyond signs, façade work, or other incidental construction to an existing structure? □ ***Yes*** □ ***No***

If all answers to Part A are "No" and any answer to Part B is "Yes", your project is subject to the City's Standard Permanent Storm Water Best Management Practice (BMP) requirements.

If every question in both Parts A and B is answered "No", your project is exempt from permanent storm water requirements.

Is this project subject to the Standard Permanent Storm Water BMP requirements? □ **Yes** □ **No**

Section 2 – Construction Requirements

General Construction Permit
If your project disturbs at least one acre of land, you are subject to the State General Construction Permit. A Notice of Intent (NOI) must be filed with the State Water Resources Control Board (SWRCB) and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared for your project.

Is this project subject to the General Construction Permit? □ **Yes** □ **No**

Construction Threat to Water Quality Prioritization
See the attached flow chart for guidance on determining the construction prioritization.

This project is □ **HIGH** □ **MEDIUM** □ **LOW** **priority threat to water quality.**

Section 3 – Operating Requirements

After your project is complete, certain water quality protection requirements may apply to the facility. The facility owner and operator should be made aware of these requirements.

All municipal, industrial, commercial, and residential sites in the City of National City are required to implement storm water BMPs to reduce the amount of pollution discharged to the Maximum Extent Practicable (MEP). See Appendix C of the City's Jurisdictional Urban Runoff Management Plan (JURMP) for further details.

Some industrial facilities are also subject to the State General Industrial Permit for Storm Water Discharges (Industrial Permit). To find out if your project may be required to obtain coverage under the Industrial Permit after it begins operations, visit the State Water Resources Control Board web sites at http://www.waterboards.ca.gov/stormwtr/industrial.html.

Section 4 – Certification

Name & Title of Person completing form: _____ _____

Telephone number: (_____)_____-_____ Fax number: (_____)_____-_____

Email Address: _____ (optional)

I understand that as a condition of my permit, I am required to prevent construction generated or related pollutants from discharging from the project site. All construction projects within the City of National City are required to implement Best Management Practices (BMPs). I have received a copy of the Construction Site BMP handout.

Signature of responsible party: _____ Date: _____

For City of National City Use Only

Engineering Department
The information provided is consistent with the proposed plans □ **Yes** □ **No**

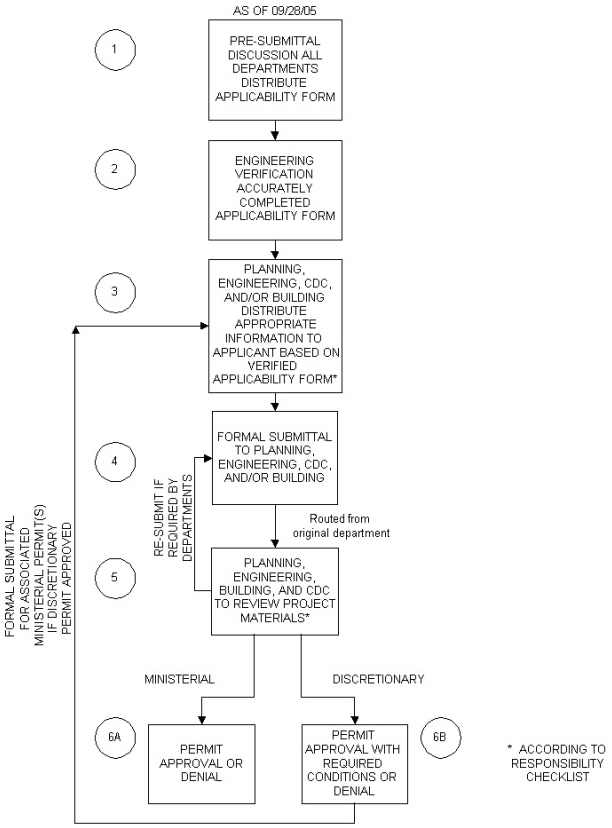
Information/documentation disseminated for SUSMP
□ Standard Permanent Storm Water BMPs □ Non-SUSMP Standard Permanent Storm Water BMPs
□ General Construction Permit □ Erosion & Sediment Control □ General Industrial Permit
□ N/A (No required documentation) □ Other _____

_____ _____
Signature Date

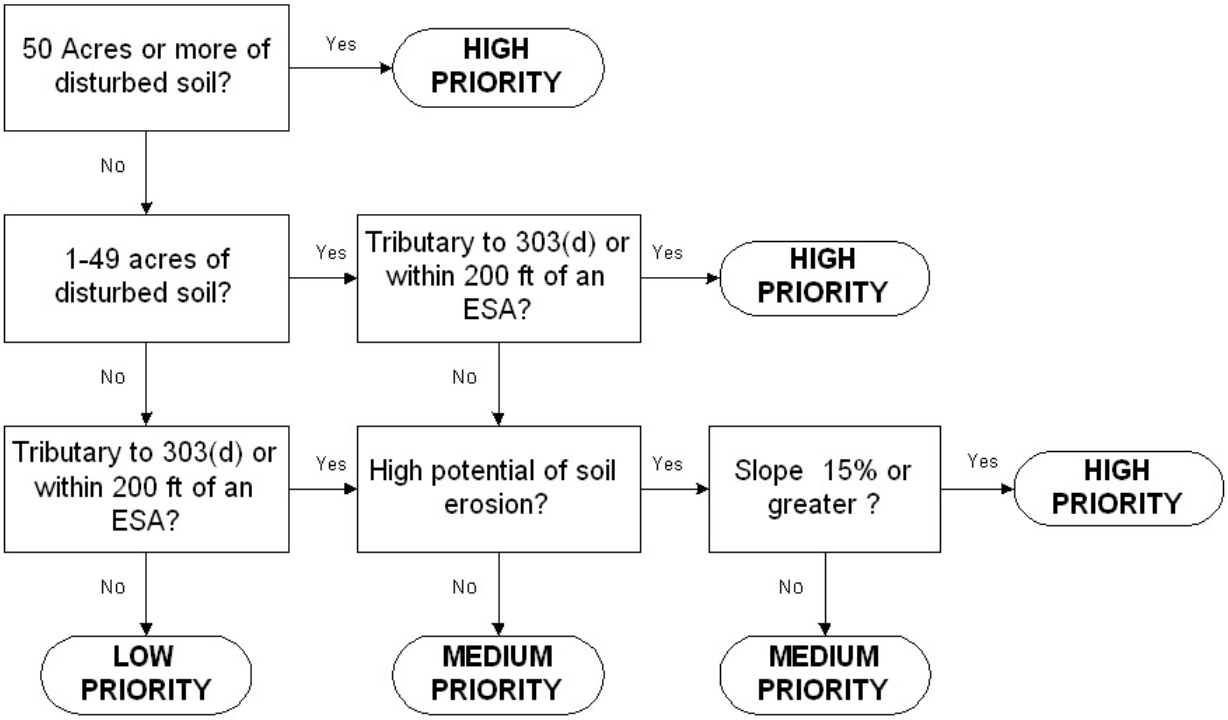
☐ **Planning Department** **OR** ☐ **Community Development Commission** _____
Initial

Building Department _____ Initial ☐ BMP information distributed

SUSMP REVIEW FLOW CHART



Construction Threat to Water Quality Prioritization Flow Chart



303(d) Water bodies - 7th St Channel (La Paleta Creek) and 24th St Marine Terminal
ESA Water bodies - Paradise Marsh & Creek and Sweetwater Marsh National Wildlife Refuge

City of National City

Post-Construction BMP Maintenance Inspection

National City Library

Street Address: 1401 National City Blvd

ZIP: 91950 **Project Type:** Priority

Phone Number: **APN:**

Inspector: **Date:**

Site Representative: **Time:** **AM / PM**

Applicable Priority Project Categories

Attached Residential ☐	**Commercial** ☐	**Restaurant** ☐	**Hillside** ☐	**ESA or 303(d)** ☐
Detached Residential ☐	**Auto Repair** ☐	**Parking Lot** ☑	**Roads** ☐	

Source Control

■ **Design trash storage areas to reduce pollution introduction**

Description: Trash storage area enclosed and elevated

Location	Properly Implemented? Yes	Partially	No
East edge of site	☐	☐	☐

Comments _____

■ **Provide storm drain stenciling**

Description: Storm drain stenciling

Location	Properly Implemented? Yes	Partially	No
Throughout site	☐	☐	☐

Comments _____

Treatment Control

■ **Drainage Insert Filter**

Description: Drainage insert filter

Location	Coordinates X	Coordinates Y	Properly Implemented? Yes	Partially	No	Comments
Catch basin on SW corner of parking lot	-117.10435	32.66996	☐	☐	☐	
Catch basin on south edge of property	-117.10396	32.67006	☐	☐	☐	
Catch basin in landscaping	-117.10388	32.67055	☐	☐	☐	

City of National City

Post-Construction BMP Maintenance Inspection

National City Library

East edge of parking lot facing baseball field	-117.10370	32.67037	☐	☐	☐	

Additional Comments:

Corrective Actions:

City of National City
ENVIRONMENTAL ASSESSMENT FORM

The information you provide in this form will be used to determine what type of environmental document will be prepared for the project. To avoid unnecessary project delays, the information you provide should be complete, accurate and unbiased.

The State of California requires cities to assess the environmental impact of all development projects before permits for such action are issued. The attached form will assist you in presenting the environmental effects of your project. The form includes information about the project and an assessment of the potential environmental. You may be asked to answer other questions and submit additional information to determine whether an Environmental Impact Report (EIR) is required for the project.

This form shall be accompanied by a set of the **PROJECT PLANS** and a **PROJECT SCHEDULE**.

---

1. _____ _____
   Applicant Name — Phone #

   _____ _____
   Address — Fax #

   _____
   E-Mail

2. ._____ _____
   Property Owner Name — Phone #

   _____ _____
   Address — Fax #

   _____
   E-Mail

3. Project Site Address:
   _____

4. APN: _____

5. Proposed Use(s) (Include # of Dwelling Units/Type of Building/Square-Footage):

_____

_____

_____

_____

_____

6. Other Related Permits (List and describe any other related permits and other public approvals required for this project including those required by City, Regional, State and Federal agencies.):

_____

_____

_____

7. List Associated Permits:

_____ _____

_____ _____

8. Describe Anticipated Incremental Development, if any:

_____

_____

_____

9. Zoning Designation: _____

10. Site Size: _____ square-feet
_____ acres

11. Square-Footage of Structure(s): _____ square-feet

12. # of Floors of Structure(s): _____

13. # Off-Street Parking Spaces: _____

14. Square-Footage of Parking Lot and/or Impervious Surface Area _____ square-feet

15. Estimated Amount of Grading: _____ cubic yards

16. Maximum Heights of Man-made Slopes: _____

17. If **Residential:**

    Number of Units: _____ Sales/Rental Price Range: _____

    Unit Sizes: _____ Household Size Expected: _____

18. If **Commercial**:

    Type of Use: _____ Square-Footage: _____

    Employees per Shift: _____

19. If **Industrial**:

    Type of Use: _____ Square-Footage: _____

    Employees per Shift: _____

20. If **Institutional**:

    Major Function: _____ Square-Footage: _____

    Employees per Shift: _____

21. If the project involves a VARIANCE, CONDITIONAL USE PERMIT, RE-ZONE/GENERAL PLAN AMENDMENT, SPECIFIC PLAN, COASTAL DEVELOPMENT PERMIT indicate clearly why the application is required.

ARE THE FOLLOWING ITEMS APPLICABLE TO THE PROEJCT OR ITS EFFECTS?
All questions answered with a **YES** shall include a discussion on a separate sheet(s) of paper.

	YES	NO
22. Change in existing features or any bays, tidelands, beaches, lakes, hills or substantial alternation of ground contours.		
23. Change in scenic views or vistas from existing residential area or public lands or roads.		
24. Change in pattern, scale or character of general area of project.		
25. Significant amounts of solid waste or litter.		
26. Changes in dust, ash, smoke, fumes or odors in vicinity.		
27. Change in ocean, bay, lake, stream, or ground water quality or alteration of existing drainage patterns, including drainage into an Environmental Sensitive Area (ESA).		
28. Substantial change in existing noise or vibration levels in the vicinity.		
29. Site on filled land or on slope of 10% or more.		
30. Use or disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.		
31. Substantial change in demand for municipal services (police, fire, water, sewage, parks, schools, etc.)		
32. Substantial increase in fossil fuel consumption (electricity, oil, natural gas, etc.)		
33. Relationship to a larger project or series of projects.		
34. Has a prior Environmental Impact Report (EIR) been prepared for a program, plan, policy or ordinance consistent with this project.		

35. If you answered yes to question *34*, may this project cause significant effects on the environment that were not examined in the prior EIR.

ENVIRONMENTAL SETTING:

36. Describe the project site as it exists before the project, including information on topography (including distinguishing natural and manmade characteristics), soil stability, plants and animals, and any cultural, historical, or scenic aspects. Describe any existing structures on the site and the use of the structures. *Please include photographs of the project site.*

37. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.) intensity of land use (single-family, apartment, shops, etc.) and scale of development (height, frontage, set-back, rear-yard, etc.) *Please include photographs of the vicinity.*

CERTIFICATION:

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability and that the facts, statements, and information presented are true and correct to the best of my knowledge and behalf.

_____
PRINT NAME of **Person Who Completed Application**

_____ _____
SIGNATURE DATE

_____
PRINT NAME

_____ _____
SIGNATURE of **Applicant** (if different than above) DATE

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) INITIAL STUDY CHECKLIST

CITY OF NATIONAL CITY
Planning Department
1243 National City Boulevard
National City, CA 91950

1. PROJECT TITLE/PROJECT #:

2. LEAD AGENCY: City of National City
Planning Department
1243 National City Boulevard
National City, CA 91950

Contact:
Phone:

3. PROJECT LOCATION: .

4. PROJECT PROPONENT:

Contact:
Phone:

5. COMBINED GENERAL PLAN/ ZONING DESIGNATION:

6. ASSOCIATED APPLICATIONS:

7. PROJECT DESCRIPTION:

8. OTHER AGENCIES WHOSE APPROVAL MAY BE REQUIRED (AND PERMITS NEEDED):

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or is "Potentially Significant Unless Mitigated," as indicated by the checklist on the following pages.

☐ Land Use & Planning	☐ Transportation/Circulation	☐ Public Services
☐ Population & Housing	☐ Biological Resources	☐ Utilities & Service Systems
☐ Geological Problems	☐ Energy & Mineral Resources	☐ Aesthetics
☐ Water	☐ Hazards	☐ Cultural Resources
☐ Air Quality	☐ Noise	☐ Recreation
	☐ Mandatory Findings of Significance	

DETERMINATION:

(To be completed by the Lead Agency)

On the basis of this Initial Evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. **A NEGATIVE DECLARATION** will be prepared. ☐

I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐

I find that the proposed project **MAY** have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or is "potentially significant unless mitigated." An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effect that remains to be addressed. ☐

Signature	Date
Printed Name:	Title:

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

2. All answers must take account of the whole action involved. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence than an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less than Significant w/ Mitigation Incorporated" applied where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less then Significant Impact". The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D).

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This in only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista? (Sources: 1, 6) Discussion:	☐	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Sources: 1) Discussion:	☐	☐	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings? (Sources: 1, 6) Discussion:	☐	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime Viewss in the area? (Sources: 1,3,6) Discussion:	☐	☐	☐	☐
II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation & Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (Sources:1,2) Discussion:	☐	☐	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Sources: 1, 2)	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
Discussion:				
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? (Sources: 1, 2)	☐	☐	☐	☐
Discussion:				

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan? (Sources: 10)	☐	☐	☐	☐
Discussion:				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Sources: 10)	☐	☐	☐	☐
Discussion:				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Sources: 10)	☐	☐	☐	☐
Discussion:				
d) Expose sensitive receptors to substantial pollutant concentrations? (Sources: 10)	☐	☐	☐	☐
Discussion:				
e) Create objectionable odors affecting a substantial number of people? (Sources: 10)	☐	☐	☐	☐
Discussion:				

IV. BIOLOGICAL RESOURCES -- Would the project:

a) Have a substantial adverse effect, either directly or through

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDBG) or U.S. Fish and Wildlife Service? (Sources: 1, 6, 7) Discussion:	☐	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game (CDFG) or US Fish and Wildlife Service? (Sources: 1, 6, 7) Discussion:	☐	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Sources: 1, 6,7) Discussion:	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Sources: 1, 2) Discussion:	☐	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Sources: 1,2) Discussion:	☐	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Sources: 1) Discussion:	☐	☐	☐	☐

V. CULTURAL RESOURCES

Would the project:

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section15064.5? (Sources:1, 8) Discussion:	☐	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5? (Sources: 1, 8) Discussion:	☐	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Sources: 1, 8) Discussion:	☐	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries? (Sources: 1, 8) Discussion:	☐	☐	☐	☐

VI. GEOLOGY & SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (Sources: 1, 9) Discussion:	☐	☐	☐	☐
ii) Strong seismic ground shaking? (Sources: 1,9) Discussion:	☐	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction? (Sources: 1,9) Discussion:	☐	☐	☐	☐
iv) Landslides? (Sources: 1,9) Discussion:	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil? (Sources:1,9) Discussion:	☐	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Sources: 1,9) Discussion:	☐	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Sources: 1,9) Discussion:	☐	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (Sources: 1, 9) Discussion:	☐	☐	☐	☐

VII. HAZARDS & HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Sources: 1, 6) Discussion:	☐	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Sources: 1, 6) Discussion:	☐	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Sources: 1, 6) Discussion:	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Sources: 1, 6) Discussion:	☐	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Sources: 1, 6) Discussion:	☐	☐	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Sources: 1, 6) Discussion:	☐	☐	☐	☐

VIII. HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (Sources: 1, 2, 6) Discussion:				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (Sources: 1, 2, 6) Discussion: .	☐	☐	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
f) Otherwise substantially degrade water quality? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Sources: 1, 2, 6, 9) Discussion:	☐	☐	☐	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (Sources: 1, 2, 6, 9) Discussion:	☐	☐	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Sources: 1, 2, 6, 9) Discussion:	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
j) Inundation by seiche, tsunami, or mudflow? (Sources: 1, 2, 6, 9)	☐	☐	☐	☐

Discussion:

IX. LAND USE & PLANNING

Would the project:

a) Physically divide an established community? (Sources: 1, 2, 6)	☐	☐	☐	☐

Discussion:

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (Sources: 1, 2, 6)	☐	☐	☐	☐

Discussion:

c) Conflict with any applicable habitat conservation plan or natural community conservation plan? (Sources: 1, 2, 6)	☐	☐	☐	☐

Discussion: The Canyon Viewss subdivision and development of 21 single-family residential parcels would not conflict with any applicable habitat conservation plan or natural community conservation plan. The project site is not associated with any conservation plans, therefore no impact.

X. MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (Sources: 1, 8, 9)	☐	☐	☐	☐

Discussion:

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (Sources: 1, 8, 9)	☐	☐	☐	☐

Discussion:

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. NOISE				
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Sources: 1, 2)	☐	☐	☐	☐
Discussion:				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? (Sources: 1, 2)	☐	☐	☐	☐
Discussion:				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (Sources: 1, 2)	☐	☐	☐	☐
Discussion:				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Sources: 1, 2)	☐	☐	☐	☐
Discussion:				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (Sources:1, 2)	☐	☐	☐	☐
Discussion:				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Sources: 1, 2)	☐	☐	☐	☐
Discussion:				
XII. POPULATION & HOUSING				
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
roads or other infrastructure)? (Sources: 1, 2) Discussion:				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Sources: 1, 2) Discussion:	☐	☐	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Sources: 1, 2) Discussion:	☐	☐	☐	☐

XIII. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection? (Sources: 1, 2) Discussion:	☐	☐	☐	☐
Police protection? (Sources: 1, 2) Discussion:	☐	☐	☐	☐
Schools? (Sources: 1, 2) Discussion:	☐	☐	☐	☐
Parks? (Sources: 1, 2) Discussion:	☐	☐	☐	☐
Other public facilities? (Sources: 1, 2) Discussion:	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Sources:)	☐	☐	☐	☐
Discussion:				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (Sources:)	☐	☐	☐	☐
Discussion:				
XV. TRANSPORTATION/TRAFFIC				
Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? (Sources: 1, 2, 11)	☐	☐	☐	☐
Discussion:				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? (Sources: 1, 2, 11)	☐	☐	☐	☐
Discussion:				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Sources: 1, 2, 11)	☐	☐	☐	☐
Discussion:				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Sources: 1, 2, 11)	☐	☐	☐	☐
Discussion:				

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access? (Sources: 1, 2, 11) Discussion:	☐	☐	☐	☐
f) Result in inadequate parking capacity? (Sources: 1, 2, 11) Discussion:	☐	☐	☐	☐
g) Conflict with adopted policies plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? (Sources: 1, 2, 11) Discussion:	☐	☐	☐	☐

XVI. UTILITIES & SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
addition to the provider's existing commitments? (Sources: 1, 2, 6) Discussion:				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Sources: 1, 2, 6) Discussion:	☐	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste? Discussion:	☐	☐	☐	☐

XVII. MANDATORY FINDINGS of SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when Viewsed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? Discussion:	☐	☐	☐	☐

ISSUES with Supporting Documentation & Sources	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

Discussion:

REFERENCE SOURCES:

Reference #	Document Title	Available for ReViews at:
1	National City General Plan	City of National City Planning Dept. 1243 National City Boulevard National City, CA 91950
2	City of National Municipal Code	"
3	City of National City Design Guidelines	"
4	National City Redevelopment Plan	"
5	City of National City Local Coastal Plan & Implementing Ordinances	"
6	Project Plans	"
7	(Enter Project Name) Biological Report, (Enter Date)	"
8	(Enter Project Name) Cultural Resources Study, (Enter Date)	"
9	(Enter Project Name) Geo-Technical Study, (Enter Date)	"
10	San Diego Air Quality Control District	"
11	SANDAG Traffic ITC Manual	"

MITIGATION MEASURES:

The following Mitigation Measures shall be incorporated into the (Project Name / Description / Zone).

1.

2.

DEPARTMENTAL SUSMP RESPONSIBILITY CHECKLIST

November 9, 2005

Introduction

In response to requirements associated with the San Diego Municipal Separate Storm Sewer System (MS4) Permit, issued by the San Diego Regional Water Quality Control Board (RWQCB), the 21 Copermittees, including National City (City), adopted a Standard Urban Storm Water Mitigation Plan (SUSMP) Ordinance. The SUSMP Ordinance establishes regulations for new development and significant redevelopment, as defined in the SUSMP Ordinance. Those project types that are subject to SUSMP regulations are called "Priority Projects."

The SUSMP Ordinance requires each Priority Project to submit technical plans of how each will mitigate potential negative impacts on water quality associated with its development. Those plans, typically referred to as SUSMP reports, must be reviewed and approved by the City before construction begins. This checklist document has been prepared to help clarify which City departments are responsible for ensuring that new development and significant redevelopment projects in the City comply with the SUSMP Ordinance. For the purposes of this checklist, "P" denotes primary responsibility, and "S" is secondary responsibility.

Departmental SUSMP Responsibility Checklist

		Planning Department	Engineering Department	Building and Safety Department	Community Development
	SUSMP Applicability				
	Is this a Priority Project?	**S**	**P**	**S**	**S**
	Conditions of Concern				
	Was a proper drainage study prepared?		**P**		
	Will post-construction volume or velocity cause increased or significantly increased downstream erosion?		**P**		
	Will project significantly disrupt flows supporting downstream wetland or habitat?	**S**	**P**		**S**
	Pollutants				
	Are the anticipated pollutants listed correctly and properly classified as primary or secondary pollutants of concern?		**P**		
	Watershed				
	Are receiving waters identified?		**P**		
	Are the receiving waters identified as 303(d) or ESA, if applicable. If 303(d), are the impairments listed?		**P**		
	Site Design BMPs				
1	**Maintain or Reduce Pre-Development Rainfall Runoff Characteristics**	**P**	**S**		**P**
	A. **Minimize Project's Impervious Footprint & Conserve Natural Areas (Refer to Section 2a of the SUSMP Ordinance)**	**P**	**S**		**P**
	• Construct walkways, trails, patios, overflow parking lots and alleys and other low-traffic areas with permeable surfaces. • Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. • Maximize canopy interception and water conservation. • Minimize the use of impervious surfacesin the landscape design. • Use natural drainage systems to the maximum extent practicable. • Other site design options, which are comparable, and equally effective.				

Departmental SUSMP Responsibility Checklist

		Planning Department	Engineering Department	Building and Safety Department	Community Development
	B. **Minimize Directly Connected Impervious Areas (DCIAs)**	**P**	**S**		**P**
	• Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm drain. • Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping. • Other design characteristics that are comparable and equally effective.				
2	**Protect Slopes and Channels**	**See Below**			
	• Convey runoff safely from the tops of slopes.		**P**		
	• Landscape slopes with native or drought tolerant vegetation.	**P**	**S**		**P**
	• Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.	**S**	**P**		**S**
	• Stabilize permanent channel crossings.	**S**	**P**		**S**
	• Install energy dissipaters.		**P**		
	• Other design principles, which are comparable and equally effective.	**S**	**P**		**S**
Source Control BMPs					
1	**Provide Storm Drain System Stenciling and Signage**	**S**	**P**		**S**
	• Provide labeling for all storm drain inlets and catch basins. • Post signs which prohibit illegal dumping • Maintain legibility of stencils and signs.				
2	**Design Outdoor Material Storage Areas to Reduce Pollution Introduction**	**See Below**			
	• Hazardous materials with the potential to contaminate urban runoff shall either be placed in an enclosure; or protected by secondary containment structures	**S**[1]	**S**[1]	**S**[1]	**S**[1]
	• The storage area shall be paved and sufficiently impervious to contain leaks and spills, if applicable.	**P**	**S**		**P**
	• The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.	**P**	**S**	**S**	**P**
3	**Design Trash Storage Areas to Reduce Pollution Introduction**	**P**	**S**		**P**

[1] The Fire Department has primary responsibility for this item.

Departmental SUSMP Responsibility Checklist

		Planning Department	Engineering Department	Building and Safety Department	Community Development
	• Paved with an impervious surface, designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash. • Provide attached lids on all trash containers that exclude rain, or roof or awning to minimize direct precipitation.				
4	**Use Efficient Irrigation Systems & Landscape Design**	**P**	**S**		**P**
	• Employing rain shutoff devices to prevent irrigation after precipitation. • Designing irrigation systems to each landscape area's specific water requirements. • Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines. • Employing other comparable, equally effective, methods to reduce irrigation water runoff.				
Individual Project Category BMPs (see Table 2 of the SUSMP Ordinance)					
1	**Private Roads**	**S**	**P**		**S**
	At least one of the following: • Rural swale system • Dual drainage system • Urban curb/swale system • Other features which are comparable and equally effective				
2	**Residential Driveways and Guest Parking**	**P**	**S**		**P**
	At least one of the following: • Driveways: shared access, flared, with wheelstrips, or drain to landscape • Temporary or guest parking: pervious paving or drain to landscaping • Other features which are comparable and equally effective				
3	**Loading Dock Areas**	**P**	**P**		**P**
	All of the following: • Covered or designed to prevent run-on and runoff • No direct connections from depressed loading dock areas to the storm drain system				
4	**Maintenance Bays**	**P**	**S**	**P**	**P**

Departmental SUSMP Responsibility Checklist

		Planning Department	Engineering Department	Building and Safety Department	Community Development
	All of the following • Indoors • Drainage system designed to capture all wash water, leaks and spills; bay is not directly connected to the storm drain system.				
5	**Vehicle or Equipment Wash Areas**	**S**	**P**	**P**	**S**
	All of the following: • Self contained, or covered with roof overhang • Equipped with clarifier, grease trap, or other pretreatment device, as appropriate • Properly connected to sanitary sewer				
6	**Outdoor Processing Areas**	**P**	**P**		**P**
	All of the following: • Covered of enclosed, sloped toward dead-end sump, or discharge to sanitary sewer with permit • Graded or bermed to prevent run-on from surrounding areas • No storm drains to be installed in processing areas				
7	**Parking Areas**	**P**	**S**		**P**
	Incorporate as applicable and feasible: • Incorporate landscaping into drainage design including canopy interception • Overflow parking constructed with permeable paving				
8	**Roadways**		**P**		
	• Appropriate treatment control BMP selected				

9	**Fueling Areas**	**S**	**P**	**S**	**S**

Departmental SUSMP Responsibility Checklist

		Planning Department	Engineering Department	Building and Safety Department	Community Development
	All of the following: • Overhead coverage greater than or equal to size of area within grade break, with downspouts routed to not drain into fueling area. • Drains to project's treatment control BMPs prior to entering MS4 • Paved with Portland Cement or equivalent; not paved with asphalt • Have an appropriate slope to prevent ponding; grade break to prevent run-on				
Treatment Control BMPs					
1	**Design to Treatment Control BMP Standards**		**P**		
	• Volume - The volume of runoff produced from a 24-hour 85th percentile storm event, or • Flow - The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour				
2	**Locate BMPs Near Pollutant Sources**		**P**		
3	**Restrictions on Use of Infiltration BMPs**		**P**		
	• The vertical distance from the base of any infiltration structural treatment BMP to the seasonal high groundwater mark shall be at least 10 feet or as determined on an individual, site-specific basis by the City. • The soil to be adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses. • Infiltration structural treatment BMPs shall not be used for areas of industrial activity; areas subject to high vehicular traffic; automotive repair shops; car washes; fleet storage areas; nurseries; and other high threat to water quality land uses and activities as designated in SUSMP.				
Operation and Maintenance					
1	**Provide Proof of Ongoing Storm Water BMP Maintenance**	**S**	**P**		**S**
2	**Maintenance Mechanisms**	**S**	**P**		**S**
	• Public entity maintenance • Project proponent agreement to maintain storm water BMPs • Assessment districts • Lease provisions				
	• Alternative mechanisms				
3	**Verification Mechanisms (See Section 3 of the SUSMP Ordinance)**	**S**	**P**		**S**

	Departmental SUSMP Responsibility Checklist	Planning Department	Engineering Department	Building and Safety Department	Community Development
4	**Maintenance Requirements**	**S**	**P**		**S**
	• Operation & Maintenance (O&M) Plan • Access Easement/Agreement				
Waiver of Structural Treatment BMP Requirements			**P**		
	• National City shall notify the Regional Board within 5 days of each waiver issued and shall include the name of the person granting each waiver.				

City of National City
BMP Operation and Maintenace Verification Form

Jack In The Box

Address: 18th & Highland Avenue
National City, CA 91950

Annual verification of effective operation and maintenance of all installed treatment control Best Managment Practices (BMPs) was a condition of the permit to develop this site. Chapter 14.22 of the City's Muncipal Code requires property owners to provide annual verification of proper operation and maintenance of BMPs. Please complete this form and return no later than September 1st, 2008 to the following address:

City of National City, Engineering Department
1243 National City Boulevard
National City, CA 91950
Attn: SUSMP BMP Verification Project

Please list the inspection and maintenance dates for each treatment control BMP listed at each described location. If maintenance was performed, include a breif description of the maintenance performed. If maintenance was performed by an outside company, include documentation of services.

BMP: **Drainage Insert Filter**

BMP Description: **Drainage insert filter**

- Catch basin at front entrance of resturant in parking lot (no GPS coordinates available)

  Inspection Dates: _____
  Date of Last Maintenance: _____
  Description of Maintenance: _____
  _____

- Catch basin at exit of drive-thru (no GPS coordinates available)

  Inspection Dates:
  Date of Last Maintenance: _____
  Description of Maintenance: _____

- Catch basin at entrance of drive-thru (no GPS coordinates available)

  Inspection Dates: _____
  Date of Last Maintenance: _____
  Description of Maintenance: _____
  _____

- Catch basin at entrance/exit along Highland Ave at end of trench drain (no GPS coordinates available)

  Inspection Dates: _____

  Date of Last Maintenance: _____

  Description of Maintenance: _____

  _____

- Across entrance/exit along Highland Ave (no GPS coordinates available)

  Inspection Dates: _____

  Date of Last Maintenance: _____

  Description of Maintenance: _____

  _____

Certification

I certify under penalty of law that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

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

_____ _____

Signature of Responsible Party **Date**

_____

Printed Name of Responsible Party **Title**

_____

Daytime Phone **Fax** **Email**

CITY OF NATIONAL CITY
SUSMP REVIEW CHECKLIST
D-MAX Engineering, Inc.

A. PROJECT INFORMATION

Project Name _____ Type: ☐ Private ☐ Public

Street Address _____ ZIP

Project Size (ft^2) _____ paved surfaces (ft^2) _____ roofs (ft^2) _____ pervious (ft^2) _____

SUSMP Preparer _____ SUSMP Report Date _____

Project Description _____

_____

_____

B. SUSMP CATEGORY

This project is ☐ New Development ☐ Significant Redevelopment (If neither, then cannot be Priority Project)

Is this a Priority Project? ☐ Yes ☐ No

If yes, check all SUSMP categories that apply to the project:

- ☐ Residential Development 10 or more units Type: ☐ Attached ☐ Detached
- ☐ Commercial Development > one acre
- ☐ Industrial Development > one acre
- ☐ Automotive Repair Shop
- ☐ Restaurant
- ☐ Hillside Development > 5,000 ft^2
- ☐ Parking Lot > 5,000 ft^2 or with > 15 parking spaces and potentially exposed to urban runoff
- ☐ Streets, Highways, or Freeways
- ☐ Retail Gasoline Outlets $\geq$ 5,000 ft^2 or projected daily traffic > 100 vehicles per day
- ☐ Discharges to ESA and creates $\geq$ 2,500 ft^2 of impervious surfaces or increases impervious area to 10% or more of its naturally occurring condition and
  - ☐ Is located in or within 200 feet of an ESA **OR**
  - ☐ Discharges urban runoff to ESA without mixing with flows from adjacent land

C. HYDROLOGIC SETTING

Receiving water body: _____ Hydrologic Area: _____

Approximate distance to water bodies: ☐ < 200 ft. ☐ 200 – 1000 ft. ☐ > 1000 ft.

Sensitivity of receiving waters: ☐ Non-sensitive ☐ ESA ☐ 303(d)/ESA (all 303(d) are by definition also ESAs)

If 303(d) list impairments _____

D. POLLUTANTS OF CONCERN (as listed in the report)

Pollutant	A*	P*	S*	Listed Correctly?		Comments
				Yes	No	
Sediments						
Nutrients						
Heavy Metals						
Organic Compounds						
Trash & Debris						
Oxygen Demanding Substances						
Oil & Grease						
Bacteria & Viruses						
Pesticides						
Others (list):						

*A = Anticipated Pollutant, P = Primary Pollutant of Concern, S = Secondary Pollutant of Concern

E. Conditions of Concern

Was a drainage study report prepared? ☐ Yes ☐ No

Was the report prepared by a registered Civil Engineer? ☐ Yes ☐ No

If yes list the engineer's name _____

Does the study state that field reconnaissance was conducted? ☐ Yes ☐ No

Relevant findings _____

Drainage study includes (check all that apply):

☐ Calculation 1: based on (indicate one: ☐ 2 ☐ 10 ☐ 50 ☐ 100)-year, (indicate one: ☐ 6 ☐ 24)-hour storm

- ☐ Peak flow rate — existing (cfs): _____ proposed (cfs): _____
- ☐ Flow velocity
- ☐ Runoff volume
- ☐ Time of concentration
- ☐ Retention volume

☐ Calculation 2: based on (indicate one: ☐ 2 ☐ 10 ☐ 50 ☐ 100)-year, (indicate one: ☐ 6 ☐ 24)-hour storm

- ☐ Peak flow rate — existing (cfs): _____ proposed (cfs): _____
- ☐ Flow velocity
- ☐ Runoff volume
- ☐ Time of concentration
- ☐ Retention volume

Were conditions of concern adequately identified? ☐ Yes ☐ No

If so, has the project implemented sufficient site design, source control, and/or treatment control BMPs to maintain pre-project hydrologic conditions affecting downstream conditions of concern? ☐ Yes ☐ No

BMPs	N/A	Yes	No	Comments
"Yes" means incorporated and adequate; "No" means not incorporated or not adequate				
F Low Impact Development (LID) and Site Design BMPs (All Projects)				
F.1 Maintain Pre-Development Runoff Conditions				
Minimize project's impervious footprint				
Conserve natural areas, soils, and vegetation				
Construct low traffic areas (walkways, trails, patios, parking lots, alleys, etc.) using permeable surfaces				
Construct streets, sidewalks, and parking lot aisles to minimum widths				
Maximize canopy interception by preserving existing trees and shrubs				
Minimize use of impervious surfaces, such as decorative concrete, in landscape design				
Preserve natural drainage systems				
Minimize soil compaction				
Other (list in comments box)				
F.2 Minimize Directly Connected Impervious Areas				
Drain rooftops into landscaping				
Drain sidewalks, walkways, trails, and patios into landscaping				
Other (list in comments box)				

BMPs	N/A	Yes	No	Comments
"Yes" means incorporated and adequate; "No" means not incorporated or not adequate				
F.3 Protect Slopes and Channels				
Minimize disturbances to Natural Drainages				
Convey runoff safely from the tops of slopes				
Vegetate slopes with native or drought tolerant vegetation				
Stabilize permanent channel crossings				
Install energy dissipaters at outlets that enter unlined channels				
Other (list in comments box)				
G. Source Control BMPs				
Provide storm drain stenciling				
Design outdoor material storage areas to reduce pollution introduction				
Design trash storage areas to reduce pollution introduction				
Use efficient irrigation systems and landscape design				
H. Individual Project Category BMPs				
H.1 Private Roads				
At least one of the following (check all that apply): ☐ Rural swale system ☐ Dual drainage system ☐ Urban curb/swale system ☐ Other equivalent method: _____				
H.2 Residential Driveways & Guest Parking				
At least one of the following (check all that apply): ☐ Driveways: shared access, flared, with wheelstrips, or drain to landscaping ☐ Temporary or guest parking: pervious paving or drain to landscaping ☐ Other equivalent method: _____				
H.3 Dock Areas				
All of the following (check all that apply): ☐ Covered or designed to prevent run-on and runoff ☐ No direct connections from depressed loading dock areas to the storm drain system ☐ Other equivalent method: _____				
H.4 Maintenance Bays				
All of the following (check all that apply): ☐ Indoors or designed to prevent run-on and runoff ☐ Drainage system designed to capture all wash water, leaks, and spills; bay is not directly connected to the storm drain system ☐ Other equivalent method: _____				
H.5 Vehicle Wash Areas				

BMPs	N/A	Yes	No	Comments
"Yes" means incorporated and adequate; "No" means not incorporated or not adequate				
All of the following (check all that apply): ☐ Self-contained, or covered with roof or overhang ☐ Equipped with clarifier or other pretreatment device ☐ Properly connected to sanitary sewer ☐ Other equivalent method: _____				
H.6 Outdoor Processing Areas				
All of the following (check all that apply): ☐ Covered or enclosed, sloped toward dead-end sump, or discharge to sanitary sewer with permit ☐ Graded or bermed to prevent run-on from surrounding areas ☐ No storm drains to be installed in equipment repair areas ☐ Other equivalent method: _____				
H.7 Equipment Wash Areas				
All of the following (check all that apply): ☐ Self-contained, or covered with roof or overhang ☐ Equipped with clarifier, grease trap, or other pretreatment device, as appropriate ☐ Properly connected to sanitary sewer ☐ Other equivalent method: _____				
H.8 Parking Areas				
Incorporate as applicable and feasible (check all that apply): ☐ Incorporate landscaping into drainage design ☐ Overflow parking constructed with pervious paving ☐ Other equivalent method: _____				
H.9 Roadways				
☐ Appropriate treatment control BMP selected				
H.10 Fueling Areas				
All of the following (check all that apply): ☐ Overhead coverage greater than or equal to size of area within grade break, with downspouts routed to not drain into fueling area. ☐ Drains to project's treatment control BMPs prior to entering MS4 ☐ Paved with Portland Cement or equivalent; not paved with asphalt ☐ Have an appropriate slope to prevent ponding; grade break to prevent run-on ☐ Other equivalent method: _____				
H.11 Hillside Landscaping				
☐ Disturbed areas landscaped with deep-rooted, drought tolerant plant species for erosion control				

H. Treatment Control BMPs

The following treatment control BMPs have been selected for this project (check all that apply):

☐ Biofilter

☐ Bioretention

☐ Detention Basin

☐ Infiltration

Indicate Type: ☐ Basin ☐ Trench or Swale ☐ Porous Paving

Groundwater table height: _____ feet

Have appropriate groundwater protection measures been proposed? ☐ Yes ☐ No

☐ Wet Pond

☐ Wetland

☐ Filtration System

☐ Hydrodynamic Separator System manufacturer & model number : _____

Do proposed BMPs effectively address primary pollutants of concern (high or med. removal efficiency)? ☐ Yes ☐ No

Have the BMPs with the highest removal efficiencies for the anticipated pollutants been selected? ☐ Yes ☐ No

If not, does the report justify the use of the proposed BMPs? ☐ Yes ☐ No

Treatment Control BMP Design

Design based on ☐ Flow ☐ Volume

Are the calculations based on the appropriate size and frequency storm event? ☐ Yes ☐ No

Is all runoff from the site directed to at least one treatment control BMP? ☐ Yes ☐ No

Are the selected BMPs capable of treating the calculated SUSMP flow or volume? ☐ Yes ☐ No

Are the selected treatment control BMPs designed properly? ☐ Yes ☐ No

If design is flawed, list flaws here: _____

_____

_____

I. Maintenance Requirements

Is an operation and maintenance (O&M) plan attached? ☐ Yes ☐ No

List the party identified as responsible for implementing the O&M plan _____

Does the plan require adequate inspection and maintenance of all structural BMPs? ☐ Yes ☐ No

Is an access easement or agreement included? ☐ Yes ☐ No

J. Site Map

Are all proposed structural BMPs (site design, source control, and/or treatment) identified on the map? ☐ Yes ☐ No

Does the map adequately show the proposed property drainage? ☐ Yes ☐ No

K. SUMMARY

Does the submitted SUSMP report meet the City's requirements? ☐ Yes ☐ No

Major concerns regarding this submittal are summarized (check one) ☐ Below ☐ On attached sheet

City Of National City
1243 National City Blvd.
National City, CA 91950
(619) 336-4580

Storm Water Management Plan Self Checklist

	Included in SWMP?		
SUSMP Requirement	Yes	No	Not Applicable
Title Page			
• Name of project and APN			
• Owner/Developer name, address, and phone number			
• Consulting/Engineering firm, address and phone number			
• Preparer's Registered Professional Engineers' Stamp and Signature			
• Date SWMP was prepared/revised			
Table of Contents			
• Lists sections, appendices, and contains page numbers			
Vicinity Map			
• Map showing project's location within the City			
Project Description (in narrative form)			
• Project location			
• Project size and total amount of impervious area			
• Description of proposed development and intended use			
• Identify all applicable Priority Project categories			
Hydrology			
• Project watershed (La Paleta/7th Street Channel, Paradise Creek, or Sweetwater River; see ESA map)			
• Existing impairments of receiving waters			
• Identify immediate receiving waters and downstream receiving waters			
• Description of the condition of receiving waters (i.e. natural stream, concrete channel, underground pipe)			
• Drainage map showing direction of flow and drainage basin boundaries			
• Peak flow calculations for 2-year and 10-year, 6-hour rainfall events pre and post construction			
• Evaluation of impacts to downstream channels and/or stream habitat			
• Description of detention measures to equalize pre and post construction peak flow, or discussion of why they are not necessary.			
Pollutants of Concern			
• List of anticipated and potential pollutants (Table 1 of SUSMP Ordinance)			
• Pollutants designated as primary or secondary			

	Included in SWMP?		
SUSMP Requirement	Yes	No	Not Applicable
BMPs			
LID and Site Design BMPs			
• Narrative describing each of the LID and site design BMPs proposed. Appropriately sized BMPs being used as treatment control BMPs should be described in the treatment control BMP section of the SWMP.			
• Narrative describing which LID and site design BMPs are not applicable, including rationale for why each is not applicable.			
• Site design BMPs clearly marked on the BMP map			
Source Control BMPs			
• Narrative describing all source control BMPs proposed for the project			
• Narrative describing all source control BMPs that were not applicable, including rationale for why each is not applicable.			
• Narrative description of how each applicable individual BMP proposed for the project will be implemented. If proposing an alternative design than those in the City's SUSMP Ordinance, you must state how the alternative design is equally effective to those included in the Ordinance.			
Individual Priority Project Category BMPs			
• Identification of which individual Priority Project category BMPs apply to the project (Table 2 of SUSMP)			
• Narrative describing all individual Priority Project BMPs proposed for the project			
• Narrative describing any individual Priority Project BMPs that are generally applicable to the project's Priority Project categories but are not applicable to this specific project			
• If a BMP other than those listed in the SUSMP Ordinance is proposed to satisfy the requirements, include an explanation how it is equally effective as the BMPs proposed in the ordinance.			
Treatment Control BMPs			
• Narrative describing all treatment control BMPs proposed for the project. For manufactured BMPs, include brand name and model number.			

	Included in SWMP?		
SUSMP Requirement	Yes	No	Not Applicable
• Narrative describing how the proposed treatment controls address the anticipated and potential pollutants for the project. (See tables 3 & 4 in the SUSMP Ordinance)			
• Discussion demonstrating why the proposed treatment control BMPs are the most effective treatment BMPs that could feasibly be implemented.[1]			
• Sizing calculations for treatment control BMPs			
• Treatment Control BMPs clearly shown on BMP map			
Operation and Maintenance			
• Description of BMPs requiring operation and maintenance			
• Description of operation and maintenance activities, including inspection frequencies and handling of wastes			
• Parties responsible for BMP maintenance			
• Inspection and record keeping requirements			
BMP Site Map			
• Locations of all LID and site design BMPs			
• Locations of all structural and non-structural source control BMPs			
• Locations of all treatment control BMPs			
• Locations of roof downspouts			
• Locations of all storm water conveyances and all discharge points where onsite flow exits the site			
• Landscaped areas			
• Legend, north arrow, and scale			
• Labeled streets adjacent to project			

[1] For projects that propose only treatment control BMPs with low removal efficiency for the project's most significant pollutants, a detailed feasibility analysis must be included in the project's SWMP. See the City's SUSMP Ordinance for more information.

Standard Permanent Storm Water BMPs

National City Municipal Code Chapter 14.22.160

Project Name: _____ Project Address: _____
Person completing form: _____Telephone number: (_____)_____-_____
Signature: _____ Date: ____/_____/_____

The following planning, design, and post-construction BMPs are required for all land development and redevelopment projects in the City of National City. All BMPs listed below shall be selected and implemented where applicable and feasible.

Each selected BMP must be shown on the applicable plan(s) for the project.

Required BMPs	Check if Selected	If the BMP is not selected, explain why below (attach additional pages if necessary).
1. BMPs for permanent control of erosion from slopes.		
a. Convey runoff safely from the tops of slopes		
b. Vegetate slopes with native or drought tolerant vegetation		
c. Other (describe):		
2. BMPs to control flows, velocity and erosion. 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.		
a. Minimize disturbances to Natural Drainages		
b. Stabilize permanent channel crossings		
c. Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels		
d. Provide buffer zones for natural water bodies		
e. Other (describe):		
3. Low Impact Development (LID) and site design BMPs.		
a. Conserve natural areas, soils, and vegetation where feasible		
b. Construct walkways, trails, patios. overflow parking lots, alleys, and other low-traffic areas with permeable surfaces		
c. Construct impervious surfaces to minimum widths necessary		
d. Use natural drainage systems		
e. Minimize soil compaction in areas that will remain pervious after development		
f. Drain runoff from impervious roofs into adjacent landscaping		
g. Drain runoff from impervious sidewalks and/or walkways into adjacent landscaping		
h. Drain runoff from impervious parking lots into adjacent landscaping		

Required BMPs	Check if Selected	If the BMP is not selected, explain why below (attach additional pages if necessary).
i. Drain runoff from impervious storage areas into adjacent landscaping		
j. Other (describe):		
4. Storm drain stenciling and signage		
5. BMPs for outdoor materials storage and exposed work areas, to reduce pollution introduction.		
a. Provide overhead coverage for outdoor storage or work areas		
b. Divert storm water run-on away from outdoor storage or work areas		
6. BMPs for trash storage areas, to reduce pollution introduction. Store trash containers on an impervious surface in a screened or walled area designed to prevent run-on from flowing through the trash area, and provide a roof or awning to prevent direct contact with rain.		
7. BMPs for irrigation systems and landscape design, to minimize the runoff of excess irrigation water into the storm water conveyance system. (Limited exclusion: detached residential developments)		
a. Use rain shutoff devices		
b. Design irrigation system to each landscape area's water requirements		
c. Use flow reducers		
d. Other (describe):		
8. Structural BMPs[1] 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.		

[1] Off-site structural BMPs may be used for treatment and infiltration necessary to meet water quality standards only if the conveyance of run-off 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 on-site source control BMPs required by the manual. When an infiltration BMP is used, related BMPs set out in the manual (including but not limited to siting constraints), to protect present uses of ground water and future uses of that ground water 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.)

City Use Only

If Structural BMPs are proposed, a maintenance agreement is required. Has a maintenance agreement for this project been submitted? □ Yes □ No □ NA

Approved □ Yes □ No

_____ _____/_____/_____ _____
Signature Date Department

Date

New Storm Water Treatment Device Inspection and Maintenance Requirements for Property Owners

Address and Property Owner:

Dear Property Owner,

Under a current environmental permit issued by the Regional Water Quality Control Board (RWQCB), National City is required to regularly inspect all completed new and redevelopment projects with permanent storm water treatment devices (also known as treatment control Best Management Practices (BMPs)). In addition to City conducted inspections of these devices, the permit requires that the individuals responsible for these treatment control BMPs conduct their own regular inspections and perform maintenance on these devices as needed, and submit documentation of these activities to the City.

If you are receiving this notice, it is because our City records indicate that you are the responsible party for the treatment control BMP(s) on your property. **You are required to complete and sign the attached form regarding the inspection and maintenance activities you have conducted in the past year for the treatment control(s) indicated.** Also, please correct any incorrect information on the form so we can update our records accordingly. **You must return the completed form to the City by no later than October 1st**. You can drop the form off at City Hall or mail the form to the following address:

City of National City, Engineering Department
1243 National City Boulevard
National City, CA 91950
Attn: SUSMP BMP Verification Project

Failure to comply with this requirement could result in issuing a notice of violation and being turned over to the City Attorney for legal action in accordance with the City of National City Storm Water Ordinance, Chapter 14.22. **Civil liability fines (up to $10,000 a day) could be imposed for extended non compliance.**

Please refer to your property's Standard Urban Stormwater Mitigation Plan (SUSMP) document and signed maintenance agreement for details on what maintenance is required for the treatment controls on your site. If you have any questions about this program, or would like to view your site's SUSMP report or maintenance agreement, please contact the City of National City's Storm Water Compliance Officer, Barbra Tipton, at (619) 336-4583.

For further information on maintenance of treatment control BMPs, refer to the documentation provided from the manufacturer (for commercially sold treatment control BMPs) or the California's Stormwater Quality Association's (CASQA) New Development and Redevelopment Handbook. A hard copy of the handbook is available

to read at the City's engineering counter, or you can access the handbook on CASQA's website at:

http://www.cabmphandbooks.com/Development.asp

We appreciate your cooperation with the City's storm water pollution prevention program. Your efforts help make the City's waterways and oceanfront safe and enjoyable for everyone.

Sincerely,

City Contact Person

Attachments:

BMP Operation and Maintenance Verification Form

D.2 Construction

CITY OF NATIONAL CITY
STORM WATER QUALITY INSPECTION FOR CONSTRUCTION ACTIVITIES

Inspector Name/ Title_____

Signature_____Date/Time_____

Reason for Inspection: ☐ Routine Inspection ☐ Follow-up Inspection ☐ Complaint Investigation

Prioritization prior to inspection: ☐ High ☐ Medium ☐ Low

Weather Information:

Storm Start Date and Time:_____ Storm Duration:_____hours

Time Since Last Storm:_____hrs/days Rainfall:_____inches

I. GENERAL INFORMATION

Project Activity:_____

Project Name_____

Project Location:_____

Responsible Person(s)_____

Business Telephone # (_____) _____---_____ ext._____

After hours Telephone # (_____) _____---_____ ext._____

Fax # (_____) _____---_____

Is this project covered by:

General Construction Permit: ☐ Yes ☐ No

Waste Discharge ☐ Yes ☐ No ☐ N/A

If yes: Provide Record of Waste Discharge Identification Number (WDID#):_____

Does this Project maintain

Construction Grading Permit: ☐ Yes ☐ No ☐ N/A

Other Permits: ☐ Yes ☐ No

Storm Water Pollution Prevention Plan SWPPP: ☐ Yes ☐ No ☐ N/A

Pollution prevention or BMP document: ☐ Yes ☐ No ☐ N/A

II. INITIAL OBSERVATIONS

Nearest conveyances or water bodies: _____

Sensitivity of receiving waters: ☐ High (ESA, 303(d)) ☐ Medium (creek) ☐ Low (concrete)

Approximate distance from facility: _____

Discharge points along perimeter: _____

Discharge observed: ☐ Yes ☐ No Description: _____

Approximate area covered by construction site: _____square feet

Approximate % impervious surface of this area: _____%

Areas of outdoor intensive construction activity: _____

Signs of recent additions or remodels: _____

III. BMP ASSESSMENT

BMP	Yes	No	N/A	Description	Effective Yes/No
Soil Stabilization and Erosion Prevention					
Preservation of existing vegetation					
Hydraulic Mulch, Hydroseeding, Soil Binders, Straw Mulch					
Geotextiles, Plastic covers, erosion prevention blankets Wood mulching					
Site Drainage: Earth dikes, drainage swales, ditches					
Inlet/Outlet protection					
Sediment Control/Containment					
Perimeter Protection: Silt Fencing, Gravel Bags, Fiber Rolls					
Storm Drain inlet protection: Sediment trap, De-silting basin, Sandbag Barrier					
Tracking Controls: Stabilized entrance/exit and road stabilization, tire wash area, street sweeping					
Materials and Equipment Management					
Are materials and wastes stored in a manner that minimizes or eliminates the potential to discharge these materials to the storm drain system, is secondary containment used?					
Are material stockpiles protected: covered, contained with temporary perimeter, located away from non-storm water discharges?					
Are heavy equipment and vehicles parked in designated areas with permeable surface?					
Are appropriate spill response and containment measures kept on the site?					
Are wastes managed and stored properly (Solid, liquid, sanitary, concrete, hazardous)					
Is timely service and removal provided to prevent waste containers and sanitary facilities from overflowing?					
Non-Storm Water Management					
Is the site free of evidence of illegal connections and illicit discharges?					
Is the site free of evidence of unauthorized releases to storm drains?					
If not, have the appropriate authorities been notified?					

Discharge Locations					
Are the discharge locations free of significant erosion or sediment transport?					
Other					
Does the SWPPP adequately reflect the current site conditions and the construction operations? If not, explain required SWPPP revisions below.					
Are there any other potential storm water pollution issues or concerns? If yes, explain below.					

Notes:_____

IV. SWPPP REVIEW (if applicable)

Does facility maintain a SWPPP: ☐ Yes ☐ No

SWPPP Component	Provided	Adequate	Notes
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	_____

Notes_____

V. VIOLATIONS

☐ **No violations noted at time of inspection/investigation**

☐ No violations noted at time of inspection/investigation; however, corrective actions recommended

☐ Illegal discharge(s) of pollutants into the MS4 or receiving waters

Description _____

☐ Illegal Connection(s) to the MS4

☐ Littering

☐ Improper implementation of BMPs:_____

VI. RECOMMENDED CORRECTIVE ACTION

_____

_____

_____

_____

_____

_____

Within _____ consecutive days of the date of this report:

_____ Complete and sign the enclosed Corrective Action Form, attach photographic or digital documentation of corrections, and return these supportive materials to:

City of National City
1243 National City Boulevard
National City, California 91950-4301

_____ Follow-up Visit: Please arrange for all responsible parties to be available on site for the re-inspection scheduled for:_____.

VII. RECEIPT AND SIGNATURE

I have received a copy of the City of National City Storm Water Inspection for Construction Sites:

_____ AND AGREE to comply with the requirements of the City of National City Storm Water Ordinance as described in part by this report.

_____ BUT DISAGREE with the intent or feasibility of this report and therefore request a hearing with this agency.

Hearing date and time_____

Hearing location_____

Representative_____Date_____

Name (Print)_____Title_____

Inspector_____Date_____

Name (Print)_____Phone_____

D.3 Municipal

CITY OF NATIONAL CITY
STORM WATER QUALITY INSPECTION FOR MUNICIPAL FACILITIES

Inspector Name _____

Date_____/_____/_____Time_____AM / PM Type of Inspection: ☐ Routine ☐ Follow-up ☐ Complaint Investigation

A. Contact Information

Facility Name_____

Address_____

_____

Manager/Operator(s)_____

Business Telephone # (_____) _____- _____ ext._____

After hours Telephone #(_____) _____- _____ ext._____

B. Facility/Site Information

Principal activity/function:_____

JURMP Prioritization: ☐ High ☐ Medium ☐ Low

New JURMP Prioritization?_____

C. Initial Observations

Nearest conveyances or water bodies: _____

Approximate distance to water bodies: ☐ < 200 ft. ☐ 200 – 1000 ft. ☐ > 1000 ft.

Sensitivity of receiving waters: ☐ Sensitive (ESA, 303(d), or other) ☐ Non-sensitive

Discharge points along perimeter: _____

_____

Discharge observed: ☐ Yes ☐ No

If yes, describe: _____

Approximate area of site:_____square feet

Approximate % impervious surface of this area_____%

Exposed areas of intensive outdoor activity: _____

D. Best Management Practices (BMPs) Assessment

D.1 General

BMPs	N/A	Yes	No	Comments
Is the site free of litter and debris?				
Are discharge locations free of sediment and debris?				
Are parking lots, sidewalks and streets free of sediment and debris?				
Is pressure washing conducted at this facility? If yes, is wash water captured?				

D.2 Landscaping

BMPs	N/A	Yes	No	Comments
Are adequate erosion prevention measures employed? (vegetation or physical stabilization)				
Are irrigation systems programmed to minimize overwatering and runoff?				
Are stockpiles of soil or landscape waste equipped to prevent runoff transport?				
Are pest management techniques employed?				
Is drought-resistant vegetation incorporated into landscaping?				
Are pesticides, herbicides, and fertilizers managed in accordance with the JURMP BMPs?				

D.3 Materials and Wastes

Are adequate trash containers provided?				
Are adequate recycling containers provided?				
Is the trash/recycling area free of litter and debris?				
Is timely service and removal provided to prevent waste containers and sanitary facilities from overflowing?				
Are outdoor storage areas adequate (i.e., covered area with secondary containment)?				
Is there an accessible spill response kit?				
Are storage tanks equipped with secondary containment?				
Is secondary containment free of spills and rainwater?				
Are loading and unloading areas free of spills and debris?				

D.4 Equipment and Vehicles

Are parking areas exposed to storm water free of significant spills and leaks?				
Are heavy equipment and vehicles stored in garages or under canopies?				
Are vehicle maintenance activities conducted within contained areas (garage, canopy, work shop)?				
Are equipment and vehicles inspected daily for leaks and repaired as necessary?				
Are vehicle fueling areas covered and are nearby storm drain inlets protected from spills and leaks?				
Is vehicle washing preformed in a contained area where runoff does not enter the MS4?				
Are biodegradable soaps used for cleaning activities?				

D.5 Construction

Are adequate erosion prevention measures employed throughout the site? (vegetation or physical stabilization)				
Are adequate sediment control BMPs employed throughout the site? (sandbags, gravel bags, inlet filters)				

D.6 Non-Storm Water Management

BMPs	N/A	Yes	No	Comments
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?				

D.7 Other

Are all activity-specific BMPs from Appendix C of the JURMP being implemented?				
Are there any other potential storm water pollution issues or concerns? If yes, explain below.				

D.8 Notes:

E. SWPPP Review (PW Yard ONLY)

Does the Public Works Yard SWPPP need to be updated to reflect any changes in area/activities? ☐ Yes ☐ No

F. Recommended Corrective Action

Is corrective action needed? ☐ Yes ☐ No If yes, describe below.

Owner/operator has been notified of recommended corrective actions: ☐ Verbally ☐ Photocopy ☐ Fax ☐ E-Mail

G. Violations

☐ No violations have been noted at this time

☐ No violations have been noted, but recommend taking corrective action described above.

☐ Violation of storm water ordinance or other applicable regulations were found.

Type of violation:

☐ Illegal discharge(s) of pollutants into the storm drain or receiving waters

Description_____

☐ Illegal connection(s) to the storm drain system

Location_____

☐ Littering

☐ Improper implementation of required BMPs

☐ Other_____

Specific action required to the correct violation described above:

_____

_____

D.4 Industrial and Commercial

CITY OF NATIONAL CITY
STORM WATER QUALITY INSPECTION FOR INDUSTRIAL/COMMERCIAL FACILITIES

Inspected by D-MAX Engineering, Inc.

Inspector Name _____ Date____/____/_____Time_____AM / PM

Type of Inspection: ☐ Routine Result: ☐ Full Insp. ☐ Could not Contact ☐ Low Commercial ☐ Moved, Vacant
☐ Follow-up ☐ Complaint ☐ Moved, Replaced by_____ ☐ Refused ☐ Duplicate

A. CONTACT INFORMATION

Original	Changes
Business Name_____	Business Name_____
_____	_____
Street Address_____	Street Address_____
_____	_____
Responsible Person(s)_____	Responsible Person(s)_____
Business Telephone # (____) _____ -_____ext._____	Business Telephone # (____) _____ -_____ext._____
Business Fax # (_____) _____ - _____	Business Fax # (_____) _____ - _____
Home Based? ☐ Yes ☐ No	

B. FACILITY/SITE INFORMATION

Principal activity:_____

Assigned JURMP Classification: ☐ High Ind ☐ Medium Ind ☐ Low Ind ☐ High Comm ☐ Unassigned

Is this facility currently listed in the City's JURMP Inventories? ☐ Yes ☐ No

Assigned SIC Code(s)_____ _____

Does SIC Code best represent principal activity: ☐ Yes ☐ No

Recommended change of SIC Code(s)?_____ _____

New JURMP Classification?_____

Does facility have a current business certificate? ☐ Yes ☐ No #_____ Exp._____

Is facility subject to CA Statewide General Industrial Permit? ☐ Yes ☐ No

If yes, has facility filed a Notice of Intent (NOI) to comply? ☐ Yes ☐ No WDID#_____

If no, does facility have a Notice of Non-Applicability (NONA/NEC)? ☐ Yes ☐ No

Does facility maintain SWPPP or BMP Plan? ☐ Yes ☐ No

Has facility conducted previous storm water monitoring programs? ☐ Yes ☐ No

Existing Status: ☐ High Ind ☐ Med Ind ☐ Low Ind ☐ High Com ☐ Moved/Out of Business ☐ Dup ☐ Low Com
☐ Not in City Jurisdiction

Existing SIC code(s) _____ _____

C. INITIAL OBSERVATIONS

Nearest conveyances or water bodies: _____ Watershed:_____San Diego Bay_____

Approximate distance to water bodies: ☐ < 200 ft. ☐ 200 – 1000 ft. ☐ > 1000 ft.

Sensitivity of receiving waters: ☐ Sensitive (ESA, 303(d), or other) ☐ Non-sensitive

Discharge points along perimeter: _____

_____

Discharge observed: ☐ Yes ☐ No

If yes, describe: _____

Approximate area covered by industrial or commercial activities:_____square feet

Approximate % impervious surface of this area_____%

Exposed areas of intensive outdoor activity: _____

D. BMP ASSESSMENT

D.1 General

BMPs	N/A	Yes	No	Comments
Is the site free of litter and debris?				
Are discharge locations free of sediment and debris?				
Are parking lots, sidewalks and streets free of sediment and debris?				
Is pressure washing of parking lots or sidewalks conducted at the facility? Is wash water captured?				
Are roof downspouts directly away from areas of potential pollutants?				
D.2 Landscaping				
Are adequate erosion prevention measures employed? (vegetation or physical stabilization)				
Are irrigation systems programmed to minimize over-watering and runoff?				
Are stockpiles of soil or landscape waste equipped to prevent runoff transport?				
D.3 Materials and Wastes				
Are adequate trash containers provided?				
Are adequate recycling containers provided?				
Is the trash/recycling area enclosed and free of litter and debris?				
Is timely service and removal provided to prevent waste containers and sanitary facilities from overflowing?				
Are outdoor material storage areas adequate (covered area with secondary containment)?				
Are outdoor storage containers properly labeled?				
Is there an accessible spill response kit?				
Are storage tanks equipped with secondary containment?				
Is secondary containment free of spills and rainwater?				
Are loading and unloading areas free of spills and debris?				
D.4 Equipment and Vehicles				
Are exposed parking areas free of significant spills and leaks?				
Are heavy equipment and vehicles stored in garages or under canopies?				
Are vehicle maintenance activities conducted within contained areas (garage, canopy, work shop)?				
Are vehicle-fueling areas covered and are storm drain inlets protected from spills and leaks?				
Is vehicle washing preformed in a contained area where runoff does not enter the MS4?				
Are biodegradable soaps used for cleaning activities?				
D.5 Food Establishments				
Does facility have a grease trap or grease interceptor?				

When was the last time the grease trap was maintained? _____

Where is the grease trap located? ☐ Under the sink ☐ Outside ☐ Other _____

How many grease fryers are at the facility? _____

About how often is fryer oil replaced? ☐ Weekly ☐ Monthly ☐ Every 6 months ☐ Annually

BMPs	N/A	Yes	No	Comments
How is used oil disposed of? ☐ Outside rendering service ☐ Sanitary sewer/sink ☐ Other:_____				
Do oil-recycling/grease bins have overhead coverage?				
Do oil-recycling/grease bins have secondary containment?				
Are deep fryer oil-recycling drums stored properly?				
At what time is cleaning performed? _____				
What is the cleaning method? _____				
Does the restaurant hose off the site (parking lot, back lot, etc.)? If so, how often?				
How are kitchen floor mats cleaned? ☐ Hose off outside ☐ Clean inside (mop sink) ☐ Cleaning Service ☐ Other:_____				
Where is used cleaning water discharged? _____				
Are storm drain inlets free of grease and other food debris?				
D.6 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?				
D.7 Other				
Are there any other potential storm water pollution issues or concerns? If yes, explain below.				
Are all applicable activity-specific BMPs from Appendix C of the JURMP being implemented?				
Were any educational materials distributed?				

D.8 BMP Summary

E. SWPPP REVIEW

Does facility maintain a SWPPP: ☐ **Yes** ☐ **No** ☐ **Not Applicable**

SWPPP Component	Provided	Adequate	Comments
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	_____
Industrial 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	_____

Does this facility have a storm water monitoring program? ☐ Yes ☐ No ☐ N/A

Was appropriate monitoring conducted during the most recent wet season? ☐ Yes ☐ No

If not, does the facility have documentation of no qualifying rain events? ☐ Yes ☐ No

If not, is the facility in a GMP and not scheduled for most recent year ? ☐ Yes ☐ No

Do monitoring results show that existing BMPs are effective in removing pollutants? ☐ Yes ☐ No

Recommended changes:

_____

_____

F. RECOMMENDED CORRECTIVE ACTION

Is corrective action needed? ☐ Yes ☐ No

If **BMP-related** corrective action is required, describe below. If other corrective action, check the appropriate box in section G.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Owner/operator has been notified of recommended corrective actions both verbally and by: ☐ Hand ☐ Mail ☐ Fax

G. VIOLATIONS

- ☐ No violations have been noted at this time
- ☐ No violations have been noted, but recommend taking corrective action described in Section F.
- ☐ Violation of the City's storm water ordinance (Municipal Code Chapter 14.22):
  - ☐ Illegal discharge(s) of pollutants to the storm drain system or to receiving waters
    Description_____
  - ☐ Illegal connection(s) to the storm drain system
    Location_____
  - ☐ Littering
  - ☐ Failure to properly implement required BMPs
- ☐ Failure to comply with the requirements of applicable State or Regional Permit(s):
  - ☐ Non-compliance with the State Industrial Storm Water General Permit.
    Subjectivity, based on SIC Code: ☐ Mandatory ☐ Conditional
    - ☐ In the future, under a new Industrial Permit which has not yet been adopted, this facility may be able to qualify for a No Exposure Certification (NEC) and exemption from Permit coverage.
  - ☐ Non-compliance with the Municipal Storm Water Permit (NPDES NO. CAS0108758).
- ☐ Other Violation_____

SPECIFIC ACTION(S) REQUIRED TO CORRECT THE VIOLATION DESCRIBED ABOVE:

- ☐ Implement the recommended corrective actions listed in Section F.
- ☐ File a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) to obtain coverage under the Industrial Permit—see Attachment 3 of the Industrial Permit (http://www.waterboards.ca.gov/stormwtr/industrial.html).
  - ☐ For "Conditional" facilities only: if you implement all the recommended BMPs and eliminate outdoor exposure, contact the City to request a re-inspection. If it is determined that you qualify, NONA/NEC paperwork will be provided for you to complete, and you will not have to file an NOI.
- ☐ Develop and implement a Storm Water Pollution Prevention Plan (SWPPP)—see Section A of the Industrial Permit.
- ☐ Develop and implement a storm water monitoring program--see section B of the Industrial Permit for guidelines.
- ☐ Complete the provided Notice of Non-Applicability (NONA) and accompanying No Exposure Certification (NEC).

Additional actions required:_____

_____

_____

_____

H. RECOMMENDED CITY ACTIONS*

- ☐ None
- ☐ Follow-up to ensure the observed violation is corrected (see Section G)
- ☐ Update the following: ☐ JURMP priority ☐ SIC code ☐ Facility Contact Information
- ☐ Add this business to the City's JURMP inventories.
- ☐ Based on the observed business activities, this facility may be reclassified as "low priority commercial" and may be removed from the City's JURMP inventories.
- ☐ This business is no longer at its listed address. If further investigation does not determine that it is still operating at another address within City jurisdiction, it should be removed from the JURMP inventories.
- ☐ No current business license was available. Review City business license records to determine if this business has a current license on file.

Other:_____

_____

_____

_____

Does this business require a follow-up inspection? ☐ **Yes** ☐ **No**

ASSESSMENT

Level of knowledge regarding stormwater issues: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Level of cleanliness, BMP implementation, orderliness of site: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

*Recommended City Actions listed at the time of inspection are subject to change based on later review by office staff.

I. FOLLOW-UP (IF PREVIOUSLY INSPECTED)

Corrective actions implemented since last inspection:

Corrective actions still needed:

Corrective Action Letter Sent? ☐ Yes ☐ No Date Sent (mm/dd/yyyy): _____/_____/_____

Notice of Violation Issued? ☐ Yes ☐ No Date Issued (mm/dd/yyyy): _____/_____/_____

Administrative Citation Issued? ☐ Yes ☐ No Date Issued (mm/dd/yyyy): _____/_____/_____

Citation Number: _____

Fine Amount (if applicable): $_____

Appendix E

Dry Weather Analytical and Field Screening Monitoring Program

E.1	**Dry Weather Monitoring Sampling Manual**
E.2	**Dry Weather Monitoring Field Datasheet**
E.3	**Trash Assessment Form**
Table E-1	**Field Analytical Methods**
Table E-2	**Laboratory Analytical Methods**
Table E-3	**Action Levels for Field Screening and Laboratory Parameters**

E.1 Dry Weather Monitoring Sampling Manual

1. Dry Weather Monitoring Field Equipment Checklist

The field equipment listed below is used to conduct dry weather monitoring.

- Clipboard, pens, pencils, Sharpie or other waterproof pens
- MS4 maps, Thomas Guide
- Digital camera
- Field notebook
- Latex gloves
- Protective eyeglasses or goggles
- Rubber boots
- Cooler and ice
- Paper towels
- Tape for securing cooler
- Sample bottles with preservatives
- Polypropylene bucket with rope, or sampling rod to collect samples from larger bodies of water
- Portable field test kits, colorimeters, or spectrophotometer and all reagents for these meters.
- Multi-parameter or individual probes to measure temperature, electrical conductivity, and pH
- Extra batteries for all meters
- Flow measurement equipment (required equipment will depend on method used)
    - Measuring tape for measuring stream width
    - Folding scale for measuring stream depth
    - Current meter or wristwatch
- De-ionized or ultra pure water in squeeze bottles for rinsing, dilutions, etc. (depending on methods used)
- Thermometer for measuring air temperature (optional)
- Waste disposal bottles

2. Sampling Procedures and Submission

Field Screening

The field screening part of dry weather monitoring consists of a series of qualitative field observations, flow measurement and field analyses of selected water quality parameters. General site observations (weather conditions, conveyance type, etc.) are recorded on the field datasheet, even if the site is dry. An alternate station will be selected if the station is dry. Field measurements will be taken and recorded on the data sheet where there is flowing or ponded water, provided there has been no rain event during the last 72 hours.

Qualitative Observations

Qualitative observations are intended to provide a general assessment of the site, and include: odor, color, water clarity, the presence of floatable matter, visible deposits/ stains and biological status. A trash assessment will be done at each station and in the neighboring receiving waters and urban runoff to provide information on the spatial extent and nature of the trash. At least one photograph will be taken at each site to record the site visit, identify any vegetation or structural changes, and provide additional evidence if an IC/ID is noted. Photographs also help to locate the site in future visits. New sites will have a photograph taken looking upstream and another taken looking downstream.

Avoid contaminating the sample:

- Wear latex gloves
- Rinse the container with the sample at least twice. Do not rinse pre-cleaned, preserved containers, as the preservative will be lost.

Field Sample Collection

Grab samples are collected by standing downstream and submerging the sample container immediately below the water surface in the upstream direction, disturbing as little of the bottom material as possible. If practical, collect the sample at about 60% of the stream depth (from the surface) in an area of maximum turbulence (except when sampling for volatile organics). Avoid stagnant pools near the edge of flowing streams unless sampling stagnant pools. Enter the channel downstream of the sampling location and move upstream, disturbing as little of the bottom material as possible. For shallow water (less than 6 inches deep), the sample can be collected from the surface of the stream. If the water level is very low, collect the sample using a clean syringe and fill appropriate sample container.

Analytical Laboratory Sample Collection

Use appropriate containers for the analyte being tested, as directed by the lab. Laboratories routinely provide pre-cleaned sample bottles with preservatives already added. Use only analytical or higher grade reagents for preserving samples.

Samples are collected by standing downstream and submerging the sample container immediately below the water surface in the upstream direction, disturbing as little of the bottom material as possible. If practical, collect the sample at about 60% of the stream depth (from the surface) in an area of maximum turbulence (except when sampling for volatile organics). Avoid stagnant pools near the edge of flowing streams unless sampling stagnant pools. Enter the channel downstream of the sampling location and move upstream, disturbing as little of the bottom material as possible. For shallow water (less than 6 inches deep), the sample can be collected from the surface of the stream. If the water level is very low, collect the sample using a clean syringe and fill appropriate sample container. For deeper water, sample mid-depth by leaving the lid on the sample bottle and lowering the bottle to the mid-depth position, then removing the lid and allowing the container to fill.

Store samples in an ice chest at $\leq 4^{o}$ C until custody is transferred to the analytical laboratory directly or via contracted courier. Samples collected for laboratory analysis should be

submitted to the laboratory as soon as possible after collection (bacteria samples must be delivered to the laboratory within 6 hours of collection). Complete the following tasks:

- Fill out the chain-of custody form making sure that all sample bottles are correctly labeled
- Carefully pack the sample bottles in the cooler
- Transport the samples to the laboratory
- Complete the chain-of-custody form

Recording Data

Record all qualitative observations and field testing results on the Dry Weather Monitoring Field Datasheet (Appendix E). Estimate the flow rate where applicable by using the Methods of Flow Measurement worksheet (Appendix E). Flow measurements are useful in estimating pollutant mass loading, prioritizing storm drains for future investigations, and helping identify potential illicit discharges upstream. Also note any changes to standard procedures (for whatever reason), and describe any unusual or noteworthy conditions or results in detail on the bottom of the sheet.

Disposal

Dispose of all spent reagents, reacted samples, and rinse solutions in the appropriate waste containers. Upon returning to the office or laboratory, decant these wastes into the sewer system of the office or laboratory unless otherwise instructed by the sewering agency. Be sure to clean all equipment (recheck calibration if any results were questionable), and restock reagents (if necessary).

Automatic Sampling Methods

Automatic sampling methods may be useful during some source identification or enforcement investigations. Investigators should refer to the manufacturer's instructions for operating automatic sampling equipment.

3. Equipment Maintenance

In order to ensure the quality of field results, maintenance of equipment must be given a high priority.

- All equipment must be cleaned and serviced at the end of a field shift.
- All water quality meters must be calibrated in the laboratory or office before field use. Calibration solutions should remain uncontaminated and not be used after their expiration dates.
- Field meters and cameras must be in proper working order. Make sure that batteries have sufficient voltage to power the equipment for the entire field trip. Recharge or replace them as necessary. Keep extra batteries in case they are needed. Probes should be inspected, cleaned and reconditioned regularly.
- Clean and rinse all other sampling equipment after returning from the field. Store clean equipment in storage cases.
- Glassware used in the field (e.g. graduated cylinders for sample dilutions, test kit flasks and/ or beakers) should be cleaned immediately after usage. Rinse three to four times

with deionized water and wipe the outside of the glassware dry with a white paper towel. Rinsewater from test kit cleaning must be poured into the waste container. Dry in an inverted position.

4. Quality Control/ Quality Assurance

Quality control (QC) samples can be in the form of duplicates, spikes, field blanks, method blanks, or synthetic samples. Dry weather monitoring programs can use these various types of QA/ QC samples to assess the accuracy and precision of the field and laboratory analyses performed for their dry weather monitoring programs.

- Duplicate samples may be collected and submitted for at least one in 10 samples to the analytical laboratory to assess the accuracy of the field analyses for nitrate, ammonia, phosphate, electrical conductivity, pH, and turbidity.
- Duplicate samples are used to assess laboratory or field precision. They should be collected in the field in one container and split into two samples for analysis.
- Spiked samples can be prepared in the field or the Copermittee's laboratory/ office. A field sample is spiked with known amounts of analytes and the total volume of this fraction is adjusted to a specific volume (usually 1 liter) using a portion of the original sample as makeup water. *Make sure that the volume of the added spike is small compared to the volume of the sample to which it is added.*
- Field blank samples may be collected at a rate of one per 20 samples for laboratory analysis and field testing. Field blanks are used to monitor contamination originating from the collection, transport or storage of environmental samples. A field blank must be prepared with deionized or ultrapure water (resistivity greater than 17 mega ohms). A trip blank is prepared by filling a sample container in the laboratory/ office and transporting it on a routine monitoring assignment, preserving it in the field (noting the station location), and submitting it with a normal batch of samples.
- Method or equipment blanks are prepared using the same methods used to collect, process, or contain samples before submittal to the laboratory. An example of an equipment blank would be pouring deionized water into a sample container to test the cleanliness of the container.
- Synthetic samples can be prepared using aliquots of commercially prepared standards or from EPA quality assurance ampules. Deionized water should be used as makeup water and analytical grade NaCl should be used to adjust the electrical conductivity of the QA sample into the range of the environmental samples.

5. Health and Safety

Dry weather water sampling may occur when the sampling environment and discharges create hazardous conditions. Use safety precautions at all times when conducting dry weather monitoring.

- Keep a first aid kit and fire extinguisher in the vehicle.
- Watch out for traffic along the access road when sampling or making observations.
- Park vehicle offroad if possible, turn hazard light on, and place orange safety cones out if you are parking near traffic lanes.

- Do NOT remain in open areas or stand under trees if lightning is occurring in the vicinity.
- Watch your step; the ground may be wet and slippery, steep, or unstable. Do not attempt to climb down unsafe slopes.
- Always wear clean latex rubber gloves when sampling.
- Protect eyes and skin against contact with acids and other preservatives.
- Wear appropriate attire (i.e., hat, safety boots, gloves, and long pants).
- Be aware of your environment. Watch for: snakes, tickes, bees, poison oak, and stinging nettles.
- Use common sense when deciding whether to sample during adverse weather conditions. *This program is intended to assess dry weather conditions.* Do not sample during dangerous conditions such as high winds, lightning storms, or flooding conditions that might be unsafe.
- Do not enter channels during periods of high flow. The general rule of thumb is: If the product of the water depth in feet and the velocity in feet per second is greater than 10, or the level is above your waist, don't go in.
- Do not enter confined spaces
- Follow all analytical procedures as prescribed in the equipment manuals. Heed all warnings and precautionary statements.
- Be familiar with Material Safety Data Sheets for all chemicals used in the field and when calibrating instruments. Know the health hazards and emergency medical treatments, and follow proper disposal instructions.

Safety Equipment

The following safety equipment is recommended for use during dry weather sampling:

- First aid kit
- Safety glasses
- Latex gloves
- Rubber boots
- Safety rope

E.2 Dry Weather Monitoring Field Datasheet

City of National City
Dry Weather Monitoring Field Datasheet

☐ **Routine Investigation** ☐ **IC/ID Follow-Up For** _____

GENERAL SITE DESCRIPTION (NAD 83 decimal degrees to 5th place)

Site ID			**Latitude**		**Watershed**	**Hydrologic Unit**	
Location			**Longitude**			**Hydrologic Area**	
			TB Page			**Hydrologic Subarea** (Optional)	
Date		**Time**	**Observer**		**Discharge Area** (Optional)		

Land Use (Primary) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☐ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog
Tide ☐ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:**_____ft.
Last Rain ☐ > 72 hours ☐ < 72 hours
Rainfall ☐ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☐ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____
Color ☐ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____
Clarity ☐ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____
Floatables ☐ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other
Deposits ☐ None ☐ Coarse Particulate ☐ Fine Particulates ☐ Coarse & Fine ☐ Stains ☐ Oily Deposit ☐ Other
Vegetation ☐ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other _____
Biology ☐ None ☐ Insects ☐ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☐Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☐ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☐ Yes ☐ No **Photo #** _____

Field Screening Samples Collected? ☐ Yes ☐ No

Water Temp (°C)		**NH_3-N** (mg/L)		**NO_3** (mg/L)		**Ortho -PO_4** (mg/L)	
pH (pH units)		**MBAS** (mg/L)		**NO_3-N** (mg/L)		Ortho –PO4-P(mg/L)	
COND (mS/cm)		**TURB** (NTU)		**Other**			

Analytical Lab Samples Collected? ☐ Yes ☐ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		in
Depth		in
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Vo1ume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees

Land Use Types for Dry Weather Monitoring

(Adopted by the Dry Weather Monitoring Workgroup, April 20, 2004)

1. **Residential**

   Residential (general)
   Single- and multi-family homes, mobile home parks, etc.

   Rural residential (For the County of San Diego and other appropriate Copermittees)
   Single family homes located in rural areas with lot sizes of approximately 1 to 10 acres. Rural residential estates may have small orchards, fields or small storage buildings associated with the residential dwelling unit, etc.

2. **Commercial**

   Offices, schools, shopping centers, auto dealerships, government/civic centers, cemeteries, churches, libraries, post offices, fire/police stations, military use, jails, prisons, border patrol holding stations, dormitories, hotels, motels, resorts, and casinos, etc.

3. **Agricultural**

   Orchards, vineyards, nurseries, greenhouses, flower fields, dairies, livestock, poultry, equine ranches, row crops and grains, pasture, fallow, etc.

4. **Industrial**

   Shipbuilding, airframe, aircraft manufacturing, industrial parks, manufacturing uses such as lumber, furniture, paper, rubber, stone, clay, and glass; auto repair services/recycling centers; warehousing, wholesale trade; mining, sand and gravel extraction, salt evaporation; junkyard, dumps/landfills; auto wrecking/dismantling and recycling centers, etc.

5. **Parks**

   Recreation areas and centers, neighborhood parks, wildlife and nature preserves, golf courses, accessible sandy areas along the coast or major water bodies allowing swimming and picnicking, etc.

6. **Open**

   Vacant and undeveloped lands, etc.

METHODS OF FLOW MEASUREMENT

Calculating the Area (a) of the Cross Section of a Circular Pipe Flowing Partially Full

D = Depth of water a = area of water in partially filled pipe
d = diameter of the pipe Ta = Tabulated Value Then a = Ta*d2

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

AREA x VELOCITY

(CREEK/CHANNEL METHOD)

a. Measure the width, depth, and velocity of the water.

b. Convert each value to a common unit (i.e. all measurements converted to cm, ft, or in.).

c. Multiply the width * depth * velocity to determine flow.

d. Multiply the flow by 0.8 for creek measurements –or-- 0.9 for concrete channel measurements to account for channel roughness.

e. The results if measured in

a. Ft = Ft^3/sec
b. cm = cm^3/sec (mL/sec)
c. in = in^3/sec

f. Convert to desired value.

TIME REQUIRED TO FILL A KNOWN VOLUME

(FILL A BOTTLE METHOD)

1. Determine volume/capacity of the sample bottle.

2. Measure time required to fill the bottle.

3. Flow will be determined by initial volume units:

- mL/s
- oz/s

4. Convert to desired value.

AREA x VELOCITY

(PARTIALLY FILLED PIPE)

g. All measurement must be converted to a common unit before calculation (ft, in, or cm).

h. Let D = water depth.

i. Let d = *inside* pipe diameter

j. Calculate D/d.

k. Find the tabulated (Ta) value on the partially filled pipe formula chart above using the D/d value. (i.e. if D/d = 0.263 then Ta =.1623).

l. Find the area using the formula
a = Ta*d^2.

m. Multiply area (a) by the water velocity.

n. Convert to desired value.

SAE / Metric Unit Conversion

0.083 ft	=	1 in	=	2.54 cm
0.1337 ft^3	**=**	**1 gal**	**==**	**128 oz3.785 L**
0.0078 gal	**=**	**1 oz**	**=**	**.0011 ft^3**
1000 cm^3	**=**	**1 L**	**=**	**1000 mL**

E.3 Trash Assessment Form

Trash Assessment Form

SITE ID: _____ **DATE:** _____

LOCATION: _____ **TIME:** _____

OBSERVER: _____

PREVIOUS TRASH ASSESSMENT RATING (IF APPLICABLE):

ESTIMATED AREA OF ASSESSMENT L X W (FT):

Amount and Extent of Trash	
EVALUATION OF TRASH INCLUDES*: ☐ **MS4** ☐ **RECEIVING WATER** ☐ **BOTH**	
☐ **Optimal**	On first glance, no trash visible. Little or no trash evident when evaluated area is closely examined for litter and debris.
☐ **Suboptimal**	On first glance, little or no trash visible. After close inspection small levels of evident in evaluated area.
☐ **Marginal**	Trash is evident in low to medium levels on first glance. Evaluated area contains litter and debris. Evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, or clothing present.
☐ **Submarginal**	Trash distracts the eye on first glance. Evaluated area contains substantial levels of litter and debris . Evidence of site being used frequently by people: many cans, bottles, food wrappers, blankets, or clothing present.
☐ **Poor**	Site is significantly impacted by trash. Evidence of trash accumulation behind a constriction point or evidence of excessive dumping. Evaluated area contains substantial levels of litter and debris .

* In areas where receiving water is accessible and adjacent to dry weather site, trash evaluation must include receiving water.

Site Evaluation for Threat to Human Health and/or Aquatic Health	
☐ **Threat Human Health**	Site poses a threat to human health via swimming, wading, or walking through the area. Trash and debris has the potential to contain chemicals that may bioaccumulate, transmit dangerous bacteria (e.g. medical waste, diapers, human waste), or has the potential for physical harm (sharps, entanglement, nails, etc…). Comments should be added for clarification .
☐ **Threat to Aquatic Health**	Site poses a threat to aquatic health or other wildlife (via contact, ingestion, entanglement, etc...) from the trash and debris present. Trash and debris such as small floatable material that is persistent and can be transported long distances may resemble food and may be ingested. Wire, plastic, fishing line, and other material that has the potential for entanglement. Oil and other visible chemicals or chemical containers falls in this category. Comments should be added for clarification.

- **Complete the following section for Marginal, Submarginal, and Poor Evaluations ONLY**

TYPE OF ASSESSMENT: ☐ **RANKING** ☐ **RAW COUNT (IF REQUIRED)**

TYPE	Ranking or Count by Type *	POTENTIAL ROUTE (CHECK UP TO 2)				POTENTIAL SOURCE (CHECK UP TO 2)						
		Dumping	Littering	Upstream	Unable to determine	Household	Construction	Commercial	Industrial	School	Transient	Unable to determine
Automotive												
Biohazard Waste												
Business Related												
Cigarette Butts												
Construction												
Fabric/Clothing												
Food Packaging												
Food Waste												
Household												
Shopping Carts												
Toxic												
Yard Waste												

* Only rank the types of trash PRESENT in evaluated area from 1 through 12 (1 is most prevalent – 12 is least prevalent). DO NOT rank types of trash that are not present in evaluated area.

Comments:_____

_____

_____

_____

_____

_____

_____

_____

_____

Table E-1 Field Analytical Methods

TABLE E-1
FIELD ANALYTICAL METHODS

Parameter	Method	Reporting Limit	Range	Accuracy
Specific conductance	Hanna Instruments HI 991301 Portable pH/EC/TDS/Temperature Meter***	0.01 mS/cm	0 – 20 mS/cm	± 2% of functional sensitivity[1]
Temperature	Hanna Instruments HI 991301 Portable pH/EC/TDS/Temperature Meter***	0.1°C	0.0°C – 60.0°C	± 0.5°C
pH	Hanna Instruments HI 991301 Portable pH/EC/TDS/Temperature Meter***	0.01	0.00 – 14.00	± 0.01 pH
Turbidity	Hanna Instruments HI 93703-11 Portable Turbidity Meter***	0.01 NTU	0.01 – 50.00 NTU and 50 – 1000 NTU	± 0.5 NTU or 5% of reading (whichever is greater)
Surfactants	CHEMetrics CHEMets Kit (K-9400) Methylene Blue Active Substances	0.13 mg/L	0.0 mg/L – 3.0 mg/L*	± 0.13 & ± 0.5 mg/L[2]
Nitrate-N	CHEMetrics V-2000 Multi-Analyte LED Photometer – Nitrate 3 Vacu-vials® (K-6933) Cadmium reduction[3]***	2.26 mg/L**	2.26 mg/L –13.6 mg/L**	± 30%
Ammonia-N	CHEMetrics V-2000 Multi-Analyte LED Photometer – Ammonia 3 Vacu-vials® (K-1403) Salicylate***	0.10 mg/L**	0.10 mg/L – 3.00 mg/L**	Varies with measured concetration[4,5]
Ortho-phosphate-P	CHEMetrics V-2000 Multi-Analyte LED Photometer – Phosphate 2 Vacu-vials® (K-8513) Stannous chloride chemistry[6]***	0.25 mg/L**	0.25 mg/L – 2.61 mg/L**	Varies with measured concetration[4,5]

Notes:

[1] Functional sensitivity (FS) represents the lowest limit at which quantitative information is reliable. FS is estimated as the mean concentration for a spiked sample whose coefficient of variance (CV) is 20%. CV is the standard deviation divided by the mean.

[2] ± 0.13 for the range of 0.0 to 1.0 mg/L, ± 0.25 mg/L for the range of 1.0 to 2.0 mg/L and 0.5 mg/L for the range of 2.0 to 3.0 mg/L.

[3] This method determines the concentration of nitrate in mg/L NO_3. To determine the amount of nitrate-nitrogen, the concentration of nitrogen must be adjusted for the presence of oxygen in the NO_3 molecule. Therefore, the result is multiplied by a conversion factor of 0.226, the ratio of the molecular weight of N (14 g/mol) to NO_3 (62 g/mol). The detection limit for nitrate is 10.0 mg/L; however, the detection limit for nitrate-nitrogen is lowered due to the conversion.

[4] Practical Detection Limit (PDL) is defined as the lower limit of the stated test range.

[5] Percent error adjusts as follows: ±30% at PDL, ±20% for 25% of full range, ±10% for 75% of full range, ±10% for 120% of full range. "Full range" is equal to the upper limit of the test kit's range.

[6] This method determines the concentration of orthophosphate in mg/L PO_4. To determine the amount of orthophosphate-P, the concentration of phosphate must be adjusted for the presence of oxygen in the PO_4 molecule. Oxygen is 67.4% of phosphate by mass but is not a plant nutrient in this form. Therefore, the result is multiplied by a conversion factor of 0.326, the ratio of the molecular weight of P (31 g/mol) to PO_4 (95 g/mol). The detection limit for orthophosphate is 0.75 mg/L; however, the detection limit for orthophosphate-P is lowered due to the conversion.

*Extended ranges in chemical analyses can be achieved through dilutions. Accuracies decrease proportionally with further dilutions.

** Readings below the PDL have increased percent error; measurements are reported, but are flagged as being below the PDL.

***Reporting limit, range, and accuracy information taken from Hanna Instruments and CHEMetrics manuals, available online at www.hannainst.com and www.chemetrics.com. Additional information regarding CHEMetrics accuracy was obtained from the manufacturer via email.

Table E-2 Laboratory Analytical Methods

TABLE E-2
LABORATORY ANALYTICAL METHODS

Analyte	Analytical Method	Method Reporting Limit	Maximum Holding Time*
Surfactants (MBAS)	SM 5540 C	0.5 mg/L	48 hours
Oil and grease	EPA 1664	5 mg/L	28 days
Total Hardness	EPA 200.7	10 mg/L	14 days
Cadmium	EPA 6010, 6020, 200.8	5 μg/L	6 months
Copper	EPA 6010, 6020 200.8	5 μg/L	6 months
Lead	EPA 6010, 6020 200.8	5 μg/L	6 months
Zinc	EPA 6010, 6020, 200.8	20 μg/L	6 months
Diazinon	EPA 8141A	0.05 μg/L	7 days
Chlorpyrifos	EPA 8141A	0.05 μg/L	7 days
Total Coliform*	SM 9221 B, E	20 – 1,600,000 MPN/100ml	6 hours
Fecal Coliform*	SM 9221 B, E	20 – 160,000 MPN/100ml	6 hours
Enterococcus*	SM 9230 A, B	20 – 160,000 MPN/100ml	6 hours

Notes:

*Maximum Holding Time values listed here apply to samples collected and preserved in accordance with the QA/QC procedures listed in the Dry Weather Monitoring Sampling Manual.

Table E-3 Action Levels for Field Screening and Laboratory Parameters

TABLE E-3
ACTION LEVELS FOR FIELD SCREENING AND LABORATORY PARAMETERS

Field Screening Analytes	Action Levels[1]	Source / Notes
pH	<6.5 or >9.0	Basin Plan, with allowance for elevated pH due to excessive photosynthesis. Elevated pH is especially problematic in combination with high ammonia.
Orthophosphate-P (mg/L)	2.0	USEPA Multi-sector General Permit
Nitrate-N (mg/L)	10.0	Basin Plan, and drinking water standards
Ammonia-N (mg/L)	1.0	Based on Workgroup experience. May also consider unionized ammonia fraction.
Turbidity (NTU)[2]	Best Professional Judgment	WQOs relevant to inland surface waters are not available. Base judgment on channel type and bottom, time since last rain, background levels, and most importantly visual observation (e.g. unusual colors and lack of clarity), and unusual odors.
Temperature (°C)	Best Professional Judgment	Base judgment on season, air temperature, channel type, shading, etc.
Conductivity (mS/cm)	Best Professional Judgment	Values > 5 mS/cm may indicate IC/ID however; EC may be highly elevated in some regions due to high-TDS groundwater exfiltration to surface water, mineral dissolution, drought, and seawater intrusion. Normal source ID and discharge elimination work is not effective in these situations. Knowledge of area background conditions is important. Values < 0.75 mS/cm may indicate excessive potable water discharge or flushing.
Laboratory Analytes	**Action Levels**	**Source / Notes**
Surfactants (MBAS) (mg/L)	1.0	Basin Plan, with allowance based on Workgroup field experience and possible field reagent interferences.
Oil and Grease (mg/L)	15	USEPA Multi-sector General Permit. If petroleum sheen is observed, the sample should be collected from the water surface. Visual observations may justify immediate investigation.
Diazinon (µg/L)	0.5	Response to diazinon and chlorpyrifos levels above 0.5 µg/L should focus on education and outreach to potential dischargers in the target drainage basin. Highly elevated levels should be investigated aggressively as with other potential IC/IDs.
Chlorpyrifos (µg/L)	0.5	
Dissolved Cadmium (µg/L)	California Toxics Rule	Use California Toxics Rule Table, 1-hour criteria to determine appropriate action level for individual samples. Table provides benchmarks based on hardness and dissolved metals concentration. For example, at 300 mg/L hardness the following action levels would apply: Cd – 14 ppb; Cu – 38 ppb; Pb – 209 ppb; and Zn – 297 ppb.
Dissolved Copper (µg/L)	California Toxics Rule	
Dissolved Lead (µg/L)	California Toxics Rule	
Dissolved Zinc (µg/L)	California Toxics Rule	
Total Coliform (MPN/ 100 mL)	50,000	Bacteria levels in many storm drains are likely to exceed public health guidance criteria. Use confidence interval test and best professional judgment to identify conveyances for source ID.
Fecal Coliform (MPN/ 100 mL)	20,000	
Enterococcus (MPN/ 100 mL)	10,000	

Notes

[1]The referenced action levels should not be the sole criteria for initiating a source identification investigation. Dry weather monitoring data should be interpreted using a variety of available information. Factors that should be considered include within-site and between-site sample variability.

°C	degrees Celsius
mS/cm	milliSiemens
mg/L	milligram per liter
IC/ID	illegal connection/illicit discharge
MBAS	methylene blue active substances
MPN/100 mL	most probable number (of colony forming units) per 100 milliliters
NTU	nephelometric turbidity unit
ppb	parts per billion
USEPA	United States Environment Protection Agency
WQO	Water Quality Objectives