City of La Mesa

Jurisdictional Runoff Management Program

June 2015
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<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>BMPs</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>CASQA</td>
<td>California Storm Water Quality Association</td>
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<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
</tr>
<tr>
<td>CGP</td>
<td>Construction General Permit</td>
</tr>
<tr>
<td>CIP</td>
<td>Capital Improvement Projects</td>
</tr>
<tr>
<td>City</td>
<td>City of La Mesa</td>
</tr>
<tr>
<td>CIWQS</td>
<td>California Integrated Water Quality Management System</td>
</tr>
<tr>
<td>CMP</td>
<td>Corrugated Metal Pipe</td>
</tr>
<tr>
<td>CSWMP</td>
<td>Construction Storm Water Management Plan</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>DAB</td>
<td>Design Advisory Board</td>
</tr>
<tr>
<td>DO</td>
<td>Dissolved Oxygen</td>
</tr>
<tr>
<td>DWM</td>
<td>Dry Weather Monitoring</td>
</tr>
<tr>
<td>ERP</td>
<td>Enforcement Response Plan</td>
</tr>
<tr>
<td>FOG</td>
<td>Fats, Oils, and Grease</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>HDPE</td>
<td>high-density polyethylene</td>
</tr>
<tr>
<td>HHW</td>
<td>Household Hazardous Waste</td>
</tr>
<tr>
<td>HOAs</td>
<td>Home Owner Associations</td>
</tr>
<tr>
<td>HPWQC</td>
<td>Highest Priority Water Quality Condition</td>
</tr>
<tr>
<td>HU</td>
<td>Hydrologic Unit</td>
</tr>
<tr>
<td>IC/IDs</td>
<td>Illegal Connections and Illicit Discharges</td>
</tr>
<tr>
<td>IDDE</td>
<td>Illicit Discharge Detection and Elimination</td>
</tr>
<tr>
<td>ILACSD</td>
<td>I love a Clean San Diego</td>
</tr>
<tr>
<td>IPM</td>
<td>Integrated Pest management</td>
</tr>
<tr>
<td>LID</td>
<td>Low-impact development</td>
</tr>
<tr>
<td>JRMP</td>
<td>Jurisdictional Runoff Management Plan</td>
</tr>
<tr>
<td>MEP</td>
<td>maximum extent practicable</td>
</tr>
<tr>
<td>MLS</td>
<td>Mass Loading Station</td>
</tr>
<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
</tr>
<tr>
<td>MSDS</td>
<td>Materials Safety Data Sheet</td>
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</tbody>
</table>
NAICS  North American Industry Classification System Codes
NALs  non-storm water action Levels
NOV  Notice of Violation
NPDES  National Pollutant Discharge Elimination System
          Municipal Storm Water Permit Order No. R9-2013-0001, NPDES Permit No. CAS019266
PAH  polycyclic aromatic hydrocarbon
PCB  polychlorinated biphenyl
PW  Public Works
PWQCs  Priority Water Quality Conditions
RWQCB  San Diego Regional Water Quality Control Board
SALs  Storm Water Action Levels
SIC  Standard Industrial Classification
SSMP  Sewer System Management Plan
SSO  Sanitary Sewer Overflow
SUSMP  Standard Urban Storm Water Mitigation Plan
SWPPP  Stormwater Pollution Prevention Plan
TDS  total dissolved solids
TMDL  Total Maximum Daily Load
TTWQ  threat to water quality
TWAS  Temporary Watershed Assessment Stations
WMA  Watershed Management Areas
WQBELs  Water Quality Based Effluent Limits
WQIP  Water Quality Improvement Plan
WQTR  Water Quality Technical Report
1 Introduction

The San Diego Regional Water Quality Control Board (RWQCB) adopted the Municipal Storm Water Permit Order No. R9-2013-0001, National Pollutant Discharge Elimination System (NPDES) No. CA50109266, (Permit) on May 8, 2013 to control waste discharges in urban runoff from the Municipal Separate Storm Sewer Systems (MS4s) draining the watersheds in the County of San Diego, the incorporated cities of San Diego County and the San Diego Unified Port District, collectively known as Copermittees.

The Permit’s intent is to enable jurisdictions to focus their resources and efforts to “effectively prohibit non-storm water discharges to its MS4, reduce pollutants in storm water discharges from its MS4 to the Maximum Extent Practicable (MEP), and achieve the interim and final numeric goals...” (Permit). Furthermore, the Permit states that “Where appropriate, Watershed Management Areas (WMAs) may be separated into subwatersheds to focus water quality prioritization and jurisdictional runoff management program implementation efforts by receiving water.” This approach represents a paradigm shift from previous Permits where jurisdictions essentially implemented the same activities throughout their jurisdictions with little or no regard for prioritizing water quality conditions, sources and pollutant generating activities that occurred within geographically based areas. Although topographic features define watershed areas, characteristics of the watershed areas have direct influence on non-storm water discharges and pollutants in storm water discharges, and ultimately the water quality conditions in receiving waters.

The Permit requires Responsible Parties or Copermittees, in each of the region’s Watershed Management Areas (WMAs) to develop Water Quality Improvement Plans (WQIPs). Through the WQIP, highest priority water quality conditions within the WMA are identified and strategies are implemented through the Copermittees’ Jurisdictional Runoff Management Programs (JRMPs) to progress toward improvements in water quality. The WQIPs contain an adaptive planning and management process and a public participation component. The Permit and the WQIP process allow Copermittees to focus JRMPs on particular areas or water quality issues of concern.

1.1 Purpose and Objectives

The purpose of the JRMP is to implement strategies that effectively prohibit non-storm water discharges to the MS4 and reduce the discharge of pollutants in storm water to the maximum extent practicable (MEP). This involves improving existing programs and developing new programs intended to minimize or eliminate the effects of jurisdictional runoff from the City of La Mesa (City) on receiving water bodies. Improving the quality of the discharge from the MS4 should have beneficial effects on the local receiving water bodies.

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

1.2 City Setting

The City of La Mesa is located east of the City of San Diego and bordered by the Cities of El Cajon, Lemon Grove and San Diego, and unincorporated areas of San Diego County (Spring Valley). The City itself includes approximately nine square miles of land area and an estimated population of 58,000.

Land use within the City includes residential, municipal, industrial and commercial facilities and properties, streets, highways, and undeveloped open spaces. The topography of the City is widely varied
with steep hills that drain urban runoff to two watershed management areas (WMAs) and several different water bodies.

The City extends across the San Diego River and San Diego Bay WMAs. Approximately 52 percent of the City is within the San Diego River Watershed, Hydrologic Unit (HU) 907. The remaining 48 percent of the City is within the San Diego Bay WMA, which is comprised of three HUs: Pueblo San Diego (HU 908), Sweetwater (HU 909), and Otay (HU 910). The City of La Mesa includes areas within two of the three San Diego Bay HUs: Pueblo San Diego and Sweetwater. Table 1-1 describes the drainage basins in the City, including the percent of City area, receiving water body, HU, and corresponding watershed. Figure 1-1 shows the hydrologic units that are part of the City’s drainage.

<table>
<thead>
<tr>
<th>Drainage Basin</th>
<th>Percent of City Area</th>
<th>Hydrologic Unit</th>
<th>Receiving Waterbody</th>
<th>Watershed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alvarado</td>
<td>51%</td>
<td>907</td>
<td>San Diego River</td>
<td>San Diego River</td>
</tr>
<tr>
<td>University</td>
<td>28%</td>
<td>908</td>
<td>Chollas Creek</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>Spring Valley</td>
<td>14%</td>
<td>909</td>
<td>Sweetwater River</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>Lemon Grove</td>
<td>6%</td>
<td>908</td>
<td>Chollas Creek</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>Lake Murray</td>
<td>1%</td>
<td>907</td>
<td>San Diego River</td>
<td>San Diego River</td>
</tr>
</tbody>
</table>

Note: The City of La Mesa makes up about one percent of the overall land area of each watershed. While the runoff from the City drains to these water bodies, the actual water bodies are not located within the City’s jurisdiction.

The San Diego River, Chollas Creek, and Lake Murray are all on the 2010 Clean Water Act (CWA) Section 303(d) list and are located downstream of the City. The San Diego River is impaired for dissolved oxygen, enterococcus bacteria, fecal coliform, magnesium, nitrogen, phosphorus, total dissolved solids (TDS) and total toxics. Chollas Creek is impaired for copper, Diazinon, indicator bacteria, lead, total nitrogen, phosphorous, total nitrogen as N, trash and zinc. Lake Murray, which drains a very small portion of the City, is impaired for nitrogen and pH.

In 2011, the RWQCB approved a total maximum daily load (TMDL) for bacteria for the San Diego River. TMDLs approved for Chollas Creek include Diazinon, copper, lead and zinc. Most recently, the RWQCB proposed TMDLs for the Mouth of Chollas Creek for polychlorinated biphenyl (PCBs), polycyclic aromatic hydrocarbon (PAHs), and chlordane.

Both the 303(d) listings and TMDL processes influence the City’s management and implementation of the JRMP and prioritization of resources. Through the WQIP process, the City designated highest priority water quality conditions (HPWQCs) and identified strategies to improve the HPWQCs. The strategies are incorporated into the City’s JRMP development and implementation.
1.3 Water Quality Improvement Plans
Along with the other Copermittees within the San Diego River and San Diego Bay WMAs, the City of La Mesa participated in the development of the San Diego River and San Diego Bay WQIPs to establish the priorities and goals for the watersheds in order to focus jurisdictional strategies for implementation.

By identifying the Highest Priority Water Quality Conditions (HPWQC)s and Priority Water Quality Conditions (PWQCs) the City established the focus of the program’s planning and implementation efforts.

The HPWQC selected for the San Diego River WMA is:

- Indicator bacteria

The HPWQCs selected for the San Diego Bay WMA are:

- Indicator bacteria
- Metals, including Copper, Lead and Zinc

The City developed goals and schedules for achieving those goals in order to have measurable targets and metrics to measure progress towards improving water quality. Once the goals were established, the City then identified the strategies that would be implemented to address the City’s discharges and
make water quality improvements. Strategies typically address multiple conditions; therefore, it is anticipated that all priority conditions will be improved through implementation of the selected water quality improvement strategies.

For more information regarding the WQIPs, the reader is directed to the City’s Storm Water Program website for the current San Diego River and San Diego Bay WQIP documents and Annual Reports.
2 City Roles and Legal Authority

The City maintains adequate legal authority within its jurisdiction to control pollutant discharge into and from its MS4 through statute, ordinance, permit, contact, order, or similar means.

2.1 Departmental Roles and Responsibilities

Implementing the City’s storm water program, including this JRMP document, is a collaborative effort between various City departments. A diagram of the major departments, boards, and commissions within the City can be found in the City of La Mesa Organizational Chart presented in Figure 2-1 at the end of this section.

Personnel from various City departments are involved in the implementation of the City’s storm water program. The following is a list of departments, divisions, and sections within the City that conduct urban runoff related activities. Only those departments that have responsibilities related to implementation of the City’s JRMP are mentioned below.

Public Works Department

The Public Works Department is the major department responsible for the coordination and implementation of the City’s Storm Water Program. The department is also involved in public outreach programs and education activities related to storm water. The two main divisions within the Public Works Department are Operations and Engineering.

Engineering Division

The Engineering Division of Public Works Department is responsible for:

- Reviewing all development project grading applications for compliance with the City’s minimum construction BMP requirements
- Reviewing site plans to verify that temporary and permanent BMPs are properly shown and conducts inspections to ensure that BMPs are properly implemented during the grading phase of construction projects
- Verifying that all permanent structural BMPs, including treatment control BMPs, are properly constructed before occupancy of a site
- Designing and administers the construction of all city public improvement projects in compliance with the City’s storm water requirements
- Conducting treatment control BMP maintenance inspections and maintaining both the construction and treatment control BMP databases

Operations Division

The Operations Division of the Public Works Department is responsible for:

- Maintenance of the City’s MS4 and the sanitary sewer system
- Managing the City’s street sweeping program in the public right-of-way
- Emergency response to sanitary sewer overflows (SSOs) and pollutant spills on public streets
- Implementing municipal BMPs at City-owned facilities and during City maintenance activities

Community Development Department

The Community Development Department overseas growth, development and redevelopment of the City through the application and implementation of the General Plan, Zoning Ordinance, and building codes. These codes include water quality elements intended to protect or enhance water quality while allowing development to occur. Divisions within this department that are involved with implementing storm water requirements include Planning and Zoning, and Building Inspection.
**Planning and Zoning Division**
The Planning and Zoning Division of the Community Development Department is responsible for compliance with the California Environmental Quality Act (CEQA), which includes water quality requirements.

**Building Inspection Division**
The Building Inspection Division of the Community Development Department supports the code enforcement program regarding building structure and public safety. The division works closely with the Engineering Division of the Public Works Department to ensure that construction storm water BMP requirements are being properly implemented at development sites.

**Finance Department**
The Finance Department is responsible for identifying and securing sources of funds for the implementation of the City’s JRMP.

**City Attorney’s Office**
The City Attorney’s Office reviews all storm water related documents (such as manuals, forms, etc.) developed by the City to ensure that they are in compliance with current laws and regulations. The City Attorney’s Office also assists in the enforcement of the City’s Municipal Code.

### 2.2 Legal Authority
The City has local ordinances and Municipal Code sections that provide legal authority for enforcing storm water requirements. The major chapters of the Municipal Code related to storm water include the following:

- City of La Mesa Storm Water Management and Discharge Control Ordinance (Chapter 7.18)
- City of La Mesa Construction and Demolition Debris Diversion Deposit Program (Chapter 14.27)
- City of La Mesa Development Review Process (Chapter 24.02)

The City maintains two Storm Water Best Management Practices Manuals (BMP Manual) consisting of Existing Development Storm Water BMP Manual and Development and Construction Storm Water BMP Standards Manual, both included in Appendix A. The Existing Development Storm Water BMP Manual includes the minimum BMPs for municipal, industrial, commercial, and residential areas and activities. The Development and Construction Storm Water BMP Standards Manual contains the City’s development planning requirements, which include the City’s Standard Urban Storm Water Mitigation Plan (SUSMP)\(^1\) and the City’s construction BMP requirements.

The City also has recycling, litter, and public nuisance ordinances that are not specific to storm water but may, in some situations, be used to support storm water program implementation.

### 2.3 Enforcement Procedures
The City utilizes a tiered, increasing enforcement system for violations of the City’s Municipal Code. The various increasing administrative and judicial enforcement measures are described in detail in Section 11- Enforcement Response Plan.

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\(^1\) The City’s BMP Manual will be updated in December 2015 to include the forthcoming BMP Design Manual which replaces the current SUSMP requirements.
Figure 2-1 Organizational Chart

ELECTORATE

City Clerk
Mayor and City Council
City Treasurer
City Attorney

Boards and Commissions
City Manager

Building Codes Review Board
Commission on Aging
Community Services Commission
Design Review Board
Environmental Sustainability Commission
Historic Preservation Commission
Human Relations Advisory Commission

La Mesa Community Parking Commission
Loan Committee for Real Estate Rehabilitation
Personnel Appeals Board
Planning Commission
Traffic Commission
Uniform Building Code Board of Appeals
Youth Advisory Commission

Administrative Services
Police
Community Development
Finance
Fire
Public Works
Community Services
3 Non-Storm Water Discharges

This section describes the City’s responsibilities regarding non-storm water discharges to the MS4. The City addresses non-storm water discharges as illicit discharges unless a non-storm water discharge is authorized by a separate NPDES permit or qualifies as a conditional discharge, explained further below.

3.1 Introduction

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

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

Identifying and eliminating non-storm water discharges from entering the City’s MS4 is a cost-effective Best Management Practice (BMP) for improving water quality. Through the illicit discharge detection and elimination program (IDDE), the City investigates and eliminates any known or observed illicit non-storm water discharge. The IDDE program is described in more detail in Section 4-Illicit Discharge Detection and Elimination.

3.2 Prohibited Non-Storm Water Discharge

The City prohibits all non-storm water discharges unless a discharge is authorized by a separate NPDES permit or qualifies as a conditional discharge (Section 3.3 below).

To emphasize, the City prohibits the following specific activities because they are identified as a source of pollutants:

- Individual residential car washing (or car washing performed for fundraising purposes) that results in a discharge of water from private property or to the City’s MS4
- Discharge of pool or fountain water containing chlorine, biocides, or other chemicals or discharges of pool or fountain filter backwash water
- Landscape irrigation or lawn watering that results in water being discharged to storm drain pipes, channels, or natural conveyances or results in the transport of sediment, grass clippings or other pollutants into the storm drain system.

3.3 Conditional Non-Storm Water Discharges

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

**Discharges Associated with Separate NPDES Permit**

The RWQCB may permit a discharger to discharge waters to the City’s MS4 – these discharges are allowed as long as the City does not determine that the discharge is a source of pollutants. For
scheduled discharges, the City’s Storm Water Staff should be notified at least 30 days prior to the scheduled date of discharge.

**Pumping and Groundwater**
The following non-storm water discharges are allowed if the discharge has coverage under NPDES Permit No. CAG919001 (Order No. R9-2007-0034, or subsequent order [discharges to San Diego Bay]) or NPDES Permit No. CAG919002 (Order No. R9-2008-0002, or subsequent order [discharges to surface waters, other than San Diego Bay]):

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

**Water Line Flushing and Breaks**
The City considers non-storm water discharges associated with water line flushing or breaks as an illicit discharge, unless the discharge has coverage under NPDES Permit No. CAG 679001 (Order No. R9-2010-0003 or subsequent order). In addition, discharges from recycled or reclaimed water lines are illicit, unless covered under a separate NPDES permit.

### 3.3.1 Controlled Non-Storm Water Discharges
The City of La Mesa allows the following non-storm water discharges to enter the MS4 if the following controls and criteria are implemented:

**Air Conditioning Condensation**
The discharge should be directed to landscaped areas or other pervious surfaces.

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

**Dechlorinated Swimming Pool Discharges**
Prior to discharging to the MS4, residual chlorine, algaecide, filter backwash, or other pollutants from the swimming pools, must be eliminated. The discharge of saline swimming pools must be directed to the sanitary sewer, landscaped areas, or other pervious surfaces that can accommodate the volume of water.

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

- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration to MS4s
- Springs
- Flows form riparian habitats and wetlands
- Discharges from potable water sources
- Discharges from foundation drains
- Discharges from footing drains
4 Illicit Discharge Detection and Elimination

The City implements a program to actively detect and eliminate illicit discharges and improper disposal into the MS4. If appropriate, the City will require the discharger to apply for and obtain a separate NPDES permit.

4.1 Introduction

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

The City’s IDDE Program actively investigates and eliminates illicit discharges and is comprised of several elements:

- Dry Weather MS4 Outfall Discharge Monitoring Program
- Non-Storm Water Persistent Flow MS4 Outfall Discharge Monitoring Program
- Source Specific Observations
- Hotline Notification
- Investigations
- Enforcement

In almost all cases of illicit discharges, elimination of the discharge requires some level of enforcement and/or abatement action. The Municipal Code (§7.18.040) authorizes the City to enforce its IDDE program requirements. The Municipal Code requires the responsible party to conduct abatement activities to eliminate an illicit discharge or the City to conduct those activities itself, at the cost of the responsible party.

4.2 Program Elements

As mentioned above, the City utilizes several programs to detect illicit connections and illicit discharges. Descriptions of these programs are discussed below.

4.2.1 Monitoring Programs

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

Dry Weather MS4 Outfall Discharge Monitoring

The intent of the Dry Weather MS4 Outfall Discharge Monitoring Program is to investigate any observed discharge from the MS4 and determine if the discharge is an illicit connection or discharge.

If flowing water is observed at an outfall, City Storm Water staff document the findings and investigate the source of the flow. If the discharge requires enforcement actions, City staff will implement the actions described in Section 11- Enforcement Response Plan.

Non-Storm Water Persistent Flow MS4 Outfall Discharge Monitoring

The Non-Storm Water Persistent Flow MS4 Outfall Discharge Monitoring Program focuses analytical monitoring at locations known to have persistent flow. The City monitors five highest priority major outfalls in each of the City’s Watershed Management Areas (WMAs), the San Diego River and San Diego Bay. Monitoring is required to continue unless one of the following events occurs:

- The flow is eliminated
- The flow is identified as an allowable non-storm water discharge
- The non-storm water discharge does not exceed numerical action levels (NALs) and the flow can be re-prioritized to a lower priority
- The flow is identified as a non-storm water discharge authorized by a separate NPDES permit

When persistent flows are continually monitored, the City is able to identify illicit discharges and eliminate the source as soon as possible.

### 4.2.2 Source Specific Observations

The City inspects municipal, industrial, commercial, residential, and construction activities to identify sources of illicit discharge. These inspections identify and lead to the elimination of illicit discharge sources. Often, when an illicit discharge is detected during an inspection, it can be eliminated before it affects receiving water. This on-the-ground inspection process eliminates illicit discharges sources before they enter MS4. If needed, Storm Water staff are trained and have the authority to enforce the program requirements.

**Hotline and Public for Reporting Observations**

The City encourages the public and City staff to report illicit discharges and connections. The City’s public complaint hotline is available 24 hours a day and is managed by the Public Works Department. The number for this hotline is published in storm water brochures available in public locations. In addition, the City’s website has a hotline notification system which allows the public, city contractors, and/or city staff, to send notifications via email. This allows for photo documentation to be attached, assisting City Storm Water staff with follow-up investigations.

In addition, maintenance and operations personnel are trained to promptly refer potential storm water violations observed while working in the field to City Storm Water staff to investigate. Once Storm Water Staff receives notification of an illicit discharge, they implement procedures described below to eliminate the source of the discharge.

### 4.2.3 Investigation and Elimination

The City implements investigational source identification procedures to track down sources and eliminate the discharge. The City’s procedures for conducting source investigations include but are not limited to the following methods:

- Tracking discharge upstream to the source
- Dye testing
- Smoke testing
- Video monitoring
- Field and analytical sampling

Most investigations are resolved by tracking the discharge back to its original source. The additional methods listed above, are utilized when the source cannot be identified after the initial investigation effort.

Action is taken to eliminate all detected illicit discharges and their sources as soon as possible after detection. The City documents all identified discharges and the elimination process in the IDDE database, in accordance with the Permit requirements.

### 4.2.4 Spill Reporting, Response and Prevention

The City implements spill prevention, spill response, and reporting mechanism to prevent, respond to, contain, and clean up all spills that discharge to its MS4. Spill prevention, containment and response
activities are implemented throughout all appropriate departments and programs to maximize water quality protection. Spills are prevented through the implementation and enforcement of BMPs, which are described in each applicable component of the JRMP (i.e., Development and Planning, Municipal, Construction, Industrial/Commercial and Residential).

**Sewage Spill Prevention**
Spill prevention measures outlined below are implemented to prevent overflows, spills, and infiltration of seepage from sanitary sewer to the MS4. The City’s Utilities Department implements the following preventive maintenance activities:

- Sanitary sewer surveys
- Preventative maintenance of sewage pumping stations
- Public and City staff notifications
- Video inspections
- Replacement and upgrade of sewer main and manholes

The City reports all SSOs through the California Integrated Water Quality Management System (CIWQS) online database, as required by the State Water Resources Control Board. The City reports all SSOs that are equal to or greater than 1,000 gallons.

**4.2.5 Enforcement**
For any enforcement actions, the City follows the established protocols described in Section 11-Enforcement Response Plan.
Intentionally Inserted for Printing Purposes
5 Development Planning

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

Development Planning is intended to:

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

5.1 Land Use Planning

The City is tasked with ensuring that land uses comply with City codes, the General Plan, Council policies, Engineering Standards and state law requirements. Approval of projects through the discretionary review process is required for major grading, building projects. The City Code requires compliance with storm water requirements for all discretionary approvals and ministerial permits. The Engineering department administers the storm water program requirements for all discretionary approvals and ministerial permits issued for private development. The Engineering Department also administers all aspects of design and construction for public improvement projects. The Planning Department administers the environmental review of both public and private projects.

The City’s General Plan includes a number of water quality and watershed protection principles in the General Plan’s Public Services and Facilities Element. Two major policies stated in the Public Services and Facilities Element are:

1. “the City will develop what it considers best management practices: to meet EPA (Environmental Protection Agency) standards for water quality discharge into the storm drain system,” and;
2. “the City recognizes the need to achieve and maintain a level of water quality that protects affected watersheds by minimizing runoff which may cause erosion and pollution.”

The City has adopted the following methods to implement the water protection policies included in the City’s General Plan:

- Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies locate at, or as close to as possible to, the sources (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into the storm drain system.
- Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.
- Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.
• Utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of structural and non-structural Best Management Practices to mitigate the projected increases in pollutant loads and flows.
• Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and reasonably protects them from erosion and sediment loss.
• Implement programs and practices to assist in reducing pollutants associated with vehicles and traffic.
• Implement the San Diego Association of Government’s (SANDAG) recommendations as found in the Water Quality Element of its Regional Growth Management Strategy.
• Implement programs to monitor post-development run-off to aid in preventing pollutant loads which cause or contribute to an exceedance of receiving water quality objectives or which have not been reduced to the maximum extent practicable.

5.2 Environmental Review Process
All development and redevelopment projects are reviewed for compliance with CEQA by the Planning Division of the City’s Community Development Department. The environmental review process consists of two major components: the Environmental Assessment and Initial Study Application; and the Environmental Initial Study Checklist (both included in Appendix B). The Environmental Assessment and Initial Study Application are completed by the development project representative, and the application identifies the environmental impacts of the projects, which may include erosion, drainage problems, and effects on water quality. The Environmental Initial Study Checklist is prepared under the direction of the City’s Senior Planner, and determines where the project will potentially have significant environmental impacts, in which case an Environmental Impact Report (EIR) will be required. If a project is found not to have any potentially significant environmental impacts, an EIR is not required and the project approval process may proceed.

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

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

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

LID BMPs are intended to mimic a project site’s pre-project hydrology by using design features and elements to effectively capture, filter, store, evaporate, detain and infiltrate runoff within the development footprint.
Structural BMPs are considered part of the tools available to treat or control runoff from developments that have been determined to be a threat to water quality or downstream conditions, based on existing water quality conditions or the activities associated with the development. These BMPs are considered a necessary part of controlling pollutants and flows from entering the receiving waters.

The City’s local BMP Manual (Appendix A.2) identifies specific post-construction LID, source control and structural BMPs that must be incorporated into development projects. The BMP Manual provides information on selection and implementation of the LID, source control and structural BMPs for pollution control and hydromodification controls.

5.4 Program Implementation
The City has an established multi-departmental review process for all new development and redevelopment projects. Through the development project approval and verification process, the City mitigates the negative impacts of urban runoff from development projects to the MEP.

5.4.1 Development Project Approval Process
All development projects in the City must comply with the City’s BMP Manual. The 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.

The storm water requirements applicability checklist is the primary mechanism used to determine what post-construction BMP requirements apply to a project. The BMP Manual, which includes the storm water checklist, is included in Appendix A.2 of this JRMP document. If the project requires a grading permit, the applicant must follow the La Mesa Grading Plan Processing Procedures, which require the applicability checklist in the BMP Manual be completed and submitted to the City. If a project does not require a grading permit, the applicant must complete a Site Plan Checklist. The Site Plan Checklist requires the applicant to complete the storm water requirements applicability checklist in the BMP Manual and submit it to the City. The following details the City’s review process for post-construction BMP requirements.

Priority Projects are required to submit a detailed WQTR as outlined in the City’s BMP Manual. Certain non-priority development projects are also subject to the City’s Standard LID requirements. Projects subject to these requirements (as determined by completing the storm water checklist of the City’s BMP Manual) must propose LID and source control BMPs. The proposed BMPs must be presented in a Standard LID Plan, which is included in Appendix C. In addition, all development projects with proposed structural post-construction BMPs must submit an acceptable maintenance agreement.

Submitted documents undergo a thorough review by the City. For Priority Projects, WQTRs are reviewed using the City’s BMP Manual. Standard LID Plans are also reviewed to verify that source control and LID BMPs are being implemented where feasible. The Engineering Division may also utilize

BMP Design Manual

The City, in cooperation with the other regional jurisdictions, developed a Model BMP Design Manual (formerly the Standard Urban Stormwater Mitigation Plan or SUSMP) as a foundation for consistent application of requirements for post-construction BMPs. The City will tailor the Model BMP Design Manual and formally implement the BMP Design Manual prior to December 31, 2015. Appropriate updates will be posted to the City’s website.

Until the City’s local BMP Design Manual is formally implemented, the City’s current BMP Manual is in effect and has the requirements...
the BMP Manual when reviewing public Capital Improvement Projects (CIP) for compliance with minimum BMP requirements.

All applicable BMPs for public and private development projects must be shown on the project’s plans. BMPs that cannot be shown on the plans must be noted or attached to the plans and are made a condition of approval for the project.

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 applicable storm water requirements, at which point the project is issued appropriate grading and/or building permits. The City does not issue permits to projects that do not meet the City’s storm water requirements.

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

### 5.4.2 BMP Installation Verification

Appropriate City inspection staff inspects all Priority Projects 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 allows 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.

Some treatment control BMPs, such as filter inserts, are installed post-construction and thus may not be inspected during grading and building inspections. To address this, correct BMP installation is also examined during the final project inspection, and building 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 WQTR. 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 will be taken to require proper installation of all approved BMP(s).

### 5.4.3 Treatment Control BMP Maintenance Tracking

The City maintains a watershed-based database to track the maintenance of all approved treatment control BMPs installed at development sites. 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

The City’s Inventory of Development Projects with Approved Treatment Control BMPs is maintained and updated by the City’s Public Works Department. The inventory includes treatment control BMPs
for projects with an approved WQTR. With the aid of the City’s Water Quality Threat Prioritization of Development Sites with Permanent Treatment Control BMPs flowchart (Figure 5-1), all development projects with approved treatment control BMPs are prioritized as high, medium, or low TTWQ. The following criteria are used to determine the TTWQ for development projects with treatment control BMPs:

1. Type of BMP, including size
   a. Recommended maintenance frequency of the BMP(s)
   b. Likelihood of operational and maintenance issues associated with the BMP(s)
   c. Size of development
   d. Type of development
   e. BMP pollutant removal efficiency
   f. Risk associated with faulty operation and maintenance of BMP(s)
2. Location of the BMP(s)
3. Receiving water conditions
4. 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, that 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 considers additional relevant factors beyond those included in the flow chart as necessary.

The City of La Mesa prepares an annual inventory of all approved treatment control BMPs for completed development projects within the City’s jurisdiction, which includes a list of all approved treatment control BMPs.

5.4.4 Treatment Control BMP Maintenance Inspections

Treatment control BMPs installed at development projects are inspected regularly by the Engineering Division’s inspectors to ensure treatment controls are operating effectively and are being properly maintained. Inspection frequencies are based on the project’s assigned TTWQ priority. Table 5-1 below presents treatment control BMP TTWQ priorities and their corresponding inspection frequencies.

<table>
<thead>
<tr>
<th>Development Project Treatment Control BMPs TTWQ</th>
<th>Inspection Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>100% Annually (prior to the start of the rainy season)</td>
</tr>
<tr>
<td>Medium</td>
<td>Every two years</td>
</tr>
<tr>
<td>Low</td>
<td>As needed</td>
</tr>
</tbody>
</table>

Table 5-1 Treatment Control BMP Inspection Frequencies
Inspections include examination of all treatment control BMPs at the project site to verify that each treatment control BMP is being maintained properly and is effective. Inspection findings are documented by the inspector using the City of La Mesa Treatment Control BMP Inspection form. If any deficiencies in treatment control operation and maintenance are noted during the inspection, the responsible party is notified and appropriate enforcement actions are taken.

5.4.5 Annual Maintenance Verification
The City requires 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 mails annual verification letters to the responsible party for each development site with treatment control BMPs in the City’s electronic treatment control BMP inventory. The verification letter requires 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.

5.4.6 Enforcement Measures for Development Sites
The City uses 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.

Enforcement methods during development could include stop work orders and denial of permits or occupancy. Higher levels of enforcement will be used for sites found to be in violation during construction of development projects to avoid the increasing costs and correction times of violations not promptly addressed. Once the violation is corrected construction will be allowed to continue.

For new post-construction BMP requirements, such as annual verification of proper treatment control BMP maintenance, the City will use education along with warnings as its primary enforcement mechanisms. Warnings will be documented on the City’s Treatment Control BMP Inspection form. If violations noted in warnings are not corrected within a given time frame, NOVs and/or monetary penalties, in addition to more severe enforcement measures, will be issued as necessary.
Figure 5-1 Water Quality Threat Prioritization of Development Sites with Permanent Treatment Control BMPs flowchart.
6 Construction

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

Construction and grading activities have the potential to impact nearby water bodies due to the presence of disturbed soils and building materials. In general, because of the exposed and open nature of construction sites, there is potential for associated pollutants to be transported off the site by either storm water or non-storm water discharges.

There are several entities that share the responsibilities for implementing the Construction Component of the City’s program. The following provides a brief description of the responsible entities:

- City Staff
  - Land Development – permit reviewers and approvers
  - Engineers – capital project managers
  - Public Works Crews – performing construction activities
  - Construction Inspectors – inspection of land development and capital projects
  - Building Inspectors – inspection of land development, specifically building permits

- Private Entities
  - Project Applicants: Entities applying for permits to conduct construction projects
  - Contractors & Sub-contractors – Contractors who construct the projects and implement required BMPs
    - Private Development
    - Public Projects

The City’s Storm Water BMP Manual Part II (Development and Construction BMP Manual) identifies the minimum BMPs required for all construction activities and is located in Appendix A.2.

6.1 Project Approval Process

Project Applicant Process

Prior to project approval and issuance of construction and/or grading permits, the project applicant must demonstrate that they comply with the City’s Development & Construction BMP Manual and Municipal Code, by:

- Completing and submitting the “Storm Water Requirements Applicability Checklist,” (Appendix A of City’s Development & Construction BMP Manual) which determines if the project is subject to construction and/or permanent storm water BMPs requirements. This form must be completed for all permit applications, even if previous approvals exist
- Preparing and submitting appropriate plans (construction and storm water management), if required
- Implementing and maintaining requirements as identified in plans or at the discretion of City staff

The City’s Development & Construction BMP Manual defines the requirements and information necessary to prepare the project application.
City Approval Process

Prior to issuing construction permits, City staff confirms each applicant has completed the required submittals and verifies their completeness and accuracy. At a minimum, staff will review or ensure:

- Storm Water Requirements Applicability Checklist is completed correctly
- Coverage under the Statewide Construction General Permit (CGP), if applicable;
- Complete Construction Storm Water Management Plan (CSWMP), grading plans, storm water pollution prevention plan (SWPPP), and erosion & sediment control plans, as applicable;
- Each CSWMP, grading plan, SWPPP, and erosion & sediment control plan, comply with the City’s grading and/or building permit(s), as applicable;
- Each CSWMP, grading plan, SWPPP, and erosion & sediment control plan, includes seasonally appropriate and effective BMPs and management measures described in the Development and Construction BMP Manual, as applicable;

If the City determines that any submittals are inadequate or missing information, submitted documents are returned to the applicant for revision and resubmittal. Once the applicant’s submittals, including storm water requirements, are determined to be complete and accurate, the City will grant appropriate building and/or grading permits.

6.2 Construction Site Inventory

City staff maintains a watershed-based inventory for all construction sites within its jurisdiction. Basic inventory information includes:

- Project name
- Contact information (owners and contractors)
- Location information
- Threat to water quality (TTWQ)
- Status of activity
- Inspection frequency
- Determination of on-going enforcement actions
- WQIP priorities

The construction site inventory is maintained using a Microsoft Word Document. A complete listing of project data associated with all construction sites can be made available upon request.

To ensure that the City’s watershed-based inventory of construction sites is current and accurate, the inventory is updated monthly by City staff. Updates to the inventory include the addition of new construction projects, the removal of completed construction projects, updates to construction phases and, as appropriate, the re-prioritization of TTWQ designations for active construction sites.

6.3 Construction Site BMP Requirements

Minimum BMPs must be implemented at all construction sites at all times. Every construction site within the City’s jurisdiction is required to select, install, and maintain general site management, erosion control, and sediment control BMPs to prevent and control pollutant discharges. The BMPs are
selected based on individual site characteristics, dry or rainy season considerations, and construction phase².

Table 3-1 in Part of the BMP Manual (Appendix A.2) identifies the minimum construction BMPs required by the City along with the corresponding fact sheet numbers from the most current California Storm Water Quality Association (CASQA) Construction BMP Handbook. CASQA BMP Fact Sheets are available online at [https://www.casqa.org/resources/bmp-handbooks](https://www.casqa.org/resources/bmp-handbooks).

The following BMP categories shall be implemented:

- Project Planning/Scheduling;
- Good Site Management “Housekeeping”, including waste management;
- Non-storm Water Management;
- Erosion Control;
- Sediment Control;
- Run-on and Run-off Control; and
- Active/Passive Sediment Treatment Systems, where applicable.

Construction sites are required to implement all minimum construction BMPs as necessary, to prevent pollution discharges regardless of the season (rainy or dry). The following are some, but not all of the core minimum BMPs required for each project site:

- Adequate perimeter protection BMPs must be installed and maintained;
- Adequate sediment control BMPs must be installed and maintained;
- All exposed disturbed areas must have erosion control controls properly installed including building pads, unfinished roads, and slopes;
- 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 and adequately contained;
- Storm drain inlets must be protected at all times.

The City implements the same minimum construction BMPs for Capital Improvement Projects (CIPs) 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.

6.3.1 Site Management Requirements

To ensure that all approved construction BMPs are properly implemented and maintained daily at construction sites, the City has established specific site management requirements, which include some of 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.

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² Typical construction phases include: clearing and grubbing; grading; trenching; building; and landscaping. Phases that include ground disturbing or stockpiling activities require different BMPs than phases that include only building and landscaping activities.
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.

Refer to Development & Construction BMP Manual (Appendix A.2), for a complete description of all requirements pertaining to the site qualified person.

6.4 Construction Site Inspection Prioritization

Construction sites within the City’s jurisdiction are assigned an inspection priority of high, medium, or low based on the TTWQ. Inspection priorities are directly related to the minimum inspection frequencies that the City will use for scheduling site inspections. At a minimum, staff uses the following criteria to prioritize sites and activities during the different phases of construction:

- Located within a hydrologic subarea where sediment is known or suspected to contribute to the highest priority water quality conditions identified in the associated WQIP;
- Located within the same hydrologic subarea and tributary to a water body segment listed as impaired for sediment on the CWA section 303(d);
- Located within, directly adjacent to, or discharging directly to a receiving water within an Environmentally Sensitive Area;
- A site determined by the City to have high erosion potential and significant slopes.
- Amount of disturbed soils at site;
- Enrollment under Statewide CGP;
- Scope of construction project, e.g., grading, sidewalk installation, street light installation, house addition, redevelopment of commercial property.

The above criteria are presented in question format on the Construction TTWQ Determination form located in the City’s BMP Manual. Based on the responses to the questions, an inspection prioritization and frequency is determined. In addition to the initial inspection prioritization, City staff may re-assign the priority based on the phase of construction, e.g., grading or final landscaping.

6.5 Construction Site Inspections Procedures

The inspection program to evaluate construction sites includes both private projects and City Capital Improvement Program projects within the City’s jurisdiction. Site inspections are coordinated by the Engineering Department and performed by City Construction Inspectors, or contract staff, to evaluate compliance with minimum BMP requirements and applicable ordinances and permits. The Construction Inspectors conduct inspections following the Construction Site Inspection Procedure Sheet. Inspectors are responsible for ensuring construction activities are being performed in accordance with project plans, building and grading permits, and all applicable codes, regulations and ordinances. From a storm water perspective, inspectors are responsible for ensuring the minimum BMP requirements are
implemented, maintained and effective in accordance with the requirements identified in the City’s Construction BMP Manual.

All inspection findings are documented in the Construction Inspection Database. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in Section 11- Enforcement Response Plan, will be taken.

The Construction Inspector will perform follow-up inspections for construction sites found to be in violation of the City’s construction storm water requirements. Follow-up inspections are tracked by the City and are documented in the Construction Inspection Database.

6.5.1 Inspection Frequency
The City conducts inspections at inventoried sites at the minimum frequencies identified below. The criteria used to determine construction site inspection frequency is based on the site’s TTWQ, appropriate season (wet versus dry), and phases of construction activities. The following table presents the different TTWQ categories and their corresponding minimum inspection frequencies for the wet (October 1 through April 30) and dry (May 1 through September 30) seasons.

<table>
<thead>
<tr>
<th>Construction Site TTWQ</th>
<th>Wet Season Inspection Frequency</th>
<th>Dry Season Inspection Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Every two weeks</td>
<td>As needed</td>
</tr>
<tr>
<td>Medium</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>Low (with grading)</td>
<td>Once per season</td>
<td></td>
</tr>
<tr>
<td>Low (without grading)</td>
<td>As needed</td>
<td></td>
</tr>
</tbody>
</table>

City Staff will reevaluate a construction site’s TTWQ and subsequent minimum inspection frequencies on a regular basis, particularly when construction phases change. The need for additional inspections can vary depending on site conditions, previous violations, history of developer or contractor past performance, and/or weather patterns. Inspections conducted at each construction site are tracked in an electronic spreadsheet to ensure all construction sites in the City’s inventory are being inspected at the appropriate frequency.

6.5.2 Inspection Tracking and Records
City Staff tracks and records all inspections and re-inspections at all inventoried construction sites. A copy of the City’s most current Construction Inspection inventory and data collected during inspections, is available upon request.

6.6 Enforcement Measures for Construction Sites
The City enforces applicable local ordinances and permits through the use of the Enforcement Response Plan, at all construction sites in its jurisdiction. All City Staff have the direct authority or resources to take immediate enforcement actions when necessary. This facilitates quicker correction of inadequate BMP implementation, reducing the risk of pollutants discharging from the site.

In the event that during a site inspection, the inspector determines that the site is out of compliance with the City’s requirements, the inspector will document the corrective actions necessary to bring the site into compliance. The Enforcement Response Plan will typically utilize the following methods to restore compliance at an out of compliance site:
- Verbal warnings
- Written warnings
- Notice of Violations (NOVs)
- Enforcement of contracts (CIPs)
- Stop work orders
- Denial or revocation of permits
- Civil and/or criminal court actions

Refer to the Enforcement Response Plan in Section 11- Enforcement Response Plan, for a complete description of enforcement actions.
7 Municipal

The City implements a municipal management program that includes a municipal inventory and tracking system, BMPs implementation, site inspections, and enforcement procedures.

7.1 Introduction

The City owns and maintains a variety of municipal facilities, areas, and activities. Municipal facilities represent a physical location at which activities occur, such as administration buildings and fire stations. Areas include municipally owned spaces such as streets, roads, highways, parking lots, sanitary sewers and MS4s. Activities may take place at a fixed facility/area or in the field and include street sweeping, graffiti abatement, street and sidewalk repair, painting, MS4 maintenance, and regular upkeep of the sanitary sewer system to prevent overflows. Maintenance yard activities, parking lot maintenance, and over irrigation at municipal facilities are among the avenues by which pollutants could be discharged to the MS4 from municipal fixed facilities.

This section provides an introduction to the City's program to comply with Existing Development Management Component (Permit Provision E.5.), specifically focusing on municipal facilities, areas and activities. In addition, this chapter describes the responsibilities of staff with respect to implementation of the Municipal Component of the JRMP. The following descriptions provide a brief description of the responsible City Staff:

- City Storm Water Inspector: City Staff that performs inspections at fixed municipal facilities.
- City Storm Water Staff: City Staff who review/implement storm water regulations.
- City Public Works (PW) Staff: City Staff who perform maintenance and operation activities within the City's jurisdiction.

7.2 Municipal Inventory and Tracking

City Storm Water Staff maintains a watershed-based inventory for all facilities, areas, and activities within its jurisdiction. Basic inventory information includes:

- Site name;
- Location information;
- Facility category (e.g., fire station, PW facility, MS4, etc.);
- Potential pollutants generated.

Municipal facilities, areas, and activities are assigned a TTWQ based on an evaluation of the TTWQ of the area and/or activity. Each site is evaluated based on a variety of site-specific factors including size, location, and type of activity. Using these criteria, a complete, prioritized, watershed-based inventory was completed. The municipal inventory, including high, medium, and low TTWQ municipal sites can be made available. The inventory is updated at least annually based on knowledge of changes in municipal operations or inspection results.

The municipal site inventory is maintained using a Microsoft Excel worksheet. All facilities and activities are provided in the municipal inventory and updated annually, at a minimum. A complete listing of site data associated with all municipal facilities, areas, and activities can be available upon request.
7.3 Best Management Practice Implementation and Maintenance

The City has developed a set of minimum BMPs that must be implemented at all municipal facilities, areas, and during municipal activities to decrease or potentially eliminate the amount of pollutants that originate from a specific area and/or activity. The City utilizes the CASQA Municipal BMP Handbook and Section 2 of the City Storm Water Manual to guide proper implementation of applicable BMPs for specific municipal areas and activities.

City Storm Water Staff trains the appropriate City Staff to implement good housekeeping BMPs and general pollution prevention measures at all municipal areas and during all municipal activities. City field crews are also trained to properly contain, control, and capture any discharge generated by power washing and to treat spills as they occur. Spill kits are available on City maintenance vehicles including street maintenance, wastewater, parks, and chemical application trucks.

7.4 Inspections and Corrective Actions

**Municipal Facilities Inspections**

City Storm Water Inspector(s) and Staff inspect all High TTWQ fixed facilities annually. Remaining non-high TTWQ fixed municipal facilities are inspected at a minimum once every five years. 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 Storm Water Inspector(s) fully assess facilities to ensure that all City regulations, ordinances, and BMP requirements are being fulfilled. City Storm Water Inspector(s) assess the facilities based on the minimum BMP requirements set forth 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 adjustments when ineffective BMPs are identified.

If BMPs are determined to be deficient or otherwise ineffective, internal enforcement action is initiated. The City Storm Water Staff developed a form specifically designed for documenting verbal warnings given to all individuals or facilities, including municipal facilities. The violator is provided with required corrective actions, and City Storm Water Inspector(s) conduct a follow-up within a reasonable time frame to assure that all applicable requirements are implemented. Inspections are documented using the Municipal Storm Water Inspection database.

**Municipal Areas and Activities Inspections**

While City Storm Water Staff do not perform site inspections for municipal areas and activities in the same manner as described above for municipal facilities; inspection, cleaning, and maintenance programs are conducted in order to address municipal areas and activities. The following non-fixed programs are annually reviewed for effectiveness:

- Street, Roads, Highway, and Parking Lot – Inspection and Cleaning Program
  - Are frequency adjustments necessary?
  - Are there areas needing additional focus?
- **MS4 Inspection and Cleaning Program**
  - Are frequency adjustments necessary?
  - Are there areas needing additional focus?

- **Sanitary Sewer Inspection and Maintenance Program**
  - Are frequency adjustments necessary?
  - Are there areas needing additional focus?

- **Special Event(s) Cleaning Program**
  - Are frequency adjustments necessary?
  - Are there areas needing additional focus?

### 7.5 MS4s Program

The City’s PW Department maintains approximately 400 curb inlets and catch basins and more than 50 miles of pipes and channels. The MS4, as one complete entity, is included on the municipal inventory. The MS4 maintenance schedule includes several BMPs for operation and maintenance as follows:

- Removal of trash and debris from all drainage facilities is conducted twice annually, at least once between May 1 and September 30 for all MS4 facilities.
- Silt and debris is removed from storm drain pipes annually.
- Approximately 12 storm drain inlets and catch basins throughout the City have been identified as collecting higher volumes of trash, especially following a rain event. In addition to the twice-annual inspection/cleaning schedule, Public Works Staff inspects and cleans these particular catch basins after a rain event when they are more likely to have collected trash and debris from runoff. Other inlets and catch basins within the City are cleaned twice a year, which is sufficient in ensuring the catch basins do not reach one third of capacity.
- Twice annually, MS4 facility maintenance is sufficient in keeping self-cleaning MS4 facilities free of notable accumulations of trash and debris. If the City receives a complaint or report of trash and debris accumulations in a self-cleaning MS4, it is cleaned immediately.
- Twice annually channel maintenance is sufficient in keeping channels free of significant amounts of anthropogenic litter. If the City receives a complaint or report of significant amounts of anthropogenic litter, it is cleaned in a timely manner.
- Illicit discharge detection and reporting is conducted as encountered.
- The PW Department properly handles 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 PW Department records and documents all MS4 maintenance activities and inspections. The documentation of all activities associated with the MS4 inspection and cleaning program is stored in the PW MS4 Cleaning Inventory. Records for preventative maintenance, cleaning, and inspections contain the following information:

1. Date/Time of inspection;
2. MS4 ID;
3. Amount of material removed;
4. Type of Material;
5. Disposal site;
6. Problems noted.

7.6 Street Sweeping Program
In an effort to reduce the pollutant load entering local receiving water bodies, the PW Department implements a sweeping schedule for roads, streets, highways, and parking facilities described in detail below. The City employs the services of a contracted street sweeping agency to provide street and parking facility sweeping activities for the City. The contractor is required to submit periodic reports to the City that include the amount of debris collected. Upon request, streets may receive extra sweepings on an as needed basis.

The street sweeping schedule includes all public streets within the City. A separate sweeping prioritization has been assigned to specific areas of roads, streets, and highways and to the four City-owned parking facilities.

In accordance with the strategies selected for the San Diego Bay WQIP, the City has chosen to enhance its sweeping program by utilizing a Regen-Air vacuum sweeper instead of mechanical broom sweepers. The City also proposes to implement higher frequencies of sweeping – all routes are required to be swept twice per month and high traffic and arterial areas will have an increased frequency of two times a week.

7.7 Application of Pesticides, Herbicides, and/or Fertilizers
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:

- City Staff who participate in the application of pesticides are trained and/or 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.
- City Staff record the applications of all chemical agents by noting the locations, types, and quantities of chemicals used. Records are reported monthly to the Department of Agriculture.
- The Qualified Applicator Certificate holder conducts monthly inspections to monitor storage, handling, and disposal of the pesticides.
- The City follows written recommendations prepared by a State Pesticide Advisor during pesticide application.
- Personnel who participate in the application of herbicides for the City are trained and follow guidelines set by the County Agricultural Commission.
- Only pesticides that are quickly absorbed onto the soil or plants are used. Low pressure and low volume are used during applications.
- Pesticides are not sprayed when there is a high possibility of the spray drifting into non-target areas or onto non-target vegetation, insects, or animals.
- The City continues to maintain compliance with county and state reporting requirements for pesticide use.
• Pesticides, herbicides, and fertilizers are applied during the growing seasons: spring, summer, and fall.
• Pesticides, herbicides, and fertilizers are not applied directly prior to or during a storm event.
• All federal, state, and local regulations are followed in the use of pesticides, herbicides, and fertilizers.
• Whenever practicable, integrated pest management techniques that rely on non-chemical solutions are implemented.
• Employees are trained to follow pesticide, herbicide and fertilizer labels, and the material safety data sheet(s) (MSDS).

7.8 Special Events
Periodically, the City hosts a variety of special events, such as: festivals, fairs, and other events for various causes and occasions. These special events typically have a high density of people per square foot raising the potential for pollutant generation. The pollutant generating activities and their potential pollutants types are identified below.

City Storm Water Staff has chosen the following BMPs as most effective and efficient for City a variety of special events that could take place in the City. The City may improve or modify these BMPs at any time if it is determined to provide equal or greater protection.

It is imperative that Event Organizers train event staff in storm water pollution prevention activities at the event venue and to notify all vendors of their storm water pollution prevention responsibilities. Event Organizers shall use an effective combination of BMPs to prevent trash and other pollutants from entering the storm drain system. BMPs that the City will consider to be effective include:

Food and beverage, and all chemical and liquid activities or products:
Event Hosts/Organizers and vendors must have spill kits in or adjacent to their work area. Spill kits include: paper towels, cloth towels, kitty litter and/or sand. All spill materials must be picked up out of the public right of way once the spilled material is absorbed off the ground. Spills leaving the event venue area into the surrounding streets must be captured and prevented from entering the surrounding non-event area(s) and storm drains.

Storm drain protection
• Event Hosts/Organizers must protect all storm drains identified on their site plans, and provide drain signage at each inlet that discourages storm drain pollution.
• In all weather conditions- place signage at, over (i.e. via a traffic barricade), or adjacent to the storm drains with the following wording:
  ▪ “Do not pour liquids or place trash into the storm drain. Violators will be subject to fines/ No tire líquidos ni basura en los desagües. Violadores serán multados”
• Dry: if no rain is projected, place fabric filters or approved inlet protection device over the drain opening. The use of fabrics and other types of inlet protection devices will require gravel bags or other form of hold down to keep them in place during the event. The gravel must be clean and free of sediment.
• Rain: If a forecast of 40 percent chance or greater of rain is forecast, gravel bags protecting the storm drain perimeter or other approved inlet protection devices are sufficient. Do not use fabric filters in the event of rain.
• All impacted catch basins identified on the special events storm water pollution prevention plan must be visually inspected and cleaned, if necessary, following the special
event and prior to an anticipated rain event (40 percent chance or greater of rain in the forecast).

Craft/Art creative areas and post event public art removal
- All craft/art creative areas must have spill kits on hand (see above).
- Post event clean-up of these areas includes removal of temporary public art (chalk, paint, charcoal, clay, etc). Event/vendor staff must use wet-mops. Any water in a bucket must be either poured into the sanitary sewer via for example a sink, or released over a landscaped area that has adequate capacity to contain the liquids and the pollutant without allowing discharge onto sidewalks, curbs, gutters streets and drains.

Trash and debris
- Adequate trash containers must be provided throughout the event venue, including at the exit and entry points. All trash containers must be covered. Regular collection of renegade trash and debris is required.
- All trash and/or recycling collection areas must have spill kits and wet mop(s) and brooms available and staff trained in spill clean-up methods.
- Temporary Fencing is required to be installed if the event, or any portion thereof, is determined to pose a threat of wind-blown debris into any water bodies.
- Post event sweeping of the entire venue area and related staging areas is required.

Temporary public restrooms
- All temporary portable restrooms are placed away from all storm drain inlets, drainage swales, water bodies, and any other locations that have the potential to impact the storm drain system.
- All temporary portable restrooms are required to have a secondary containment pan or additional BMPs in place around the stations for possible overflows.
- The contact information for the company responsible for the restrooms clearly marked on or around the restrooms.

7.9 Sanitary Sewer Systems
The City Utilities Department maintains an ongoing sewer system maintenance program in order to eliminate the amount of seepage from the sanitary sewer system to the MS4. Through preventative maintenance of both systems the City Utilities Staff are able to detect and eliminate active seepage points before they become a larger problem. The City takes the following measures to reduce the seepage from the sanitary sewer system to the MS4:

- Monthly maintenance of sewer pipes known to be “hot spots” for grease build-up
- Corrugated metal pipe (CMP) storm drain pipes are replaced with concrete or high-density polyethylene (HDPE) pipe, as applicable
- Old concrete sewer pipes are replaced or rehabilitated, as applicable
- Flow metering is conducted throughout the City’s sanitary sewer system to monitor for readings indicating excessive flow
- Use of video cameras in storm and sewer drains to check pipe conditions

Sewer mains in areas commercial areas with restaurants are cleaned monthly to prevent pipe back-ups and breaks caused by grease accumulation. Additionally, City Utilities Staff maintain a spill response plan that establishes standard procedures for immediate response to a SSO. City Staff are trained in detecting, reporting, and responding to SSOs. The City has implemented a Fats, Oils, and Grease (FOG) program to reduce the number of SSOs caused by grease being discharged to the sewer system.
The City implements spill prevention, spill response, and reporting mechanisms to prevent, respond to, contain, and clean up all sewage and other spills that may discharge to its MS4 from any source.

In addition to the inspection and maintenance activities performed by the City Staff, mentioned above, the Utilities Department has established the Sewer System Management Plan (SSMP), which provides additional protection from sanitary sewer overflows entering the City’s MS4.

7.10 Program for Non-Emergency Fire Fighting Flows

The City implements a program to reduce flows from non-emergency firefighting flows from entering the MS4. The program includes several BMPs to reduce and/or eliminate discharges from entering the City’s MS4. Emergency firefighting 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 are used to reduce the discharge of pollutants to the MEP.

The Fire Department implements several BMPs to address non-emergency discharges and include the following activities:

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

**Training Exercises**
- Water flows are directed to a connection to the sanitary sewer system.
- Water used in training exercises is directed to landscaped areas whenever possible, and runoff from the training exercises will not be allowed to discharge to the MS4.
- Live fire training activities is 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 are swept to remove debris. Debris is placed in the trash. Interior floors are mopped as necessary, and the wastewater is discharged into the sanitary sewer system or onto landscaped areas.
- Landscaped areas are maintained as required to reduce introduction of leaves and other landscape waste into the MS4.
- Irrigation systems are monitored and maintained as required to reduce irrigation water from going off-site.
- Spills are cleaned up using spill kits provided at the work site, and disposal of spilled material is in accordance with applicable regulations.
• Spills that require a cleanup beyond the ability of the on-site employees are reported to the City PW Department or the County Hazmat Team for assistance with appropriate resources.
• Maintenance and repair of structures are conducted using methods that do not contribute pollutants to the MS4.
• General non-hazardous cleaning solutions are disposed of in a utility sink that drains into the sanitary sewer system.

Post-Emergency Rehabilitation of Response Equipment
Tools, fire hoses, ladders, and other equipment utilized at the scene of an emergency are restored to a response-ready state in a manner that does not delay the ability of the apparatus to be available for another emergency response. Water that could contribute to storm water discharges may be used unless another practical and immediately available method is identified.
8 Industrial and Commercial

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

8.1 Introduction

The City’s Industrial and Commercial program is intended to (1) reduce industrial and commercial discharges to the MS4 to the MEP and (2) prevent discharges from the MS4 to receiving waters from causing or contributing to an exceedance of water quality standards.

8.2 Industrial and Commercial Site Inventory Tracking

City Storm Water Inspector(s) and Staff maintain a watershed-based inventory of all industrial facilities and commercial sites/sources within the City’s jurisdiction. The inventory has been compiled and mapped using geographic information systems (GIS), and prioritized based on TTWQ, to determine potential sources. Basic inventory information includes:

1. Project name
2. Contact information
3. Location information
4. TTWQ
5. Status of activity
6. Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) Codes
7. Determination of on-going enforcement actions and/or follow-up inspections

The City’s industrial and commercial inventories include both stationary and mobile businesses. Industrial facilities include manufacturing facilities, hazardous waste treatment facilities, and transportation businesses. Stationary commercial facilities include auto repair shops, restaurants, and various types of wholesalers. Mobile businesses include power washers, auto detailers, landscapers, and contractors.

The industrial and commercial inventory is maintained using Microsoft Excel. A current listing of facility data associated with all industrial and commercial sites can be provided upon request. A map of industrial and commercial sites is shown in Figure 8-1 below. City Staff are informed of changes to businesses based on day to day program implementation activities. At a minimum, the inventory is updated bi-annually through reviewing business license records for new businesses, performing routine inspections, and responding to reported incidents.

City Storm Water Staff evaluate the potential TTWQ of each business by incorporating WQIP priorities/strategies, past Permit requirements, and using data collected from previous inspections. The factors used in assigning TTWQ prioritization include:

- Coverage under the Industrial General Permit
- Water Quality Improvement Plan(s)’ priorities
- If the downstream receiving water body is 303(d) listed and if the business is “likely” to contribute discharge that includes the pollutant that is causing the impairment;
- Results from inspections and institutional knowledge
- Proximity to the receiving water body
- SIC
8.3 Best Management Practice Implementation and Maintenance

Industrial and commercial facilities produce a range of pollutants that can threaten human and environmental health if washed into the storm drain system by storm water runoff. The City of La Mesa requires all inventoried industrial and commercial facilities to ensure proper implementation, operation and maintenance of required BMPs. Pollution prevention methods are cost-effective BMPs that eliminate or reduce the generation of pollutants at their sources.

Pollution Prevention Methods

The City has established a set of minimum BMPs that are provided in the City’s Storm Water BMP Manual, located in Appendix A. These BMPs are based on the CASQA California Storm Water BMP Handbook – Industrial & Commercial (CASQA, 2009) for all industrial and commercial sites. The BMP Manual includes key BMP principals for various dischargers in the City based on activity type(s).

Business Specific BMPs

Businesses are required to use an effective combination of general BMPs and activity-specific BMPs per facility activities. These BMPs include, but are not limited to:

- Spill Prevention, Control/Cleanup
- Waste Handling and Disposal
- Sediment/Erosion Control
- Building/Grounds Maintenance
- Parking Area Maintenance
- Drainage System Maintenance

Employee Training

- General BMPs
  - Non-Storm Water Discharge Control
- Activity-Specific BMPs
  - Vehicle/Equipment Fueling
  - Vehicle/Equipment Cleaning
  - Vehicle/Equipment Repair
  - Outdoor Loading/Unloading
  - Outdoor Liquid Container Storage
  - Outdoor Equipment Operations
  - Outdoor Storage of Raw Materials

City Business Licensing Staff also require mobile businesses to sign affidavits prior to being granted a business license. The affidavits are signed to acknowledge that proper disposal is necessary for any water generated by mobile business activities such as mobile car detailing and power washing. Additionally, the business owner agrees to implement all applicable BMPs required by the City and acknowledges that failure to do so will result in further action and possible legal action by the City.

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.

Property Specific BMPs

In addition to the minimum BMPs mentioned above, the City may require other BMPs based on specific-site conditions observed during an inspection.
**Treatment Control BMPs**

The City Storm Water Inspector may also require the implementation of treatment control BMPs, including but not limited to:

- Infiltration Trench
- Infiltration Basin
- Retention/Irrigation
- Wet Pond
- Constructed Wetland
- Extended Detention Basin
- Vegetated Swale
- Vegetated Buffer Strip
- Bioretention
- Media Filter
- Water Quality Inlet
- Multiple Systems
- Wetland
- Media Filter
- Wet Vault
- Vortex Separator
- Drain Inlet

**Pesticides, Herbicides, and Fertilizers Best Management Practices**

Improper use, handling, or storage of pesticides, herbicides, and fertilizers can allow these chemicals to come into contact with receiving waters via storm water or urban runoff from overwatering. Businesses who utilize pesticides, herbicides, and/or fertilizers are required to follow all BMPs designated for that type of activity.

### 8.4 Facility Inspections

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

- Industrial and commercial inspections
- Residential inspections
- Municipal facilities inspections
- Treatment Control BMPs inspections
- Storm Water Conveyance System (MS4) inspections

As part of the inspection process, the City Storm Water Inspector documents that facilities are meeting the operation and maintenance requirements of BMPs. If facilities are not compliant with the requirements, the City follows the Enforcement Response Plan, found in Section 11- Enforcement Response Plan.
Onsite inspections are performed at facilities that have limited access from the public right-of-way, follow-up inspections, response to public complaints, or violation observed during patrol inspection. As mentioned above, the City doesn’t perform patrol and onsite inspections for mobile businesses. Due to the nature of mobile businesses, the City directly inspects mobile business activities to ensure compliance with storm water ordinances.

Contact will not be made with a business and/or owner, unless an active discharge, illicit connection and/or potential storm water issue is observed. Violations are brought to the attention of the business or property owner and business manager through educational notification letters, which outlines the observed deficiency and provides the City’s contact information.

### 8.4.1 Inspection Frequency
At a minimum, the City Storm Water Inspector will inspect (patrol and/or onsite) each facility once each year. However, the City may adjust inspection frequencies based on the San Diego River and San Diego Bay WQIPs highest priority condition(s). The City will inspect facilities that have the potential to discharge pollutants associated with the highest priority condition at an increased frequency to implement WQIPs strategies and ensure BMPs are effectively prohibiting non-storm water discharges to the MS4. The City Storm Water Inspector will also investigate all reported incidents of illegal discharges from all industrial or commercial facilities, independent from routine patrols or inspections.

### 8.4.2 Follow-up Inspections
The City Storm Water Inspector(s) will conduct follow-up inspections to determine if corrective actions have been taken in accordance with City ordinances and minimum BMP requirements. Escalating enforcement steps, providing flexibility for the inspectors to establish appropriate compliance time frames on a case-by-case basis, will be used to ensure compliance. Follow-up and enforcement inspections will be documented in the inspection inventory until the issue is resolved.

### 8.4.3 Inspection Tracking and Records
City Storm Water Inspector and Staff track and record all inspections and follow-up inspections at all locations in the industrial and commercial inventory. A copy of the City’s industrial and commercial inspection inventory is available upon request.

### 8.5 Enforcement
The City will ensure that pollution prevention methods and BMPs are implemented by enforcing its ordinances. City Storm Water Inspector(s) and Staff enforce all applicable ordinances through the use of the Enforcement Response Plan. The Storm Water Inspector properly documents each observed violation at facilities failing to comply with storm water requirements, and enforcement action will be taken where necessary to bring about compliance.

Refer to the Enforcement Response Plan in Section 11 for a complete description of enforcement activities and tools.
9 Residential

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

9.1 Introduction

Over half (53 percent) of the City’s 5,783 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 implements a program to reduce pollutant runoff from residential areas and activities to the MEP. This section provides a discussion of the rationale and methodology used to prioritize the City’s residential activities and areas with respect to their potential TTWQ.

9.2 Source Characterization

The City identifies residential areas and activities as having a low, medium or high TTWQ. High TTWQ areas were designated by considering results of complaint investigations, institutional knowledge, historical Monitoring Program data results, and according to permit requirements.

High TTWQ areas include:

- 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 environmentally sensitive area.
- Any other residential source the Copermittee determines may contribute a significant pollutant load to the MS4.

The City’s residential properties and areas are displayed in the figure below.

9.2.1 Residential Area Designations

The City includes in its inventory, residential area designations. The goal of designating and organizing residential areas is to make implementation of the JRMP as efficient as possible for the City. The following are residential area designations based on land characteristics in order of designation:

Home Owner Associations (HOAs)

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

Housing Developments

The City designates areas based on housing developments or communities of homes that are not considered HOAs, but still are grouped together geographically and share common areas. Grouping these types of residences together make sense geographically and make it possible for patrols and inspections to cover multiple residences at the same time and frequency.
Grid/Street
Designating residential areas based on a grid system, using streets as boundaries, is an efficient system for mapping designed areas. Streets form known and clear boundaries throughout the City and will help define residential areas in a way that makes patrols and inspections efficient to conduct.

Mobile Home Parks
Similar to HOAs, mobile home parks usually have numerous mobile homes and tenants but one property owner or manager. Contacting just one property owner or manager may be much for efficient if issues are observed during patrols.

A map of the designated residential areas is shown below in Figure 9-1.

Figure 9-1: Map of Residential Areas

9.2.2 High Priority Residential Activities
The following are activities that are considered high priority residential activities that will be included in education campaigns and contacts made with the public regarding observed violations and BMP implementation.

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 the 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 leak pollutants onto driveways and streets, which can 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., fertilizers and pesticides) can cause pollution problems if they are not used or stored properly. Over-irrigation can potentially introduce pollutant runoff into the storm drain system. Green waste may also be generated from landscape maintenance or similar activities. Decomposition of green waste, if washed into surface waters, can reduce available oxygen for other organisms. The discharge of pool water, even if dechlorinated, can lead to pollution problems as pollutants are picked up by storm water.

**Disposal of Trash, Household Hazardous Waste, and Pet Waste**
Illegal dumping and littering are not only aesthetic concerns, they can also be sources of pollutants to the MS4. Household hazardous waste (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.

### 9.3 Best Management Practice Requirements
The City continues to encourage the implementation of BMPs for residential areas and activities. If particular BMPs are not feasible for any specific site or source, the City requires implementation of other equivalent BMPs.

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

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

- Residential inspections
- Industrial and commercial inspections
- Municipal facilities inspections
- Treatment Control BMPs inspections
- Storm Water Conveyance System (MS4) inspections

As part of the inspection process, the City Storm Water Inspector documents that residential areas and facilities are meeting the requirements of the City. If residents are not compliant with the requirements, the City follows the Enforcement Response Plan, found in Section 11.
9.5 Used Oil and Waste Collection Services
The City facilitates 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, detailed in Section 12.

Each center accepts up to 20 gallons of uncontaminated used motor oil, in containers no larger than 5 gallons each, per person, per day. Certified centers accept used motor oil at no charge, and offer a recycling incentive of 16 cents per gallon.

Residents within the City can also recycle used oil and dispose of HHW, green waste, recyclables, and other materials at the EDCO Station located at 8184 Commercial Street in La Mesa. The facility accepts leftover paint, auto fluids, drain opener, or any unused products containing toxic chemicals used for home or automobile maintenance. There is no direct fee to residents of La Mesa, but proof of residency is required. Appointments are necessary, and they can be arranged by calling (619) 287-5696 ext. 4270.

Free door-to-door collection services are available to citizens 65 or older, and to residents who are physically unable to participate in a drop-off event. Many household items can be dropped off at the EDCO facility, however the Solana Center has a database to find locations that will accept particular items when a resident has something to dispose of that that City does not accept. Further information can be obtained by calling the Solana Center at (800) 444-4244.
10 Retrofitting and Rehabilitation in Areas of Existing Development

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

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

The process for identifying retrofits will evaluate the following considerations:

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

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

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

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

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

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

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

### 10.2.2 Rehabilitation Types

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

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

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

### 10.3 Implementing Candidate Retrofits and Rehabilitation Projects

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

Methods to implement retrofits and rehabilitation projects within existing development areas include:
Developing and implementing demonstration retrofits and rehabilitation projects that are highly visible and receive foot traffic. This may include parks, public facilities, trails, or schools
Mitigation for identified sources of pollutants from private properties
Offsite alternative compliance pathways for land development requirements
Retrofits on public lands or rights-of-way (e.g., streets, trails)
Encouraged retrofits within home owners association or other private entity common areas
Incorporating into Capital Improvement Program (CIP) Projects
Implementation of redevelopment requirements

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

- Grants
- Development impact fees
- Developer implementing offsite alternative compliance
- City funding
- Private property owners

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

The City implements an Enforcement Response Plan as part of its jurisdictional runoff management program document. The Enforcement Response Plan must describe the applicable approaches and options to enforce its legal authority as necessary, to achieve compliance with the requirements of the Permit. The Enforcement Response Plan must be in accordance with the strategies in the WQIP.

11.1 Introduction

The City’s Enforcement Response Plan (ERP) describes enforcement tools available to City Staff and the responsibilities of City Staff with respect to enforcement actions specific to each component of the JRMP. This plan is intended to provide staff with direction and protocols to enforce the JRMP and the City’s legal authority.

11.2 Enforcement Response Procedures

The City’s ERP includes a variety of approaches: inspections, responses to hotline notifications, and various monitoring programs. Where violations are observed, administrative and judicial procedures may be employed to enforce storm water requirements. The goals of the City’s ERP are to:

- Educate the regulated community
- Encourage compliance with the laws and regulations within the regulated community
- Return violators to compliance in a timely manner to eliminate any threats posed due to non-compliance
- Initiate and conclude enforcement activities in a timely manner
- Penalize violators, as appropriate, and to deprive violators of any significant benefit gained from violations
- Prevent any business from having an unfair business advantage through non-compliance
- Treat similar facility owners and operators equally and consistently with regard to the same types of violations

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

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

- Stop Work Orders (for Construction Activities)
- Civil Penalties and Remedies
- Injunction/Abatement of Public Nuisance
- Additional Penalties and Fines (beyond the administrative level)
- Criminal Penalties
Escalated Enforcement will be implemented as described below in each of the individual Enforcement Response Plan components. Should the City determine that Escalated Enforcement is not required for any violation; the rationale will be properly documented in the City’s tracking system. Violations will be documented in each Enforcement Response Plan component tracking system. Documentation will include the violation type, when it was identified and compliance achievement date.

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

11.2.1 Administrative Enforcement Procedures

Warnings
Warnings are typically the initial enforcement method employed to enforce compliance, assuming the site or individual does not have a history of non-compliance with storm water laws. Inspectors educate the violator on what actions need to be taken to correct the violation and document the violation and warning.

Notices of Violation
NOV are typically given to sites that do not correct violations noted in written warnings or when an active illegal discharge is observed. The violation is documented, and a time frame to comply is given. The City will follow-up to determine whether or not the site has corrected the violation.

Cease and Desist Orders
Cease and desist orders are issued to stop illegal discharges and/or remove illegal connections and are often issued in conjunction with NOVs. Cease and desist orders can also be issued if the City finds construction work being performed without applicable permits. 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. The City will follow-up with all sites that receive cease and desist orders to determine whether or not the site has complied with the order.

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

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

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 a project. The violator would need to re-apply for permits and meet the requirements the City may have placed on the project before resuming the project.
Administrative Penalties or Fines
The City may give citations for infractions or misdemeanors, depending on the threat to water quality. The penalty for a storm water infraction is relatively minor for a first offense, but repeated violations will result in escalating fines or misdemeanor charges.

Stop Work Notices
If construction work is found being performed without first obtaining proper permits, a Stop Work Notice will be issued. Additionally, if written warnings have been issued to construction sites and the violation has not been corrected, or if an observed violation poses a significant threat to water quality, a stop work notice may be issued by the appropriate City official. Stop work notices prohibit further activity until the problem is resolved. The stop work notice will describe the infraction and specify what corrective action must be taken. A copy of the stop work notice is given to the owner or contractor and filed appropriately. To restart work once a stop work order has been issued, the violator must request that the inspector re-inspect the site, to verify that the deficiencies have been satisfactorily corrected. Once the inspector verifies that the appropriate corrections have been implemented, activities may resume.

11.2.2 Judicial Enforcement Procedures
The judicial enforcement process is implemented when administrative enforcement actions have been exhausted and/or the violation requires the utilization of the judicial system.

Civil Penalties and Remedies
The City Attorney is authorized to file criminal and civil actions and to seek civil penalties and/or other remedies to enforce the City’s ordinances. The civil penalties may be imposed by the City Manager after written notice and a hearing before the City Manager or his designee at which the person may present evidence and cross examine the witnesses in support of the charges. Civil penalties may also be assessed by the court in a civil action filed by the City to enforce the City’s ordinances relating to storm water requirements.

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.

Additional Penalties or Fines
The City may give citations for infractions or misdemeanors, depending on the TTWQ. The penalty for a storm water infraction is relatively minor for a first offense, but repeated violations will result in escalating fines or misdemeanor charges.

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)

11.3 Enforcement Response Plan Components
There are four separate components which represent the City’s enforcement response plan. The illicit discharge detection and elimination, development planning, construction management, and existing development enforcement components are described below.
11.3.1 Illicit Discharge Detection and Elimination Enforcement Component

The City implements and enforces its ordinances and orders to prevent illegal connections and illicit discharges (IC/IDs) to its MS4. Enforcement mechanisms are implemented on an escalating scale to enforce compliance, and follow-up inspections are conducted to ensure compliance has been achieved.

At the City’s discretion, either judicial or administrative procedures are implemented to achieve compliance. The following administrative tools are utilized to eliminate IC/IDs:

- Warnings
- NOVs
- Enforcement of contracts
- Stop work notice
- Public nuisance abatement
- Denial or revocation of permits
- Additional penalties or fines

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 health or the environment, 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 or materials). If the discharge is a significant threat to water quality and/or human health, the RWQCB will be notified.

11.3.2 Development Planning Enforcement Component

The City will use a variety of enforcement methods to ensure storm water requirements are implemented for all development projects within the City’s jurisdiction. Enforcement methods include verbal and written warnings, NOVs, monetary penalties, stop work orders, and denial of permits or occupancy.

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 primary enforcement tools. All verbal warnings are documented on the NPDES Storm Water Verbal Warnings form and recorded in the City’s treatment control BMP database. Written warnings are documented on the City’s Treatment Control BMP Inspection form and on the NPDES Storm water written warning form. If violations noted in written warnings are not corrected within a given time frame, NOVs and/or monetary penalties, in addition to more severe enforcement measures, may be issued as necessary.

11.3.3 Construction Management Enforcement Component

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

When violations are observed and documented during a site inspection, the City will implement appropriate enforcement measures based on the severity of the violation. Enforcement can range from verbal warnings to more severe enforcement such as stop work orders. Escalating enforcement measures will be used when necessary if proper corrective actions are not implemented during the allotted time frame.

The typical progressive enforcement steps that the City implements include the following:

- Warnings
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- NOVs
- Enforcement of contracts (CIPs)
- Stop work orders
- Denial or revocation of permits
- Civil and/or criminal court actions

If verbal warnings are issued to construction sites, they are documented by the City inspectors on the NPDES Storm water Verbal Warnings sheet. For written warnings, the City uses its construction inspection form as the main enforcement tool. When inadequate BMPs are noted during the City’s routine construction inspections, the inspector writes corrective actions directly on the inspection form and provides a copy of the form to the violator. If the corrective actions are not implemented by the follow-up inspection, an NOV may be issued. NOVs may also be given as an initial enforcement action when an active illegal discharge is observed. The Notice of Violation Procedural Sheet describes what types of storm water BMP violations warrant an NOV.

If the violation noted in an NOV is not corrected within a specified time frame, a stop work order may be given. The City expects written warnings and stop work notices to be effective at obtaining compliance from non-compliant sites as they have been in the past. However, if a construction site receives frequent written warnings or does not respond to an issued stop work order, more severe actions, such as permit revocation or court actions will be used as necessary. The City may also request enforcement assistance from the RWQCB.

During the construction of development projects, enforcement methods could include stop work orders and denial of permits or occupancy. Higher levels of enforcement are used for sites found to be in violation during construction to avoid the increasing costs and correction times of violations not promptly addressed. Once the violation is corrected, construction will be allowed to continue.

11.3.4 Existing Development Enforcement Component

Industrial and Commercial Enforcement

The City inspectors will conduct follow-up inspections to determine if corrective actions have been taken in accordance with City ordinances and minimum BMP requirements. Escalating enforcement steps may be utilized at the discretion of the inspector in order to establish appropriate compliance time frames on a case-by-case basis.

If the City inspector observes a significant and/or immediate TTWQ, an enforcement action is taken to require the facility owner and/or operator to immediately eliminate the discharge. Enforcement actions may be taken to require improved BMP implementation, in accordance with City ordinances, in cases where active discharges are not present. The typical escalating enforcement steps that the City will apply to the inspection enforcement program are as follows:

- Warnings (including NOVs and orders to prepare a SWPPP and/or to implement a monitoring and testing program)
- Suspension, revocation, or denial of permits, if applicable
- Additional penalties or fines
- Civil and/or criminal court actions

The City will notify the RWQCB of industrial sites that may require coverage under the Industrial General Permit within five calendar days from the time the City has become aware of the issue. The City may choose to notify the RWQCB via email (Nonfilers_R9@waterboards.ca.gov).

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

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

The City receives IC/ID reports or complaints through direct contact with City staff, calls to the City’s storm water hotline, or the City’s website (via email). The City may also observe an IC/ID during scheduled monitoring and routine MS4 maintenance. If an exceedance is detected during routine monitoring, City staff may focus the source investigation on areas upstream of the exceedance. This approach may provide further information about potential IC/ID issues.

The City inspectors will conduct follow-up inspections to determine if corrective actions have been taken in accordance with City ordinances and minimum BMP requirements. Escalating enforcement steps may be utilized at the discretion of the inspector in order to establish appropriate compliance time frames on a case-by-case basis.

If the City inspector observes a significant and/or immediate TTWQ, enforcement action is taken to require the facility owner and/or operator to immediately eliminate the discharge. Enforcement actions may also be taken to require improved BMP implementation to meet City standards in cases where active discharges are not present. The typical escalating enforcement steps that the City applies are:

- Warnings (including NOVs and orders to prepare a SWPPP and/or to implement a monitoring and testing program)
- Suspension, revocation, or denial of permits, if applicable
- Additional penalties or fines
- Civil and/or criminal court actions

11.4 Reporting of Non-Compliant Sites

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

The City will notify the San Diego Water Board of any persons required to obtain coverage under the statewide Industrial General Permit and CGP and failing to do so, within five (5) calendar days from the time the City becomes aware of the circumstances.
12 Education

The City implements, individually or with other Copermitttees, a public education program to promote and encourage the development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water to the MEP, prevent controllable non-storm water discharge from entering the MS4, and protect water quality standards in receiving waters.

12.1 Introduction

The City provides a comprehensive storm water education program to achieve the following objectives:

- Measurably increase the knowledge of the 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.

12.2 Education

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

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

- Municipal Staff
- Construction site owners and developers
- Industrial and commercial business owners and operators
- Residential community, general public, and school children
- Underserved target audiences

Many educational efforts (i.e. direct interaction during inspections, Design Advisory Board (DAB) meetings, answering 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.

12.2.1 Municipal Staff Training

The City provides training to staff involved with the implementation of the JRMP. Staff training includes presentations, field trainings, and tailgate meetings. The City will continually update its educational program to include information about plan review practices, current BMP technologies, and SUSMP requirements. The City has an educational bulletin board in City Hall dedicated to storm water that provides educational materials to both City Staff and visitors.

The City’s training program includes, but is not limited to, the following topics:

- Laws, Regulations, Permits, & Requirements:
  - Federal, state, and local water quality laws and regulations, including City ordinances and the City’s Storm Water BMP Manual, applicable to Development Projects
  - JRMP requirements
  - Hydromodification management regulations
  - Regional Board’s General NPDES Permit for Ground Water Dewatering
• General JRMP Concepts:
  o Short-and long-term water quality impacts associated with urbanization (i.e., land-use decisions, development)
  o BMP types: facility or activity specific, source control, and treatment control
  o Integration of low-impact development (LID) BMP requirements into the local regulatory program(s) and requirements
  o How to conduct storm water inspections
  o Hydromodification concepts
• Best Management Practices:
  o CASQA Fact Sheets
  o City BMP Manual Part II (Development and Construction BMP Manual)
  o 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:
  o Water quality awareness for Emergency/First Responders
  o Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
  o Enforcement procedures
  o Review of monitoring data
  o Further education is provided on additional topics for specific personnel as needed

Additionally, the City encourages all Municipal Staff, construction site owners and developers, industrial and commercial business owners and operators, to attend any regional training sessions or workshops that may be applicable to business activities. Such sessions may be advertised on the City’s storm water pollution prevention bulletin board, website, or through invitations sent to target audiences.

12.2.2 Construction Site Owners and Developers Training
Construction activities have the potential to discharge numerous types of pollutants into the MS4 and ultimately into receiving waters. To prevent and/or reduce discharges into the MS4, construction workers, land owners and developers must be informed about the impacts of construction in order to incorporate storm water best management practices in site design, during the construction process, and post construction phases.

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 landowners, construction site workers and developers through information meetings and during storm water inspections. In addition, the City has implemented educational components in the pre-construction and construction phases of projects. Contractors, property owners, and other parties involved in planning a new development must complete an educational session with the DAB as part of the approval process for the project. The DAB is made up of representatives from the Planning, Engineering, Building, and Fire departments. The project proponents are informed of all the necessary storm water requirements and referred to the City’s website for JRMP information and relevant BMPs.

The new development and redevelopment project approval process also facilitates in increasing knowledge of property owners and developers. Interaction with the City Staff, such as those on the DAB, enables project proponents to learn more about the requirements of permits applicable to their project. General storm water pollution prevention concepts are discussed followed by site-specific BMP implementation. Developers are more knowledgeable about storm water pollution prevention as a result of these meetings.

The following education topics are covered during training where appropriate:

• Laws, Regulations, Permits, & Requirements
  o City ordinances
  o JRMP requirements
  o City BMP Manual Part II requirements, including BMP Design Manual requirements, hydromodification management requirements, and advanced treatment requirements
  o Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
  o Regional Board’s General NPDES Permit for Ground Water Dewatering
  o Regional Board’s 401 Water Quality Certification Program

• General Urban Runoff Concepts
  o BMP types: facility or activity specific, LID, source control, and treatment control
  o Short- and long-term water quality impacts associated with urbanization (e.g., land-use decisions, development, and construction)
  o Hydromodification concepts

• Best Management Practices
  o CASQA BMP fact sheets
  o City BMP Manual
  o Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities
  o Current advancements in BMP technologies
  o Methods of minimizing impacts to receiving water quality resulting from development and construction, including:
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- 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 disseminate information in print media and printed materials, which are made available at the Development Services counter.

**12.2.3 Industrial Business Owners and Operators Training**

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

The City will continue to provide an educational program for industrial business owners and operators through the use of printed materials and individual educational efforts during and/or after industrial inspections. Trainings include the following topics, where appropriate:

- Laws, Regulations, Permits, & Requirements
  - City ordinances
  - JRMP requirements
  - City BMP Manual, Part I
  - State General Industrial Permit
- General Urban Runoff Concepts
  - BMP types: facility or activity specific, source control, and treatment control
- Best Management Practices
  - CASQA Fact Sheets
  - City BMP Manual, Existing Development
- Other Topics
  - IDDE observations and follow-up during daily work activities

**12.2.4 Commercial Business Owners and Operators Training**

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

The City will continue to provide an educational program for commercial owners and operators through the use of printed materials and individual educational efforts during and/or after industrial inspections. Training includes the following topics, where appropriate:

- Laws, Regulations, Permits, & Requirements:
  - City ordinances
12.2.5 Residential Community, General Public, School Children

Residential areas make up a significant portion of the City’s land uses, and therefore, discharges to the MS4 have the potential to affect the water quality of the receiving waters. Residential activities, such as car washing and irrigation, contribute pollutants (e.g., heavy metals, detergents, and nutrients) to the MS4 and ultimately to receiving waters. Providing residents with appropriate educational materials may help increase overall awareness, and encourage residents to change behaviors to help reduce the potential for pollutants to enter the MS4 and receiving waters.

Community Events and Outreach

Community events and outreach are an important part of disseminating storm water information. Such programs raise awareness of the storm water program and may facilitate water quality improvement by encouraging individuals to make a few simple changes to regular routines. The City provides educational information and training to residents through the following media:

- Articles in the quarterly newsletter, La Mesa Focus (mailed to residents and/or available on the City’s website)
- Distribution of educational materials (e.g., fact sheets, integrated pest management (IPM) cards, and brochures)
- Booths at public events
- Storm water kiosks in City parks
- Bulletin board at City Hall
- Classroom education
- Hands-on activities
- Trash collection programs and cleanups

School Children

Educating the City’s youngest residents is important to help children establish good habits and behaviors early. The City will continue to educate school children through the following mechanisms:

- Work with outside agencies/organizations such as I Love a Clean San Diego (ILACSD) to conduct presentations at schools, when possible
- Present storm water educational material such as the watershed model at special events hosted at schools and/or where school-age children are in attendance

12.2.6 Targeting Underserved Communities

The City has identified the following residential areas along University Avenue as underserved communities:

- The area bounded by University Avenue to the north, Maple Avenue to the east, Orien Avenue and Junior High Drive to the south, and Murray Hill Road to the west. La Mesa Dale Elementary School is located in this area.
• The area bounded by Hoffman Avenue to the north, Massachusetts Avenue to the east, the City’s boundary with the City of Lemon Grove to the south, and the City’s boundary with the City of San Diego to the west. Vista La Mesa Elementary School is located in this area.
• The area bounded by University Avenue to the north, Massachusetts Avenue to the east, Hoffman Avenue to the south, and the City’s boundary with the City of San Diego to the west.

Because these residential areas have been identified to be a source for storm water issues, it is pertinent that the City continue its efforts to educate residents in these regions. The City will continue to educate the residents through the following mechanisms:

• Target elementary schools in the undeserved areas to educate children. Educational efforts are conducted in partnership with nonprofit organizations such as ILACSD.
• Prepare bilingual educational materials.
• Operate a storm water hotline capable of receiving reports in both English and Spanish.
13 Public Participation

The City implements, individually or with other Copermittees, a public participation to promote and encourage the development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water to the MEP, prevent controllable non-storm water discharge from entering the MS4, and protect water quality standards in receiving waters.

13.1 Introduction
Public participation plays an important role in achieving the goals of the JRMP. The participation of the general public and school children in implementing storm water programs helps improve storm water awareness among individuals and may lead to improved water quality. Some programs, such as cleanup events, have direct water quality benefits. Collaboration between the City and the community should help foster a sense of shared responsibility in protecting water quality both locally and regionally. The City encourages public participation through the programs discussed below.

13.2 Water Quality Improvement Plans
The City is located within two WMAs – San Diego River and San Diego Bay. The City and other jurisdictions in each of the WMAs are required to develop and implement WQIPs intended to focus the efforts of the jurisdictions on priority water quality conditions and the sources contributing to them.

The process of developing and implementing the WQIPs incorporates a significant public participation process, both through engaging stakeholders by holding public workshops, coordinating with Consultation Panels (made up of stakeholders) as well as providing significant public review and comment periods on all plan documents. By default, this WQIP public participation is directly related to the City’s JRMP because the WQIPs provide vision and guide the individual JRMPs.

13.3 City Programs

*Adopt-a-Park Program*

The City implements an Adopt-a-Park Program by inviting local businesses, schools, service organizations, families, and other individuals to participate and help keep the parks free of trash and debris. Volunteers in this program are encouraged to pick up trash and debris on a regular basis from the City’s parks and open spaces.

*Park Appreciation Day*

The City hosts Park Appreciation Day, which is held once per year and is separate from the City’s Adopt-a-Park program. During Park Appreciation Day, the public is invited to visit their local parks to clean and remove trash and debris.

*Adopt-a-Block*

The City’s Adopt-a-Block program encourages residents in the City to work to keep neighborhoods clean and free of trash and debris. As part of this program, residents are encouraged to take evening walks to collect trash and debris. Individuals may either use a trash bag provided by the City to collect trash and debris, or individuals may choose to collect trash the night prior to trash collection day so that litter and debris can be directly deposited to any available trash can along the street.

*Distribution of Sandbags*

Empty sandbags are provided at several City fire stations for individuals who want to use the bags for erosion control on their private property. Erosion control fact-sheets are often distributed with the sandbags to ensure that residents are aware of installation techniques and benefits of use.
**Clean Up Events**

The public is encouraged to participate in organized clean-up events hosted by the City, volunteer groups, or other outside agencies such as ILACSD) and the Solana Center. Typically, such events are designed to remove trash and debris that may otherwise contaminate receiving waters both locally and regionally. The annual California Coastal Cleanup Day is one of the most successful large-scale cleanup projects in the country. As a means of fostering participation in such events, participants are often provided with incentives such as commemorative shirts, coupons to local restaurants, and free refreshments. In addition to the benefit acquired by the cleanup event itself, these events provide an opportunity to disseminate educational materials to participants.

**Public Reporting**

The City encourages citizens to report any illicit connections, illegal discharges, or any other activity that contributes pollutants to the City’s Storm Water Hotline, or on-line on the City’s website. The City advertises the City’s Storm Water Hotline number on various educational materials targeted at residents, commercial, and industrial businesses and on the City’s website. The City’s hotline is able to receive calls in both English and Spanish. The City’s Storm Water Hotline number is: 619-667-1134.

**Hazardous Waste Collection and Used Oil Recycling**

The City works with EDCO Disposal to provide a means for residents to properly dispose of hazardous waste such as old paint, electronics, batteries, as well as a number of other types of waste including used oil and antifreeze. Residents 65 and older 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 information and used oil recycling centers.

**School Outreach Programs**

As mentioned in Section 12, Education, the City will continue to provide educational programs for school children regarding storm water related topics. Education programs for children typically involve the participation of the local school district and parents.

**Encourage Responsible Clean Up**

Residents using municipal facilities are encouraged to clean up after themselves and properly dispose of all waste. Pet waste bags are supplied at 14 parks in the City to encourage residents to clean up after their pets. Canine Corners is a program that includes volunteers picking up pet waste from the designated dog area of Harry Griffen Park. Trash cans are available throughout all City parks for waste disposal. In an effort to reduce the amount of cigarette debris being discharged to the MS4, the City prohibited smoking in all 14 parks in August 2006. Signs throughout the parks remind patrons of the new ordinance.

The City maintains a contract with Saint Madeline’s Sophie Center, which employs developmentally disabled individuals to aid in picking up trash and debris at various parks throughout the City. The scope of services includes trash and debris cleanup, emptying trash receptacles and replacement of plastic liners, sweeping/cleaning picnic area tables, as well as some janitorial responsibilities at the park restrooms. Crews consist of three individuals and one job coach working 3.5 hours a day, five days a week throughout the parks included in the program. Parks included in this program include Aztec Park, Collier Park, Highwood Park, Jackson Park, La Mesita Park, Northmont Park, Rolando Park, Sunset Park, Sunshine Park, and Vista La Mesa Park. A similar program is conducted at the Jr. Seau Sports Complex. Crews consist of three people and one job coach working three hours per day, five days a week at the Jr. Seau Sports Complex only.
**Storm Water Information Kiosks**
The City has installed informational storm water kiosks at six City parks. The kiosks offer educational outreach materials regarding pollution prevention for park patrons. The kiosks were constructed through a partnership with local Eagle Scouts and are designed in a way that displays can be updated as needed.

**Storm Drain Stenciling**
The City requires that any new development, construction, and City improvement projects require storm drains/inlets to be stenciled or otherwise affixed with text that discourages individuals from dumping waste into the drain/inlet.

**Encourage Public Participation in the Updating, Development, and Implementation of the JRMP**
The City encourages citizens to actively engage in the input of its storm water pollution prevention program. The City posts announcements on its website that notify the public of the workshops held by the County of San Diego regarding the update of the Water Quality Improvement Plans and City opportunities for JRMP development and updates. A copy of the City’s JRMP is available online at the City’s website.
Intentionally Inserted for Printing Purposes
14 Monitoring and Assessment

The City conducts wet and dry monitoring of major MS4 outfalls and receiving waters to assess water quality improvement efforts in respect to HPWQC, TMDLs, and 303(d) listed constituents. This section describes the City’s monitoring and assessment efforts performed on a jurisdictional level and as part of San Diego River (SDR) and San Diego Bay (SDB) WMAs.

14.1 Dry Weather Major MS4 Outfall Discharge Field Screening Monitoring

The City performs Dry Weather Monitoring (DWM) at the eight (16) major outfalls within its jurisdiction. There are eleven major outfalls that reside within the SDR WMA and five (5) major outfalls within the SDB WMA. Field screening monitoring is performed to investigate any observed discharge, to prioritize dry weather MS4 discharges to eliminate, to assess effectiveness of source elimination, and to differentiate monitoring conducted for the highest priority MS4 outfalls with persistent and transient non-storm water discharge, which is further discussed in Section 14-2.

At the City’s discretion, locations and frequencies of visual monitoring may change according to non-storm water discharges observed, source elimination, and the HPWQCs of the WMA. The numbers of outfalls assessed remains the same regardless of reprioritization due to source elimination.

City Staff perform DWM field screening monitoring at least twice a year. Major MS4 outfalls are assessed through field observations and data measurements. Field observations collected are tied to a unique major MS4 outfall identification and describe:

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

When field screening monitoring identifies an obvious illicit discharge, immediate action is taken to identify the source. City Storm Water Staff perform a comprehensive field investigation of potential sources until the source(s) has been identified. During source investigation, City inventories and other land use data may be used to aid in source identification. Once a source has been identified, and has been identified as an illicit discharge, discharge elimination efforts are implemented. Follow-up investigations are scheduled, as needed, to assess effectiveness of the actions.

Investigation records are kept in a database. The reporting details include observation, data results, source findings and the ultimate outcome of the investigation. If the source of the discharge cannot be determined, a summary of the investigation is included within WQIP Annual Report jurisdictional reporting.

14.2 Non-Storm Water Persistent Flow MS4 Discharge Monitoring

The City conducts non-storm water persistent flow MS4 outfall discharge monitoring at major MS4 outfalls identified during prior investigations. Continued monitoring of persistent flow is performed to identify which persistent non-storm water discharges contain concentrations of pollutants below NALs and which impact receiving water quality during dry weather. The City prioritizes all persistently flowing major MS4 outfalls based on:

- Transitional monitoring results
- HPWQCs
- Historical data (DWM/CSDM)
• 3rd party data
• Historical TWAS
• Historical Mass Loading Station (MLS) monitoring

Based on the prioritized list, the City selected three (3) major MS4 outfalls from SDR WMA and five (5) from SDB WMA, and classified them as the highest priority outfalls for additional monitoring and abatement. Source investigations for sites 907-ALV-8 and 907-ALV-11 found that the major source of flow is groundwater and therefore has been eliminated from monitoring in the SDR WMA. These highest priority major outfalls within the City are listed in the Table 14-1 below and locations are shown in Figure 14-2. The City monitors these high priority outfalls semi-annually during dry weather conditions until results from non-storm water discharges no longer qualify as a highest priority outfall. This occurs when:

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

This is to allow the City the flexibility to address prioritized MS4 outfalls and initiate abatement at subsequent lesser priority outfalls once the highest priority MS4 outfalls have been addressed. The City employs various methods for the abatement of persistent flows. This includes utilizing all of its resources, as well as leverage the resources, information and expertise provided by third parties. The removal of a highest priority outfall is replaced with the next highest priority outfall. This is an iterative process which will continue until all major MS4 outfalls with persistent flow which have been abated.

When the City has less than five persistently flowing outfalls, but have five or more major MS4 outfalls, visual inspection of a minimum of five outfalls occurs semi-annually, if water is flowing. The removal or reprioritization of highest priority MS4 outfalls is included in the WQIP Annual Report. The reprioritized outfalls continue to be monitored as part of the City’s DWM MS4 field screening monitoring.

**Table 14-1 Selected Highest Priority Major Storm Drain Outfalls for Non-Storm water Persistent Flow Monitoring**

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Latitude</th>
<th>Longitude</th>
<th>WMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OF-ALV-5</td>
<td>32.77373</td>
<td>-117.03757</td>
<td>San Diego River</td>
</tr>
<tr>
<td>OF-ALV-8</td>
<td>32.77411</td>
<td>-177.02288</td>
<td>San Diego River</td>
</tr>
<tr>
<td>OF-ALV-11</td>
<td>32.7777</td>
<td>-117.01769</td>
<td>San Diego River</td>
</tr>
<tr>
<td>908-UNI-001</td>
<td>32.75463</td>
<td>-117.04908</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>908-UNI-002</td>
<td>32.75498</td>
<td>-177.04639</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>908-UNI-004</td>
<td>32.76038</td>
<td>-117.02855</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>909-SPR-001</td>
<td>32.75483</td>
<td>-177.00118</td>
<td>San Diego Bay</td>
</tr>
<tr>
<td>909-SPR-002</td>
<td>32.76324</td>
<td>-117.00118</td>
<td>San Diego Bay</td>
</tr>
</tbody>
</table>

Persistent flow monitoring includes DWM field observations outlined above (DWM Field screening) with the addition of field parameter measurements and grab samples collection, when discharge is present. Field parameters measured are shown below in Table14-2.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>SM</td>
<td>2550</td>
<td>°C</td>
</tr>
<tr>
<td>Specific Conductivity</td>
<td>EPA</td>
<td>120.1</td>
<td>μmhos/cm</td>
</tr>
<tr>
<td>pH</td>
<td>EPA</td>
<td>150.1</td>
<td>pH Units</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>EPA</td>
<td>415.1</td>
<td>mg/L</td>
</tr>
<tr>
<td>Turbidity</td>
<td>EPA</td>
<td>180.1</td>
<td>NTU</td>
</tr>
</tbody>
</table>

Units: °C = degrees Celsius, μmhos/cm = micromhos per centimeter; mg/L = milligrams per liter; NTU = Nephelometric Turbidity Units

When sufficient active persistent flow is present, non-storm water discharge is sampled and is analyzed for the constituents listed in Table 14-3 below. This table includes constituents which have been identified to contribute to HPWQC, 303 (d) lists, or are an applicable NAL constituents. City TMDL monitoring are discussed in a separate section.
### Table 14-3 Non-Storm Water Persistent Flow MS4 Discharge Monitoring Constituent List and Method List

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conventional</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hardness</td>
<td>SM</td>
<td>2340B</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Suspended Solids (TSS)</td>
<td>EPA</td>
<td>160.2</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>EPA</td>
<td>160.1</td>
<td>mg/L</td>
</tr>
<tr>
<td><strong>Nutrients</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td>EPA</td>
<td>350.1</td>
<td>mg/L</td>
</tr>
<tr>
<td>Nitrate as Nitrogen (NO$_2$-N)</td>
<td>EPA</td>
<td>353.3</td>
<td>mg/L</td>
</tr>
<tr>
<td>Nitrite as Nitrogen (NO$_2$-N)</td>
<td>EPA</td>
<td>353.2</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Kjeldahl Nitrogen (TKN)</td>
<td>EPA</td>
<td>351.3</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Phosphorus (P)</td>
<td>EPA</td>
<td>365.2</td>
<td>mg/L</td>
</tr>
<tr>
<td>Dissolved Orthophosphate (Ortho-P)</td>
<td>EPA</td>
<td>365.2</td>
<td>mg/L</td>
</tr>
<tr>
<td><strong>Metals (Total and Dissolved)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>EPA</td>
<td>200.8</td>
<td>μg/L</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>EPA</td>
<td>200.8</td>
<td>μg/L</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>EPA</td>
<td>200.8</td>
<td>μg/L</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>EPA</td>
<td>200.8</td>
<td>μg/L</td>
</tr>
<tr>
<td><strong>Indicator Bacteria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliform</td>
<td>SM</td>
<td>9221B</td>
<td>MPN/100mL</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>SM</td>
<td>9221E</td>
<td>MPN/100mL</td>
</tr>
<tr>
<td>Enterococcus</td>
<td>SM</td>
<td>9230B</td>
<td>MPN/100mL</td>
</tr>
</tbody>
</table>

Units: mg/L = milligrams per liter, μg/L = micrograms per liter, mL= milliliters, MPN = Most Probable Number.

1 Nitrite and Nitrate may be combined and reported as nitrite +nitrate
2 Chollas Creek is 303(d) listed for Total Nitrogen and Phosphorus. Nitrite analysis is required in order to calculate Total N with the other nitrogen species.
3 Chollas Creek is 303(d) Listed for Indicator Bacteria. Microbiological indicators listed here are identified in the TMDLs for Indicator Bacteria- Project I – Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek).
4 *E.coli* may be substituted for Fecal Coliform.

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

Monitoring is being conducted by the City to meet the SDR WMA bacteria TMDL goals. The City has been tasked with improvements to Alvarado Creek to improve water quality. The monitoring of Alvarado Creek is conducted during wet and dry weather. Monitoring includes the assessment of 900 linear feet of the creek and its immediate area. Assessments include the progression of creek restoration during dry weather and assessment of structural projects during wet weather.

The City conducts wet and dry weather monitoring in consortium with other stakeholders to meet the bacteria, dissolved metals and Diazinon for Chollas Creek TMDLs. The headwaters of the north fork of Chollas Creek originate within the City. The City participates in collaboration with other dischargers in TMDL monitoring at two Mass Loading Stations (MLS) located on the north and south forks that feed into Chollas Creek outside the jurisdiction of the City, that reside within the City of San Diego. The locations of these two MLS are listed below in Table 14-4.

**Table 14-4 Chollas Creek TMDL Mass Loading Stations**

<table>
<thead>
<tr>
<th>MLS</th>
<th>MLS ID</th>
<th>Outfall Type</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Chollas Creek</td>
<td>SD8(1)</td>
<td>Concrete Trapezoidal Channel</td>
<td>32.70493</td>
<td>-117.12132</td>
</tr>
<tr>
<td>South Chollas Creek MLS</td>
<td>DPR3</td>
<td>Concrete Trapezoidal Channel</td>
<td>32.69130</td>
<td>-177.11682</td>
</tr>
</tbody>
</table>

In conjunction with the collaborative TMDL monitoring, the City is subject to monitor a major outfall within the City’s jurisdiction to comply with the Chollas Creek Metals TMDL and to characterize runoff generated at the headwaters. Time-weighted composites samples are collected for copper, lead and zinc, along with other constituents of concern, during one wet weather monitoring event. The monitoring station also serves as the wet weather monitoring site and is listed below in Table 14-5.

**Table 14-5 Chollas Creek Metals TMDL and Wet Weather Major Outfall Monitoring Station**

<table>
<thead>
<tr>
<th>Station Name</th>
<th>HA or HSA</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>908-UNI-MASS</td>
<td>908.22</td>
<td>32.754663</td>
<td>-117.043269</td>
</tr>
</tbody>
</table>

In addition to constituents listed in Table 14-3, the City is subject sample for additional constituents as part of Chollas Creek diazinon and dissolved metals TMDL.
<table>
<thead>
<tr>
<th>Constituent</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloride</td>
<td>EPA</td>
<td>300.0</td>
<td>mg/L</td>
</tr>
<tr>
<td>Sulfate</td>
<td>EPA</td>
<td>300.0</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Calcium</td>
<td>EPA</td>
<td>200.7</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Magnesium</td>
<td>EPA</td>
<td>200.7</td>
<td>mg/L</td>
</tr>
<tr>
<td>Dissolved Organic Carbon</td>
<td>SM</td>
<td>5310C</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Organic Carbon</td>
<td>SM</td>
<td>5310C</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Hardness as Calcium Carbonate</td>
<td>EPA</td>
<td>200.7</td>
<td>mg/L</td>
</tr>
</tbody>
</table>

**General Chemistry**

**Metals (Total and Dissolved)**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (Cu)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
</tbody>
</table>

**Pesticides**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organophosphorus Pesticides (incl. Diazinon and Chlopyrifos)</td>
<td>EPA</td>
<td>625</td>
<td>µg/L</td>
</tr>
<tr>
<td>Organochlorine Pesticides/ Polychlorinated Biphenyls (PCB)</td>
<td>EPA</td>
<td>608</td>
<td>µg/L</td>
</tr>
<tr>
<td>Polynuclear Aromatic Hydrocarbons (PAH)</td>
<td>EPA</td>
<td>8270C</td>
<td>µg/L</td>
</tr>
<tr>
<td>PCB congeners</td>
<td>GCMS</td>
<td>SIM</td>
<td>µg/L</td>
</tr>
</tbody>
</table>

**Toxicity**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity (to <em>Ceriodaphnia dubia</em>)</td>
<td>EPA</td>
<td>821/R-02-012</td>
<td>TUa</td>
</tr>
<tr>
<td>Chronic Toxicity (to <em>Ceriodaphnia dubia</em>)</td>
<td>EPA</td>
<td>821/R-02-012</td>
<td>TUC</td>
</tr>
</tbody>
</table>

Units: mg/L = milligrams per liter, µg/L = micrograms per liter, mL = milliliters, MPN = Most Probable Number, TUa = Toxicity Units, Acute, TUC = Toxicity Units, Chronic.

1 Constituents required to be monitored in the Chollas Creek Metals TMDL Implementation Compliance Monitoring Plan.

2 Chollas Creek is 303(d) listed for Total Nitrogen and Phosphorus. Nitrite analysis is required in order to calculate Total N with the other nitrogen species.

3 Chollas Creek is 303(d) Listed for Indicator Bacteria. Microbiological indicators listed here are identified in the TMDLs for Indicator Bacteria- Project I – Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek).

4 *E. coli* may be substituted for Fecal Coliform.

5 303(d) listing for downstream receiving water (San Diego Bay between Sampson and 28th Street).

6 *Ceriodaphnia dubia* is the species identified for testing in the Chollas Creek Metals TMDL Implementation Compliance Monitoring Plan.
SDR WMA has been assigned a TMDL for bacteria. Wet weather TMDL compliance monitoring for bacteria is being conducted Forrester Creek, Lower San Diego River and Dog Beach. No outfalls within the City’s jurisdiction will be monitored specifically for TMDL compliance for bacteria.

Recordable flow that occurs within the channel is captured by extended flow monitoring. Monitoring station is downloaded maintained bimonthly during dry weather and during qualifying storm events. Samples are collected using flow-weighted composite samples and field measurements. Field measurements are comprised of pH, temperature, and conductivity.

### 14.3 Wet Weather MS4 Outfall Discharge Monitoring

The City performs wet weather MS4 outfall monitoring in collaboration with other stakeholders within SDB WMA. Monitoring is conducted to identify pollutants in storm water discharges from the MS4s, to guide pollutant source identification and mitigation efforts, and to determine compliance with the WQBELs associated with the applicable TMDLs. Selected MS4 wet weather monitoring stations within SDB WMA best represent land use types (Residential, commercial, industrial and mixed, respectively) within its limits. The City performs monitoring at one (1) MS4 outfall(s) monitoring station and is listed in Table 14-5 above.

During the wet season (October 1- April 30), the City monitors at least one wet weather event at the MS4 outfall discharge monitoring stations within the WMA. When a pollutant has been found that causes or contributes to a HPWQC at wet weather monitoring station, additional wet weather monitoring and source investigation will be scheduled to guide pollutant source identification efforts until eliminated.

For each wet weather monitoring event, the City records the following information at each wet weather MS4 outfall discharge monitoring station:

1. A narrative description of the location and condition on the monitoring station.
2. A narrative description and quantification of the storm event conditions.
3. Collection of field measurements listed in Table 14-2. Collected grab samples may be used to collect field measurements with the addition of hardness and indicator bacteria.
4. Flow-Weighted composite samples for a duration of a storm event to represent the changes in pollutant concentration and runoff flows.

Samples are collected using methods and protocols approved by the SWRCB. Composite samples are analyzed for constituents that have been identified as contributing to a HPWQC concern, are listed as 303(d), or a part of a TMDL compliance monitoring program. Upon collection, composite samples are sent to a certified laboratory for analysis. These constituents are listed in Table 14-3 above, with addition of the constituents listed below.
Table 14-7 Wet Weather MS4 Monitoring Constituent and Method List

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Method Reference</th>
<th>Method Number</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conventionals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Organic Carbon (TOC)</td>
<td>EPA</td>
<td>415.1</td>
<td>mg/L</td>
</tr>
<tr>
<td>Dissolved Organic Carbon (DOC)</td>
<td>EPA</td>
<td>415.1</td>
<td>mg/L</td>
</tr>
<tr>
<td>Methylene Blue Active (MBAS)</td>
<td>EPA</td>
<td>425.1</td>
<td>mg/L</td>
</tr>
<tr>
<td>Sulfate</td>
<td>EPA</td>
<td>300.0</td>
<td>mg/L</td>
</tr>
<tr>
<td><strong>Metals (Total and Dissolved)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic (As)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Chromium (Cr)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Selenium (Se)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
<tr>
<td>Thallium (Tl)</td>
<td>EPA</td>
<td>200.8</td>
<td>µg/L</td>
</tr>
</tbody>
</table>

Units: mg/L = milligrams per liter, µg/L = micrograms per liter.

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

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

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

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

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

- Regional Monitoring
- Sediment Quality Monitoring
- Long-term Receiving Water Monitoring Requirements
- And Special Studies

The collaborative approach to addressing watershed health involves participating and shared collaboration within each WMA in application of the WQIP. These requirements are met on a watershed level and are described in each of the respective WQIPs.

14.5.1 Special Studies

The City participates in special studies that are regional and watershed management area specific. These special studies are to better address pollutants or environmental stressors that contribute to HPWQCs. These special studies are conducted through the collaboration of various stakeholders and water resource specialist. Partnerships with environmental groups and third parties watershed specialist are established to create a well-rounded and knowledgeable approach to the special study.

San Diego Regional Reference Streams and Beaches Studies

The City participates in the San Diego Regional Reference Streams and Beaches Study that is a regional collaboration between various San Diego and Orange County agencies. These data collection efforts are to develop TMDL numeric targets that account for a wide range of sources to establish concentrations or loads from minimally disturbed streams by human activity. Additionally, the Reference Stream Study collects nutrients, metals, chlorophyll a, bioassessment, physical habitat, and toxicity data for analysis. These studies assess the WQO exceedance frequency by season, dry and wet weather conditions.

Wet Weather Epidemiology Study and Quantitative Microbial Risk Assessment

This special study focuses on the SDR watershed. The bacteria levels in storm water discharge will be evaluated in correlation to human health effects experienced by surfers at the mouth of the San Diego River. This special study works in consortium with SCCWRP, University of California-Berkeley, and the Surfrider Foundation.

San Diego Bay Debris Special Study

The City participates in this bay-wide study to assess the current volume of plastic-based debris accumulated throughout the SDB WMA and to establish a baseline for trash assessment. This study is an expanded extension of previous regional monitoring programs in order to collect a higher level of detail pertaining to the most commonly found plastic items. The study is conducted by the Southern California Coastal Water Research Project (SCCWRP) through the collaboration multiple agencies, stakeholders, and volunteers. To assess the contribution of plastics to the San Diego Bay, upland areas are assessed for their contribution to plastics volume and targeted outreach programs have been developed to involve the community trash reduction campaigns.

Chollas Jurisdictional Boundary Study

This special study collected additional data to support TMDL water quality monitoring in Chollas Creek for diazinon, dissolved metals, bacteria and to characterize the upper drainage area from the lower drainage areas of Chollas Creek. Flow-weighted composites were collected downstream from the jurisdictional boundary of the City (LM-1) and the City of Lemon Grove (LG-1). Samples were analyzed...
for diazinon, toxicity, dissolved metals, and indicator bacteria in addition to other constituents. Analytical results were compared to applicable water quality criteria and was designed to fill data gaps to target potential pollutant sources. This study was completed in 2014.

**Riparian Area Special Study**

In consortium with other SDB WMA responsible agencies, the City supports efforts in the monitoring of Paradise Creek, which resides within the jurisdictional boundaries of National City. Paradise Creek is one of the few natural creeks in the Pueblo San Diego watershed and listed on the 2010 CWA 303(d) list for selenium. This special study objective is to collect additional monitoring data that would support removal of the selenium 303(d) listing in the future.

More information on the studies is provided within the San Diego Bay WQIP and the San Diego River WQIP.
Intentionally Inserted for Printing Purposes
15 Fiscal Analysis

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

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

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

**Development Planning and Construction Management**
Development planning and construction management relate to both public and private projects. City capital projects are primarily the responsibility of the Public Works Department and private discretionary projects are primarily the responsibility of the Community Development Department. Tasks include development planning review, project management, and construction site inspections.

**Existing Development Management and O&M**
This category covers existing development and includes program implementation and management of storm water best management practices (BMPs) for the municipal, commercial, residential, and treatment control inventories. It also includes operation and maintenance activities that relate to storm water management such as street and MS4 cleaning. The Public Works Department is primarily responsible for the management and O&M of existing development.

**Capital Projects**
The Public Works Department is responsible for implementing the Capital Improvement Program (CIP) for the City. Water quality capital projects are included in this category and may be considered as individual projects or as features within other CIP projects implemented by the City.

**Watershed and Regional Costs**
Regional and watershed costs are allocated from the Public Works Department and are tracked according by program type.

15.2 Staff Resources
To meet the storm water management requirements in the Municipal Permit, implementation efforts and costs are shared across the entire City. For the fiscal analysis the City staff will identify the staff resources and needed to implement the City’s overall program. City staff resources will be analyzed according to their functions related to the City using the Expenditure Categories identified above.
15.3 Expenditures and Sources of Funds
Annually, the City will present its expenditures for the fiscal year as well as a proposed budget for the next fiscal year. The fiscal year expenditures are presented in tabular format with separate rows for different divisions and subdivisions. The budget for the next fiscal year is presented in similar format and includes the anticipated total expenditures.

The sources of the funds needed to fund the current and next fiscal year will be included in the analysis and include any identified restrictions on the use of those funds.
Appendix A
BMP Manuals
City of La Mesa
Department of Public Works
Engineering Division

Existing Development

2007 Update
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2.0 MUNICIPAL .............................................................................................. 2-1
  2.1 BMP Requirements For All Dischargers.................................................. 2-1
    2.1.1 Non-Storm Water Discharges ............................................................... 2-1
    2.1.2 BMP Requirements Applicable to All Dischargers ............................. 2-1
  2.2 BMP Requirements For Municipal Facilities .......................................... 2-3
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  3.1 BMP Requirements For All Dischargers.................................................. 3-1
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  4.1 BMP Requirements For All Dischargers.................................................. 4-1
    4.1.1 Non-Storm Water Discharges ............................................................... 4-1
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  4.2 BMP Requirements For All Residential Sites .......................................... 4-3
1.0 **INTRODUCTION**

The City of La Mesa 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 into 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 Storm Water BMP Manual Part I (Manual) are BMPs related to industrial and commercial facilities, municipal facilities, and residents. BMPs related to construction activities and permanent BMPs for new development and redevelopment can be found in the Storm Water BMP Manual Part II document. 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 **Municipal**

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 not subject to NPDES Permit No. CAG679001, 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);
- Rising groundwater;
- Uncontaminated groundwater infiltration to MS4s [as defined at 40 CFR 35.2005(20)];
- Uncontaminated pumped groundwater;
- Water from crawl space pumps;
- 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) 667-1134
  - 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 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.

2.2.1 LANDSCAPING ACTIVITIES

The following BMPs should be implemented during pesticide, herbicide, and fertilizer handling and use:

- City personnel who participate in the application of pesticides should be trained and/or 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.
- Record the applications of all chemical agents by noting the locations, types, and quantities of chemicals used. Report chemical use monthly to the Department of Agriculture.
• The Qualified Applicator Certificate holder should conduct monthly inspections to monitor storage, handling, and disposal of the pesticides.
• Follow written recommendations prepared by a State Pesticide Advisor during pesticide application.
• Personnel who participate in the application of herbicides for the City should be trained and follow guidelines set by the County Agricultural Commission.
• Only pesticides that are quickly absorbed onto the soil or plants should be used. Low pressure and low volume should be used during applications.
• Pesticides should not be sprayed when there is a high possibility of the spray drifting into non-target areas or onto non-target vegetation, insects, or animals.
• Maintain compliance with county and state reporting requirements for pesticide use.
• Pesticides, herbicides, and fertilizers should be applied during the growing seasons: spring, summer, and fall.
• Pesticides, herbicides, and fertilizers should not be applied directly prior to or during a storm event.
• All federal, state, and local regulations should be followed in the use of pesticides, herbicides, and fertilizers.
• Trained City personnel should perform irrigation of landscaped areas.
• Drip irrigation and overhead irrigation methods using timers should be implemented, where appropriate, to avoid runoff from over-irrigation.
• Upgrade the irrigation system as technology improves.
• Identifies locations where over-spraying occurs and rearrange the sprinklers to minimize the runoff as needed.
• Employees should be trained to follow pesticide, herbicide and fertilizer labels, and the material safety data sheet(s) (MSDS).
• Use native vegetation and mulching where possible to reduce the need for pesticides, herbicides, fertilizer, and irrigation.
• Diseased plants should be removed and infected parts of plants are removed to minimize the need for pesticide and herbicide use, where applicable.
• Properly labeled, unused portions of fertilizers should be stored in locked buildings.
• Whenever practicable, integrated pest management techniques that rely on non-chemical solutions should be implemented.

In addition to the BMPs listed for pesticide, herbicide, and fertilizer management, all waste, including landscaping waste, must be disposed of properly.

2.2.2  FIRE STATIONS

The following pollution prevention measures and BMPs should be implemented to reduce or eliminate the amount of pollutants generated by the by fire fighting activities both at fire stations in the City and locations throughout the City.

• Use minimal amounts of biodegradable soap for washing activities.
• Conduct truck maintenance, including fluid changes, at an offsite location

BMPs are 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 to the sanitary sewer system (via a drain equipped with a clarifier), to a pervious infiltration area, or otherwise collected and disposed of properly.
• Significant maintenance is conducted off site and used-oil, hydraulic fluids, and antifreeze should be stored in containers for recycling or are disposed as hazardous waste.
• Spill kits should be available to promptly cleanup and contain leaking or spilled vehicle fluids.
• Use biodegradable soaps, cleaners, and detergents, when available.
• Minimize use of soaps, cleaners, and detergents and dispose of general cleaning solutions to the sanitary sewer system.
• Caustics, flammables, and solvents should be contained and disposed of properly as hazardous waste

**Training Exercises**

• Water flows should be directed to a connection to the sanitary sewer system
• Water used in training exercises should be directed to landscaped areas whenever possible, and runoff from the training exercises should not 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 is 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 or the County Hazmat Team 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.

2.2.3 SPECIAL EVENTS
The following BMPs are required to be implemented during and/or after special events:

- Proper management of trash and litter
- Inspect catch basins, and clean out if necessary, after larger events such as Oktoberfest
- Street sweeping following the special event, where applicable

Additional BMPs may be implemented depending on the site and/or site conditions, however.
**Table 3-1**

**Minimum BMP Selection Checklist for Municipal Areas/Activities**

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<td>Mobile Municipal Activities, Including Power Washing</td>
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<td>Roads, Streets, Highways, and Parking Facilities</td>
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<td>Sanitary Sewer System</td>
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<td>Special Events</td>
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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.
3.0 INDUSTRIAL AND COMMERCIAL

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 not subject to NPDES Permit No. CAG679001, 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);
- Rising groundwater;
- Uncontaminated groundwater infiltration to MS4s [as defined at 40 CFR 35.2005(20)];
- Uncontaminated pumped groundwater;
- Water from crawl space pumps;
- 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) 667-1134
  - 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 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

3.2.1 POLLUTION PREVENTION

The City will require 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

3.2.2 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](http://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)

### 3.2.3 City Exceptions to CASQA Fact Sheets

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.
4.0 RESIDENTIAL

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 not subject to NPDES Permit No. CAG679001, other than water main breaks;
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- Rising groundwater;
- Uncontaminated groundwater infiltration to MS4s [as defined at 40 CFR 35.2005(20)];
- Uncontaminated pumped groundwater;
- Water from crawl space pumps;
- 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) 667-1134
  - 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 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 prohibited from repairing vehicles on City streets.

- **Automobile Washing**
  Residents are encouraged to do all of the following activities, except where it is stated to be “required”:
  - **Reduction of Wash Water**
    - Use preventive practices to keep vehicles clean (park in garage, under cover, etc.)
    - 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
- Required to 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
    - Washing cars on City streets without BMPs is not allowed.

• **Automobile Parking**
  The following BMPs are encouraged:
  - 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 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
      - 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
- Required to 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.
- Required to 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 to be “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 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. Pool water must be discharged through the sanitary sewer system or other appropriate means. Discharge of pool water to the City’s MS4 is prohibited.
  - 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. Pet waste bags are supplied at various parks in the City to facilitate this activity, and 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 to ensure 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
City of La Mesa
Department of Public Works
Engineering Division

Development and Construction
Storm Water
Best Management Practices
Standards Manual

LA MESA LOCAL STANDARD URBAN STORM WATER
MITIGATION PLAN (LOCAL SUSMP)
2007 Update
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I. INTRODUCTION


This manual describes how to comply with the permanent and construction storm water quality requirements for development projects in the City of La Mesa. This manual further guides the project applicant through the selection, design, and incorporation of storm water BMPs into the project’s design plan.

Section I, “Introduction,” describes storm water pollution background information and legal or regulatory requirements associated with storm water pollution control.

Section II, “Project Review & Permitting Process,” outlines the project plan review and approval process for both discretionary actions and construction permits for new development projects. Applicants should use Section II as the roadmap to navigate through this manual and ensure storm water requirements are incorporated into their projects during project review. The remaining sections provide technical information necessary to incorporate the storm water requirements in the review process outlined in Section II.

Section III, “Permanent Storm Water BMP Selection Procedure,” lists the permanent storm water BMP requirements, which are organized in a progression intended to dovetail with a typical project planning and design process and maximize storm water protection while minimizing project costs.

Section IV, “Construction Storm Water BMP Performance Standards,” describes the City’s construction storm water BMP standards.

Section V, “Implementation & Maintenance of Requirements,” describes how implementation and maintenance of construction and permanent BMPs must be assured for both construction permits and discretionary actions. For permanent BMPs, this section provides a process and requirements for executing a maintenance agreement with the City. The Appendices to the Storm Water Best Management Practices Manual Part II contain information either necessary or designed to provide guidance in completing the storm water requirements in this manual.

2. Background

Urban runoff discharged from municipal storm water conveyance systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in most urban areas. The City of La Mesa’s storm water conveyance system, which collects runoff from our streets, rooftops, driveways, parking lots, and other impervious areas, flows directly to our beaches and bays without
receiving treatment (our storm water conveyance system is separate from our sanitary sewer system). Urban runoff potentially contains a host of pollutants like trash and debris, bacteria and viruses, oil and grease, sediments, nutrients, metals, and toxic chemicals. These contaminants can adversely affect receiving and coastal waters, associated wildlife, and public health. Urban runoff pollution is not only a problem during rainy seasons, but also year-round due to many types of urban water use that discharge runoff (dry weather flow) to the storm water conveyance system.

Land development and construction activities significantly alter drainage patterns and contribute pollutants to urban runoff primarily through erosion and removal or change of existing natural vegetation during construction, and the creation of new impervious surfaces, such as parking lots, which often permanently contribute pollutants throughout the “use” of the project site. When homes, work places, recreational areas, roads, parking lots, and structures are built, new impervious areas are built- creating the potential for an impact to water quality. The natural landscape’s ability to infiltrate and cleanse storm water and urban runoff is “capped” by the impervious surfaces. As impervious surfaces increase, water that normally would have percolated into the soil now flows over the land surface directly to downstream wetlands, creeks, and eventually the Pacific Ocean. Accordingly, increases in impervious cover can increase the frequency and intensity of storm water flows. Second, new impervious surfaces often become a source of pollutants associated with development, such as automotive fluids, cleaning solvents, toxic or hazardous chemicals, detergents, sediment, metals, pesticides, oil and grease, and food wastes. These pollutants, which are often temporarily captured on impervious surfaces, are transported to the storm water conveyance system by storm water and urban runoff. The pollutants flow untreated through the storm water conveyance system and ultimately into our creeks, rivers, beaches, and bays. With the growing concerns of urban runoff and storm water pollution, local, state, and federal agencies devised regulations requiring development planning and construction controls to treat storm water-related pollution from new development projects before it reaches any receiving waters.

On February 21, 2001, the San Diego Regional Water Quality Control Board (Regional Board) issued the Municipal Storm Water National Pollutant Discharge Elimination System (NPDES) Permit (Order No. 2001-01), to the City of La Mesa, the County of San Diego, the Port of San Diego, and 16 other cities in the region. This municipal permit required the development and implementation of storm water regulations addressing storm water pollution issues in development planning and construction associated with private and public development projects. Specifically, development projects were required to include storm water Best Management Practices (BMPs) both during construction, and in the projects permanent design, to reduce pollutants discharged from the project site, to the Maximum Extent Practicable (MEP) (see Appendix H for a detailed description of the various types and categories of BMPs discussed in this manual). In order to help development projects meet the requirements of Order No. 2001-01, the City developed the Storm Water Best Management Practices Manual Part II (BMP Manual Part II) in 2002 (Part I of the City’s BMP Manual details specific BMP requirements for existing development). On January
24th, 2007, the Regional Board issued Order No. R9-2007-0001, hereinafter referred to as “Municipal Permit”. This Municipal Permit replaces the previous municipal permit, RWQCB Order No. 2001-01. The City has updated parts I and II of its BMP manual to reflect the updated requirements of the current Municipal Permit. The primary objectives of the updated BMP manuals are to (1) Effectively prohibit non-storm water discharges; and (2) Reduce the discharge of pollutants from storm water conveyance systems to the MEP both during construction and throughout the use of a developed site. To address pollutants that may be generated from new development and redevelopment once the site is in use, Order No. 2001-01 further required that the City implement a series of permanent BMPs described in a document called the Model Standard Urban Storm Water Mitigation Plan, or SUSMP, which was approved by the Regional Board on June 12, 2002. The permanent BMP requirements within the Model SUSMP have also been updated to comply with the current Municipal Permit, and these changes are included in this manual.

3. Legal Framework

The requirement to implement storm water BMP requirements for development projects is based on Section 402 (p) of the Clean Water Act. The Federal Clean Water Act amendments of 1987 established a framework for regulating storm water discharges from municipal, industrial, and construction activities under the NPDES program. Under the Federal Clean Water Act, municipalities throughout the nation are issued a Municipal NPDES Permit. The primary goal of the Municipal Permit is to stop polluted discharges from entering the storm water conveyance system and local receiving and coastal waters.

In California, the State Water Resources Control Board (SWRCB), through the nine Regional Boards, administers the NPDES storm water municipal permitting program. Based on the San Diego Municipal Permit issued by the San Diego Regional Board, the City is required to develop and implement construction and permanent storm water BMPs addressing pollution from new development projects.

In order to comply with the conditions of Order No. 2001-01, the City of La Mesa adopted the City of La Mesa Watercourse Protection, Storm Water Management and Discharge Control Ordinance (“Storm Water Ordinance”) codified in Chapter 7.18 of the La Mesa Municipal Code. These ordinances have been updated as necessary to comply with the current Municipal Permit. This manual is an uncodified ordinance adopted by reference as Part II of the City of La Mesa Storm Water Best Practices Manual. The current Municipal Permit requires the City to categorize and prioritize land uses in order to establish effective BMPs. The City’s current Storm Water Ordinance authorizes the City Engineer to establish Best Management Practices (BMPs), including permanent improvements, for all types of land uses. This manual provides instructions on the City’s construction phase and permanent BMP requirements, based on the most recent Model SUSMP, for development projects in the City of La Mesa.
The City Engineer may establish alternative BMPs. The allowable use of alternative BMPs at a specific site shall be determined at the sole discretion of the City Engineer. The City Engineer may establish BMPs for a specific site or activity if necessary to reduce Pollutants to the MEP or to comply with an order of the San Diego Regional Water Quality Control Board. The City Engineer may also establish additional BMPs for a specific site if the City Engineer determines that the BMPs implemented at the site have not reduced the pollutants to the MEP.
II. PROJECT REVIEW & PERMITTING PROCESS

The City of La Mesa’s Watercourse Protection, Storm Water Management and Discharge Control Ordinance requires that all new development and redevelopment activities comply with the storm water pollution prevention requirements in Chapter 7.18 of the La Mesa Municipal Code, and Parts I and II of the City Of La Mesa Best Practices Manual. Applicants must also comply with the grading regulations in Chapter 14.05 of the Municipal Code. These storm water pollution prevention requirements, which are described in detail in Sections III, “Permanent Storm Water Best Management Practices Selection Procedure,” and Section IV, “Construction Storm Water Best Management Practices Performance Standards,” are site specific and vary based on the project’s potential impact on receiving water quality.

The steps below describe the elements of the plan review and permitting processes for storm water best management practice (BMP) requirements. The flow chart in Figure 1, “Review Process For Discretionary Actions” demonstrates how storm water requirements are incorporated into projects requiring subdivision approvals, development permits or other discretionary actions. The flow chart in Figure 2, “Construction Permit Review & Approval Process” describes how storm water requirements are incorporated into projects during the construction permit review process.

Step 1: Determine Applicable Storm Water BMP Requirements

Prior to submittal, applicants must complete the “Storm Water Requirements Applicability Checklist” in Appendix A, to determine if their project is subject to construction and/or permanent storm water best management practice (BMP) requirements. (Note: this form must be completed for all permit applications, even if previous approvals exist. Projects requesting additional construction permits or discretionary approvals, even though previous permits and/or approvals have been obtained, will be required to comply with the storm water requirements in this document). This checklist must be completed, signed by the responsible party for the project, and submitted with your permit application. Applicants may also verify the project’s storm water BMP requirements through a single discipline preliminary review of the project. The project design must include all required permanent BMPs (as determined from the Storm Water Requirements Applicability Checklist in Appendix A), prior to deeming the application package complete.
The following figure provides an overview of the project review process for projects that require a discretionary action by the City of La Mesa. Discretionary actions include land use plan amendments, re-zonings, subdivisions, planned development permits, conditional use permits, site development permits, variances, neighborhood development permits, and neighborhood use permits.

Start
Applicant proposing a development project that requires one or more construction permits completes the “Storm Water Requirements Applicability Checklist” (See Appendix A).

Applicant answers yes to any Priority Project or Standard Permanent Storm Water Requirement Questions (Section VI, Appendix A)?

Yes
Applicant prepares and submits a Post Construction Water Quality Technical Report (if project is a Priority Project), or a Standard Post Construction BMP Plan that is consistent with the BMP Manual Part II and the City of La Mesa Submittal Requirements.

No
Engineering determines that project submittal is complete.

Yes
Engineering sends out a standard notice indicating the projects subject to storm water requirements. Departments review project and determine that plans and the submitted storm water report or plan adequately addresses the BMP Manual Part II requirements.

No
Departments review project and determine that plans and submitted storm water report or plan adequately addresses the BMP Manual Part II requirements.

No
Engineering draft permit conditions once project review is complete and consistent with the BMP Manual Part II.

Yes
Finish
Storm water requirements complete. Project moves to Construction Permit and Approval Process (See Figure 2). Applicant completes process to obtain discretionary permit.
Figure 2. Construction Permit Review & Approval Process.

The following figure provides an overview of the project review process for projects that require a construction permit from the City of La Mesa. Construction permits include building permits, grading permits, demolition permits, and encroachment permits.

Start
Applicant proposing a development project that requires one or more construction permits completes the “Storm Water Requirements Applicability Checklist” (See Appendix A).

Applicant answers yes to any Priority Project or Standard Permanent Storm Water Requirement Questions (Section VI, Appendix A)?

Yes  No

Applicant prepares project application, Water Pollution Control Plan, and associated Storm Water Pollution Prevention Plan (SWPPP) consistent with the BMP Manual Part II and the City of La Mesa Project Submittal Requirements and submits to Engineering. Attach a copy of the project’s Post Construction Water Quality Technical Report if one was prepared previously (see Figure 1).

No  Yes

Engineering reviews project and determines that the plans adequately addresses BMP Manual Part II requirements and are consistent with the Post Construction Water Quality Technical Report.

No  Yes

Finish Storm water requirements complete.
A. Permanent Storm Water BMP Requirements

i. **Standard Requirements.** Projects subject to standard permanent storm water requirements must incorporate the Low Impact Development (LID) site design and source control requirements identified in Sections III.2.A and B into the project (see Table 1). Refer to Step 2: “Prepare & Submit Appropriate Plans,” for guidance in the BMP design process.

ii. **Priority Project Requirements.** Projects subject to priority project permanent storm water requirements must incorporate all applicable requirements in Section III.2, “Establish Permanent Storm Water Best Management Practices,” into the project design. This includes the LID site design and source control BMPs, BMPs applicable to individual priority project categories, and treatment control BMP requirements. If a priority project meets more than one priority project category definition, as shown in Table 1, the project is subject to all BMPs in Section III.2.c applicable to individual priority project categories that apply. For example, if a project is proposing to build 50 attached residential units and a 6,000 square foot restaurant with a 70-space surface parking lot, the project would be subject to the individual priority project category BMP requirements for “Attached Residential Development,” “Restaurants,” and “Parking Lots,” as shown in Table 1, below. Refer to Step 2: “Prepare & Submit Appropriate Plans,” for guidance in the permanent BMP design process.
Table 1. Standard Development Project & Priority Project Storm Water BMP Requirements Matrix.

<table>
<thead>
<tr>
<th>Site Design BMPs(1)</th>
<th>Source Control BMPs(2)</th>
<th>BMPs Applicable to Individual Priority Project Categories(3)</th>
<th>Treatment Control BMPs(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>a. Private Roads</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Residential Driveways &amp; Guest Parking</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Dock Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Maintenance Bays</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Vehicle Wash Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Equipment Wash Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>g. Outdoor Processing Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>h. Surface Parking Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. Roadways</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>j. Fueling Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>k. Hillside Landscaping</td>
<td></td>
</tr>
</tbody>
</table>

### i. Standard Projects

<table>
<thead>
<tr>
<th>Site Design BMPs(1)</th>
<th>Source Control BMPs(2)</th>
<th>BMPs Applicable to Individual Priority Project Categories(3)</th>
<th>Treatment Control BMPs(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>R</td>
<td>Required where applicable</td>
<td>O</td>
</tr>
</tbody>
</table>

### ii. Priority Projects:

- **Detached Residential Development**
  - R
  - R
  - R
  - R

- **Attached Residential Development**
  - R
  - R

- **Commercial Development Greater than One Acre**
  - R
  - R
  - R
  - R
  - R
  - S

- **Automotive Repair Shop**
  - R
  - R

- **Industrial Development Greater than One Acre**
  - R
  - R

- **Restaurants**
  - R
  - R

- **Hillside Development greater than 5,000 ft⁴**
  - R
  - R

- **Parking Lots**
  - R
  - R

- **Streets, Highways & Freeways**
  - R

- **Retail Gasoline Outlets**
  - R
  - R

R = Required; select one or more applicable and appropriate BMPs from the applicable steps in Section III.2.A-D, or equivalent as identified in Appendix B.

O = Optional/ or may be required by City staff. As appropriate, applicants are encouraged to incorporate treatment control BMPs and BMPs applicable to individual priority project categories into the project design. City staff may require one or more of these BMPs, where appropriate.

S = Select one or more applicable and appropriate treatment control BMPs from Appendix B.

(1) Refer to Section III.2.A.

(2) Refer to Section III.2.B.

(3) Priority project categories must apply specific storm water BMP requirements, where applicable. Priority projects are subject to the requirements of all priority project categories that apply.

(4) Refer to Section III.2.D.

(5) Applies if the paved area totals >5,000 square feet or with >15 parking spaces and is potentially exposed to urban runoff.
B. Construction Storm Water BMP Requirements

Projects subject to the construction storm water best management practices requirements must comply with the standards included in Section IV, “Construction Storm Water BMP Performance Standards,” as appropriate depending on the site conditions, season, and project design, and construction methods. Each project must be given a priority ranking (high, medium or low) for the construction phase (see Appendix A). The prioritization will determine the inspection frequency by the City but will not change the construction BMP requirements. Refer to Step 2: “Prepare & Submit Appropriate Plans,” for guidance in navigating through this manual to ensure construction BMP performance standards are met.

Step 2 – Prepare & Submit Appropriate Plans.

After determining the general categories of storm water requirements that apply to the project in Step 1 (e.g., construction BMPs, standard permanent BMPs, and/or priority project permanent BMPs), refer to the instructions in this step (see below) to determine what analysis and/or specific BMP requirements in Sections III and IV of the BMP Manual Part II must be provided and/or incorporated into the project.

NOTE: Projects are only required to provide applicable BMPs. For example, an attached residential development project subject to the priority project requirements would not have to meet the “private road” requirements in this manual if no private roads were proposed. In addition, the City Engineer may approve proposed alternatives to any of the BMP requirements in this manual if they are determined to be applicable and equally effective. In all cases, priority projects shall meet the numeric sizing treatment standards in Table 3.

A. Permanent Storm Water BMPs

i. Standard Requirements. Projects (requiring either discretionary actions or construction permits), subject to only standard permanent BMP requirements need only to prepare a Standard Post Construction BMP Plan (SPCBMPP), which requires applicants to incorporate the requirements in Section III.2.A, “LID site Design BMPs” and Section III.2.B, “Source Control BMPs”. Applicants must incorporate all necessary permanent BMPs into the project plans prior to submittal, regardless of project type. Analysis of the project’s anticipated pollutants of concern must also be included with the project submittal.

ii. Priority Project Requirements. Projects (requiring either discretionary actions or construction permits), subject to the priority project permanent BMP requirements must complete all of the analyses required in Section III.1, “Identify Pollutants and Conditions of Concern,” and incorporate all of the applicable BMP requirements in Section III.2, “Establish Storm Water BMP Requirements”. Applicants must incorporate all necessary permanent BMPs into the project plans prior to submittal, regardless of project type. In addition, projects subject to priority project requirements must prepare and submit a Post Construction Water Quality Technical...
Report (PCWQTR) in accordance with Appendix C. Analysis of the project’s anticipated pollutants of concern, anticipated pollutants of concern in downstream receiving waters, and conditions of concern, must also be included in the Water Quality Technical Report as part of the project submittal.

B. Construction Storm Water BMPs

Section IV, “Construction Storm Water BMP Performance Standards,” describes the construction site management requirements that contractors must comply with. In addition, Section IV lists the performance standards that construction sites must meet, and provides a list of required erosion control, sediment control, and materials management BMPs for reference. Additionally, each project must determine if they are subject to s requirements and be given a priority of high, medium or low (see Appendix A).

i. Construction Projects Over 1 Acre. Those projects that have been determined to require construction BMPs in Step 1 must identify the construction BMPs to be implemented in accordance with the performance standards in Section IV, “Construction Storm Water BMP Performance Standards.” If a project disturbs 1 acre or more, the applicant must provide a Storm Water Pollution Prevention Plan (SWPPP), which identifies all construction BMP requirements required by Section IV, in accordance with the current State General Permit for Storm Water Discharges Associated with Construction Activity (State General Construction Permit). Consistent with the State General Construction Permit, the City will require that both erosion and sediment control BMPs be installed and maintained for all applicable projects in addition to good housekeeping and site and materials management. Additionally, the State General Construction Permit has a requirement for a sampling and monitoring program to be implemented. Additionally, each project determined to be subject to the City’s advanced treatment requirements (see Appendix A) will need to include details on how the site plans to meet these requirements in the SWPPP and/or erosion control plan. Appendix D provides general guidelines for preparation of a SWPPP as well as a more detailed checklist to meet the requirements.

ii. Construction Projects Under 1 Acre. Those projects that have been determined to require construction BMPs in Step 1 must identify the construction BMPs to be implemented in accordance with the performance standards in Section IV, “Construction Storm Water BMP Performance Standards.” For projects that disturb less than 1-acre and are determined to have a potential to impact water quality during construction, the applicant must provide a Construction Storm Water Management Plan (CSWMP), which identifies all construction BMP requirements required by Section IV, with the project submittal. The CSWMP shall depict the BMPs to be implemented during construction to reduce/eliminate discharges of pollutants to the storm drain conveyance system. The CSWMP shall include but not be limited to erosion and sediment control BMPs, good housekeeping measures and site and materials management.
After preparing plans and supporting documents according to the requirements in this manual, submit plans to the Department of Public Works/Engineering for review (See Step 3).

**Step 3 – Determine Adequacy of Proposed Plans.**

Under the authority of the City Engineer, Engineering staff will review submitted plans for compliance with the applicable storm water requirements contained in this manual. The City Engineer may approve proposed alternatives to the BMP requirements in this manual if they are determined to be applicable and equally effective. Additional analysis or information may be required to enable staff to determine the adequacy of proposed BMPs. After all storm water requirements have been approved by the City Engineer, proceed to Step 4 to assure implementation and maintenance of the approved BMPs through permit conditions, plan notes, and if necessary, maintenance agreements.

**Step 4 -- Assure Implementation & Maintenance of Requirements.**

Applicants must provide assurances that permanent storm water BMPs will be constructed and permanently maintained throughout the use of a developed site, and that construction BMPs will be implemented and maintained until construction is complete. The summaries below describe how construction and permanent BMP requirements must be assured during both discretionary actions and construction permit review processes. After the City Engineer has approved all construction and/or permanent BMPs, refer to Section V, “Implementation & Maintenance Of Requirements” to determine how construction and permanent BMP implementation and maintenance will be assured.

**A. Discretionary Action**

For any discretionary action, permanent storm water requirements shall be incorporated into the project design and be shown on the plans. In addition, project shall be conditioned to execute a maintenance agreement for ongoing permanent BMP maintenance, satisfactory to the City Engineer, prior to the issuance of any construction permits. This requirement shall be noted on the plans for the discretionary action. If the project will be required to provide construction BMPs, the permit/approval shall include the “Standard Construction BMP Implementation And Maintenance Condition” listed in Section V, “Implementation & Maintenance Of Requirements”.

**B. Construction Permits**

For projects requiring construction permits, construction and permanent BMP requirements shall be incorporated into the project design and shown on the plans prior to the issuance of any permits. The project applicant shall execute a permanent BMP maintenance agreement, satisfactory to the City Engineer, prior to issuance of any construction permits. Construction maintenance requirements and the specific
permanent BMP maintenance procedures shall be noted on the plans. Any construction BMP requirements that cannot be shown graphically must be noted on the plans.
III. PERMANENT BEST MANAGEMENT PRACTICES SELECTION PROCEDURE

Where referred to this Section by Step 2 of Section II, complete the analysis required for your project in the subsections of Section III.1 below.

1. IDENTIFY POLLUTANTS & CONDITIONS OF CONCERN

A. Identify Pollutants from the Project Area

Using Table 2, below, identify the project’s anticipated pollutants. 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. Projects meeting the definition of more than one project category shall identify all general pollutant categories that apply. Descriptions of the general pollutant categories listed in table 2 are listed in Appendix H under the definition of “pollutants of concern.”

Table 2. Anticipated and Potential Pollutants Generated by Land Use Type.

<table>
<thead>
<tr>
<th>Project Categories</th>
<th>Sediments</th>
<th>Nutrients</th>
<th>Heavy Metals</th>
<th>Organic Compounds</th>
<th>Trash &amp; Debris</th>
<th>Oxygen Demanding Substances</th>
<th>Oil &amp; Grease</th>
<th>Bacteria &amp; Viruses</th>
<th>Pesticides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detached Residential Development</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Attached Residential Development</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>P(1)</td>
<td>P(2)</td>
<td>P</td>
<td>X</td>
</tr>
<tr>
<td>Commercial Development &gt; One Acre</td>
<td>P(1)</td>
<td>P(1)</td>
<td>P(2)</td>
<td></td>
<td>X</td>
<td>P(5)</td>
<td>X</td>
<td>P(3)</td>
<td>P(5)</td>
</tr>
<tr>
<td>Industrial Development &gt; One Acre</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive Repair Shops</td>
<td>X</td>
<td>X</td>
<td>X(4)(5)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurants</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hillside Development &gt; 5,000 ft²</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Parking Lots</td>
<td>P(1)</td>
<td>P(1)</td>
<td>X</td>
<td></td>
<td>X</td>
<td>P(1)</td>
<td>X</td>
<td></td>
<td>P(1)</td>
</tr>
<tr>
<td>Retail Gasoline Outlets</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streets, Highways, &amp; Freeways</td>
<td>X</td>
<td>P(1)</td>
<td>X</td>
<td>X(4)</td>
<td>X</td>
<td>P(5)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

For priority projects, the following analysis shall be conducted and reported in the project’s Post Construction Water Quality Technical Report:

1. For each of the proposed project discharge points, identify the receiving water(s), 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.

C. Identify Conditions of Concern

Priority projects that disturb 50 acres or more are subject to the City’s Interim Hydromodification Criteria (IHC), unless one or more of the following are true:

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;
3. The project would discharge to a channel where the watershed areas below the project’s discharge points are highly impervious (e.g. >70%); or
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.

Priority projects subject to the IHC must perform curve-matching based on continuous simulation modeling so that estimated post-project runoff durations and peak flows do not exceed pre-project durations and peak flows. Details on this analysis must be included in the project’s Post Construction Water Quality Management Report. 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:

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1. Go to: http://www.swrcb.ca.gov/~rwqcb9/Programs/Basin_PLanning/Basin_Plan/basin_plan.html
2. Under Section 303(d) of the 1972 Clean Water Act, states, territories and authorized tribes are required to develop a list of water quality limited segments. These waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. Go to: http://www.swrcb.ca.gov/tmdl/303d_lists.html. San Diego is in Region 9 (a link is provided).
1. 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.

2. 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).

For priority projects not subject to the City’s IHC, the following analysis shall be conducted for those projects with the potential to impact the receiving waters’ hydrologic regime and reported in the project’s Post Construction Water Quality Technical Report:

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 the science of stream and river generated surface features (i.e., fluvial geomorphology) and water resources management, satisfactory to the City Engineer. 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, 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 applicant’s 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 any future upstream development.

4. The Drainage study shall compute rainfall runoff characteristics from the project area including at a minimum, peak runoff, time of concentration, and detention volume (if appropriate). These characteristics shall be developed for the two-year and 10-year frequency, six-hour or 24-hour, type B storm for the coastal areas of San Diego County (as described in the San Diego County Hydrology Manual, September 2002). The 6-hour Type B storm yields larger peak discharges for certain smaller drainage areas (usually less than 10 square miles, depending upon area, time to peak, CN, frequency, etc.). The 24-hour Type B storm yields larger peak discharges for larger drainage areas (usually greater than 10 square miles,
depending upon area, time to peak, CN, frequency, etc.). The largest peak flow should be included in the report. The report shall also 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 that minimize impacts on those downstream conditions of concern would be either improved or maintained by the proposed project, satisfactory to the City Engineer, by incorporating the permanent BMP requirements identified in Section III.2, below.

2. **ESTABLISH PERMANENT STORM WATER BEST MANAGEMENT PRACTICES**

After identifying the project’s pollutants of concern, and conditions of concern (for priority projects), in Section III.1, projects subject to standard or priority project requirements shall implement all applicable LID site design, and source control BMPs listed below. Projects subject to priority project requirements must also implement the BMPs applicable to individual priority project categories and structural treatment control BMPs. Applicants may employ alternative comparable and equally effective LID site design and source control BMPs (including requirements applicable to individual priority project categories), satisfactory to the City Engineer.

Projects are encouraged to address these objectives through the creation of a hydrologically functional project design that attempts to mimic the natural hydrologic regime. Mimicking a site’s natural hydrologic regime can be pursued by:

- Reducing imperviousness (such as, new surface parking lots), 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 throughout a site’s landscape with the use of a variety of detention, retention, and infiltration practices.
- Implementing on-lot hydrologically functional landscape design and management practices (bioretention).

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 strategically integrates storm water controls throughout the urban landscape. Useful resources for applying these principles, referenced in the Appendix F, include *Start at the Source* (1999), *Low-Impact Development Design Strategies* (1999), and County of San Diego’s LID Handbook and Appendices (2007). Effective source controls offer another strategy to reduce a project’s need for treatment. Applicants are encouraged to design projects so that runoff is treated by site design BMPs, such as rooftop runoff treated in landscaping, so that it may be applied towards the numeric sizing treatment standards, satisfactory to the City Engineer. Therefore, projects shall incorporate, where applicable, storm water BMPs into the project design, in the following progression:

- LID Site Design BMPs
- Source Control BMPs
- BMPs for Individual Priority Project Categories (these are site design and source
control BMPs)

- Treatment Control BMPs

The series of best management practices listed in Section III.2 have been organized sequentially to allow the applicant and design professional to incorporate the site design, source control BMPs, and where necessary, requirements applicable to individual priority project categories and treatment control BMPs in this progression.

### A. Low Impact Development (LID) Site Design BMPs

#### Maintain Pre-Development Rainfall Runoff Characteristics

Control post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development development downstream erosion by applying the following concepts:

1. Minimize impervious surfaces. (1) Increase building density (number of stories above or below ground); (2) 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; (3) 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; and (4) minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.

2. Conserve natural areas, soils, and vegetation where feasible and provide buffer zones between natural water bodies and the project footprint. (1) Concentrate or cluster development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural, undisturbed condition; (2) Use natural drainage systems to the maximum extent practicable (natural drainages and vegetated swales are preferred over using lined channels or underground storm drains; and (3) minimize soil compaction.

3. Minimize Directly Connected Impervious Areas. (1) Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm water conveyance system; and (2) where landscaping is proposed, drain impervious parking lots, sidewalks, walkways, trails, and patios into adjacent landscaping.

4. Maximize canopy interception and water conservation. (1) Preserve existing native trees and shrubs; and (2) plant additional native or drought tolerant trees and large shrubs in place of non-drought tolerant exotics.

#### Protect Slopes and Channels

5. Minimize disturbances to natural drainages

6. Convey runoff safely from the tops of slopes.

7. Vegetate slopes with native or drought tolerant vegetation.

8. Stabilize permanent channel crossings.
9. 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.

**B. Source Control BMPs**

**Design Outdoor Material Storage Areas to Reduce Pollution**

**Introduction**

1. Hazardous materials with the potential to contaminate urban runoff shall be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with rain, runoff or spillage to the storm water conveyance system; and (2) protected by secondary containment structures such as berms, dikes, or curbs. The storage area shall be paved and sufficiently impervious to contain leaks and spills, and have a roof or awning to minimize direct precipitation within the secondary containment area.

**Design Trash Storage Areas to Reduce Pollution**

**Introduction**

2. Trash storage areas shall be: (1) paved with an impervious surface, designed not to allow run-on from adjoining areas, and screened or walled to prevent off-site transport of trash; and, (2) contain attached lids on all trash containers that exclude rain; or (3) contain a roof or awning to minimize direct precipitation.

*Limited exclusion: detached residential homes.*

**Employ Integrated Pest Management Principles**

Integrated pest management (IPM) is an ecosystem-based pollution prevention strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant plant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment. More information may be obtained at the UC Davis website (http://www.ipm.ucdavis.edu/WATER/U/index.html).

3. Eliminate and/or reduce the need for pesticide use in the project design by: (1) Plant pest-resistant or well-adapted plant varieties such as native plants; and (2) Discourage pests by modifying the site and landscaping design. Pollution prevention is the primary “first line of defense” because pollutants that are never used do not have to be controlled or treated (methods which are inherently less efficient).

4. Distribute IPM educational materials to future site residents/tenants. Minimally, educational materials must address the following topics: (1) Keeping pests out of buildings and landscaping using barriers, screens, and caulking; (2) Physical pest elimination techniques, such as, weeding, squashing, trapping, washing, or pruning out pests; (3) Relying on natural enemies to eat pests; (4) Proper use of pesticides...
as a last line of defense. More information may be obtained at the UC Davis website (http://www.ipm.ucdavis.edu/WATER/U/index.html).

Use Efficient Irrigation Systems & Landscape Design

Requirements 5-7 Limited exclusion: detached residential homes.

5. Employ rain shutoff devices to prevent irrigation during and after precipitation.
6. Design irrigation systems to each landscape area's specific water requirements.
7. Use flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.

Provide Storm Water conveyance System Stenciling and Signage

8. Install storm drain inlet markers for City of La Mesa Standard Drawing SD-1.
9. 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, trailheads, parks and building entrances.
10. Maintain legibility of stencils and signs.

C. BMPs Applicable to Individual Priority Project Categories

Where identified in Table 1, the following requirements shall be incorporated into applicable priority projects. 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 'c. Dock Areas', ‘f. Equipment Wash Areas’, and ‘h. Surface Parking Areas' into the project design).

a. Private Roads

1. 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; or (3) dual drainage system- first flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder.

b. Residential Driveways & Guest Parking

2. Driveways shall have one of the following: (1) shared access; (2) flared entrance; (3) porous paving designed to drain into landscaping prior to discharging to the storm water conveyance system.
3. Uncovered temporary or guest parking on private residential lots shall be: (1)
paved with a permeable surface; or (2) designed to drain into landscaping prior to discharging to the storm water conveyance system.

c. **Dock Areas**

4. Loading/unloading dock areas shall include the following: (1) cover loading dock areas, or design drainage to preclude urban run-on and runoff; and (2) An acceptable method of containment and pollutant removal, such as a shut-off valve and containment area. Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.

d. **Maintenance Bays**

5. Maintenance bays shall include at least one of the following: (1) repair/maintenance bays shall be indoors; or, (2) designed to preclude urban run-on and runoff.

6. Maintenance bays shall include a repair/maintenance bay drainage system to capture all wash water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm water conveyance system is prohibited.

e. & f. **Vehicle & Equipment Wash Areas**

7. Areas for washing/steam cleaning of vehicles and areas for outdoor equipment/accessory washing and steam cleaning shall be: (1) self-contained to preclude run-on and run-off, covered with a roof or overhang, and equipped with a clarifier or other pretreatment facility; and (2) properly connected to a sanitary sewer.

g. **Outdoor Processing Areas**

8. Outdoor processing areas shall: (1) cover or enclose areas that would be the most significant source of pollutants; or, (2) slope the area toward a dead-end sump; or, (3) discharge to the sanitary sewer system.

9. Grade or berm processing area to prevent run-on from surrounding areas.

10. Installation of storm drains in areas of equipment repair is prohibited.

h. **Surface Parking Areas**

11. Where landscaping is proposed in surface parking areas (both covered and uncovered), incorporate landscape areas into the drainage design.

12. Overflow parking (parking in excess of the project’s minimum parking requirements) may be constructed with permeable paving.

i. **Fueling Areas**
Fueling areas shall be designed with the following:

13. Fuel dispensing area that is: (1) paved with Portland cement concrete or equivalent smooth impervious surface (asphalt concrete is prohibited); (2) designed to 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; (3) sloped to prevent ponding; (4) separated from the rest of the site by a grade break that prevents run-on of urban runoff; and (5) designed to drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.

14. Overhanging roof structure or canopy that is: (1) equal to or greater than the area within the fuel dispensing area's grade break; and (2) designed not to drain onto or across the fuel dispensing area.

j. **Steep Hillside Landscaping**

15. Steep hillside areas disturbed by project development shall be landscaped with deep-rooted, drought tolerant plant species selected for erosion control, in accordance with La Mesa Storm Water Best Management Practices Manuals.

**D. Treatment Control BMPs**

1. Where identified in Table 1, and after LID site design and source control BMPs have been incorporated into the project, applicants of priority projects shall design a single or combination of treatment control BMPs designed to infiltrate, filter, and/or treat runoff from the project footprint to one of the “Numeric Sizing Treatment Standards” listed in Table 3, below. Applicants must use the Structural Treatment BMP Selection Procedure outlined in Section III.2.D.i, below to select appropriate treatment control BMPs. Applicants are encouraged to design projects so that runoff is treated by LID site design BMPs, such as rooftop runoff treated in landscaping, so that it may be applied towards the numeric sizing treatment standards, satisfactory to the City Engineer. Treatment efficiencies can also be realized by locating treatment controls strategically within a drainage basin without being limited by the project boundary.

In all instances, structural treatment BMP(s) may be located on- or off-site, used singly or in combination, or shared by multiple new developments, pursuant to the following criteria:

(a) All structural treatment control BMPs shall infiltrate, filter, and/or treat the required runoff volume or flow prior to discharging to any receiving water body supporting beneficial uses;

(b) Post-construction structural treatment control BMPs for a single priority project shall collectively be designed to comply with the numeric sizing treatment standards;

(c) Shared 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;

(d) Interim storm water BMPs that provide equivalent or greater treatment than is required 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.

<table>
<thead>
<tr>
<th>Table 3. Numeric Sizing Treatment Standards.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Volume</strong></td>
</tr>
<tr>
<td>1. Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:</td>
</tr>
<tr>
<td>i. The volume of runoff produced from a 85th percentile storm event, as determined from isopluvial maps contained in the County of San Diego Hydrology Manual (0.6 inch approximate average for the San Diego County area) [Note: Applicants may calculate the 85th percentile storm event using local rain data, when available. See the County of San Diego's isopluvial map at <a href="http://www.sdcounty.ca.gov/dpw/engineer/flood.htm">http://www.sdcounty.ca.gov/dpw/engineer/flood.htm</a>]; or</td>
</tr>
<tr>
<td>ii. The volume of runoff produced by the 85th percentile storm 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, page 175 Equation 5.2; (1998); or</td>
</tr>
<tr>
<td>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 the latest edition of the California Stormwater Best Management Practices Handbook, or</td>
</tr>
<tr>
<td>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 [Note: 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, applicants shall describe the method using hourly rainfall data, satisfactory to the City Engineer.];</td>
</tr>
<tr>
<td><strong>OR</strong></td>
</tr>
<tr>
<td><strong>Flow</strong></td>
</tr>
<tr>
<td>2. Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

**i. Structural Treatment BMP Selection Procedure**
Priority projects shall select a single or combination of treatment BMPs from the categories in Table 5 that maximize pollutant removal for the particular pollutant(s) of concern from the project. Table 4 groups the different potential pollutants presented in Section III.1.A into three categories: gross pollutants, pollutants that tend to associate with fine particles, and pollutants that remain dissolved. Table 5 shows each treatment control BMP category’s efficiency at removing the different categories of pollutants presented in Table 4. All rankings in Table 5 are relative and assume proper sizing, design, and periodic maintenance.

**Table 4. Pollutants and Associated Particle Sizes**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Coarse Sediment and Trash</th>
<th>Pollutants that tend to associate with fine particles during treatment</th>
<th>Pollutants that tend to be dissolved following treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sediment</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Nutrients</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Heavy Metals</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Organic Compounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trash &amp; Debris</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxygen Demanding</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Bacteria</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Oil &amp; Grease</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Pesticides</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Priority projects should take the following steps when determining appropriate treatment control BMP(s).

a. Determine if the project would discharge to a Clean Water Act Section 303(d) impaired receiving water. If any receiving waters for the project are impaired, note pollutant(s) receiving water(s) is/are listed for.

b. If the project is anticipated to generate a pollutant (per Table 2) for which the receiving water is listed, select one or more BMPs from Table 5 that maximize the removal for the pollutant category the pollutant falls under in Table 4. Any pollutants the project is expected to generate that are also causing a Clean Water Act section 303(d) impairment of the downstream receiving waters shall be given top priority in selecting treatment BMPs.

c. If none of the project’s receiving waters are listed as impaired, select one or more BMPs from Table 5 that maximize the removal of the pollutant categories under which the pollutants the project is anticipated to generate fall according to Table 4.

Treatment control BMPs with high or medium pollutant removal efficiency for the pollutant category the project’s most significant pollutant of concern falls under shall be selected. Treatment control BMPs with a low removal efficiency ranking shall only be approved by the City Engineer when a feasibility analysis has been conducted by the project proponent 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 5 may be approved at the discretion of the City Engineer, provided the alternative BMP is as effective in removal of pollutants of concern as other feasible BMPs listed in Table 5. Descriptions of the treatment control BMP categories listed in Table 5 are listed in Appendix H under the definition of “Treatment Control BMP.”

Table 5. Structural Treatment Control BMP Selection Matrix.

<table>
<thead>
<tr>
<th>Pollutants of Concern</th>
<th>Treatment Control BMP Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bioretention Facilities (LID)</td>
</tr>
<tr>
<td>Coarse Sediment and Trash</td>
<td>High</td>
</tr>
<tr>
<td>Pollutants that tend to associate with fine particles during treatment</td>
<td>High</td>
</tr>
<tr>
<td>Pollutants that tend to be dissolved following treatment</td>
<td>Medium</td>
</tr>
</tbody>
</table>

ii. Restrictions on the Use of Infiltration Treatment BMPs

2. Treatment control BMPs that are designed to primarily function as infiltration devices shall meet the following conditions (these conditions do not apply to 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.): (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. 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 that are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses; (6) the horizontal distance between the base of any infiltration structural BMP and any water supply wells shall be 100 feet or as determined appropriate by the City Engineer.

3. Notification to neighboring jurisdictions may be required where staff determines the infiltration BMP(s) may impact the groundwater in a neighboring jurisdiction.

Structural Treatment Limited Exclusions

(a.) 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 Table 3.

(b.) 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 priority project requirements, the numeric sizing criteria apply only to the addition, and not to the entire development.

---

3 Soils at infiltration sites must have the following properties: Organic Content (OC) > 5%, pH between 6-8, Cation exchange capacity (CEC) > 5 meq/100g soil, in drill-hole conductivity valve of 0.5 in/hr or greater.
IV. CONSTRUCTION STORM WATER BMP PERFORMANCE STANDARDS

Those projects that have been determined to require construction BMPs in Steps 1 and 2 of Section II, must identify the construction BMPs to be implemented in accordance with the performance standards in this section. The construction BMPs must be identified in a Storm Water Pollution Prevention Plan or Construction Storm Water Management Plan (CSWMP) for projects disturbing more than or less than 1 acre, respectively. Because all projects require BMPs during construction, those projects that disturb less than 1 acre are required to have a Construction Storm Water Management Plan (CSWMP) which identifies the pollution prevention measures that will be taken. These plans must be prepared in accordance with the guidelines in Appendix D.

1. Minimum Construction 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 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. 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), where applicable. Additional information on the BMPs included in Table 6 can be found in the City of La Mesa Jurisdictional Urban Runoff Management Plan (JURMP), the Model Construction Program for San Diego Copermittees, the City of Los Angeles “Reference Guide for Stormwater Best Management Practices,” and the California Stormwater Quality Association (CASQA) BMP Handbook for Construction.

It is the responsibility of the property owner or his/her designee to select, install and maintain appropriate BMPs that meet the City’s minimum BMP requirements outlined in Table 6 below. BMPs must be installed in accordance with an industry recommended standard or in accordance with the requirements of the State General Construction Permit.

<table>
<thead>
<tr>
<th>BMP Type</th>
<th>Minimum Required BMP(s)</th>
<th>Corresponding Caltrans Fact sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Site Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Planning</td>
<td>Preserve natural hydrologic features where feasible</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Preserve riparian buffers and corridors where feasible</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Minimize areas that are cleared and graded to only the portion of the site that is necessary for construction</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Minimize exposure time of disturbed soil areas</td>
<td>SS-1</td>
</tr>
<tr>
<td></td>
<td>Minimize grading during the wet season and correlate grading with seasonal dry weather periods to the extent feasible</td>
<td>SS-1</td>
</tr>
<tr>
<td></td>
<td>Temporarily stabilize and reseed disturbed soil areas as rapidly as feasible</td>
<td>SS-1</td>
</tr>
</tbody>
</table>
### Table 6. Minimum Required BMPs for Construction

<table>
<thead>
<tr>
<th>BMP Type</th>
<th>Minimum Required BMP(s)</th>
<th>Corresponding Caltrans Fact sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pollution Prevention</strong></td>
<td>Educate construction site employees and subcontractors on minimum BMP requirements</td>
<td>-</td>
</tr>
<tr>
<td>Prevent the contamination of storm water from vehicles and equipment through proper management of the following types of activities:</td>
<td>- Cleaning</td>
<td>NS-8</td>
</tr>
<tr>
<td></td>
<td>- Fueling</td>
<td>NS-9</td>
</tr>
<tr>
<td></td>
<td>- Maintenance</td>
<td>NS-10</td>
</tr>
<tr>
<td>Prevent the contamination of storm water from construction materials through proper management of the following types of activities:</td>
<td>- Material Delivery and Storage</td>
<td>WM-1</td>
</tr>
<tr>
<td></td>
<td>- Material Use</td>
<td>WM-2</td>
</tr>
<tr>
<td></td>
<td>- Stockpile Management¹</td>
<td>WM-3</td>
</tr>
<tr>
<td></td>
<td>- Spill Prevention and Control</td>
<td>WM-4</td>
</tr>
<tr>
<td>Prevent the contamination of storm water by wastes through proper management of the following types of wastes:</td>
<td>- Solid Waste</td>
<td>WM-5</td>
</tr>
<tr>
<td></td>
<td>- Hazardous Waste</td>
<td>WM-6</td>
</tr>
<tr>
<td></td>
<td>- Contaminated Soil</td>
<td>WM-7</td>
</tr>
<tr>
<td></td>
<td>- Concrete</td>
<td>WM-8</td>
</tr>
<tr>
<td></td>
<td>- Sanitary Waste</td>
<td>WM-9</td>
</tr>
<tr>
<td></td>
<td>- Liquid</td>
<td>WM-10</td>
</tr>
<tr>
<td>Prevent the contamination of storm water through proper management of the follow activities:</td>
<td>- Water Conservation Practices</td>
<td>NS-1</td>
</tr>
<tr>
<td></td>
<td>- Dewatering Operations</td>
<td>NS-2</td>
</tr>
<tr>
<td></td>
<td>- Paving and Grinding</td>
<td>NS-3</td>
</tr>
<tr>
<td></td>
<td>- Potable Water/Irrigation and Flushing</td>
<td>NS-7</td>
</tr>
<tr>
<td><strong>Erosion Prevention and Sediment Containment</strong></td>
<td>Preserve existing vegetation where feasible</td>
<td>SS-2</td>
</tr>
<tr>
<td>Prevent erosion and sediment runoff from exposed graded areas through physical stabilization and/or vegetation stabilization² by implementing one or more of the following BMPs:</td>
<td>- Hydraulic Mulch</td>
<td>SS-3</td>
</tr>
<tr>
<td></td>
<td>- Hydroseeding</td>
<td>SS-4</td>
</tr>
<tr>
<td></td>
<td>- Soil Binders</td>
<td>SS-5</td>
</tr>
<tr>
<td></td>
<td>- Straw Mulch</td>
<td>SS-6</td>
</tr>
<tr>
<td></td>
<td>- Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats</td>
<td>SS-7</td>
</tr>
<tr>
<td></td>
<td>- Wood Mulch</td>
<td>SS-8</td>
</tr>
<tr>
<td></td>
<td>- Earth Dikes/Drainage Swales</td>
<td>SS-9</td>
</tr>
<tr>
<td>Reduce the velocity of storm water by using one or more of the following:</td>
<td>- Outlet Protection/Velocity Dissipation</td>
<td>SS-10</td>
</tr>
<tr>
<td></td>
<td>- Slope Drains</td>
<td>SS-11</td>
</tr>
<tr>
<td>Establish permanent re-vegetation or landscaping as early as feasible</td>
<td></td>
<td>SS-1</td>
</tr>
<tr>
<td><strong>Sediment Containment</strong></td>
<td>Protect the Perimeter of the site or exposed area from sediment discharge using one or more of the following:</td>
<td>SC-1</td>
</tr>
<tr>
<td></td>
<td>- Silt Fence</td>
<td>SC-2</td>
</tr>
<tr>
<td></td>
<td>- Gravel Bag Berm</td>
<td>SC-3</td>
</tr>
<tr>
<td></td>
<td>- Fiber Rolls</td>
<td>SC-4</td>
</tr>
<tr>
<td>Capture sediments in channeled storm water by using one or more of the following:</td>
<td>- De-silting Basin³</td>
<td>SC-5</td>
</tr>
<tr>
<td></td>
<td>- Storm Drain Inlet Protection</td>
<td>SC-6</td>
</tr>
<tr>
<td></td>
<td>- Sediment Trap</td>
<td>SC-7</td>
</tr>
<tr>
<td></td>
<td>- Gravel Bag Barrier</td>
<td>SC-8</td>
</tr>
</tbody>
</table>

¹ Stockpile Management involves the temporary storage of materials that may generate dust or飞扬 contaminants.

² Pollution Prevention involves preventing the release of pollutants outside the site boundaries.

³ Sediment Containment involves capturing and controlling sediments that may be generated by construction activities.
Table 6. Minimum Required BMPs for Construction

<table>
<thead>
<tr>
<th>BMP Type</th>
<th>Minimum Required BMP(s)</th>
<th>Corresponding Caltrans Fact sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sediment Containment</td>
<td>Prevent sediment from being tracked off-site by using one or more of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Stabilized Construction Entrance</td>
<td>TC-1</td>
</tr>
<tr>
<td></td>
<td>- Construction Road Stabilization</td>
<td>TC-2</td>
</tr>
<tr>
<td></td>
<td>- Entrance/Exit Tire Wash</td>
<td>TC-3</td>
</tr>
<tr>
<td></td>
<td>- Street Sweeping</td>
<td>SC-7</td>
</tr>
</tbody>
</table>

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.

2. Site Management Requirements

Construction is a dynamic operation where changes are expected. Storm water BMPs for construction sites are usually temporary measures that require frequent maintenance to maintain their effectiveness and may require relocation, revision and re-installation, particularly as project grading progresses. Therefore, owner/contractor self-inspections are required. They shall be performed by the owner’s/contractor’s Qualified Contact Person specifically trained in storm water pollution prevention site management and storm water BMPs, including the installation and maintenance of sediment and erosion control measures. Additional qualified persons may assist with the inspection activities under the direction of the Qualified Contact Person. A Qualified Contact Person is required for all sites during both wet and dry weather conditions.

There are four primary purposes of the self-inspections conducted by owners and contractors:

- To ensure that the owners/contractors take full responsibility for managing storm water pollution caused by their activities.
- To ensure that storm water BMPs are properly documented and implemented and are functioning effectively.
- To identify maintenance (e.g., sediment removal) and repair needs.
- To ensure that the project proponents implement their storm water management plans.

A self-inspection checklist, noting date, time, conditions and inspection date, must be kept on-site and made available for inspection, if requested (note: the State General Construction Permit has additional inspection requirements that must be met to comply with the permit). Self-inspections must be performed by a Qualified Contact Person according to the following schedule:

- Daily forecasting at all times
- At 24-hour intervals during extended rainfall events
- Daily evaluations as earth moving/grading is being conducted during the wet
season

- Weekly (every 7 days) in the dry season as earth moving/grading is progressing

Storm water pollution prevention site management requirements include:

A. 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.

B. The qualified person shall implement the conditions of the Storm Water Pollution Prevention Plan, contract documents and/or local ordinances with respect to erosion and sediment control and other waste management regulations.

C. The qualified person is responsible for monitoring the weather and implementation of any emergency plans as needed. The weather shall be monitored on a 5-day forecast plan and a full BMP protection plan shall be activated when there is a 40% chance of rain.

D. The 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. This person or other qualified persons are responsible for checking the BMPs routinely for maintenance and documenting the BMPs being implemented.

3. Performance Standards

The City Engineer will evaluate the adequacy of the owner's/contractor's site management for storm water pollution prevention, inclusive of BMP implementation, on construction sites based on performance standards for storm water BMPs. Poor BMP practices shall be challenged. Performance standards shall include:

A. No measurable increase of pollution (including sediment) in runoff from the site.

B. No slope erosion.

C. Water velocity moving offsite must not be greater than pre-construction levels.

A site will be considered inactive if construction activities have ceased for a period of 7 or more consecutive calendar days. At any time of year, an inactive site must be fully protected from erosion and discharges of sediment. It is also the owner's/contractor’s responsibility at both active and inactive sites to implement a plan to address all potential non-storm water discharges.

Regardless of any inspections conducted by the City, property owners or contractors are required to prevent any construction-related materials, wastes, spills or residues from entering a storm water conveyance system and to apply for coverage under the State General Construction Permit as applicable for the site.
4. Seasonal Requirements

BMP requirements differ between the wet season (Oct. 1 – Apr. 30) and the dry season (May 1 – Sept. 30), the type of the project and topography of the site, as described below.

A. Dry Season Requirements (May 1 through September 30) include but are not limited to:
   
   A. 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)
   B. Adequate perimeter protection BMPs must be installed and maintained to comply with performance standards (above).
   C. Adequate sediment containment BMPs must be installed and maintained to comply with performance standards (above).
   D. Adequate BMPs designed to control off-site sediment tracking must be installed and maintained.
   E. 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.
   F. 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).
   G. 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.
   H. 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.
   I. A washout area shall be designated and maintained for materials such as concrete, stucco, paint, caulking, sealants, drywall plaster, etc.
   J. Properly protected, designated storage areas are required for materials and wastes.
   K. All stockpiles of materials and wastes should be covered when materials are not being actively added or removed.
   L. Remnant trash and debris shall be removed and/or properly stored/disposed of daily.
M. Storage, service, cleaning, and maintenance areas for vehicles and equipment shall be identified and protected accordingly.
N. Materials for spill control/containment must be stockpiled onsite.
O. Non-storm water discharges must be eliminated or controlled to the MEP.

B. Rainy Season Requirements (October 1 through April 30) include but are not limited to:
   A. 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)
   B. Adequate perimeter protection BMPs must be installed and maintained to comply with performance standards (above).
   C. Adequate sediment containment BMPs must be installed and maintained to comply with performance standards (above).
   D. Adequate BMPs designed to control off-site sediment tracking must be installed and maintained.
   E. 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.
   F. 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).
   G. 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.
   H. 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.
   I. A washout area shall be designated and maintained for materials such as concrete, stucco, paint, caulking, sealants, drywall plaster, etc.
   J. Properly protected, designated storage areas are required for materials and wastes.
   K. All stockpiles of materials and wastes should be covered when materials are not being actively added or removed.
   L. Remnant trash and debris shall be removed and/or properly stored/disposed of daily.
   M. Storage, service, cleaning, and maintenance areas for vehicles and equipment shall be identified and protected accordingly.
N. Materials for spill control/containment must be stockpiled onsite.
O. Non-storm water discharges must be eliminated or controlled to the MEP.
P. Erosion control BMPs must be upgraded if necessary to provide sufficient protection for storms likely to occur during the rainy season.
Q. Perimeter protection and sediment containment BMPs must be upgraded if necessary to provide sufficient protection for storms likely to occur during the rainy season.
R. 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.
S. All vegetation erosion prevention BMPs must be established prior to the rainy season to be considered as a BMP.
T. Standby erosion and sediment control BMPs must be able to protect all exposed soil areas. 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.

5. Advanced Treatment Requirements

The City requires advanced treatment methods to be employed at construction sites determined to be an exceptional threat to water quality (see Appendix A). Advanced treatment involves using mechanical or chemical means to flocculate and remove suspended sediment from construction site runoff. Projects required to implement advanced treatment must comply with the following:

1. Treatment effluent water quality shall meet or exceed the water quality objectives for sediment, turbidity, and any other parameter deemed necessary by the City Engineer as listed in the Water Quality Control Plan for the San Diego Basin (9) for inland surface waters and lagoons and estuaries for the appropriate hydrologic unit.
2. Applicant shall provide design, operations and maintenance schedule, monitoring plan, certification of training of staff to the satisfaction of the City Engineer.

6. 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 these sites will be determined on a site-by-site basis at the discretion of the City Engineer.
V. IMPLEMENTATION & MAINTENANCE OF REQUIREMENTS

After all project BMPs have been approved by the City Engineer, applicants must ensure implementation and maintenance of the BMPs according to the processes outlined in the applicable sections for projects requesting discretionary actions and/or construction permits. In addition, any project that will require a “General NPDES Permit for Storm Water Discharges Associated with Industrial Activities,” shall include the following note on the plans and condition in the permit/approval:

Industrial NPDES Permit Requirement

“The Permittee or designee shall provide evidence of coverage under the General Industrial National Pollutant Discharge Elimination System Permit, in the form of a Notice of Intent (NOI) filed with the State Water Resources Control Board, prior to the issuance of any construction permits.”

1. Discretionary Actions
   
   i. Permanent BMP Requirements. Projects that include permanent BMPs shall be conditioned to require the applicant or designee to execute a maintenance agreement for ongoing permanent BMP maintenance in accordance with the program outlined in the “Permanent Storm Water BMP Maintenance Agreement Requirements” below, satisfactory to the City Engineer, prior to the issuance of any construction permits. This requirement shall be noted on the plans for the discretionary action. The permanent BMPs shall be graphically shown on the plans, where possible, and made a condition of the project’s permit/approval.

   ii. Construction BMP Requirements. Projects seeking discretionary approvals are not required to graphically demonstrate any construction BMP requirements on the project plans. Instead, the discretionary action shall include the following standard condition, which shall also be noted on the plans:

   “The Permittee or designee shall incorporate any construction best management practices (BMPs) necessary to comply with the grading regulations in Chapter 14.05 of the La Mesa Municipal Code, into the construction plans and/or specifications, satisfactory to the City Engineer, prior to the issuance of any construction permits.”

2. Construction Permits
   
   i. Construction Permits for Projects Under 1 Acre. Projects proposing to disturb less than 1 acre during construction shall include construction BMP requirements, where possible, on the plans. Any remaining construction BMPs that cannot be shown graphically on the plans shall be either noted on, or stapled to, the plans and made a condition of the permit. The project's
construction priority ranking (see Appendix A) must also be noted on the construction plans. Applicants proposing projects that include permanent BMPs must prepare (if not already prepared as part of a previous permit or approval), and execute a maintenance agreement, prepared satisfactory to the City, following the program outlined below prior to the issuance of any construction permits. The permanent BMPs shall be graphically shown on the plans, where possible, and made a condition of the project’s permit/approval. The permanent BMP’s operation and maintenance requirements (O & M plan discussed below) shall also be noted on the plans and made a condition of the project’s permit/approval.

ii. Construction Permits for Projects Over 1 Acre. Projects proposing to disturb more than 1 acre during construction shall include all construction BMPs in a Storm Water Pollution Prevention Plan, prepared in accordance with Appendix D, “Storm Water Pollution Prevention Plan Guidelines.” The construction BMPs shall also be shown on the plans, where possible. Any remaining construction BMPs that cannot be shown graphically on the plans shall be either noted or stapled to the plans and made a condition of the permit. The project’s construction priority ranking (see Appendix A) must also be noted on the construction plans. Applicants proposing projects that include permanent BMPs must prepare (if not already prepared as part of a previous permit or approval), and execute a maintenance agreement, prepared satisfactory to the City, following the program outlined below prior to the issuance of any construction permits. The permanent BMPs shall be graphically shown on the plans, where possible, and made a condition of the project’s permit/approval. The permanent BMP’s operation and maintenance requirements (O & M plan discussed below) shall also be noted on the plans and made a condition of the project’s permit/approval.

3. Permanent BMP Maintenance Agreement Requirements

Applicants shall propose a maintenance agreement assuring all permanent BMPs will be maintained throughout the “use” of a project site, satisfactory to the City Engineer (see Appendix G for a list of potential mechanisms). For projects with discretionary actions, the project’s permit shall be conditioned to require the applicant or designee to execute a maintenance agreement for ongoing permanent BMP maintenance, satisfactory to the City Engineer, prior to the issuance of any construction permits. This requirement shall be noted on the plans for the discretionary action. City-approved method of permanent BMP maintenance shall be incorporated into, and shall be consistent with permits issued by resource agencies, before decision-maker approval of discretionary actions. For projects requiring only construction permits, the City-approved method of permanent BMP maintenance (operation and maintenance procedures) shall be incorporated into the permit conditions before the issuance of any construction permits. The maintenance procedures shall be noted on the construction plans. In all instances, the applicant shall provide proof of execution of a City-approved method of permanent BMP maintenance repair and replacement before the issuance of construction approvals.
For all properties, the verification mechanism will include the applicant's signed statement, as part of the construction permit application, accepting responsibility for all permanent BMP maintenance, repair and replacement.

The maintenance agreement shall include the following:

1. **Operation & Maintenance (O&M) Plan:** The applicant shall include an Operation & Maintenance (O&M) plan, prepared satisfactory to the City Engineer, with 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 (including maintenance of storm water conveyance system stamps), copies of resource agency permits, and any other necessary activities. At a minimum, maintenance agreements shall require the applicant to provide inspection and servicing of all permanent treatment BMPs on an annual basis. The project proponent or 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 the City for inspection upon request at any time.

2. **Access Easement/Agreement:** Unless the applicant accepts permanent maintenance responsibilities, the applicant shall execute an access easement to the official maintenance entity that shall be binding on the land throughout the life of the project, until such time that the permanent treatment BMP requiring access is no longer required to be in use, satisfactory to the City Engineer.
APPENDICES

APPENDIX A

STORM WATER PROJECT DATA SHEET

PROJECT DATA:

Owner’s Name & Phone No: ____________________________________________

Address: __________________________________________________________ Permit No: ______________

Project: ____________________________________________ Date Applied: ___________________________

PROJECT SITE DATA:

1. Area of the lot/parcel = _________________ sf
2. Existing impervious area (roof/building foot print) = _________________ sf
3. Existing impervious area (driveway, parking, walkway, hardscape etc.) = _________________ sf
4. Impervious area after development (roof/building foot print) = _________________ sf
5. Impervious area after development (driveway, parking, walkway, hardscape etc.) = _________________ sf

6. Total area to be disturbed = _________________ sf

7. Storm water runoff based on Hydrology Study
   Existing runoff = ____________ cfs, Post construction runoff = ____________ cfs

8. Identify if the runoff from the site discharged to the public street or storm drain or open channel, detention or retention basin: ____________________________________________

9. Watershed (Check One): San Diego River ________ San Diego Bay ________

a. Total disturbed area includes impervious area, construction material storage, staging area, graded slopes, new slopes and landscape areas.

b. The information shall be shown on the site/grading plans.

c. Complete the Storm Water Requirements Applicability Checklist

Notes:

- Items 1 through 9 shall be shown on the site development plan/grading plan.
- The applicant may be required to submit SWPPP or CSWMP, and PCWQTR or SPCBMPP depending on the “Priority” as stated below.
- A Hydrology report may be required.
STORM WATER REQUIREMENTS APPLICABILITY CHECKLIST

Complete Sections 1 and 2 of the checklist to determine which permanent best management practices (BMPs) and which construction BMPs are required for your project for storm water. This form must be completed and submitted with your permit application.

SECTION 1. PERMANENT STORM WATER BMP REQUIREMENTS:

PART A: DETERMINE PRIORITY PROJECT PERMANENT STORM WATER BMP REQUIREMENTS.

<table>
<thead>
<tr>
<th>DOES THE PROJECT MEET THE DEFINITION OF ONE OR MORE OF THE PRIORITY PROJECT CATEGORIES AS DEFINED IN LA MESA’S BMP MANUAL PART II? (APPENDIX H)*</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Residential development of 10 or more attached or detached dwelling units?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Commercial development greater than one acre?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Industrial development greater than one acre?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Automotive repair shop?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Restaurant?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Hillside development greater than 5,000 square feet? (Definition- 25% and steeper)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. Project located within or directly adjacent to or discharging directly to receiving waters within “Environmentally Sensitive Areas”?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. “Parking lot” greater than or equal to 5,000 square feet or with at least 15 parking spaces, and potentially exposed to urban runoff?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. “Streets, roads, highways, and freeways” that would create a new paved surface that is 5,000 square feet or greater?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. “Retail Gasoline Outlets” either 5,000 square feet or greater or with a projected “Average Daily Traffic” of 100 or more vehicles per day</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

* Refer to the definitions section in La Mesa’s Storm Water BMP Manual Part II for expanded definitions of the priority project categories.

Limited Exclusion: Trenching and resurfacing work associated with utility projects, such as resurfacing and reconfiguring surface parking lots and existing roadways, new sidewalk construction, pedestrian ramps, bike lanes on existing roads, and routine replacement of damaged pavement, such as pothole repair, 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 all answers to Part A are “No”, continue to Part B.

PART B: DETERMINE STANDARD PERMANENT STORM WATER REQUIREMENTS.

<table>
<thead>
<tr>
<th>DOES THE PROJECT PROPOSE:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New impervious areas such as rooftops, roads, parking lots, driveways, paths and sidewalks?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. New pervious landscape areas and irrigation systems?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Permanent structures within 100 feet of any natural water body?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
**DOES THE PROJECT PROPOSE:**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Trash storage areas?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Liquid or solid material loading and unloading areas?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Vehicle or equipment fueling, washing, or maintenance areas?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. Require a General NPDES Permit for storm water discharges associated with industrial activities* (Except construction)?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. Commercial/industrial waste handling or storage, excluding typical office or household waste?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. Any grading or ground disturbance during construction?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. Any new storm drains, or alteration to existing storm drains?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*To find out if your project is required to obtain an individual General NPDES Permit for Storm Water Discharges Associated with Industrial Activities, visit the State Water Resources Control Board web site at, [www.swrcb.ca.gov/stormwtr/industrial.html](http://www.swrcb.ca.gov/stormwtr/industrial.html).

If any of the answers provided in Section 1, Part A are “Yes,” the project is subject to the “Priority Project Permanent Storm Water BMP Requirements”. A Post Construction Water Quality Technical Report (PCWQTR) shall be submitted; the requirements of the City’s Storm Water BMP Manual Part II be satisfied. In particular, Section III must be completed. If a Priority Project is over 50 acres, the project is also subject to the City’s Interim Hydromodification Criteria (IHC) as discussed in Section III.C of the *Storm Water Standard Manual*.

If all answers provided in Section 1, Part A are “No,” and any answers to Part B are “Yes,” the project is only subject to the Standard Permanent Storm Water BMP Requirements and shall submit a Standard Post-Construction BMP Plan (SPCBMPP). Section III is to be complete through III.2.B.11.

If every question in Part A and B is answered “No,” the project is exempt from permanent storm water requirements.

**SECTION 2. CONSTRUCTION STORM WATER BMP REQUIREMENTS:**

**PART C: DETERMINE CONSTRUCTION PHASE STORM WATER REQUIREMENTS.**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the project proposed grading or soil disturbance over one acre?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Does the project propose any grading or soil disturbance?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Would storm water or urban runoff have the potential to contact any portion of the construction area, including washing and staging areas?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Would the project use any construction materials that could negatively affect water quality if discharged from the site (such as paints, solvents, concrete and stucco)?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

If the answer to question 1 of Part C is answered “Yes,” your project is subject to California’s statewide General NPDES Permit for Storm Water Discharges Associated with Construction
Activities and the City’s Construction Storm Water BMP Performance Standards. A Storm Water Pollution Prevention Plan (SWPPP) must be prepared and Parts D and E of this form must be completed.

If the answer to question 1 is “No,” but the answer to any of the remaining questions is “Yes,” your project is subject to Construction Storm Water BMP Performance Standards and a Construction Storm Water Management Plan (CSWMP) must be prepared and Part E of this form must be completed.

If every question in Part C is answered “No,” your project is exempt from any construction storm water BMP requirements and you do not need to completed Parts D and E of this form.

PART D: DETERMINE ADVANCED TREATMENT SUBJECTIVITY

<table>
<thead>
<tr>
<th>WOULD THE PROJECT MEET ANY OF THESE CRITERIA DURING CONSTRUCTION?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the project located within, adjacent to, or a portion of the site within 200 feet of waters listed on the CWA Section 303(d) list of Water Quality Limited Segments as impaired for sedimentation or turbidity?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Will the project disturb more than five acres, including all phases of the development?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

If the answers to 1 and 2 are both “yes”, please answer questions 3 and 4 below. If any of the answers to 1 or 2 are “no”, the project is not subject to advanced treatment requirements.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Will the project disturbed slopes steeper than 4:1 (horizontal: vertical) and higher than 10 feet that drain toward the 303(d) listed receiving water?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Does the project contain a predominance of soils with USDA-NRCS Erosion factors k_r greater than or equal to 0.4?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

If all answers to part D are “yes”, the project is subject to the City’s advanced treatment requirements for construction. Advanced treatment requirements are detailed in Section IV of the Storm Water BMP Manual Part II. Note that even if the above criteria do not apply, advanced treatment may be required at the discretion of the City Engineer based on the slope of the site and a record of noncompliance.

PART E: DETERMINE CONSTRUCTION SITE PRIORITY

In accordance with the Municipal Permit, each construction site with construction storm water BMP requirements must be designated with a priority: high, medium or low. This prioritization must be completed with this form, noted on the plans and included in the SWPPP or CSWMP.

Indicate the project’s priority in one of the check boxes using the criteria below, existing and surrounding conditions of the project, the type of activities necessary to complete the construction and any other extenuating circumstances that may pose a threat to water quality. The City Engineer may adjust the priority of the projects both before and during construction.

[Note: The construction priority DOES NOT change construction BMP requirements that apply to projects; all construction BMP requirements must be identified on a case-by-case basis. The construction priority DOES affect the frequency of inspections that will be conducted by the City.]
A) High Priority

1. Projects where the site is 50 acres or more and grading will occur during the wet season.
2. Projects that are 1 acre or more and tributary to an impaired water body for sediment by the most current Clean Water Act Section 303(d) list (e.g., Chollas Creek).
3. Projects that are 1 acre or more within or directly adjacent to or discharging directly to water within a water quality sensitive area.
4. Projects, active or inactive, adjacent or tributary to sensitive water bodies.

B) Medium Priority

1. Capital improvement projects where grading occurs. However, a Storm Water Pollution Prevention Plan (SWPPP) is not required under the State General Construction Permit (i.e., water and sewer replacement projects, intersection and street re-alignments, widening, comfort stations, etc.)
2. Permit projects in the public right-of-way where grading occurs. However, SWPPPs are not required, such as installation of sidewalk, substantial retaining walls, curb and gutter for an entire street frontage, etc.
3. Permit projects on private property where grading permits are required. However, Notice Of Intents (NOIs) and SWPPPs are not required.

C) Low Priority

1. Capital projects where minimal to no grading occurs, such as signal light and loop installations, street light installations, etc.
2. Permit projects in the public right-of-way where minimal to no grading occurs, such as pedestrian ramps, small sidewalks, driveway additions, small retaining walls, etc.
3. Permit projects on private property where grading permits are not required, such as small retaining walls, single-family homes, small tenant improvements, etc.

Completed By: ____________________________________________

Name, Address & Phone
APPENDIX B

EXAMPLE PERMANENT STORM WATER BEST MANAGEMENT PRACTICES

The following are a list of BMPs may be used to minimize the introduction of pollutants of concern that may result in significant impacts to receiving waters. Other BMPs approved by the City Engineer as being equal 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 water conveyance system
- 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 water conveyance 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/storm drain inserts
- Catch basin screens

Filtration Systems
- Media filtration
- Sand filtration

Hydrodynamic Separation Systems
- Swirl concentrator
- Cyclone separator
- Baffle boxes

Trash Racks and Screens
APPENDIX C

POST CONSTRUCTION WATER QUALITY TECHNICAL REPORT GUIDELINES

Purpose

To describe the permanent storm water Best Management Practices (BMPs) that will be incorporated in the project to mitigate the impacts of urban runoff due to the development.

Minimum Requirements

- Prepared by Registered Civil Engineer

Organization & Content

Table of Contents
Vicinity Map
Project Description
  - Narrative of project activities

Site Map

- Entire property included on one map (use key map if multi-sheets)
- Drainage areas and direction of flow
- Private storm drain system(s)
- Nearby water bodies and municipal storm drain inlets
- Location of storm water conveyance systems (ditches, inlets, storm drains, etc.)
- Location of existing and proposed storm water controls
- Location of “impervious” areas- paved areas, buildings, covered areas
- Locations where materials would be directly exposed to storm water
- Location of building and activity areas (e.g. fueling islands, garages, waste container area, wash racks, hazardous material storage areas, etc.)
- Areas of potential soil erosion (including areas downstream of project)

Pollutants and Conditions of Concern

- Project located in which Watershed
- Impaired water bodies downstream of the project and impairment
- Impacts to hydrologic regime
- Pollutants based upon land use

Types of BMPs:

**LID Site Design BMPs**

- Reduce impervious surfaces
- Conserve natural Areas
- Minimize directly connected areas
- Protect slopes and channels
Source Control BMPs
- Inlet stenciling and signage
- Materials Storage
- Trash storage
- Efficient irrigation
- Other controls (as applicable)

Structural Treatment BMPs
- Basis for selection (include targeted pollutants, justification, and alternative analysis)
- Design criteria (include calculations)
- Pollutant removal information (other than vendor specifications)
- Literature References
- Maintenance Condition(s)

Drainage Study
APPENDIX D

STORM WATER POLLUTION PREVENTION PLAN/CONSTRUCTION STORM WATER MANAGEMENT PLAN GUIDELINES

At a minimum, the Storm Water Pollution Prevention Plan (SWPPP) or Construction Storm Water Management Plan (CSWMP) whichever is required, must cover the areas listed below.

If a project disturbs 1-acre or more, the applicant must provide a Storm Water Pollution Prevention Plan (SWPPP), which identifies all construction BMP requirements required by Section IV, in accordance with the State General Permit for Storm Water Discharges Associated with Construction Activity (State General Construction Permit). The SWPPP must be kept on site and made available upon request of a representative of the City. Additionally, the State General Construction Permit has a requirement for a sampling and monitoring program to be implemented. Projects that are also required to obtain a general construction National Pollutant Discharge Elimination System (NPDES) Permit are encouraged to visit the State Water Resource Control Board’s website for permit application instructions, NOI and NOT forms and guidance in preparing a Storm Water Pollution Prevention Plan (go to: www.swrcb.ca.gov/stormwtr/docs/constpermit). A checklist to assist with the preparation of a SWPPP is also provided at the following website: www.swrcb.ca.gov/stormwtr/construction.html.

For projects that disturb less than 1-acre and are determined to have a potential to impact water quality during construction, the applicant must provide a Construction Storm Water Management Plan (CSWMP), which identifies all construction BMP requirements required by Section IV, with the project submittal. The CSWMP shall depict the BMPs to be implemented during construction to reduce/eliminate discharges of pollutants to the storm drain conveyance system. The CSWMP shall include but not be limited to erosion and sediment control BMPs, good housekeeping measures and site and materials management.

Planning and Organization

- Identify the pollution prevention team members who will maintain and implement the SWPPP/CSWMP.
- If applicable, incorporate or reference the appropriate elements of other regulatory requirements.

Site Map

Features displayed on the map must include:

- An outline of the entire property
- Drainage areas on the property and direction of flow
- Areas of soil erosion
• Nearby water bodies and municipal storm drain inlets
• Location of storm water conveyance systems (ditches, inlets, storm drains, etc.)
• Location of existing storm water controls (oil/water separators, sumps, etc.)
• Location of “impervious” areas - paved areas, buildings, covered areas
• Locations where materials are directly exposed to storm water
• Locations where toxic or hazardous materials have spilled in the past
• Location of building and activity areas (e.g. fueling islands, garages, waste container area, wash racks, hazardous material storage areas, etc.)

List of Significant Materials
List materials stored and handled at the site. Include the location and typical quantities.

Description of Potential Pollutant Sources
• Provide a narrative description of the site’s activities and list the potential pollutant sources and the potential pollutants that could be discharged in storm water discharges from each activity.
• List non-storm water discharges including the source, quantity, frequency, and characteristics of the discharges and drainage area.

Assessment of Potential Sources
Describe which activities are likely to be sources of pollution in storm water and which pollutants are likely to be present in storm water discharges.

Best Management Practices
Describe the BMPs that will be implemented at the site for each potential pollutant and its source.
APPENDIX E

EXAMPLE CONSTRUCTION BEST MANAGEMENT PRACTICES

A. Erosion Control

Physical stabilization BMPs, vegetation stabilization BMPs, or both, will be required to prevent erosion and sediment runoff from exposed graded areas. BMPs for physical and vegetation stabilization include:

1) Physical Stabilization
   a) Geotextiles
   b) Mats
   c) Fiber blankets
   d) Hydraulic mulch, Bonded Fiber Matrix
   e) Sprayed on binders
   f) Mulch on flat areas
   g) Other material approved by the City Engineer for use in specific circumstances

If physical stabilization is selected, materials must be appropriate to the circumstances in which they are deployed, and sufficient material must be deployed.

2) Vegetation Stabilization
   a) Preservation of existing vegetation
   b) Established interim vegetation (via Hydroseed, seeded mats, etc.)
   c) Established permanent landscaping

If vegetation stabilization is selected, the stabilizing vegetation must be installed, irrigated and established (uniform vegetative coverage with 70% coverage established) prior to October 1. In the event stabilizing vegetation has not been established by October 1, other forms of physical stabilization must be employed to prevent erosion until the stabilizing vegetation is established.

B. Sediment Control

1) Perimeter protection. Protect the perimeter of the site or exposed area from sediment ingress/discharge in sheet flows using:
   a) Silt fencing
   b) Gravel bag barriers
   c) Fiber rolls

2) Resource protection. Protect Environmentally Sensitive Areas, and watercourses from sediment in sheet flows by using:
   a) Silt fencing
   b) Gravel bag barriers
c) Fiber rolls

3) Sediment Capture. Capture sediments in channeled storm water by using:
   a) Storm-drain inlet protection measures
   b) De-silting basins (Designed in accordance with an industry standard such as Caltrans, California Storm water BMP manual etc. If the project is 5 acres or greater the desilting basin(s) must be designed in accordance with the State General Construction Permit, Order DWQ 99-08.)

4) Velocity Reduction. Reduce the velocity of storm water by using:
   a) Outlet protection (energy dissipater)
   b) Equalization basins
   c) Check dams

5) Off-site Sediment Tracking. Prevent sediment from being tracked off-site by using:
   a) Stabilized construction entrances/exits
   b) Construction road stabilization
   c) Tracking control (i.e., corrugated steel panels, wheel washes)
   d) Dust control

**Materials Management**

6) Prevent the contamination of storm water by wastes through proper management of the following types of wastes:
   a) Solid
   b) Sanitary
   c) Concrete
   d) Hazardous
   e) Equipment – related wastes
   f) Stock piles (protection from wind and rain)

7) Prevent the contamination of storm water by construction materials by:
   a) Covering and/or providing secondary containment of storage areas
   b) Taking adequate precautions when handling materials.
## APPENDIX F

### SUGGESTED RESOURCES

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
<th>How to Get a Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The County of San Diego Low Impact Development Handbook, Stormwater Management Strategies.</strong> (2007).</td>
<td>Presents guidance for LID stormwater planning and management techniques. Fact Sheets on LID BMPs are provided in the Appendices.</td>
<td>The County of San Diego The Department of Planning and Land Use 5201 Ruffin Road, Suite B San Diego, CA 92123 <a href="http://www.sdcounty.ca.gov/dplu/LID_PR.html">http://www.sdcounty.ca.gov/dplu/LID_PR.html</a> <a href="http://www.sdcounty.ca.gov/dplu/">www.sdcounty.ca.gov/dplu/</a></td>
</tr>
<tr>
<td><strong>California Urban runoff Best Management Practices Handbooks</strong> (2003) for Construction Activity, Municipal, and Industrial/Commercial</td>
<td>Presents a description of a large variety of Structural BMPs, Treatment Control, BMPs and Source Control BMPs</td>
<td>Los Angeles County Department of Public Works Cashiers Office 900 S. Fremont Avenue Alhambra, CA 91803 626-458-6959 <a href="http://www.cabmphandbooks.org">www.cabmphandbooks.org</a></td>
</tr>
<tr>
<td><strong>Caltrans Urban runoff Quality Handbook: Planning and Design Staff Guide (Best Management Practices Handbooks (1998))</strong></td>
<td>Presents guidance for design of urban runoff BMPs</td>
<td>California Department of Transportation P.O. Box 942874 Sacramento, CA 94274-0001 916-653-2975</td>
</tr>
<tr>
<td><strong>Contra Costa Clean Water Program Stormwater C.3 Guidebook</strong></td>
<td>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.</td>
<td>Contra Costa Clean Water Program 255 Glacier Drive Martinez, CA 94553 <a href="http://www.cccleanwater.org/construction/nd.php">www.cccleanwater.org/construction/nd.php</a></td>
</tr>
<tr>
<td>SUGGESTED RESOURCES</td>
<td>HOW TO GET A COPY</td>
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<tr>
<td>Presents detailed guidance for designing BMPs</td>
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<tr>
<td>Provides an overview of, planning and design considerations, programmatic and regulatory aspects, maintenance considerations, and costs.</td>
<td></td>
<td></td>
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<tr>
<td>Low-Impact Development Design Strategies - An Integrated Design Approach (June 1999)</td>
<td>Prince George’s County, Maryland Department of Environmental Resource Programs and Planning Division 9400 Peppercorn Place Largo, Maryland 20774 <a href="http://www.co.pg.md.us/Government/DER/PPD/pgcounty/lidmain.htm">http://www.co.pg.md.us/Government/DER/PPD/pgcounty/lidmain.htm</a></td>
<td></td>
</tr>
<tr>
<td>Presents guidance for designing urban runoff BMPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Stormwater Best Management Practices (BMP) Database, Version 1.0</td>
<td>American Society of Civil Engineers 1801 Alexander Bell Drive Reston, VA 20191 703-296-6000</td>
<td></td>
</tr>
<tr>
<td>Provides data on performance and evaluation of urban runoff BMPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation, Maintenance and Management of Stormwater Management (1997)</td>
<td>Watershed Management Institute, Inc. 410 White Oak Drive Crawfordville, FL 32327 850-926-5310</td>
<td></td>
</tr>
<tr>
<td>Provides a thorough look at storm water practices including, planning and design considerations, programmatic and regulatory aspects, maintenance considerations, and costs.</td>
<td></td>
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<tr>
<td>Includes design illustrations and criteria for bioretention facilities.</td>
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</table>

53
<table>
<thead>
<tr>
<th>SUGGESTED RESOURCES</th>
<th>HOW TO GET A COPY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EPA-821-R-99-012</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Second Nature: Adapting LA’s Landscape for Sustainable Living (1999) by Tree People</strong></td>
<td>Tree People 12601 Mulhollan Drive Beverly Hills, CA 90210 (818) 623-4848 Fax (818) 753-4625</td>
</tr>
<tr>
<td>Detailed discussion of BMP designs presented to conserve water, improve water quality, and achieve flood protection.</td>
<td></td>
</tr>
<tr>
<td><strong>Start at the Source (1999)</strong></td>
<td>Bay Area Stormwater Management Agencies Association 2101 Webster Street Suite 500 Oakland, CA 510-286-1255 <a href="http://www.basmaa.org">www.basmaa.org</a></td>
</tr>
<tr>
<td>Detailed discussion of permeable pavements and alternative driveway designs presented.</td>
<td></td>
</tr>
<tr>
<td>Presents detailed guidance on BMP design for new development and construction.</td>
<td></td>
</tr>
<tr>
<td>Presents BMP design and guidance information online</td>
<td></td>
</tr>
<tr>
<td><strong>The Practice of Watershed Protection by Thomas R. Shchuler and Heather K. Holland</strong></td>
<td>Center for Watershed Protection 8391 Main Street Ellicott City, MD 21043 410-461-8323 <a href="http://www.cwp.org">www.cwp.org</a></td>
</tr>
<tr>
<td>Presents guidance for designing BMPs</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G

POTENTIAL PERMANENT TREATMENT BMP MAINTENANCE MECHANISMS

1. **Project proponent agreement to maintain storm water BMPs**: The 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 may be required.

2. **Assessment districts**: The City may approve an Assessment District or other funding mechanism proposed 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.

3. **Lease provisions**: In those cases where the City holds title to the land in question, and the land is being leased to another party for private or public use, the City may assure storm water BMP maintenance, repair and replacement through conditions in the lease.

4. **Public entity maintenance**: The 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 permanent treatment BMP. Unless acceptable to the 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, the City may seek protection from liability by appropriate releases and indemnities. The City shall have the authority to approve storm water BMPs proposed for transfer to any other public entity within its jurisdiction before installation. The 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. The City must be identified as a third party beneficiary empowered to enforce any such maintenance agreement within their respective jurisdictions.

The City may accept alternative maintenance mechanisms if such mechanisms are as protective as those listed above.
APPENDIX H

DEFINITIONS

“Advanced Treatment” means using mechanical or chemical means to flocculate and remove suspended sediment from runoff from construction sites prior to discharge.

“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.

“Best Management Practices” – See definition for “Storm Water Best Management Practice (BMP)”.

“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 Copermitttees in their land development review processes. As appropriate, La Mesa 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 streamback 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.

“Pollutants of Concern.” 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 microorganisms 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.
“Pollution Prevention” means practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal. Pollution prevention is generally the best “first line of defense” and should be used in conjunction with site design, source control and treatment control BMPs.

“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 either (1) discharge urban runoff to a receiving water within or directly adjacent (where any portion of the project footprint is located within 200 feet of the environmentally sensitive area) to an environmentally sensitive area or (2) discharge 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. La Mesa 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 numeric 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 manual groups storm water BMPs into the following categories: (1) Construction Storm Water BMPs, which are practices, procedures, devices or materials used to prevent the transport and introduction of pollutants both on and from a project during construction; and (2) Permanent Storm Water BMPs, which are the site design features, source control features, and treatment control BMPs that become a permanent part of a project site. (See the definitions for site design, source control and treatment control BMPs in this appendix).

“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. Types of treatment control BMPs include the following:

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. High-rate Media Filters (typically proprietary). Vaults with replaceable cartridge filters filled with inorganic media.
Appendix B
Environmental Review Documents
To assist in complying with the California Environmental Quality Act (CEQA), this Environmental Assessment is required for initial evaluation of all projects undertaken within the City. The owner or authorized representative of the proposed project is required to complete the Environmental Assessment on the following pages. The Environmental Assessment will not be accepted for processing unless it is complete, all appropriate attachments are made and the application is signed.

The Community Development Department will conduct an Initial Study of the proposed project to determine whether the project could or could not have a significant effect on the environment. If this study establishes that the project could not have a significant effect on the environment, a Negative Declaration will be prepared. If it is determined that a project may have a significant effect on the environment an Environmental Impact Report will be required.

Applicant (if applicable):

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<thead>
<tr>
<th>Name</th>
<th>Phone: (   )</th>
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<tbody>
<tr>
<td>Address:</td>
<td>Fax: (   )</td>
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<td>Email:</td>
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Property Owner:

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<tr>
<th>Name</th>
<th>Phone: (   )</th>
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<tr>
<td>Address:</td>
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Contact Person:

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<tr>
<th>Name</th>
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<tr>
<td>Address:</td>
<td>Fax: (   )</td>
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<td>Email:</td>
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Property Location:

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<th>Address:</th>
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<tr>
<td>Assessor’s Parcel Number:</td>
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Legal Description (attach additional sheets if necessary):

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<th>Description</th>
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FOR OFFICE USE ONLY

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<th>Application Number:</th>
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<td>Date Received</td>
</tr>
<tr>
<td>Fee:</td>
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<tr>
<td>Reviewed By:</td>
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</table>
Project Description: 

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

A. Project Characteristics:

1. Site Size (in square footage or acres):

2. Project Size (square footage of building and number of units):

3. Type of Construction (residential, commercial, industrial, institutional)

4. Proposed Scheduling: a. Date Construction Begins

   b. Proposed Phasing of Project

________________________________________________________________________

B. Environmental Information:

1. Is this project site on the County of San Diego Site Assessment and Mitigation (SAM) program? This list can be found at www.sdcounty.ca.gov/deh/lwq/sam/index.  
   Are there any known hazardous materials on the project site?  
   If yes, please describe the hazardous materials below:  
   Yes  No

2. Does this project involve any grading? (If “no”, proceed to 3.)  
   Grading will also require a Stormwater Applicability Checklist  
   Yes  No

   a. Approximately what percentage of the site will be graded?

   b. What is the existing slope gradient?

   c. What will be the slope after grading?

   d. What is the volume of cutting in cubic yards?

   e. What is the maximum fill slope gradient and height in feet?

   f. What is the volume of exported material in cubic yards?

   g. What is the volume of imported earth material in cubic yards?

   h. Would the grading affect any archaeological, paleontological, cultural, historical or unique geologic features?  
      Yes  No

   If yes, explain below:
3. Would drainage patterns, floodway routes, absorption rates, or runoff rates be altered by this project? (If “no”, proceed to 4).
   _____ Yes   _____ No

   a. To what extent will drainage alterations affect adjacent areas through erosion, siltation or flooding?

   b. To what extent will this project affect the quantity or quality of ground water?

   c. Describe any natural water courses, flood control, or drainage facilities within or around the project.

   d. What methods of drainage control will be used in this project?

   e. Describe all the Best Management Practices (pollution prevention, source control and treatment) that will be used in the site design to maximize infiltration, provide retention, and reduce the amount and rate of surface water runoff and the amount of pollutants to the Maximum Extent Practicable.

   f. For priority development and redevelopment, describe source control and structural treatment Best Manager Practices that will be incorporated in the project. Priority development and redevelopment projects are defined in the NPDES Permit 2001-01 or Section 7.18.100 of the La Mesa Municipal Code.

   g. Describe how the development limits disturbances of natural water bodies and natural drainage systems.
4. Would any trees be removed as a result of the proposed project? (If “no”, proceed to 5).
   _____ Yes _____ No
   a. Give the total number of trees to be removed with a trunk diameter:
      Under 3": ___________ 3”-6”: ___________ Over 6”: ___________
   b. Would further expansion or development of this project require removal of on-site trees?
      _____ Yes _____ No
   c. Describe plans to mitigate the removal of trees as a result of this project.
   
   d. Attach landscape plan if available.

5. Would the proposed project adversely affect any sensitive, threatened or endangered plant or animal species? _____ Yes _____ No
   If yes, list the plant and animal species below:

6. Would the proposed project conflict with any provisions of the La Mesa Habitat Conservation Plan? _____ Yes _____ No
   Please explain below:

7. Would the project alter traffic volume within or around the site? (If “no”, proceed to 6).
   _____ Yes _____ No
   a. Describe vehicle capacities or classifications of surrounding public streets.
      (Include source of information)
   
   b. Estimate the amount of increase in traffic volume as a result of this project.
      (Include method used in estimating traffic volume)
c. Describe vehicle access to the project (Include diagram if desired).

________________________________________________________________________________________

d. Would the project conflict with any recorded public or private easements?  
   _____ Yes  _____ No

________________________________________________________________________________________

e. Would the project result in alterations of present patterns of traffic circulation?  
   _____ Yes  _____ No

________________________________________________________________________________________

f. What effects will the project have on parking within and around the site?  
________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

8. Would the project have any provisions for energy or water conservation?  (If "no", proceed to 6).  
   _____ Yes  _____ No

________________________________________________________________________________________

________________________________________________________________________________________

9. Would the project be served by utilities and public services with adequate capacity to serve the proposed development?  
   _____ Yes  _____ No

________________________________________________________________________________________

10. Would the project result in increased air emissions, violate any air quality standard, or create objectionable odors either before or after construction?  
    Yes  No

If yes, explain below:

________________________________________________________________________________________

________________________________________________________________________________________

11. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the La Mesa General Plan Noise Element or other applicable noise standards?  
    Yes  No

If yes, explain below:

________________________________________________________________________________________

________________________________________________________________________________________

12. What steps can be taken to mitigate any adverse effects that may result from this project?
ATTEST: The information on this Application and all accompanying maps, plans, legal descriptions and other information as submitted for this application as listed on the Application Checklist are accurate and complete to the best of my knowledge. I authorize the applicant as listed on this application to act as my representative for all aspects of processing this application in compliance with CEQA.

Property Owner: _______________________________ Date: __________________

Applicant: _______________________________ Date: __________________
Environmental Initial Study (Sample)
Project Title
City of La Mesa, County of San Diego, CA

Lead Agency:
City of La Mesa
8130 Allison Avenue
La Mesa, CA 91942
Phone Number
Contact: _______

Month, Year
<table>
<thead>
<tr>
<th>Project Title:</th>
<th></th>
</tr>
</thead>
</table>
| Lead Agency Name and Address: | City of La Mesa  
____ Department  
____ Division  
8130 Allison Avenue  
La Mesa, CA 91942 |
| Lead Agency Contact Person and Phone Number: |  |
| Project Location: (Address and/or general location description) | City of La Mesa, California 9194_,  
County of San Diego. |
| Applicant’s Name and Address: |  |
| General Plan Land Use Designation: |  |
| Zoning: |  |
| Assessor Parcel Number: |  |
| Project Description: |  |
| Surrounding Land Uses: |  |
| North: |  |
| South: |  |
| East: |  |
| West: |  |
| Site Features and Setting: |  |
| Other Agencies Whose Approval is Required: |  |
ENVIRONMENTAL INITIAL STUDY

The Environmental Review Checklist below is used by staff to evaluate whether a Project has the potential to cause significant environmental impacts. The purpose of the checklist is to assist in the determination of whether an Environmental Impact Report (EIR) should be prepared for the Project. If it is determined that no EIR is needed to identify potential environmental impacts from a Project, a Negative Declaration will be adopted. A Negative Declaration does not mean that a Project will have no effect; it is documentation that a Project will not have the potential to cause "significant" environmental impacts that need a complete EIR to properly evaluate. Once the proper level of environmental analysis has been established utilizing the checklist below, the Project itself will be evaluated based upon a separate analysis of compliance with ordinances, policies, standards, and required findings established for review of the Project by the City.

<table>
<thead>
<tr>
<th>Environmental Issues</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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<tbody>
<tr>
<td>I. Aesthetics.</td>
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<tr>
<td>Would the Project:</td>
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<tr>
<td>a)</td>
<td>Have a substantial adverse effect on a scenic vista?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>b)</td>
<td>Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c)</td>
<td>Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>d)</td>
<td>Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?</td>
<td>☐</td>
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</tbody>
</table>

Explanation:

a) __

b) __

c) __

d) __
II. **Agriculture and Forest Resources.**

*In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.*

Would the Project:

<table>
<thead>
<tr>
<th>Environmental Issues</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
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<tr>
<td>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</td>
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<tr>
<td>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
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<td>☐</td>
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<tr>
<td>e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</td>
<td>☐</td>
<td>☐</td>
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</table>
Explanation:

a-e) **No Impact.**

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<thead>
<tr>
<th>Environmental Issues</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
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<tbody>
<tr>
<td>III. <strong>Air Quality.</strong> 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:</td>
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<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
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<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
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<tr>
<td>c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>☐</td>
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<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
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Explanation:

a) __
b) __
c) __
d) __
e) __
### IV. Biological Resources.
Would the Project:

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<thead>
<tr>
<th>Environmental Issues</th>
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</tr>
</thead>
<tbody>
<tr>
<td>a) Have a substantial adverse effect, either directly or through 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 Wildlife or U.S. Fish and Wildlife Service?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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 wetlands, etc.), through direct removal, filling, hydrological interruption or other means?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
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</table>
### Explanation:

a) __
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<tr>
<td><strong>V. Cultural Resources.</strong></td>
<td></td>
<td></td>
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<tr>
<td>Would the Project:</td>
<td></td>
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</tr>
<tr>
<td>a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>d) Disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
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<tr>
<td>VI. Geology and Soils.</td>
<td>Would the Project:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:</td>
<td></td>
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<tr>
<td>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.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>ii) Strong seismic ground shaking?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>iii) Seismic-related ground failure, including liquefaction?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>iv) Landslides?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>b) Result in substantial soil erosion or the loss of topsoil?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?</td>
<td>☐</td>
<td>☐</td>
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Explanation:

a) i) __
ii) __

iii) __

iv) __

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d) __

e) __

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<tr>
<td>VII. Greenhouse Gas Emissions. Would the Project:</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td>☐</td>
<td>☐</td>
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<tbody>
<tr>
<td>VIII. Hazards and Hazardous Materials. Would the Project:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?</td>
<td>☐</td>
<td>☐</td>
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</table>
## Environmental Issues

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<tr>
<td>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?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the Project result in a safety hazard for people residing or working in the Project area?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>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?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>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?</td>
<td>□</td>
<td>□</td>
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Explanation:

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<td><strong>IX. Hydrology And Water Quality.</strong></td>
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<tr>
<td>Would the Project:</td>
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<td></td>
</tr>
<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
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<td>IX. Hydrology And Water Quality.</td>
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<tr>
<td>Would the Project:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>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 that would result in flooding on- or off-site?</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Otherwise substantially degrade water quality?</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
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</tr>
<tr>
<td>j) Inundation by seiche, tsunami or mudflow?</td>
<td>☐ ☐ ☐ ☐</td>
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</tbody>
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Explanation:

a) __

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f) __
g-h) __
i) __
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<tr>
<td>X. Land Use and Planning.</td>
<td></td>
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<tr>
<td>Would the Project:</td>
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</tr>
<tr>
<td>a) Physically divide an established community?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>XI. Mineral Resources.</td>
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<tr>
<td>Would the Project:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
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</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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**Explanation:**

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b) __

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**XII. Noise.**

**Would the Project result in:**

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<tr>
<td>a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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 a public use airport, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
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</tr>
<tr>
<td>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?</td>
<td>☐</td>
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<td><strong>XIII. Population and Housing.</strong> Would the Project:</td>
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<tr>
<td>a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
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<td>XIV. Public Services.</td>
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<tr>
<td>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 following public services:</td>
<td></td>
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<tr>
<td>a) Fire protection?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Police protection?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Schools?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>d) Parks?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>e) Other public facilities?</td>
<td>☐</td>
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<td>XV. Recreation.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Explanation:

a)  

City of La Mesa  
Month Year  
Project Title  
Initial Study
### Environmental Issues

<table>
<thead>
<tr>
<th>Environmental Issues</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
</table>

#### XVI. Transportation/Traffic.

Would the Project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

**Explanation:**

a) __

---

City of La Mesa

Month Year

Project Title

Initial Study
<table>
<thead>
<tr>
<th>Environmental Issues</th>
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</thead>
<tbody>
<tr>
<td>XVII. Utilities and Service Systems.</td>
<td></td>
<td></td>
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<tr>
<td>Would the Project:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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 addition to the provider’s existing commitments?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Environmental Issues</td>
<td>Potentially Significant Impact</td>
<td>Less Than Significant with Mitigation Incorporated</td>
<td>Less Than Significant Impact</td>
<td>No Impact</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g) Comply with federal, state and local statutes and regulations related to solid waste?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Explanation:**

a) __

b) __

c) __

d) __

e) __

f) __

g) __

<table>
<thead>
<tr>
<th>Environmental Issues</th>
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<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XVIII. Mandatory Findings Of Significance.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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 rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Environmental Issues

<table>
<thead>
<tr>
<th>Environmental Factors That Could Result in a Potentially Significant Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>The environmental factors checked below would be potentially affected by this Project, involving a least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.</td>
</tr>
<tr>
<td>Aesthetics</td>
</tr>
<tr>
<td>Biological Resources</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
</tr>
<tr>
<td>Land Use / Planning</td>
</tr>
<tr>
<td>Population/Housing</td>
</tr>
<tr>
<td>Transportation/Traffic</td>
</tr>
</tbody>
</table>
Environmental Determination

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 revisions in the Project have been made by or agreed to by the Project proponent. A Mitigated 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 “potentially significant impact” or “potentially significant unless mitigated” impact 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. An Environmental Impact Report is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signed ____________________ Date ____________________

Name, Title ____________________

Tables:

Table 1:

Figures:

Figure 1:

Attachments:
Attachment 1:

References:

E:\ecep\2015\Docs\Environmental\Neg Docs\Initial Study-Sample.docx
Appendix C
Standard Low Impact Development Plan
The following planning, design, and post-construction BMPs are required for all land development and redevelopment projects in the City of La Mesa. 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.

<table>
<thead>
<tr>
<th>Required BMPs</th>
<th>Check if Selected</th>
<th>If the BMP is not selected, explain why below (attach additional pages if necessary).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. BMPs for permanent control of erosion from slopes.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Convey runoff safely from the tops of slopes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Vegetate slopes with native or drought tolerant vegetation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Other (describe):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. BMPs to control flows, velocity and erosion.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Minimize disturbances to Natural Drainages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Stabilize permanent channel crossings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Provide buffer zones for natural water bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Other (describe):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Low Impact Development (LID) and site design BMPs.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Conserve natural areas, soils, and vegetation where feasible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Construct walkways, trails, patios, overflow parking lots, alleys, and other low-traffic areas with permeable surfaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Construct impervious surfaces to minimum widths necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Use natural drainage systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Minimize soil compaction in areas that will remain pervious after development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Drain runoff from impervious roofs into adjacent landscaping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Drain runoff from impervious sidewalks and/or walkways into adjacent landscaping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Drain runoff from impervious parking lots into adjacent landscaping</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Required BMPs

<table>
<thead>
<tr>
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<th>If the BMP is not selected, explain why below (attach additional pages if necessary).</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Drain runoff from other impervious areas into adjacent landscaping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Other (describe):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 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