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**Audit Report**  
**For:**  
**City of Long Beach Municipal Storm Water NPDES Permit**  
**(Board Order No. 99-060; NPDES No. CAS004003)**

**Executive Summary**

Tetra Tech, Inc., with oversight from the Los Angeles Regional Water Quality Control Board and EPA Region IX, conducted an audit of the City of Long Beach's (City) Municipal Separate Storm Sewer System (MS4) NPDES Permit in August 2001. The audit team reviewed permit requirements and the City's progress in meeting these requirements and also conducted an in-field verification of programs implementing the permit requirements.

The City's storm water steering committee uses a matrix-type management system to coordinate the activities of various City Departments regarding implementation of the storm water program. Several of the program areas audited were found to possess particularly positive attributes. These individual attributes were indications of the City's overall success in implementing a multi-faceted program to address storm water discharges. The complexity of managing such a program, combined with the required participation in pending TMDLs and watershed-based activities makes this large job even larger and the City appears well positioned to actively participate and benefit from these activities. Although a variety of potential violations and significant concerns were identified, the Clean Water Division, with assistance from multiple Departments, has installed a strong foundation on which future improvements can be made. These positive attributes, potential permit violations and significant concerns are presented in Section 2.0 of this report.

While positive attributes were identified during the audit, the City needs to take additional steps to evaluate the effectiveness of the program and tailor the program to meet specific needs. For example, additional monitoring is needed to determine if individual program elements, or the program as a whole, have been effective in protecting water quality. It is important that the City's storm water program be oriented towards the attainment of water quality standards and objectives (inland and coastal), consistent with the existing permit requirements. The City should begin targeting resources and modifying its program to address the specific pollutants identified in its impaired water bodies.

Based on the fiscal resources reported in the latest Annual Report, Citywide budgeted expenditures totaled more than \$19 million dollars per year for storm water management. In order to make the best use of these resources, it is in the City's best interest to actively attempt to identify pollutants of concern and their sources and to implement BMPs that will result in improvements in receiving water quality.

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## **1.0 Introduction**

### **1.1 Audit Purpose**

The audit was performed pursuant to 40CFR 122.41(l) and Part 4.II.F.1 of the existing NPDES Permit. The primary goal of the audit was to determine the City's overall compliance status with all conditions and requirements contained within the permit and Storm Water Management Program. Secondary goals included acquisition of data that may be used in re-issuance and/or possible revision of the existing NPDES permit and review of the overall implementation of the program.

### **1.2 Permit History**

Storm water discharges from the City of Long Beach's Municipal Separate Storm Sewer System (MS4) are regulated by Board Order 99-060 (NPDES Permit No. CAS004003). This NPDES permit was issued on June 30, 1999 by the Los Angeles Regional Water Quality Control Board (LA RWQCB) with a scheduled expiration date of June 29, 2004. Storm water within the City of Long Beach has been regulated under an NPDES storm water MS4 permit since 1993 when the City became an active participant in the 1990 MS4 permit issued to Los Angeles County and 85 cities. Long Beach was included in the permit issued in 1996 to Los Angeles County, but has since chosen to obtain their own permit. The permit issued to the City on June 30, 1999 separated Long Beach from the Los Angeles County permit program.

The current permit is comprised of the following Parts:

1. Receiving Water Limitations
2. Discharge Prohibitions
3. Storm Water Management, Monitoring and Reporting
4. Special and Standard Provisions

Requirements for illicit connections, illicit discharges, development planning, development construction, public agency activities, public information and participation, five-year public education strategy, inlet/catch-basin stenciling, parking lot study, and total maximum daily loads requirements are contained within Part 4 of the permit. The Monitoring Program (referenced as Appendix C of the permit) and the City of Long Beach Storm Water Management Program Manual (LBSWMP) are also enforceable components of the existing permit.

### **1.3 Logistics and Audit Preparation**

Prior to initiating the on-site audit, Tetra Tech conducted a detailed review of available program materials. The goals for the file review were to: 1) establish a greater knowledge of the existing program, permit requirements, and past activities; and 2) make a preliminary determination of compliance with permit requirements. The following materials were reviewed: the NPDES Permit; City of Long Beach Storm Water Management Plan; the annual report submitted on December 1, 2000; annual monitoring reports submitted on July 15, 2000 and 2001; City web sites; and LA RWQCB file correspondence with the City.

The authority, scope, and schedule of the audit and the potential for follow-up enforcement activities were communicated to the City via written notice on July 24, 2001. In an effort to minimize unnecessary disturbances to City staff and to ensure that proper City personnel were available, an audit itinerary and field verification schedule for each day were prepared and delivered to the City prior to the audit.

On August 7-9, 2001 Tetra Tech, Inc., with oversight from EPA Region IX and the LA RWQCB, conducted the audit of the City of Long Beach's Storm Water Management Program. The audit schedule was as follows:

Tuesday, August 7

Audit Kick-off (Citywide Task Force Departments)  
Program Management, Legal Authority, Institutional Arrangements (Public Works, City Attorney)  
Illicit Connections (Water Dept.)  
Illicit Connections and Construction (Harbor Dept.)

Wednesday, August 8

Illicit Discharges (IC/ID Task Force)  
Development Planning (Planning and Building)  
Development Construction (Planning and Building)

Thursday, August 9

Public Agency Activities (LB Energy, Parks and Rec., Public Works)  
Industrial Site Visits, Illicit Connections (Health)  
Public Information, Monitoring (Public Works)

The audit team consisted of five individuals that functioned primarily as two teams. One team reviewed permit requirements and the City's progress in meeting those requirements, while the other team conducted in-field reviews and verifications of programs implementing the permit requirements. The in-field verification consisted of inspection of various City Departments to verify the implementation of programs required in the permit. More than fifty individuals representing eleven City Departments were interviewed as part of the audit.

Upon completion of the on-site review and verification, an exit interview was held with City representatives to discuss the preliminary findings. As indicated during the exit interview, the findings were to be considered preliminary until the submission of this report.

**1.4 Program Areas Evaluated**

The following program areas were evaluated as part of the audit:

- Program management
- Public information and participation
- Illicit connections
- Illicit discharges
- Development construction

- Development planning
- Public agency activities
- Industrial educational site visits
- Reporting and monitoring
- Harbor Department

### 1.5 Program Areas Not Evaluated

While the City’s monitoring program was evaluated to determine compliance with specific permit requirements, the audit did not include a detailed evaluation of the program (e.g., sample locations, types, frequency, parameters, etc.) or monitoring reports (e.g., analytical methods, QA/QC or interpretations). On July 15, 2001 the City submitted their second Annual Monitoring Report to the LA RWQCB for review and comment. A City-sponsored presentation and Q&A meeting subsequently was held on August 1, 2001 to discuss the sampling strategy, procedures, and monitoring results. The LA RWQCB has reviewed the monitoring report and other information, and in a meeting on September 21<sup>st</sup>, provided comments to the City including direction for revisions to the monitoring efforts scheduled for years 3-5 of the permit cycle.

The audit team did not conduct a detailed review of the City’s legal authority to enforce the storm water program requirements. A preliminary discussion was conducted with City legal representatives to ascertain whether or not the City has adequate legal authority. As required by the permit, the City had previously provided a detailed evaluation of their legal structure and authority to the LA RWQCB, which is currently being reviewed.

Additionally, the audit team conducted only a cursory review of the operations of the Port of Long Beach (Port) and did not evaluate any operations at the Long Beach Airport (Airport). Additional detail regarding the Port is presented in Section 2.10 of this report.

### 2.0 Long Beach Storm Water Program Areas

Each of the program areas evaluated as part of the audit is presented below. The audit identified a wide range of beneficial work practices employed by individuals and City Departments. These individual work practices were indications of the City’s overall success in implementing a multi-faceted program to address storm water discharges. The complexity of the storm water program, combined with the required participation in development of pending TMDLs and watershed-based activities, makes this job even larger and the City appears well positioned to actively participate and benefit from these activities. Although a variety of potential violations and significant concerns were identified, the Clean Water Division, with assistance from multiple Departments, has installed a strong foundation on which future improvements can be made. Some of the most significant attributes are discussed in the individual program sections below.

Each of the following descriptions of program areas also identifies, where appropriate, potential permit violations, significant concerns, and general observations. All potential violations are cited in reference to NPDES Permit No. CAS004003. Part 4.I.A.1 of the permit states “requirements of the permit will take effect immediately (except where otherwise specifically

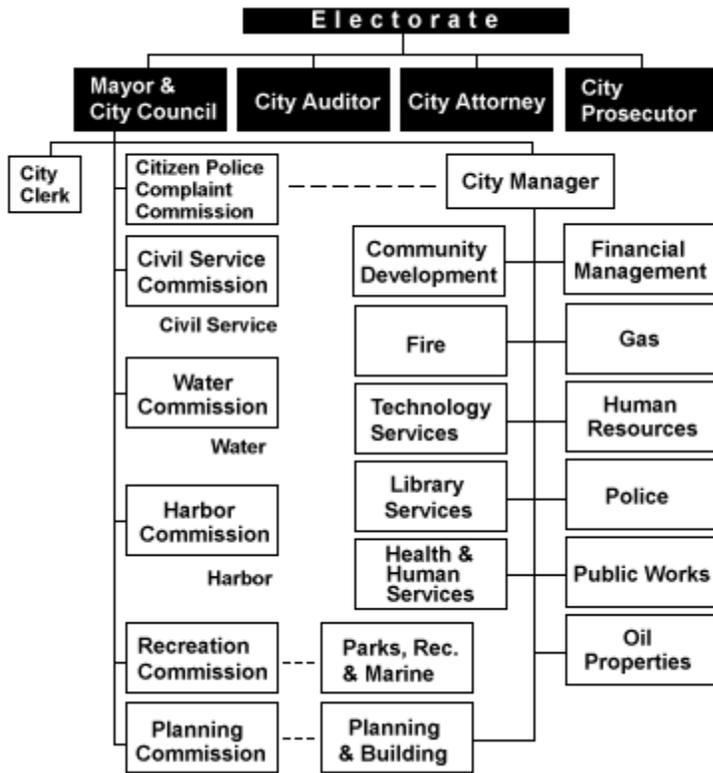
stated in the permit).” Therefore, any permit requirements that had not been fully implemented at the time of the audit, and for which no deadline for compliance had been specified, were considered to be potential violations. Significant concerns refer to those findings that may result in future permit violations if not corrected. General observations refer to practices or permit interpretations determined to be either inefficient or otherwise limiting to the City’s program implementation.

Development and implementation of an integrated municipal storm water program requires coordination and cooperation by a large number of City Departments, programs, and individuals. The challenge presented to individuals tasked with the overall responsibility to coordinate a program of this size is considerable. Conducting internal or external audits of such programs also poses a significant challenge. Additionally, since not all areas of the City’s program were evaluated during the course of this audit, additional potential violations and/or significant concerns may be determined for those programs at any time.

Therefore, the City should not consider the enclosed list of potential violations or the audit report itself as a shield against additional violations or, as a comprehensive endorsement of individual program elements. This report does not preclude or in any way limit the LA RWQCB’s or EPA’s ability to inspect and identify additional permit violations.

## **2.1 Program Management**

The City relies on a matrix-type management system to implement the LBSWMP and ensure compliance with permit requirements. The City has created a Citywide Task Force comprised of 14 departments to ensure full implementation of the LBSWMP. Individual sub-committees for illicit connection/illicit discharge and public agency activities have also been created to support the Citywide Task Force. The primary City agency responsible for overall permit compliance and program management is the Public Works Department’s Clean Water Division. The Clean Water Division, currently consisting of one (and soon to be two) staff, coordinates implementation of the storm water program among the various City Departments and also takes the lead in collecting information for the annual report and monitoring. Additionally, the Clean Water Division acts as the City’s representative on regional watershed committees. A city organizational chart is presented below.



All individuals and Departments interviewed during the audit were very cooperative with the audit team. Additionally, City personnel interviewed during the audit clearly understood the need, purpose, and goals of the program and seemed to be aware that their actions could have an impact on water quality. Although some personnel and Departments were unaware of some individual permit requirements, when notified, they indicated that they would implement these requirements into their work process.

Based on information obtained during the audit, it was determined that the City has the adequate resources with respect to leadership, fiscal resources and personnel to fully implement their program. Personnel indicated that resources were available when requested and that there were no major impediments preventing them from implementing the BMPs identified in the LBSWMP and permit. The Clean Water Division has been instrumental in acquiring funding that will undoubtedly provide substantial benefits to the program in coming years. The permanent addition of another staff member for the Clean Water Division will further help this effort as well as the overall coordination and reporting across all Departments. Where appropriate, the City has relied on contractual support for certain professional services, such as monitoring, data analysis, and spill response.

The audit team has identified the following areas of significant concern and observations for program management.

**2.1.1 Area of Significant Concern: Receiving Water Limitations (Permit Requirement Part I)**

Permit Requirement Part I (Receiving Water Limitations), requires the City to implement control measures to achieve compliance with receiving water limitations. If exceedances of water quality standards persist, the Permittee is required to identify additional BMPs that will be implemented to prevent or reduce the mass loadings of any pollutants that are causing or contributing to the exceedances of water quality standards.

The City currently discharges to the following water bodies listed on EPA’s 1998 303(d) list of impaired water bodies: Long Beach Harbor, the Los Angeles River, and the San Gabriel River. A complete list of receiving water quality assessments is provided in Section 1.3 of the LBSWMP. Preliminary review of the conclusions of the 2000-2001 Storm Water Monitoring Report indicates that storm water discharges from the MS4 may contribute to exceedances of the water quality standards and objectives established for these receiving waters, resulting in a violation of Permit Requirement Part I.

It is recognized that linking storm water discharges to water quality impairment is a relatively new process. Both the LA RWQCB and the City should be commended for attempting to tackle these issues with the ultimate goal of improving water quality. Current and future TMDLs and other watershed-based activities will likely address storm water discharges. Therefore, it is important that the City’s storm water program be focused on the attainment of water quality standards and objectives (inland and coastal), which is also consistent with the existing permit requirements.

The City should attempt to correlate receiving water impairment with pollutants of concern identified in their storm water discharges. Targeted BMPs should be identified, implemented, and routinely evaluated. Understanding that this is relatively new for storm water programs, linkages (and hopefully improvements) to receiving water quality should be a key aspect of measuring program effectiveness and optimization. It is unclear whether or not the City is currently considering such linkages and potential ramifications.

**2.1.2 Area of Significant Concern: Modification to LBSWMP to comply with TMDLs (Permit Requirement Part 4.I.K)**

Permit Requirement 4.I.K, Total Maximum Daily Loads (TMDLs), requires the City to “modify the LBSWMP to comply with waste load allocations developed and approved pursuant to the process for the designation of TMDLs for impaired water-bodies.” The City should be prepared to modify their program to incorporate the Waste Load Allocations and monitoring and implementation requirements of any TMDLs affecting the City’s water bodies, including the draft Trash TMDL for the Los Angeles River when it is adopted by the Regional Board.

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### 2.1.3 Area of Significant Concern: Exempted Activities

The permit specifically exempts certain activities from requirements unless they are determined to be a source of pollutants (Part 2.I.A.2). In addition to these activities, the NPDES and SUSMP Regulations passed by the City (Chapter 18.95) also exempt “fire training activities” in addition to discharges or flow from emergency fire fighting activities. The ordinance conflicts with the permit conditions in this matter.

### 2.1.4 Observation: Communication with Field Staff and Inter-Departmental Accountability

Although the City has the Citywide Task Force in place to coordinate information and program responsibilities between departments, interviews conducted during the audit indicated that information on the storm water program and permit requirements has not always filtered down to the field staff. Two examples of this were observed with the catch basin cleaning operations and the educational site visits. In both cases, employees were conducting some aspects of the required activities on an established schedule but were unaware of the specific permit requirements relating to these activities. Additional training and specific guidance on permit requirements should be available to field staff implementing the storm water program.

A method for field staff to communicate directly with the Clean Water Division would also be helpful in better targeting program resources. For example, areas of the City with consistently more debris in catch basins may need more frequent street sweeping or distribution of public education materials. The Clean Water Division can be a focal point for this type of coordination.

### 2.1.5 Observation: Lack of Jurisdiction over Federal, State, Regional or Local Entities

The permit acknowledges in item 14 of the Findings that the City may lack jurisdiction over some Federal, state, regional or local entities discharging storm water to its MS4 and that the City will not be held responsible for such discharges. Several City Departments expressed their concern regarding the lack of oversight and participation by agencies outside of their jurisdiction. For example, specific concerns were raised regarding planning, development, and construction activities conducted by the Long Beach Unified School District. Additionally, the City has been experiencing great difficulty in meeting their permit requirement to “educate a minimum of 50% of all school children (K-12) every two years.” The City’s ongoing efforts to coordinate these activities should be continued.

## 2.2 Public Information and Participation

The City had a wide array of public educational materials available at the time of the audit and had been able to leverage the resources of various Departments in distributing this information to the public. The materials were informative and targeted for use by various industries. The program web site and existing PSA videos are professional and informative. The types, appearance, and content of the materials also appear to be improving as the program matures.

The permit requirements for Public Information and Participation, generally found in Part 4.G of the permit, require the City to develop and distribute outreach material to specific audiences. The Industrial/Commercial Educational Program is included in this part of the permit but is addressed separately below in section 2.8.

### 2.2.1 Observation: Water Conservation Programs

The permit requires the City to implement water conservation practices under Part 3.I.A.2.f. Various City personnel indicated that water conservation was a significant concern of the City and that one or more special programs were in place to encourage conservation through public outreach, rebates, and fixture replacement/give-a-ways. These conservation efforts could potentially be more effective through closer coordination with the storm water program.

### 2.3 Illicit Connections

The City of Long Beach serves a population of approximately 426,000 people in an area of approximately 50 square miles. Based on maps and data provided by the City, the MS4 is comprised of approximately 180 miles of storm drains varying in size from less than 5” to greater than 36” in diameter. Specifically, the MS4 is comprised of:

- 4,100 feet of <= 5” pipe
- 20,172 feet of 6” pipe
- 28,629 feet of 8” pipe
- 64,641 feet of 10” pipe
- 93,884 feet of 12” pipe
- 12,415 feet of 13-14” pipe
- 428,228 feet of >= 15” and < 36” pipe
- 255,204 feet of >= 36” pipe
- 41,480 feet of unknown size pipe

This system includes 2032 manholes, 3612 catch basins, 192 grated catch basins, and 30 pump stations. Additionally, the City maintains several miles of open channels. Based on conflicting information provided by various City Departments, the exact distance and location of all open channels did not appear well defined.

Approximately 44% of the land area discharges to the Los Angeles River, 7% to the San Gabriel River, and the remaining 49% drains directly to Long Beach Harbor and San Pedro Bay. Pump stations are required for all discharges to the Los Angeles River.

The Long Beach MS4 also receives discharges from the City of Signal Hill storm drain system and, in many locations, is cross-connected with the Los Angeles County Flood Control District MS4.

The audit team has identified the following areas of potential permit violations, significant concerns and observations for the illicit connection program.

**2.3.1 Potential Permit Violation: Illicit Connection Inspection Program (Permit Requirement Part 4.I.B.2)**

Permit requirements in Part 4.B.2 require the City to inspect the storm drain system for illicit connections. The City currently inspects open channels (requirement 4.B.2.c), but has not inspected the majority of storm drainpipes the City owns and operates. Permit requirement 4.B.2.b specifically requires the City to identify high priority areas and inspect the storm drain system in these areas by June 30, 2001. The City has yet to identify or inspect these high priority areas. Based on information provided in the Annual Report, the City has yet to thoroughly inspect their storm drain system and has not yet identified any illicit connections.

**2.3.2 Potential Permit Violation: Illicit Connection Database (Permit Requirement Part 4.I.B.3)**

During the course of the audit, the City developed an illicit connection reporting and inspection form that will be used to collect information for the illicit connection database that has not yet been developed (Permit Requirement Part 4.I.B.3). Both the database and reporting and inspection form were to be developed and implemented upon adoption of the permit. The City needs to ensure that the appropriate Departments (Fire, Police, Public Works, Energy, Water, Health, Harbor, etc.) understand the purpose of the form and database and how they will be used. Additionally, they need to ensure that the database is consistently maintained and utilized. Failure to establish and use the database would result in the failure to identify and report illicit connections, which would be a violation of the permit.

**2.3.3 Area of Significant Concern: Inspections for Illicit Connections (Permit Requirement Part 4.I.B.2.a)**

Permit requirement 4.I.B.2.a requires the City to inspect all storm water pipes larger than 36 inches in diameter within the five years of the permit term. The City must set up a program to conduct these inspections. Although equipment has been ordered, there is only a little less than three years left to complete these inspections.

**2.4 Illicit Discharges**

The City’s current system inventory includes 2032 manholes, 3612 catch basins, 192 grated catch basins, and 30 pump stations. The audit team observed City personnel responsible for catch basin cleaning and noted that they were highly proficient at removing debris from the catch basins. Although they understood the MS4 to be a flood abatement and conveyance system, they also were knowledgeable regarding the nature of debris and pollutants (residential vs. commercial vs. industrial) and regarding areas that needed more attention. Program management staff is encouraged to work with and learn from these individuals regarding priority areas, sources of contaminants, and BMP effectiveness.

All City personnel and Departments interviewed during the audit were aware of the established spill response and clean-up procedures. All parties interviewed had access to the City contractor and had favorable impressions regarding the response time and thoroughness of clean-up

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activities. In addition, the City has been proactive in establishing a fund to immediately clean up spills then seek reimbursement from responsible parties later, as appropriate.

The audit team has identified the following areas of potential permit violations and significant concern for the illicit discharge program.

**2.4.1 Potential Permit Violation: Failure to Sign Open Channels and Creeks (Permit Requirement Part 4.I.I)**

The City has not yet complied with the permit requirement in Part 4.I.I to post signs with prohibitive language discouraging illegal dumping along waterways and creeks. Such signs were not identified during the audit and, based on interviews with City personnel, the various City Departments had no knowledge of the permit requirement. Additionally, contrary to information provided in the Annual Report, the catch basin and inlet stenciling program has yet to be implemented on all inlets. Both the signage and inlet stenciling programs should be fully implemented, as the City is entering Year 3 of the permit cycle. Failure to sign all open channels, creeks and inlets is a violation of the permit.

**2.4.2 Potential Permit Violation: Modification to Existing Inlet Maintenance Database (Permit Requirement Part 4.I.F.4)**

The City is required in Part 4.I.F.4 to develop a database of inlet maintenance, which at a minimum, must include a record of catch basin clean-outs to indicate the quantity of trash removed, predominant types, and likely sources. In addition, a record of the amount of trash removed from open channels needs to be included in the database. The City has only recently started to compile information regarding the quantity, predominant types, and likely sources of trash as part of their catch basin cleaning program. This information needs to be incorporated into the existing database and field crews should be educated as to how this information may be helpful in assessing the effectiveness of their program. This information will likely be valuable in identifying priority areas. The City is in violation of their permit for failing to compile this information.

**2.4.3 Area of Significant Concern: Catch Basin Clean-out Schedule (Permit Requirement Part 4.I.F.3)**

Although the City was cleaning catch basins routinely based on a predetermined route and schedule (at least once per year and in most cases more frequently) and on an as-needed basis, the City needs to ensure that they comply with the cleanout schedules identified in the Part 4.I.F.3 of the permit. This part of the permit requires the City to clean out and inspect all City catch basins once between May 1 and September 30 of each year and to clean out all catch basins that are at least 40% full of trash and debris between October 1 and April 30 of each year. Field staffs responsible for these activities were unaware of these permit requirements. Information should be provided in the annual report to document adherence to the schedules set in the permit.

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## 2.5 Development Construction

The Department of Planning and Building is responsible for all stages of planning and building for projects within the City of Long Beach. The Department has produced several brochures to assist developers in understanding the various requirements, and has also published *Help for the Home Builder* – a guide to assist the homeowner through the permit, construction, inspection and completion process of the common building process. Staff responsible for reviewing plans are trained annually and detailed records of reviews of planning projects are kept by the City. The Department also conducts training for developers, with over 20 training sessions held in the past two years. Active construction sites are inspected more often than the permit requirement of at least once during the rainy season. In addition, projects where grading activities are taking place are inspected the day after a rain event to ensure BMPs are functioning properly.

### 2.5.1 Observation: NOI for Construction Activity

Before issuing a grading permit, the City is required to ensure that an NOI has been filed and a SWPPP prepared for construction activity disturbing greater than five acres. In March 2003, the threshold for State Construction permits will drop from five acres to one acre. The City should prepare for this change by ensuring that development brochures and City guidance manuals, including *Help for the Home Builder*, specifically mention the requirement for developers disturbing more than one acre (as of March 2003) to submit an NOI and develop a SWPPP.

## 2.6 Development Planning

The development planning requirements are found in Part 4.I.D of the permit. These requirements require the City to provide annual training to City employees engaged in development planning and to provide a developer information program. The permit also requires Standard Urban Storm Water Mitigation Plans (SUSMPs) for a select subset of projects. Long Beach has very little new development and, at the time of the audit, there had only been one SUSMP prepared.

The audit team has identified the following potential permit violation, significant concern and observation for development planning.

### 2.6.1 Potential Permit Violation: Planning and Development (Permit Requirement Part 4.I.D.1)

This requirement mandates that the City make modifications to their internal planning procedures not later than December 30, 1999 in order to include a requirement that storm water management guidelines be considered in preparing/reviewing CEQA documents and in linking storm water quality mitigation conditions to local discretionary project approvals. Such changes had yet to be implemented at the time of the audit. City personnel indicated that these changes are currently being made.

**2.6.2 Area of Significant Concern: Updates to General Plan (Permit Requirement Part 4.I.D.2)**

The permit requires the City to include watershed and storm water management considerations in the appropriate elements of the City’s General Plan whenever those elements are significantly rewritten. Several elements of the City’s General Plan are currently being revised, and it was not clear during the audit if watershed and storm water management activities are seriously being considered as part of this revision.

**2.6.3 Observation: Targeting BMPs to Water Quality Impairments**

As City staff review and approve development projects, greater care should be taken to ensure that storm water controls address the pollutants generated on-site and their impacts on receiving water quality impairment. Plan reviewers should receive training on how to select appropriate BMPs for major pollutant sources, as well as on how these specific sources may be contributing to the impairment affecting local receiving waters. This information could then be communicated to project proponents.

**2.7 Public Agency Activities**

Overall, the City’s public agency activities were in compliance with permit requirements. The Public Works Department had systematically incorporated a majority of the program requirements and BMPs within their construction permit review, issuance, and inspection process. The incorporation of these activities demonstrated a clear understanding of the goals of the storm water program. Through in-field spot checks of four different active public works projects selected by the City (Carson and I-605 overpass, Lakewood Blvd re-construct, and two paving projects), the implementation of appropriate BMPs were verified. In addition, the Department has conducted training for employees and keeps detailed records on active public works construction projects.

The audit team has identified the following potential permit violation for the public agency activities program.

**2.7.1 Potential Permit Violation: Public Works Construction (Permit Requirement Part 4.I.E.1)**

Although BMPs are implemented on-site, the Public Works Department does not prepare SWPPPs for Public Agency sponsored construction projects disturbing less than five acres, as the Department believes that these projects are exempt. Permit requirements for Public Agency Activities (Permit Requirement F) specifically state “requirements under the development planning and development construction sections of this Order shall apply to all applicable public agency development and construction projects.” The Public Works Department needs to require the preparation of a SWPPP for all projects disturbing more than one acre or for those projects located in environmentally sensitive areas (currently applies only to the Alamitos Bay area).

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## 2.8 Industrial Educational Site Visits

Under the Public Information and Participation section of the permit (Part 4.G.6), the City is required to conduct industrial/commercial educational site visits once every two years at all Phase I industrial facilities and non-Phase I facilities including vehicle repair shops, vehicle body shops, vehicle parts and accessory facilities, gas stations, and restaurants. The intent of the visits is to provide BMP and educational materials describing storm water requirements, notify Phase I facilities of their need to apply for a general permit, and conduct a site walk-through when requested to recommend BMPs. In addition, the permit requires the preparation of an annual update of the industrial/commercial facilities located in the City.

The audit team participated in two educational site visits during the course of the audit (Goodyear Tire and Auto Service Center and a Burger King restaurant). The in-field reviews indicated that City personnel responsible for the educational site visits for non-Phase I facilities did an excellent job of conveying the need, purpose, and goals of the City's storm water program. The delivery was direct and appropriate for the intended audience. Public education materials were targeted towards specific types of businesses and encouraged businesses to report illegal discharges to the appropriate City Department.

The audit team has identified the following significant concern for the educational site visit program.

### 2.8.1 Area of Significant Concern: Industrial Educational Program (Permit Requirement 4.I.G.6.a)

As part of the Industrial Educational Program, the City is required to notify Phase I facilities of specific requirements under the Statewide Industrial General Permit, including the requirements to file a NOI with the State Water Resources Control Board and to develop and implement a SWPPP. The SWPPP must be available on-site for review and needs to be frequently updated to reflect site conditions. Although the City was conducting the educational site visits for non-Phase I facilities, information about the Phase I industrial permit requirements was not included in the educational materials provided to facilities nor were the staff trained to identify Phase I facilities. As a result, field staff was not compiling a list of those facilities that were operating without a permit, as required in the City's permit.

The City needs to provide training to staff responsible for conducting educational site visits on the types of facilities that must be covered under the Statewide Industrial General Permit and the General Permit requirements. Specific attention should be directed to the identification and evaluation of Phase I facilities. Additionally, the City needs to ensure that all Phase I industrial facilities located within their jurisdiction are on their list of sites to visit. These facilities should be specifically identified in the database for ease of identification by field staff. Finally, the City should attempt to standardize the storm water information collection and recording process for their various staff responsible for conducting with educational visits (i.e., educational site visit staff, restaurant inspectors, and COUPA inspectors).

## 2.9 Reporting and Monitoring

The monitoring and reporting requirements of the permit are described in Part 3.III. The reporting requirements identify specific reporting items under each program area. The first annual report was submitted on December 1, 2000. The City is currently preparing the second annual report, which is due on December 1, 2001. Two monitoring reports have been submitted, with the most recent monitoring report submitted on July 12, 2001.

The audit team has identified the following potential permit violation and observations for reporting and monitoring.

### 2.9.1 Potential Permit Violation: Annual Report (Permit Requirement Part 3.III.A)

The City is not in compliance with the reporting requirements outlined in the permit. Although significant efforts (and resources) have been made to prepare an annual overview of the program, the City has failed to provide the required information that can be used to “assess the Permittee’s compliance status relative to this Order, and the effectiveness of implementation of permit requirements on storm water quality.” The annual report does not adequately comply with the following required permit elements:

- 2.a – status of compliance with permit requirements
- 2.b – assessment of the effectiveness of permit requirements
- 2.c - identify areas of the City that cause or contribute to exceedances of water quality standards of objectives... and potential sources of pollutants in those areas.

Additionally, the report fails to provide information on the vast majority of the specific items listed in Sections D (Illicit Connections), E (Development Construction), and F (Development Planning). For example, the Program Evaluation sections listed on pages 4-5 and 4-9 of the latest Annual Report provide vague information and do not comply with the reporting requirements of the permit.

These same violations were previously identified to the City in the LA RWQCB letter dated February 21, 2001. The City’s response (dated May 29, 2001) and observations made throughout the audit indicate that the City has access to the required information and that compliance with reporting and permit requirements could be achieved.

With respect to Fiscal Resources, the itemized storm water budget fails to provide the required estimated baseline budget.

### 2.9.2 Observation: Improved Annual Report

The cost and effort expended to develop the Annual Report could be significantly reduced if the City streamlined their process to report only those items specifically requested in the permit. This streamlined effort would provide the LA RWQCB with the information they specifically requested and would also focus the report on critical areas such as BMP and programmatic effectiveness. Currently, the report unnecessarily lists permit requirements and program material without attempting to demonstrate compliance or measure effectiveness. The City should

closely review the reporting requirements of the permit and the LA RWQCB’s February 21, 2001 letter for guidance.

**2.9.3 Observation: Monitoring (Permit Requirement Part 3.II.A.4-6)**

The City has not yet adequately attempted to determine and prioritize pollutants of concern, identify pollutant sources, or evaluate the effectiveness of existing BMPs. Although the Year 2 Monitoring Report and parking lot study indicate that progress is being made in this area, the City should attempt to correlate their discharge monitoring data with receiving water characteristics, specifically focusing on those water bodies listed as Threatened or Not Supporting in the latest 303(d) report. The City should more aggressively attempt to derive meaningful information from their monitoring efforts that will assist in the identification of pollutant sources and the effectiveness of existing BMPs to reduce concentrations and/or mass loadings of pollutants. If such information cannot be determined from the existing monitoring program, the monitoring plan should be modified to address these concerns.

Based on the fiscal resources reported in the latest Annual Report, Citywide budgeted expenditures totaled more than \$19 million dollars per year for storm water management. In order to make the best use of these resources, it is in the City’s best interest to actively attempt to identify pollutants of concern and their sources and to implement BMPs that will result in improvements in receiving water quality.

**2.10 Harbor Department**

The Port covers approximately 3,008 acres of land, 2,847 acres of which are accounted for by 10 operating piers. The Port property includes Port, tenant and privately owned facilities. The Port is included under the City’s MS4 NPDES permit program, but largely operates as an entity separate from the other City departments. In addition to being covered under the City’s MS4 NPDES permit, the Port also has NPDES Industrial Storm Water General Permit coverage for 55 industrial tenants on its property. The Planning Division of the Harbor Department coordinates the storm water management operations and participates in the Citywide Task Force.

Due to the size and complexity of the Port, audit activities were focused on the MS4 permit requirements and not on compliance with the industrial permit requirements or the Harbor Department’s ability to adequately control storm water discharges from its industrial tenants. Audit teams met with the Planning Division and visited the Harbor Department Maintenance yard, two tenant facilities (gas station and petroleum coke facility), a pump station, one small construction site and the large Pier T renovation project during the course of the audit. No terminals or tenant activities immediately adjacent to the water were visited.

Based on our cursory review, the audit team has identified the following potential permit violations and observation for the Harbor Department.

**2.10.1 Potential Permit Violation: Lack of Construction Oversight/Enforcement (Pier T) (Permit Requirement Part 4.I.E.2)**

US EPA ARCHIVE DOCUMENT

Significant earth moving, fill work and preliminary construction activities were observed at the Pier T development project with no implementation of BMPs to minimize or prevent storm water contamination. Storm drains were not protected and measures were not implemented to prevent inadvertent carry-off of dirt. Such measures could include placement of 25 feet of crushed rock on entry/exit points. Significant quantities of dirt were present in the streets and gutters of all entry/exit points observed.

Although exact specifications were not obtained, the Pier T redevelopment project is a large (approximately 500 acres) demolition, fill, and construction project. Harbor Department construction oversight/enforcement activities in regards to storm water were inadequate at this site.

Personnel indicated that although a SWPPP was prepared for the Pier T project, the SWPPP was not being implemented during the dry season. The Harbor Department’s lack of authority to ensure proper implementation of the SWPPP and applicable BMPs for this project was evident based on field observations and discussions with Department personnel. This site was referred to both the RWQCB and EPA for follow-up and potential enforcement activities.

**2.10.2 Potential Permit Violation: Hazardous Waste Exposed to Storm Water Runoff (Permit Requirement Part 4.I.F.10)**

Inspection of the Harbor Department Maintenance Division yard identified one 55-gallon barrel of hazardous waste stored outside without cover or secondary containment. The waste had been stored in excess of the 90-day storage period and was not located within either a designated satellite or central storage location. This violation of the NPDES permit and State and Federal Hazardous Waste regulations was brought to the immediate attention of the Harbor Department for correction.

**2.10.3 Observation: Coordinated Activities**

Based on preliminary observations made during the audit, the Port operates almost exclusively as a separate entity from City operations. Although they participate in the Citywide Task Force and cross communication appears to exist, monitoring, development planning, construction oversight, illicit connections and discharges, and to a lesser degree public information and participation program responsibilities do not appear to be well coordinated. For example, the monitoring programs and data sharing are not coordinated and the Port institutes their own method of identifying illicit connections and discharges. Although individual approaches may be effective for their particular environments, they may ultimately reduce the ability to share program information (e.g., illicit connection database, non-filers, BMP effectiveness), leverage resources (e.g., public information materials, storm sewer inspection program, educational site visits) and adhere and document compliance with the permit requirements.

Therefore, it is in the City’s and the Port’s best interests to actively attempt to coordinate activities that will have direct positive effects on program implementation. Continued failure to do so may result in the inefficient use of funds and may not result in achievable improvements in water quality.

### **3.0 Issues for Permit Reopener/Reissuance**

The following issues with the City's current NPDES MS4 permit were identified by the audit team and may be addressed when the permit is reopened or reissued. These permit issues will be addressed at the discretion of the LA RWQCB and do not necessarily represent action items for the City.

#### **3.1 Port Applicability within the City's MS4 Permit**

Due to the size, complexity and large amount of industrial and construction activity on-going at the Port, the LA RWQCB should consider issuing a separate NPDES permit to the Port to address the MS4, industrial, and construction storm water requirements. The Port acts as a large industrial landowner and separate entity under the City's current NPDES MS4 permit. Issuing a separate permit to the Port would place more accountability and responsibility of implementing the storm water program with the Port. If this proved infeasible or otherwise undesired, mandatory coordination and/or segregation of Port specific permit requirements should be incorporated into the permit.

#### **3.2 Inspections of Industrial Facilities**

The current permit requirement to conduct educational site visits once every two years at all Phase I industrial facilities, vehicle repair shops, vehicle body shops, vehicle parts and accessory facilities, gas stations, restaurants, and additional facilities identified as priorities by the LA RWQCB Executive Officer or the Permittee will be expanded when the next permit is re-issued to require inspections of these facilities. The current draft of the Los Angeles County MS4 NPDES permit requires each permittee to "implement an Industrial and Commercial Program with the objective of controlling and reducing pollutants in storm water runoff from Phase I, Automotive, RGOs and Restaurants to the maximum extent practicable." The City should begin taking the necessary steps to obtain the legal authority needed to implement such a program.

#### **3.3 Staged or Tiered Compliance Schedules for Permit Requirements**

Many of the current permit requirements do not set specific deadlines, implying that these requirements need to be completed by the end of the permit term. The lack of interim deadlines makes it difficult to evaluate progress in achieving these permit requirements. The permit should set staged or tiered compliance schedules for requirements to ensure that adequate progress occurs in program implementation over the course of the five-year permit term. The City may want to work with the LA RWQCB to identify priorities and to set realistic schedules.