City of Bell Gardens Sewer System Management Plan

July 2014 Five-Year Recertification per Water Discharge Requirements, State Water Resources Control Board adopted Water Quality Order 2006-0003



Prepared By:



1815 E. Heim Avenue, Suite 100 Orange, CA 92865 (714) 940-0100

City of Bell Gardens Sanitary Sewer Management Plan 2014 Update

Table of Contents

Introduction	1
Section I – Goals	3
Section II – Organization	5
Section III - Legal Authority	9
Section IV - Operations and Maintenance Activities	13
Section V - Emergency Response Program	18
Section VI - Fats, Oil and Grease (FOG) Control Program	22
Section VII – Design and Construction Standards	24
Section VIII – System Evaluation and Capacity Assurance Plan (SECAP)	26
Section IX – Monitoring, Measurement & Program Modifications	30
Section X – SSMP Audits	33
Section XI – Communication Program	35
Appendices	

Introduction

Regulatory Overview

The State Water Resources Control Board (State Water Board) adopted Water Quality Order 2006-0003, on May 2, 2006, requiring all public agencies that own sanitary sewer collection systems greater than one mile in length to comply with the Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems. All public agencies must apply for coverage by November 2, 2006, by completing the notice of intent (NOI) and legally responsible official (LRO) forms that the State Water Board distributed.

The intent of the WDR is to provide consistent statewide requirements for managing and regulating sanitary sewer systems throughout California. The State Water Board recognized a need to provide this consistent regulatory measure because many of the Regional Water Boards were beginning to implement similar measures inconsistently throughout the State, which was creating confusion in the discharger community. The State Water Board believes that providing a consistent regulatory measure that identifies regulatory expectations and comprehensive sanitary sewer overflow data will ultimately yield better collection system management and performance.

There are three major components to the WDR, including:

- Sanitary Sewer Overflow (SSO) Prohibitions;
- o Sanitary Sewer Management Plan (SSMP) Elements; and
- SSO reporting.

While there are many other relevant components and findings within the WDR, the major components identified above represent most of the State Water Board's regulatory expectations for the implementation of the WDR. This regulatory audit is intended to provide an analysis of the current programs and practices within the City of Bell Gardens that address the above issues. The City's SSMP was developed and approved by City Council in July 2009 and provided recommendations to ensure the development of appropriate SSMP programs and an appropriate time schedule necessary to comply with the WDR. Pursuant to Sub- Section D. 14 PROVISIONS of the WDRs, the City is required to update the SSMP every five years, hence to remain compliant, this document serves as the update and re-certification of the 2009 SSMP.

The City of Bell Gardens is a part of the Consolidated Sewer Maintenance District (CSMD), and currently contracts with Los Angeles County Department of Public Works (LADPW) for their sanitary sewer cleaning and industrial waste enforcement. Additionally, as a part of the CSMD, the City is included in the County's Accumulative Capital Outlay Program (ACO Program). The ACO program identifies, rehabilitates and reconstructs sewer pipes within the CSMD that have structural deficiencies. However, it is still the responsibility of the City to implement recommendations identified herein that are not covered by CSMD.

Prohibitions

Section C of the WDR identifies and prohibits SSOs that results in a discharge of untreated or partially treated wastewater to waters of the United States and/or creates a nuisance as defined in California Water Code (CWC) Section 13050(m) is prohibited. CWC section 13050, subdivision (m), defines nuisance as anything which meets **all** of the following requirements:

- a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- c. Occurs during, or as a result of, the treatment or disposal of wastes.

Since the State Water Board has not specifically defined SSOs that are subject to this prohibition and criteria for determining whether or not an SSO violates the above prohibition, the State and/or Regional Water Board will consider potential violations on a case-by-case basis. In general however, if an SSO results in a discharge to a surface water or drainage channel, the Water Board will consider this a discharge to Waters of the US. Additionally, if an SSO reaches an enclosed storm drainage pipe, and the SSO was not fully contained, captured, and pumped back into the sanitary sewer system, the Water Board will generally assume that the SSO reached a water of the US. In both cases the SSO will probably result in a violation of the WDR prohibition.

Determining whether an SSO created a nuisance is even more problematic and subjective. Again, since the State Water Board has not specifically defined SSOs that are subject to the nuisance prohibition and criteria for determining whether or not an SSO is in violation of this prohibition, the State and/or Regional Water Board will consider violations on a case-by-case basis.

In both cases, while reporting SSOs, determining whether or not the SSO violated the prohibition is not up to the reporting Agency. It is the enforcement agency's responsibility to determine compliance with the WDR.

Section I - Goals

Waste Discharge Requirements

This section describes the goals of the Sewer System Management Plan (SSMP), which is to provide a documented plan that describes all collection system activities and programs employed by an agency to ensure proper management of all collection system assets. Implementing an SSMP will ensure proper management, operation, and maintenance of all parts of the sanitary sewer system, ultimately helping to reduce and prevent SSOs, as well as mitigate any SSOs that do occur including meeting all applicable regulatory notification and reporting requirements. The box below contains specific language regarding the Goals requirement of the WDR.

Section D.13(i) - Goal: The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

Commitment to continual improvement will also ensure that the SSMP is both a living and sustainable document that is continually updated, revised, and tailored towards the City's needs. The City is required to comply with the "State Water Resources Control Board (SWRCB), Order No. 2006-0030 DWQ" (Order) on General Waste Discharge Requirements for publicly owned sewage collection agencies having more than one mile of collection pipelines.

This section describes the City's stated goals of the SSMP and is intended to clarify the City's desired level of service that it is providing to its customers. Typically, high level statements regarding the overall management of a system includes a vision and mission statement, as well as a statement of short and long term goals.

Statement of Goals

- The City will comply with the requirements of the WDR, including requirements for reporting, developing, implementing and updating a SSMP;
- City shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the City will continue to employ the steps to contain and mitigate the impacts of an SSO.
- In the event of an SSO, the City will continue to take reasonable steps to prevent untreated or partially treated wastewater from discharging from storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

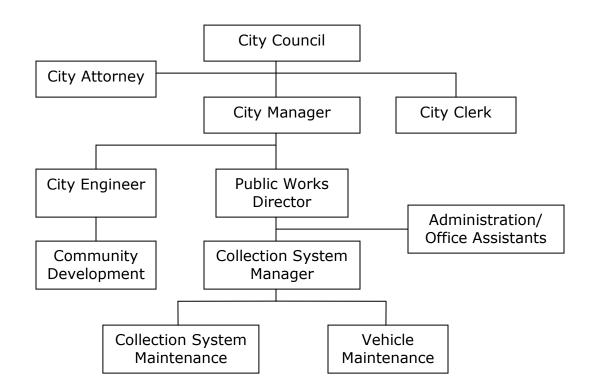
- The City will continue to always try to identify the cause or likely cause of the discharge event;
- When a sanitary sewer overflow occurs, the Enrollee will continue to take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.
- The City will continue to provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the City.

Section II – Organization

This element of the WDR describes both the organizational structure of the City as well as activities, duties, and responsibilities for individuals and positions associated with the sanitary sewer system. This section should include typical positions and their associated activities, duties, and responsibilities. The box below contains specific language regarding the Organization requirement of the WDR.

- D.13 (ii) Organization: The SSMP must identify:
 - (a) The name of the responsible or authorized representative as described in Section J of this Order.
 - (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
 - (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

Clearly identifying specific roles and responsibilities within an organization will ensure an a clear understanding of duties that must be performed, as well as training and skill sets that are associated with specific jobs throughout the agency. Typical position and associated responsibilities include:



City Council

Establishes policies, reviews and accepts formal plans, sets overall City direction, authorizes funds for projects/plans/programs, general overview of upper management (Mayor, City Manager, City Attorney), conducts public meetings and hearings, approves SSMP.

City Attorney

The City's attorney develops and approves legal documents, provides legal advice, conducts litigation, and attends public meetings.

City Manager

Responsible for the day-to-day management and operation of the City under the direction of the City Council. Specifically the City Manager establishes procedures, plans strategy, leads staff, allocates resources defined in the City budget, delegates responsibility, authorizes outside contractor to perform services, and serves as overall public information officer.

City Engineer

Responsible for the development and implementation of city design and construction standards. Quite often responsible for 3rd party plan check as well as construction and building inspection. Provides engineering drawings, plans, and specifications for projects within the city. Also is responsible for developing or overseeing engineering studies such as hydraulic modeling, master planning, and CIP program development.

Public Works Director

Responsible for the management and operation of the Public Works Department, including the operation and management of the sanitary sewer system. Reports to the City Manager

Collection System Manager

Responsible for the operation and maintenance activities of the sanitary sewer system, including direct supervision and scheduling of all maintenance crews, and regularly scheduling maintenance activities. Coordinates filed operations and prepares and implement overflow emergency response plan, leads emergency response, investigates and reports SSOs and trains maintenance workers and field crews. The City of Bell Gardens is a part of the Consolidated Sewer Maintenance District (CSMD), and currently contracts with Los Angeles County Department of Public Works (LADPW) for their sanitary sewer cleaning and industrial waste enforcement. Additionally, as a part of the CSMD, the City is included in the County's Accumulative Capital Outlay Program (ACO Program). The ACO program identifies, rehabilitates and reconstructs sewer pipes within the CSMD that have structural deficiencies.

Maintenance Workers

Staff preventative maintenance activities, report condition of City assets, mobilize and respond to notification of stoppages and SSOs, and mobilize sewer-cleaning equipment and by pass pumping equipment. As mentioned previously, the City of Bell Gardens is a part of the CSMD, and currently contracts with LADPW for their sanitary sewer cleaning and industrial waste enforcement. Additionally, as a part of the CSMD, the City is included in the County's ACO Program.

Office Assistant

Responsible for receiving maintenance calls and complaints and dispatching maintenance workers to perform emergency operations. Also responsible for initiating records within the agencies tracking system for SSOs and other related events.

The City has developed an organizational document that defines the roles and responsibilities for all City Employees and other parties that are responsible for carrying out activities associated with sanitary sewer system. This document includes duty statements, job performance requirements, and other pertinent information necessary to clearly communicate roles, responsibilities, skill sets, licensures, and training needed to carry out specific job related duties. Furthermore, it is recommended to change the name of the Legally Responsible Official to the current City Manager, Philip Wagner.

City of Bell Gardens Sanitary Sewer Management Plan 2014 Update

Section II

The City has created a clear and concise protocol regarding initial SSO notification, emergency response, reporting, and certification. All procedures are written and communicated to all parties that are involved with SSO response, notification, and reporting. Emergency contact telephone numbers have been distributed to the public, public agencies that may be involved with response to SSOs (fire, police, public health, regional board, etc...), and all appropriate City staff. Procedures that identify communication paths between the City and any other city contractor (including LA County Department of Public Works and other City contractors), have been developed, and communicated to ensure proper implementation, training, and revisions if needed.

Section III - Legal Authority

Waste Discharge Requirements

This section of the SSMP discusses the City's Legal Authority, including its municipal code and any agreements with other agencies. This section fulfills the legal authority requirement as described in the Waste Discharge Requirements (WDR). The box below contains specific language regarding the Legal Authority requirement of the WDR.

- D.13 (iii) **Legal Authority:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:
 - (a) Prevent illicit discharges into its sanitary sewer system (examples may include Infiltration/Inflow (I/I), stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
 - (b) Require that sewers and connections be properly designed and constructed;
 - (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
 - (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
 - (e) Enforce any violation of its sewer ordinances

Municipal Code

After careful review of Chapter 11 (Health and Sanitation), Section 11.08 entitled "Sanitary Sewers and Industrial Wastes", the City of Bell Gardens has adopted Division 2, entitled "Sanitary Sewers and Industrial Waste" of Title 20, Utilities of the Los Angeles County (LACO) Code by reference. The City's Wastewater Ordinance is included in Appendix A of this SSMP.

The following sections are excerpts from LACO code's Title 20 and LACO Plumbing Code (Title 28) that address various issues required by the WDR and are provided for reference only.

Prevention of Illicit Discharges

The LACO Plumbing Code Title 28 has language prohibiting illicit discharges. The specific purpose is to prevent the discharge of any pollutant into the sanitary sewer system that would obstruct or damage the collection system, interfere with treatment, or threaten harm to human health or the environment. Examples of discharges covered are listed below.

- Storm water and I/I The LACO Plumbing Code Title 28 (Sections 306.2, 714.2, and 1101.2) prohibits the unauthorized discharge of rain, surface, or subsurface water into the collection system. The Consolidated Sewer Maintenance District (CSMD) has an I/I control program under the CSMD's ongoing sewer line cleaning and maintenance program, which includes closed-circuit television (CCTV) and other mechanisms to detect I/I. By ordinance, the LACO Board of Supervisors has established a financial plan to ensure capital replacement or rehabilitation of sewer lines prone to I/I within the CSMD (LACO Code, Section 20.40.045).
- Industrial Waste The LACO Code (Section 20.20.160) defines industrial waste as "any and all waste substances, liquid or solid, except domestic sewage, and includes among other things radioactive wastes and explosive, noxious or toxic gas when present in the sewage system." Section 20.36.010 prohibits the discharge or deposit at any time, or allows the continued existence of a deposit of any material which may create a public nuisance, or menace to the public health or safety, or which may pollute underground or surface waters, or which may cause damage to any storm drain channel or public or private property.
- Other Discharges The illegal dumping of offensive or damaging substances such as chemical debris, etc., which are considered inflows, are prohibited by Los Angeles County Code, Section 20.36.010.

Proper Design and Construction of Sewers and Connections

The LACO Code sections 20.32.330 and 20.32.340 require that the design of new sewer lines be in conformity with requirements of Part 3 of Chapter 20.32 of the Code. Similarly, Section 20.32.350 of the LACO Code requires that the design of new house laterals conform to the requirements of Part 3, Chapter 20.32 of the Code unless otherwise covered by the LACO Plumbing Code, Title 28. The collection sewer system, by law (LACO Code 20.32.580), is required to conform to all the requirements prescribed by division 2 of the LACO Code, by the Standard Specifications for Public Works Construction (Green Book) and by the Special Provisions and Standard Plans. The inspection and construction of mainline sewers to ensure proper construction is covered under Section 20.32.590 of the LACO Code. The construction of house laterals is covered under the LACO Plumbing Code.

Lateral Maintenance Access

The LACO Code Section 20.24.080 states that "All house laterals, industrial connection sewers, and appurtenances thereto existing as of January 23, 1953, or thereafter constructed, needs to be maintained by the owner of the property served in a safe and sanitary condition, and all devices or safeguards which are required by this Division 2 for the operation thereof needs to be maintained in good working order."

Limit Discharge of FOG and Other Debris

The Director of Public Works under the LACO Plumbing Code, Title 28, has the legal authority to require the installation of grease interceptors at restaurants and other food establishments that generate grease. Section 20.36.560 of LACO Code also gives the Director of Public Works the authority to require the installation of treatment facilities, including grease interceptors at any facility that generates FOG in the amount that will damage or increase the maintenance costs of the sewer collection system. A list of these grease producing facilities are included as Appendix B.

The LACO Code Section 20.24.090 gives the Director of Public Works the legal authority to inspect mainline sewers, interceptors, etc., as often as he deems necessary, to ascertain whether such facilities are maintained and operated in accordance with the provisions of Division 2 of the LACO Code. Section 20.36.400 of the LACO Code prohibits the discharge of FOG and other substances that may, among other things, clog, obstruct, fill, or necessitate frequent repairs, cleaning out, or flushing of sewer facilities in the sewer system.

Enforcement Measures

Under Section 20.24.100 of the LACO Code, the Director of Public Works is empowered to enforce all of the requirements prescribed in Division 2 of the LACO Code and in accordance with Section 20.24.110 may delegate this authority. LACO Code Section 20.24.160 allows criminal penalties for any violations of Division 2 of the LACO Code. Additionally, the municipal code includes enforcement measures in Section 11.08.090 (Violations and Penalty) which states:

Every person who violates any of the provisions of the sanitary sewer and industrial waste ordinance of the city of Bell Gardens is guilty of a misdemeanor and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of the ordinance is committed, continued or permitted, and upon conviction is punishable by a fine of not exceeding \$1,000 or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

Agreements with Other Agencies

As noted in the municipal code section of this SSMP, the requirements for legal authority are fulfilled by the adoption of Division 2, Title 20 of the LACO Code in the City's municipal code. However, the City has an additional agreement with the County of Los Angeles which is described in this section.

City of Bell Gardens Sanitary Sewer Management Plan 2014 Update

Section III

Agreement with the County of Los Angeles

The City has entered into an agreement with the County of Los Angeles for the conveyance, treatment and disposal of wastewater.

Control of Infiltration/Inflow from Satellite Collection Systems

Sewer facilities from the CSMD that drain into the City of Bell Gardens sewer facilities have been identified and therefore can be considered a satellite collection system of the City. All monitoring, evaluating and reporting of discharge measurements is the responsibility of the County according to the agreement with the County of Los Angeles mentioned in the previous section.

Section IV - Operations and Maintenance Activities

Waste Discharge Requirements

This section of the SSMP discusses the existing City operations, maintenance and other related measures and activities. As the WDR requirements continue to unfold, the City should consider developing a basic Operations and Maintenance program to supplement LADPW's program. Many of these recommendations have been outlined in the Sanitary Sewer Master Plan, the results which can be considered as additions or in some cases replacing the current operations and maintenance program. This section fulfills the Operation and Maintenance Program SSMP requirement as described in the Waste Discharge Requirements. The box below contains specific language regarding the Operations and Maintenance Activities requirement of the WDR.

- D.13 (iv) **Operation and Maintenance Program:** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:
 - (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
 - (b) Describe routine preventative operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
 - (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation.

 Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
 - (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance and require contractors to be appropriately trained; and
 - (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

Collection System Map

The City does have its own automated set of collection system maps that have been developed in a GIS system and updated annually, by *AAE*. Additionally, all of Bell Gardens' as-built drawings have been scanned and "hot linked" to each sewer collection system for easy reference, by *AAE*. Exhibit 1 shows an example of the as-built to sewer line "hotlink".

BellGardensWDRSewerMap.mxd - ArcMap - ArcEditor 👱 🎣 🔊 🚳 🖸 🎀 🗒 🛮 Layer: 📀 Manholes © Georeferencing ▼ Laye 0 ** GAGE 50 8mg **◎** ← □ Parcels EASTERNAY = B 4 Na K 🗊 1083-8-2.tif - Microsoft Office Document Imaging File Edit View Page Tools Window Help 😅 🖫 🎒 🔊 🖂 🐵 🙌 警 🗫 Page: 1 of 1 ▼ Q Q A A A A P - A - ■ ■ E ₩ (") Zoom: 66 %

A map of the collection system is included as Appendix C of this SSMP.

Exhibit 1
Sewer Line and As Built Hotlink

Mapping of Sanitary Sewer Overflows

The locations of SSO occurrences are plotted annually on a CSMD-wide map. The causes of the SSO are also recorded. These maps are used for establishing SSO patterns, identifying hot spots as indicated by clusters on the map, and scheduling work assignments and providing information on SSO activities to the City.

The monthly numbers of SSOs are also depicted in charts and graphs by the County. The charts are used to identify SSO trends and as an indicator of I/I problems that need to be corrected. The graphs are used to identify SSO trends and to evaluate overall SSMP program success.

Preventive Maintenance Program

As part of the CSMD, the City relies on LADPW for provide maintenance for the sewer system on an as needed basis. According to LADPW, they perform regular inspection of the sewer system including manholes, pipes, siphons, as well as regular cleaning, repair, and related activities. During the last CCTV survey, performed by AAE, blockages were identified in sewer pipes at various locations due to tree roots or grease. The City provided LADPW with a list of these pipes and LADPW has cleared these blockages and cleaned the pipes.

LADPW also has a regular cleaning schedule for the sewer pipes within the City. Sewer pipe segments and siphons have been placed on a routine cleaning program with a frequency that ranges from 30 days to 180 days depending on the severity of maintenance issues impacting the pipes. This cleaning schedule is included in this report as Appendix E.

Sanitary Sewer Evaluation Study (SSES)

The City contracted with AAE to complete a comprehensive sanitary sewer system master plan in 2007. Based on the results and recommendations of this report, the City then adopted a sewer rate to generate the needed revenues for implementing the Capital Improvement Projects (CIP) portion of the report. The City has asked AAE, Inc. to develop the system-wide CIP program to address the hydraulic and structural deficiencies identified in the sanitary sewer master plan. Approximately nine percent of the sewer system was televised for the master plan.

Additionally, as a result of the sanitary sewer master plan performed by AAE for the City of Bell Gardens, and the results of the I/I analysis, a set of recommendations was developed to help pinpoint and ultimately reduce the amount of I/I in the system. These are mostly field work, some of which are not currently performed by LADPW. These activities become more critical in terms of monitoring, and measuring the success of the City's sanitary sewer rehabilitation activities, which is part of the Sanitary Sewer Management Plan requirements.

Rehabilitation and Replacement Plan

The LADPW is planning several short term and long term sewer facilities assessment and rehabilitation programs called the Accumulative Capital Outlay Program (ACO Program). In 1987, the County Board of Supervisors established the Accumulative Capital Outlay (ACO) Fund to finance sewer rehabilitation projects within the CSMD.

In compliance with WDR's all sewer pipe segments within the CSMD found to have structural deficiencies will continue to be rehabilitated or reconstructed under LADPW's ACO program. In the 2007 Sewer Master Plan, *AAE* identified hydraulically and structurally deficient pipes that were recommended for replacement and provided a 10-Year Capital Improvement Plan (CIP) based on improvement priorities.

Contingency Equipment and Replacement Inventories

LADPW has a comprehensive equipment maintenance program. Equipment is regularly checked, adjusted, repaired or replaced as necessary. However, major fixed assets are replaced when they meet or exceed the Department's established fixed assets replacement criteria based on age of the equipment, mileage, hours of use, repair history etc.

Equipment categorized as class 9 (less than ½ ton) or lower is automatically replaced by the Fleet Management Group of the Department when it meets the replacement criteria. The request to replace equipment higher than class 9 is made as part of the CSMD annual budget. In addition to the above replacement criteria, an analysis and recommendation by trained staff of LADPW and approval by Department administration are required to replace equipment higher than class 9.

These criteria notwithstanding, a piece of equipment can also be replaced if its reliability or safety of operation becomes questionable. New and additional equipment are also acquired when fully justified based on increased workload, new activity, additional personnel, technological improvements, time savings, cost savings, employee or public safety requirements etc.

Training

All personnel responsible for the operation and maintenance of the sewer collection system are required to undergo formal training, as per SWRCB requirements. Therefore, LADPW staff responsible for the operation and maintenance of the sewer collection system and the inspectors attend formalized collection training classes or seminars given by other agencies including California Occupational, Safety and Health Administration (CALOSHA), California Water Environment Association (CWEA), International Brotherhood of Electrical Workers etc. This is to keep them abreast with the latest technology in the industry on how to safely and efficiently carry out their tasks. The District also utilizes informal training approaches, such as tailgate meetings, monthly safety meetings and apprenticeship training program from higher level staff

Additionally, only companies with well trained and experienced staff are considered for either emergency SSO mitigation or sewer construction or rehabilitation work.

Section V - Emergency Response Program

Waste Discharge Requirements

This section of the SSMP provides an overview and summary of the recommended City emergency response documents and procedures for sanitary sewer overflows. The City's Sewer System Maintenance, Overflow and Spill Prevention Plan can be found in Appendix D. This section fulfills the Overflow Emergency Response Plan requirement as described in the Waste Discharge Requirements. The box below contains specific language regarding the Overflow Emergency Response Plan requirement of the WDR.

- **D. 13 (vi) Overflow Emergency Response Plan -** Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:
 - (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
 - (b) A program to ensure an appropriate response to all overflows;
 - (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
 - (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
 - (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
 - (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

Section V

Overflow Response Procedure

Bell Gardens is part of the CSMD. If a report of an SSO is received by staff at the City of Bell Gardens, City staff immediately investigates the spill to determine if it is an SSO and then contacts the appropriate LADPW staff. LADPW provides 24-hour emergency services to investigate and/or correct complaints from citizens. The LADPW 24-hour emergency telephone number is 1-800-675-HELP (4357). Personnel are available 24-hours each day of the year to receive and act on any calls or automated alarms related to problems in the sewer system, including overflows. During business hours, emergency calls are received by the Public Works Operator. The Operator will call and dispatch the nearest Sewer Maintenance crew to the problem site. For after hour emergencies, the Operator will call the Sewer Maintenance Superintendents or Supervisors in the order listed on the Emergency Home Telephone List. The Superintendent or Supervisor who receives the emergency call will investigate the complaints and take appropriate action including immediate dispatch of a standby crew with necessary equipment to take care of the problem.

As contained in the CSMD overflow response instruction manual, the crew responding to an overflow emergency is required to stop the overflow, contain it if possible, and ensure that the facility or area is cleaned up and returned to normal operation. Residents in the immediate vicinity of the overflow are informed of the cause of the problem and the remedial action taken. The County Health Department is notified of all overflows and if the overflow exceeds 1,000 gallons and or reaches the storm drain system, the Regional Water Quality Control Board and the State Office of Emergency Services are notified. LADPW Flood Maintenance District (FMD) is notified of all overflows that discharge into the storm drain system. The role of FMD is to assist in tracing and capturing the spill as much as possible before it reaches the waters of the United States. The agencies to be notified, method and time frame for notification are presented in Table 1. The phone/fax numbers of the agencies are presented on section Table 2. The relevant data about the overflow such as location, volume, agencies notified, etc. is recorded in field report forms and later stored in the computer. All field personnel are trained to be conversant with these procedures and to accurately report of SSO incidents.

Table 1
Regulatory Agencies Notification Procedures and Time Frames

SSO	Type or Description	cription Agencies to be Notified Type of Notification and Timeframe		
Category			Telephone/Fax	Written Report*/Online Database
1	A. SSO <u>> 1,000</u> gallons	Health Department	As soon as possible, but no later than 2 hours after becoming aware of the spill.	N/A
	B. Results in discharge to drainage channel and/or surface water	Flood maintenance Division	As soon as possible, but no later than 2 hours after becoming aware of the spill.	N/A
	Discharge to a storm drain and not fully captured and returned to the sanitary sewer system	RWQCB (Region 4)	As soon as possible, but no later than 2 hours after becoming aware of the spill.	Certify that the notification has been made ASAP, but no later than 24 hours after becoming aware of the spill.
		OES	As soon as possible, but no later than 2 hours after becoming aware of the spill.	N/A
		SWRCB	As soon as we become aware of the SSO, reporting is possible and can be provided without substantially impeding cleanup or other measures.	Online Initial Report – ASAP, but no later than initial 3 business days after we are made aware of it. Final Online Certified Report – Within 15 calendar days on conclusion of the SSO response and remediation. Additional Information – Anytime in form of an attachment.
2	All other SSOs resulting from the sanitary sewer system	Health Department RWQCB (Region 4) OES SWRCB	Same as above Same as above Same as above N/A	N/A Same as above N/A Online – Within 30 days after the end of the calendar month in which the SSO occurred.
3	Private lateral sewage discharge caused by blockages or other problems within a privately owned lateral	Health Department RWQCB (Region 4) OES SWRCB (Optional)	Same as above Same as above Same as above N/A	N/A Same as above N/A N/A
N/A	No SSO in a calendar month	SWRCB	N/A	Online Database Certified – Within 30 days after the end of the calendar month, certified statement that no SSO occurred.

Table 2
Agencies Telephone/Fax Numbers

Agency	Contacts	Hours of Operation
County Health Department	(213) 974-1234	Answered on a 24 hour, 7
		day a week basis
State Office of Emergency	1-800-852-7550	Answered on a 24 hour, 7
Services		day a week basis
Los Angeles Regional Water	Phone: (213) 576-6600	Answered only during normal
Quality Control Board	Fax: (213) 576-6650	working hours
(Region 4)		
Flood Maintenance Division	Phone: (626) 445-7630	Answered only during normal
(East Area)	Phone: (626) 798-6761	working hours
State Water Resource	Online database	
Control Board	website address	

Procedure to Ensure Staff and Contractors are Aware and Properly Trained to Follow the Emergency Response Plan

The CSMD Emergency Response Plan is available to key personnel who are responsible for managing or responding to SSOs. Copies of the Districts' instruction manuals are available to field crews and engineers at the LADPW office who manage or have the role of preparing SSO reports to regulatory agencies. All contractors doing emergency sewer repair or other sewer related construction work for the CSMD are required to comply with the Employee and Public Safety, SSO Notification and Reporting Provisions of their agreement with LADPW. They are also required to have employees that are adequately trained and well equipped. The contractors' construction activities are regularly monitored by LADPW engineers and inspectors to assure compliance with these requirements.

Procedures to Address Emergency Operations such as Traffic, Crowd Control, and other Necessary Response Activities

The CSMD field personnel and the staff of the emergency contractors retained by LADPW for SSO responses are well trained in traffic and crowd control. The Districts' vehicles are well equipped with traffic and crowd control tools, including orange traffic control cones, yellow tape, flashing lights, high visibility yellow uniforms, etc.

Program to Eliminate or Minimize the Discharge of SSOs into Waters of the United States

The CSMD and emergency contractors' crews retained by LADPW are properly trained on methods and procedures to prevent or limit the amount of SSO into waters of the United States and how to mitigate their impacts. Some of the methods include the use of sand bags to contain SSOs, absorbent socks to prevent SSO discharge into storm drain catch basins, and the use of vacuum trucks to suck up contained spills and dump effluent back into the collection system at other safe locations. The CSMD have the reduction of response time for SSO as one of the major goals. Reducing response time would significantly limit the amount of SSO that reaches the waters of the United States.

Section VI - Fats, Oil and Grease (FOG) Control Program

Waste Discharge Requirements

Currently, the City of Bell Gardens does not have a major FOG problem. This section of the SSMP discusses recommended FOG control measures, including identification of potential problem areas, focused cleaning, and source control. This section fulfills the FOG control requirement as described in the Waste Discharge Requirements. The box below contains specific language regarding the FOG Control Program requirement of the WDR.

- **D. 13 (vii) FOG Control Program** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The plan shall include the following as appropriate:
 - (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
 - (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
 - (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
 - (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
 - (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
 - (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
 - (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

FOG Control

The City recognizes the importance of a FOG control program. As previously mentioned in the Legal Authority section of this document, the City entered into an agreement with the County of Los Angeles to permit, track, inspect, and ensure compliance with the City's Sanitary Sewer and Industrial Waste Ordinance at industrial and commercial facilities within the City. This includes the annual inspection of grease producing facilities and their grease removal devices.

LADPW currently performs most of the FOG related responsibilities for the cities within the CSMD. As such, solidified fats found in the collection system during LADPW cleaning operations are trapped, collected and taken to their maintenance yard bins for disposal. FOG in liquid form is flushed by hydro jetting to the downstream treatment facilities for treatment and disposal. FOG prone sections of the sewer system, otherwise called "hot spots", are identified by LADPW throughout the CSMD during routine maintenance operations and investigation of stoppages and SSOs. Those portions of the sewer system found to have persistent FOG problems are put on monthly, quarterly or semi annual periodic cleaning schedule, depending on the magnitude of the problem.

Continued corroboration with LADPW will serve to meet many of the FOG program requirements described in the WDRs through regular inspections of industrial and commercial facilities.

Legal Authority

Since the City has adopted the LACO Sanitary Sewer and Industrial Waste Ordinance, there are legal measures that are available to the City to control sources of FOG. Additionally, the City has an agreement with the County for the inspection of grease producing facilities and the grease interceptors that are installed at these facilities. LADPW currently inspects grease-producing facilities in the City and their grease removal device cleaning logs annually.

Public Outreach

LADPW has developed outreach programs about FOG and other SSO prevention measures mainly through brochures, and newsletters.

<u>Section VII – Design and Construction Standards</u>

Waste Discharge Requirements

This element of the SSMP discusses the City's design and construction standards, included within its municipal code. Development of standards for the design, construction, inspection, testing and acceptance of new, rehabilitated, or repaired portions for the collection system is crucial to ensure a safe and reliable collection system. The box below contains specific language regarding the Design and Construction Standards requirement of the WDR.

D.13 (v) Design and Performance Provisions: :

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- (b) Procedures and standards for inspecting and resting the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

Design and Construction Standards and Specifications

City of Bell Gardens utilizes LACDPW design standards. The LACDPW has Standard Plans and Specifications for the Construction of Sanitary Sewers and appurtenances to ensure that sewer lines and connections are properly designed and constructed. The LACDPW specifications by reference incorporate the Standard Plans and Specifications for Public Works Construction, Special Provisions, and Standard Drawings. In addition, LACDPW has other publications such as the Private Contract Sanitary Sewer Procedural Manual, Guidelines for the Design of Pump Stations etc. to ensure consistency in the design of collection systems within the CSMD. To further ensure that sewer facilities are properly designed and constructed, LACDPW requires that plans are designed by licensed engineers and provides thorough review of plans prior to approval for and conducting inspection of construction work.

The City has entered into an agreement with Los Angeles County for the enforcement of the City's wastewater ordinance. Since the City has adopted Division 2, titled "Sanitary Sewers and Industrial Waste" of Title 20, Utilities of the Los Angeles County (LACO) Code by reference, and is a part of the CSMD, the County Department of Public Works retains full control and discretion over the manner of providing services related to the City's sanitary sewer system. Therefore, all design and construction standards and specifications are contained within the LACO Code. The following section is an excerpt from LACO code's Title 20 and LACO Plumbing Code (Title 28) that apply to the proper design and construction of sewers and connections:

City of Bell Gardens Sanitary Sewer Management Plan 2014 Update

Section VII

The LACO Code sections 20.32.330 and 20.32.340 require that the design of new sewer lines be in conformity with requirements of Part 3 of Chapter 20.32 of the Code. Similarly, Section 20.32.350 of the LACO Code requires that the design of new house laterals conform to the requirements of Part 3, Chapter 20.32 of the Code unless otherwise covered by the LACO Plumbing Code, Title 28. The collection sewer system, by law (LACO Code 20.32.580), is required to conform to all the requirements prescribed by division 2 of the LACO Code, by the Standard Specifications for Public Works Construction (Green Book) and by the Special Provisions and Standard Plans. The inspection and construction of mainline sewers to ensure proper construction is covered under Section 20.32.590 of the LACO Code. The construction of house laterals is also covered under the LACO Plumbing Code.

Procedures and Standards for Inspection and Testing New and Rehabilitated Sewer Facilities

City of Bell Gardens follows LACDPW construction standard guidelines. The LACDPW provides inspection for the installation of new and rehabilitation of deteriorated collection sewer facilities in the City. The LACDPW inspectors are well trained in pipeline construction. They attend training classes and educational seminars to stay familiar with advancements in the industry. The inspectors are also provided with adequate materials to perform their jobs, including the Standard Specification for Public Works Construction Inspection Manual, the Green Book etc. LACDPW requires the preparation and submittal of "As-Built" plans of completed projects prior to final approval and acceptance of the project as public infrastructure.

The SMD policy also requires that all new or rehabilitated pumping stations be inspected by experienced SMD Electro-mechanics prior to acceptance for maintenances by the Districts. The SMD also require all sewer lines rehabilitated by lining be televised and the tape reviewed by Districts' personnel prior to acceptance of completed project.

<u>Section VIII – System Evaluation and Capacity Assurance Plan</u> (SECAP)

Waste Discharge Requirements

An important step in attempting to minimize the amount of SSOs in a given system, one must determine how the system will react to different conditions and stresses. Once this is achieved, City officials can identify areas in need of improvement and prioritize projects for a capital improvement program. This element of the SSMP discusses the City's capacity management measures, including the most recent Master Plan and recommended capacity improvement projects. The box below contains specific language regarding the System Evaluation and Capacity Assurance Plan requirement of the WDR.

D. 13 (viii) System Evaluation and Capacity Assurance Plan:

The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- (a) **Evaluation**: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14

System Capacity Evaluation

The City completed a Sanitary Sewer Master Plan in 2007 which included a capacity evaluation and identified capacity-related improvement projects. The Master plan consisted of data collection and mapping, modeling of the system and the development of a Capital Improvements Program (CIP).

The Sewer Master Plan was limited to the 237,282 linear feet of gravity sewer mains, ranging in size from 8 to 21 inches in diameter, within the City boundary that eventually drain to the City of South Gate's sewer facilities in the southern portion of the City. The following subsections describe the results of the 2007 Sanitary Sewer Master Plan and projects identified in the recommended Capital Improvement Plan (CIP).

GIS Database

All sanitary sewer lines and manholes within the City and some of the neighboring systems' sanitary sewer system, including a portion of the unincorporated areas surrounding the City, were digitized from the City's existing as-built drawings and gaps were filled in using Los Angeles County Sanitation District's (LACSD) maps. To develop the hydraulic model, several attributes including the pipe diameter, length, material as well as manhole invert elevations and ground elevation data were needed. In addition to database design also includes the design for Arcview themes for the GIS system.

Hydraulic Model

One of the objectives of the 2007 Sanitary Sewer Master Plan was to construct a hydraulic model of the sewer system to determine whether or not the capacity of the system is adequate to handle the dry and wet weather flows. A database was created with information about each pipe segment linked to the mapped pipe segments which included design criteria, flow information, diurnal curves, land use and all of the physical characteristics about the sewer system. The hydraulic analysis was conducted by using the MIKE SWMM modeling software to determine how the system reacts to the flow information and design criteria entered into the program. The primary focus of the analysis was to identify sewer pipe capacity limitations during normal dry and wet weather.

Analysis of Flow Data

The analysis of wastewater flow data consisted of the determination of base flow conditions, peak infiltration conditions, and inflow conditions. Analysis of wastewater flows for the sanitary sewer master plan was based on field data and estimated flows. The City's zoning map was used for comparison purposes to estimate the quantity of wastewater flow returned from domestic/commercial water consumption.

Base Flow Conditions

Generally base flow is determined by a review of water records from months when most of the water consumption is returned to the wastewater system. For the City, the water return is generally consistent year round. Since water billing records were unable to be obtained for each service address in the City, Los Angeles County Sanitation District's (LACSD) standard methodology for estimating wastewater return rates, based on zoning types, was used. Zoning designations for each parcel were used to estimate the wastewater base flow. The analysis determined that the average wastewater base flow in the City is 1.371 million of gallons per day (mgd).

Sewer System Capacity Evaluation Criteria

To minimize the potential for sanitary sewer overflows (SSOs), the system is sized to convey the peak wet weather flow (PWWF). The PWWF is defined to be equal to the peak dry weather flow (PDWF); plus a contingency for groundwater/seawater infiltration and rainfall dependent inflow, or Infiltration and Inflow (I&I). Hydraulic equations, friction factors and percent capacity were used to define the design capacity of the sewer pipes. For all pipes, design capacity was based on the pipe flowing at a depth equal to 75 percent of its diameter, at the peak dry weather flow. Reserve capacity was provided for variations in estimated flows and peaking, total infiltration and inflow allowance and for redevelopment. Additionally, pipes with flows that show a flow depth greater that 75 percent of their diameters (d/D ratio of > 0.75) were considered hydraulically deficient.

Sewer System Capacity Evaluation Results

The sewer system modeling was performed for several different scenarios. These scenrios included: Peak Dry Weather Flow (PDWF), Peak Wet Weather Flow (PWWF), Future PDWF, and Future PWWF.

- Peak Dry Weather Flow (PDWF) This condition represents the peak flow which
 includes the base flow and infiltration flows. Under Peak Dry Weather Flow
 (PDWF) conditions, there were 67 line segments that were found to be
 hydraulically deficient (their d/D ratio was ≥ 0.75) under this scenario.
- Peak Wet Weather Flow (PWWF) An analysis of the sewer system was conducted for peak wet weather conditions. The analysis assumed the storm would occur during the peak diurnal period of dry weather flow conditions with peak infiltration. There were 159 line segments that were found to be hydraulically deficient under this scenario.
- Future PDWF An analysis of the system was performed under PDWF conditions for the year 2027. This condition represents the peak flow which includes the base flow and infiltration flows. There were 79 line segments that were found to be hydraulically deficient under this scenario.

Section VIII

Future PDWF – An analysis of the system was performed under PWWF conditions for the year 2027. The analysis assumed the storm would occur during the peak diurnal period of dry weather flow conditions with peak infiltration. There were 201 line segments that were found to be hydraulically deficient under this scenario.

Recommended Capacity Projects

Based on the output from the collection system model for existing and future loading conditions, hydraulic deficiencies were identified within the system. A total of 201 sewer pipes with flows that exceeded the design capacity (d/D ratio \geq 0.75) were identified and recommended for replacement in order to remediate the hydraulic deficiency using the existing slope. The total estimated capital improvement cost for these projects is \$14,163,704. Additionally, a total of 42 sewer pipes that were found to be both hydraulically and structurally deficient through CCTV review with a total estimated capital improvement cost for these projects is \$2,259,721. Therefore, the total cost of all sewer pipes recommended for replacement to \$16,423,425.

CIP Schedule

The City's capital improvement program (CIP) was developed based on improvement priorities. When possible, improvement was phased to equalize annual capital/debt service requirements to minimize user charge impact. Due to the nature of the improvements, most of these projects are to be constructed over a 9 year span. These projects began in the 2008-2009 fiscal year and will continue through the 2016-2017 fiscal year.

<u>Section IX – Monitoring, Measurement & Program Modifications</u>

Waste Discharge Requirements

It is critical that the City monitors implementation of the SSMP elements, and measures the effectiveness of SSMP elements in reducing SSOs. Effectiveness should be measured by developing and tracking performance indicators on a regular basis. Performance indicators should be selected to meet the goals of the wastewater collection system agency. This section of the SSMP discusses parameters the City tracks to monitor the success of the SSMP and how the City plans to keep the SSMP current. The box below contains specific language regarding the Monitoring, Measurement and Program Modifications requirement of the WDR.

D.13 (ix) Monitoring, Measurement, and Program Modifications: The Enrollee shall:

- Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- c. Assess the success of the preventative maintenance program;
- d. Update program elements, as appropriate, based on monitoring or performance evaluations; and
- e. Identify and illustrate SSO trends, including: frequency, location, and volume

Monitoring and Measurement

In order to effectively manage programs, performance measures that gauge success should be developed and data to support the findings must be collected. To this end, accurate and consistent data keeping is extremely important for successful sewer system management. It is imperative that the correct data is captured, in a format that is easily extractable, and that operations personnel understand their role in this process. Focus should be placed on performance metrics, components of trend tracking, and bench-marking procedures both internally and externally. Based upon data collected decisions can be made as to changes that may be warranted and needed in order to maximize program efficiencies.

The City receives quarterly reports regarding the performance of the sewer system within the City and the number of sanitary sewer overflows. The City will utilize these reports to assess the effectiveness of the SSMP and to determine if modifications are necessary to improve the performance of the sewer system within the City.

Table 1 lists each SSMP element, the overall purpose of the SSMP element, and the specific parameters that the City will track that will help in evaluating the overall effectiveness of the SSMP.

Table 1
SSMP Monitoring Parameters by SSMP Element

SSMP Element	Summary of Element Purpose	Parameters for Tracking Effectiveness
Goals	Establish priorities of City and provide focus for City staff	None needed
Organization	Document organization of City staff and chain of communication for SSO response	None needed
Overflow Emergency Response	Provide timely and effective response to SSO emergencies and comply with regulatory reporting requirements	 Average and maximum response time Percent of total overflow volume contained or returned to sewer
Fats, Oils & Grease Control	Minimize blockages and overflows due to FOG	 Number of blockages due to FOG Number of overflows due to FOG Number of FOG producing facilities inspected
Legal Authority	Ensure the City has sufficient legal authority to properly maintain the sanitary sewer system	None needed
Measures and Activities	Minimize blockages and SSOs by properly maintaining the system and keeping the system in good condition	 Total number and volume of SSOs Number of repeat SSOs (same location as any previous SSO, regardless of year of occurrence) Total number of mainline blockages Number of pipe failures Length of CCTV'd pipes Backlog for rehabilitation and repair projects
Design and Construction Standards	Ensure new facilities are properly designed and constructed	None needed

Capacity Management	Minimize SSOs due to insufficient capacity by evaluating system capacity and implementing necessary projects	 Number of SSOs due to capacity limitations or wet weather Date of completion of most recent capacity evaluation Backlog for capacity improvement projects
Monitoring,	Evaluate effectiveness of SSMP,	None Needed
Measurement &	keep SSMP up to date, and	
Program Modifications	identify necessary changes	
Program Audits	Formally identify SSMP effectiveness, limitations and necessary changes on an annual basis	Date of completion of last annual audit
Communication Plan	Communicate with the public and satellite agencies	None needed

The City will use the tracked parameters listed in Table 1 to assist in completion of the annual SSMP audit described in the SSMP Audits element.

SSMP Modifications

The WDR requires that the SSMP will need to be updated periodically to maintain current information and programs need to be enhanced or modified if they are determined to be less effective than needed. City staff will update critical information, such as contact numbers and the SSO response chain of communication as needed.

Section X – SSMP Audits

Waste Discharge Requirements

Audit programs are intended to provide controls for ensuring that all programs associated with the SSMP are being implemented as planned and managed appropriately. Audit outcomes should provide information about challenges and successes in implementing the SSMP by evaluating work practices and operations, documentation, procedures records and staff for implementation effectiveness and consistency. The audit will identify any program or policy changes that may be needed to continually improve effective implementation. Information collected as part of an audit should be used to plan program or procedure revisions necessary to improve program performance. The box below contains specific language regarding the SSMP Program Audits requirement of the WDR.

D.13 (x) SSMP Program Audits - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them

SSMP Program Audits

As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

Section X

SSMP Certification

The SSMP should be certified by the City's Legally Responsible Official (LRO) to be in compliance with the requirements set forth in the WDR. The LRO must also complete the certification portion in the online SSO Database Questionnaire by checking the appropriate milestone box, printing, signing the automated form, and sending the signed form to:

State Water Resources Control Board Division of Water Quality Attention: SSO Program Manager P.O. Box 100 Sacramento, CA 95812

SSMP Modification and Recertification

The SSMP must be updated every 5 years to keep it current. When significant amendments are made to any portion or portions of the SSMP, it must be resubmitted to the City Council for approval and recertification.

Section XI – Communication Program

Waste Discharge Requirements

The City of Bell Gardens shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the City as the program is developed and implemented. The City shall also create a plan of communication with systems that are tributary and/or satellite to the City's sanitary sewer system. The box below contains specific language regarding the Communication Program requirement of the WDR.

(xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented. The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

Identifying key stakeholders and key issues, and thinking about how various stakeholders might react are the first steps to developing a communication plan. Understanding what elements of an SSMP they will be most concerned with, is one of the many potential considerations that an agency may identify. Involving the right stakeholders on potentially controversial issues as early as possible is important to the success of any new program. Emphasizing collaboration and shared goals to reach a workable solution will not always ensure buy off, but will promote ownership and understanding. Avoiding proper outreach efforts for controversial issues in the hope that interested parties won't catch on usually backfires.

Communication

The City should develop a communication mechanism with the County Department of Public Works which will establish ongoing discourse on a continual and regular basis. Additionally, the City should identify an individual within the City who is responsible for development, implementation, and interface for the communication program. Identify resources necessary to solicit and incorporate input on each phase of the SSMP (development, implementation, and performance), as well as document the City's outreach efforts. The City should emphasize collaboration and shared goals to reach a workable solution. Create a list of key milestones in each phase of your SSMP when stakeholder input would be most useful and effective. The City should create a convenient mechanism for stakeholder input.

Key considerations, while developing a communication program include:

- Development of a variety of communication methods, including newsletters, public meetings, web pages, and public service announcements. Different agencies will find that different communication methods are effective. Look for a method that reaches the desired audience at a reasonable cost.
- The City should develop a section on the City's website with other agencies or
 professional organizations and share costs. The website could contain general
 information about the new Waster Discharge Requirements and SSMP
 components provide space to make documents available for public review, and
 contain contact, meeting times and locations, and other agency-specific
 information.
- Los Angeles County, on behalf of the City, will provide communication with other satellite agencies, conduct regular coordination meetings, annual surveys for changes in their system, and/or web pages devoted to satellite agency issues.
- The City must make sure there is a designated staff person responsible for satellite agency coordination. This person will ensure that the program is sustained, and your agency's efforts to get the program up and running and are sustained once the SSMP is complete.

SSMP Availability

Copies of the SSMP should be maintained and available for stakeholders and interested parties upon request. City can choose to make the SSMP available to anyone via download on the City's website, or upon a formal request at City Hall.

Appendix A

City of Bell Gardens Sewer Ordinance

Chapter 11.08 SANITARY SEWERS AND INDUSTRIAL WASTES*

Sections:

- 11.08.010 Adoption of county ordinance.
- 11.08.020 City to be included.
- 11.08.030 Definitions.
- 11.08.040 Section 20.28.050 amended Reimbursement agreements.
- <u>11.08.050</u> Section 20.32.150 amended Sewer connection fees within sewer reimbursement district.
- 11.08.060 Section 20.32.290 repealed.
- 11.08.070 Section 20.32.280 amended Sewer maintenance funds.
- 11.08.080 Section 20.32.690 amended Payment for damage to public sewer.
- 11.08.090 Violations and penalty.
- * Prior legislation: Ord. 254 as amended by Ords. 393 and 441.

11.08.010 Adoption of county ordinance.

There is adopted as a sanitary sewer and industrial waste ordinance of the city of Bell Gardens, except as it is hereinafter amended, Los Angeles County Code, Title 20, Division 2, as amended through Ordinance 89-0101 adopted July 27, 1989, entitled "sanitary sewer and industrial waste ordinance." (Ord. 570 § 1, 1990; Ord. 525 § 1, 1986).

11.08.020 City to be included.

Whenever in the Los Angeles County Code, Title 20, Division 2, reference is made to the unincorporated area of the county of Los Angeles, such area shall be deemed to include in its true geographical location the area of the city of Bell Gardens. (Ord. 525 § 1, 1986).

11.08.030 Definitions.

Whenever any of the following names or terms are used in the Los Angeles County Code, Title 20, Division 2, each such name or term shall be deemed and construed to have the meaning ascribed to it in this section as follows:

- A. "Board" means the city council.
- B. "County engineer" means the city engineer.
- C. "County health officer" means the city health officer.
- D. "County of Los Angeles" means the city of Bell Gardens except in such instances where the county of Los Angeles is a correct notation due to circumstances.
- E. "County sewer maintenance district" means the county sewer maintenance district except in the instance where the territory concerned either is not within or has been withdrawn from a county sewer maintenance district. In any such instance, "county sewer maintenance district" shall mean the city of Bell Gardens.
- F. "Ordinance" means an ordinance of the city of Bell Gardens except in such instances where the reference is to a stated ordinance of the county of Los Angeles.
- G. "Public sewer" means all sanitary sewers and appurtenances thereto, lying within streets or easements dedicated to the city, which are under the sole jurisdiction of the city.
- H. "Trunk sewer" means a sewer under the jurisdiction of a public entity other than the city of Bell Gardens. (Ord. 525 § 1, 1986).

11.08.040 Section 20.28.050 amended – Reimbursement agreements.

Section 20.28.050 of the Los Angeles County Code, Title 20, Division 2, is amended to read as follows:

The City Engineer may recommend that the Council approve an agreement to reimburse or agree to reimburse a subdivider, school district, an improvement district formed under special assessment procedures, or person for the cost of constructing sanitary sewers for public use where such sewers can or will be used by areas outside of the proposed development; and to establish a reimbursement district and collection rates as described in the agreement under the provisions of this ordinance.(Ord. 525 § 1, 1986).

11.08.050 Section 20.32.150 amended – Sewer connection fees within sewer reimbursement district.

Section 20.32.150 of the Los Angeles County Code, Title 20, Division 2, is amended to read as follows:

In the event the City Engineer determines that the property described in the application for a permit is included within a sewer reimbursement district, which has been formed by the Council in accordance with Section 20.28.050, the charge for connecting to the public sewer shall be as set forth in the agreement.(Ord. 525 § 1, 1986).

11.08.060 Section 20.32.290 repealed.

Section 20.32.290 of the Los Angeles County Code, Title 20, Division 2, is hereby repealed. (Ord. 525 § 1, 1986).

11.08.070 Section 20.32.280 amended – Sewer maintenance funds.

Section 20.32.280 of the Los Angeles County Code, Title 20, Division 2, is amended by adding the following paragraph:

All monies collected under this Section for sewer maintenance are to be submitted directly to the County Sewer Maintenance District for inclusion in the Maintenance District's funds.(Ord. 525 § 1, 1986).

11.08.080 Section 20.32.690 amended – Payment for damage to public sewer.

Section 20.32.690 of the Los Angeles County Code, Title 20, Division 2, is amended by adding the following paragraph:

In the event the damaged public sewer is not in a sewer maintenance district, the violator shall reimburse the City within thirty (30) days after the City Engineer shall render an invoice for the same. The amount when paid shall be deposited in the City Treasury.(Ord. 525 § 1, 1986).

Appendix A

11.08.090 Violations and penalty.

Every person who violates any of the provisions of the sanitary sewer and industrial waste ordinance of the city of Bell Gardens is guilty of a misdemeanor and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of the ordinance is committed, continued or permitted, and upon conviction is punishable by a fine of not exceeding \$1,000 or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment. (Ord. 570 § 2, 1990)

Appendix B

Grease Producing Facility Inspection List

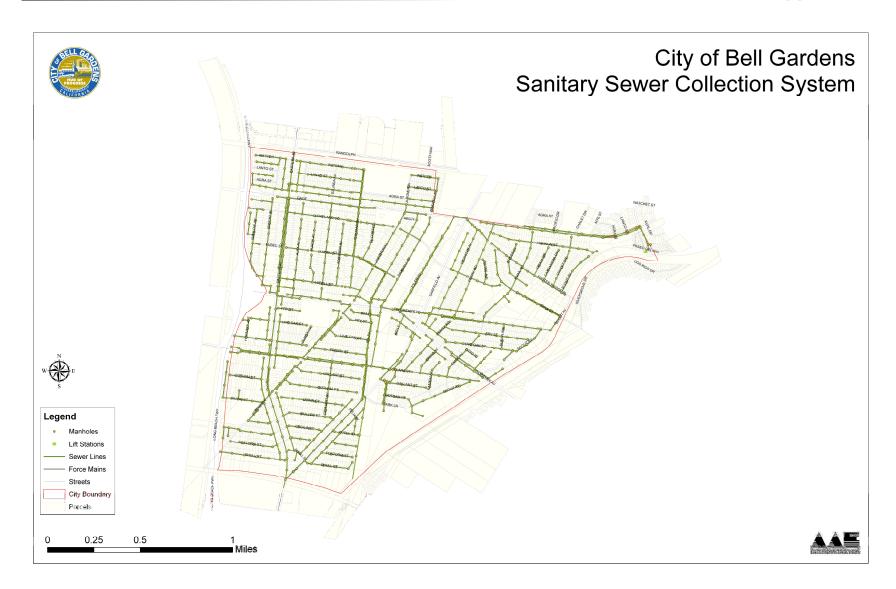
City of Bell Gardens Grease Producing Facility Inspection List

SITENO	FILENO	FILE NAME	ST NO FRA	DIR	ST NAME	SUFFIX	UNIT	CITY	ZIP	PERMIT NO
000742	040219	MONTEBELLO UNIFIED SCHOOL DIST	6119	Е	AGRA	ST		BELL GARDENS	90201	000397050
004984	022423	BOYS BURGERS #7	6810	S	GARFIELD	AVE		BELL GARDENS	90201	000138266
005566	036984	JACK-IN-THE-BOX #05313	6350	Е	FLORENCE	AVE		BELL GARDENS	90201	000344076
006743	106969	MINI MARKET	7208	S	GARFIELD	AVE		BELL GARDENS	90201	000246562
007402	020897	TACOS EL JALISCIENCE	5900	Е	CLARA	ST		BELL GARDENS	90201	000073419
007484	107865	THE BICYCLE CLUB	7301	S	EASTERN	AVE		BELL GARDENS	90201	000012729
007484	107865	THE BICYCLE CLUB	7301	S	EASTERN	AVE		BELL GARDENS	90201	000012744
007694	026935	REYNA'S PANADERIA CORP	7120	S	EASTERN	AVE	В	BELL GARDENS	90201	000274783
007701	052244	JIM'S GRILL-NOT OPERATING	7110	S	EASTERN	AVE		BELL GARDENS	90201	000595167
007750	108189	KFC RESTAURANT	5735	Е	FLORENCE	AVE		BELL GARDENS	90201	000009206
007783	038069	CHINATOWN EXPRESS #55	7116	S	EASTERN	AVE		BELL GARDENS	90201	000364457
007799	108250	OLYMPIC TROYS #2	6267	Е	GAGE	AVE		BELL GARDENS	90201	000010744
007941	108420	RON DALEY/MCDONALD'S	5725	Е	FLORENCE	AVE		BELL GARDENS	90201	00009857C
008117	040687	TACO BELL RESTAURANT	6800	S	EASTERN	AVE		BELL GARDENS	90201	000415671
008533	I15371	FOOD 4 LESS #307	6901	S	EASTERN	AVE		BELL GARDENS	90201	000010610
008558		EL POLLO LOCO RESTAURANT #3418	6929		EASTERN	AVE		BELL GARDENS	90201	000444217
008604	I15637	YOSHINOYA WEST INC	6801	S	EASTERN	AVE		BELL GARDENS	90201	000010633
008652	044577	ROYAL CHOPSTICKS	7105	S	EASTERN	AVE	G	BELL GARDENS	90201	000439574
008771	l16192	IHOP RESTAURANT	7131	S	EASTERN	AVE		BELL GARDENS	90201	00011030C
015820	020385	PREMIER STEAK & SEAFOOD	7300	S	EASTERN	AVE		BELL GARDENS	90201	000071113
016704			6366		FLORENCE	AVE		BELL GARDENS	90201	000588876
017173	023113		6039	Е	FLORENCE	AVE		BELL GARDENS	90201	000156588
017180	051754	TORTAS EL BURRO	6352	Е	FLORENCE	AVE		BELL GARDENS	90201	000611748
017366			6212		GAGE	AVE		BELL GARDENS	90201	000525332
017388			6380		FLORENCE	AVE		BELL GARDENS	90201	000168174
017440		UNO SUPERMARKET	5658		CLARA	ST		BELL GARDENS		000506874
017697		TOMMYS BURGERS	7937		EASTERN	AVE		BELL GARDENS	90201	000577410
017790		GLORIA'S PUPUSERIA	6919		EASTERN	AVE	В	BELL GARDENS	90201	000189795
018132		EL CHILITO RESTAURANT #2	6107		FLORENCE	AVE	2	BELL GARDENS		000462168
018208		MARISCOS SOL Y MAR4 SEAFOOD	7700		EASTERN	AVE		BELL GARDENS	90201	000589731
020693		BELL GARDENS BAKERY INC	6376		FLORENCE	AVE		BELL GARDENS		000565128
022275	1	PUPUSERIA COMALAPA	6320		FLORENCE	AVE	1	BELL GARDENS	90201	000520774
022592		PANDA PLACE - NEW OWNER	6600		FLORENCE	AVE	#C	BELL GARDENS		000418470
026722		BELL GARDENS THAI BBQ	6634		EASTERN	AVE		BELL GARDENS		000351935
026748		EL PESCADOR	6633		EASTERN	AVE		BELL GARDENS		000334696
026817		MONKIKIS INC	6377		FLORENCE	AVE		BELL GARDENS		000580382
026828	040882	GABRIEL BURGERS	6201		EASTERN	AVE		BELL GARDENS		000403017
026837		PERRY'S BURGER	6402		FLORENCE	AVE		BELL GARDENS		000343548
026876			5736		GAGE	AVE		BELL GARDENS		000362391
026895	037541		6505		PURDY	AVE		BELL GARDENS		000346257
027127	048948	LAS CAZUELAS RESTAURANT CORP	6211	S	EASTERN	AVE		BELL GARDENS	90201	000544197

City of Bell Gardens Grease Producing Facility Inspection List

SITENO	FILENO	FILE NAME	ST NO	FRA	DIR	ST NAME	SUFFIX	UNIT	CITY	ZIP	PERMIT NO
027128	038161	ALFREDO'S MEXICAN FOOD	7101		S	EASTERN	AVE		BELL GARDENS	90201	000385647
027136	051948	EL COMALITO GRILL	5985		Е	FLORENCE	AVE	С	BELL GARDENS	90201	000611749
027228	050167	EL PARADISO RESTAURANT	7908		S	EASTERN	AVE		BELL GARDENS	90201	000575354
028398	039891	BELL GARDENS CONVALESCENT	5648		Е	GOTHAM	ST		BELL GARDENS	90201	000423690
028399	039892	EL DURANGUITO	7614		S	EASTERN	AVE		BELL GARDENS	90201	000408454
028496	052819	NEW DONUTS & WATER	5985		Ε	FLORENCE	AVE	Α	BELL GARDENS	90201	000611810
028664		PANDA EXPRESS	7000		_		AVE	C	BELL GARDENS	90201	000413925
028859	044714	LA MERA MERA	7891		S	GARFIELD	AVE	I	BELL GARDENS	90201	000504804
028861	041058	LA NACIONAL SEAFOOD & MARKET	6321		Ε	CLARA	ST		BELL GARDENS	90201	000459602
028943	048558	TORTAS AHOGADAS GDL	6810		S	EASTERN		G B4A	BELL GARDENS	90201	000538551
028954	050193	ALBERT'S MEXICAN FOOD	8101		_	GARFIELD	AVE		BELL GARDENS		000589706
029219	048818	TOP VILLE RESTAURANT	6810		_	EASTERN	AVE	Н	BELL GARDENS		000515220
029694	051294	COCINA CHEPINA	6040	1/2		FLORENCE	AVE		BELL GARDENS	90201	000575683
030222	043659	TROPICANA CHICKEN	6000		_	FLORENCE	AVE	С	BELL GARDENS	90201	000431033
030412	044631	FAR WEST RESTAURANT	6810			EASTERN	AVE	J	BELL GARDENS	90201	000454263
030438	044784	MARISCOS LAS PENAS	6525		_		AVE		BELL GARDENS	90201	000459109
030453	044827	GOLF COURSE SNACK BAR	8000			PARK	LN		BELL GARDENS	90241	000458869
030453	045800	CITY OF BELL GARDENS	8000			PARK	LN		BELL GARDENS		000465162
030644	050989	VILLA LATINA MARKET INC	5605			GAGE	AVE		BELL GARDENS	90201	000598505
030833	046414	APPLEBEE'S RESTAURANT	5700			FLORENCE	AVE		BELL GARDENS		000514527
030939	046740	TONYS MARKET	6502		_	IRA	AVE		BELL GARDENS		000515713
031785	049970	WINCHELLS DONUT HOUSE #9387	6333			FLORENCE	AVE		BELL GARDENS		000611332
032052		REDBRICK PIZZA	7000			EASTERN		#D-3	BELL GARDENS	90201	000594546
		UNIBRIGHT FOODS INC	7101			SCOUT	AVE		BELL GARDENS		000013441
004940	105126	CHRIS & PITTS COMMISSARY	6701		_	FLORENCE	AVE		BELL GARDENS	90201	000004822
007565		EL RANCHO MARKET	5726			GAGE	AVE		BELL GARDENS		000408873
007830	108288	FRANKS-A-LOT INC	6642			CLARA	ST		BELL GARDENS		000009117
007998	037023	CERTI-FRESH FOODS INC	7410			SCOUT	AVE		BELL GARDENS		000431579
008108		DURANGO FOODS	7777			SCOUT	AVE		BELL GARDENS		000349086
008279	022810	N D K FOODS INC	7512		S	SCOUT	AVE		BELL GARDENS	90201	000014227

Appendix C Sewer System Map



Appendix D

Sewer System Maintenance, Overflow, And Spill Prevention Plan

SEWER SYSTEM MAINTENANCE, OVERFLOW, AND SPILL PREVENTION PLAN

Summary of Requirements

The City is responsible for implementing a sewer system maintenance, overflow, and spill prevention plan. Facilities that are covered under this plan include: sanitary sewer pipes and pump stations owned and operated by the Permitee. The purpose of the plan is to provide affected City personnel with written procedures to accomplish the following:

- Keep any sewage system overflows or leaks from entering the MS4 (any street, gutter, catch basin, open channel, ditch, or any device, natural or man-made, that transports runoff to the receiving body).
- Identify, fix and remediate sewage system blockages, exfiltration, and overflows.
- Implement procedures for investigating suspected cross-connections.
- Notify public health authorities when there is a threat to public health.

Spill Response

Upon notification of a sewage release (spill, leakage, or overflow) to the MS4, the following steps shall be performed:

- Dispatch appropriate personnel to perform material cleanup.
- Contain the spill and minimize the release to the storm drain system or receiving waters.
- Record required information at the spill site.
- Perform field evaluation to determine the source of the spill

Spill Containment, Removal, and Disinfection

Sewage releases include any kind of sewage discharge to the MS4 including leaks and overflows from sewer pipes and pump stations. In the event of a sewage discharge to MS4, the following steps must be taken:

- Prevent traveling sewage from entering the MS4 by covering or blocking storm drain inlets and catch basins, or by containing and diverting the sewage away from open channels and other storm drain facilities (using sandbags, inflatable dams, etc.).
- Remove the sewage using vacuum equipment or use other measures to return it to the sanitary sewer system
- In the event disinfection is necessary, make every effort to prevent the disinfectant or sewage with disinfectant from entering the MS4. In the event such discharge threatens to enter a catch basin, the catch basin inlet should be blocked (e.g., using sand bags or impermeable covering over the inlet). In the event the discharge threatens to enter an open channel or a storm drain, contain or divert the stream away from it using appropriate material (e.g., sand bags, etc.).
- Record the estimates volume of the release that entered the street, catch basin, or channel.
- Determine the source of the release and take steps necessary to stop it.

Sewage Release Prevention

To minimize the frequency of sewage releases to the MS4, the following steps should be taken:

- Note the condition of the sanitary sewer during scheduled and non-scheduled inspections, maintenance, and repair works, including: (1) cracked/deteriorating pipes; (2) leaking joints/seals at manhole; (3) plugged line; (4) line flowing at or near capacity; and (5) suspected exfiltration.
- Identify areas that need maintenance or repair.
- Document recommendations for repair and notify superior personnel.
- Prioritize repairs based on the nature and severity of the problem.

Cross Connection Discovery

A cross connection is connection between the MS4 and sewage system, which is also considered an illicit connection. The following steps shall be taken to verify that suspected connections or cross-connections are investigated:

- Educate field personnel to recognize suspected and actual cross-connections to the sanitary sewer system.
- Maintain accurate records of both sewer connections and new sewer lines.
- Report suspected or actual cross-connections to appropriate personnel.
- Initiate investigation into source of cross-connection in accordance with IC/ID Elimination Program.

Release Notification

In the event of a sewage release to the MS4 which has the potential to threaten a beneficial use of a water body, the following steps shall be taken immediately:

- Notify the County Department of Health Services, or other local health agency, of the spill location and potential discharge point to the receiving water. (note: the County my be reached by calling the Hotline number (800) 303-0003 or (888) CLEANLA.)
- Notify other impacted agencies including the Regional Board as needed to help determine the extent of the threat and document the release.

Appendix E

LADPW CSMD Routine Cleaning Schedule

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S08P00003						
SPH: Sewer Siphon No. 1 on Mapsheet No. 1917 : MH #491 to #492 (90	0491/1917-0492/1917	90 DAYS	7/1/1997	223	892	892
	Summa	ary for 'PM' =	S08P00003	223	892	892
PM S08P00004						
SPH: Sewer Siphon No. 1 on Mapsheet No. 1918 : MH #164 to #169 (90	0164/1918-0169/1918	90 DAYS	7/1/1997	65	260	260
	Summa	ary for 'PM' =	S08P00004	65	260	260
PM S09C01018						
H: Mapsheet No. 1917 - Live Oak St : MH #171 to #168 (150 DAYS)	0168/1917-0169/1917	7 150 DAYS	8/17/1997	250	500	<i>7</i> 50
H: Mapsheet No. 1917 - Live Oak St : MH #171 to #168 (150 DAYS)	0169/1917-0171/1917	7 150 DAYS	8/17/1997	248	496	744
	Summa	ary for 'PM' =	S09C01018	498	996	1,494
PM S09C01020						
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0073/1917-0082/1917	7 150 DAYS	7/7/1997	302	604	604
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0085/1917-0086/1917	7 150 DAYS	7/7/1997	236	472	472
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0084/1917-0085/1917	7 150 DAYS	7/7/1997	295	590	590
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0083/1917-0084/1917	7 150 DAYS	7/7/1997	66	132	132
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0088/1917-0131/1917	7 150 DAYS	7/7/1997	279	558	558
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0087/1917-0088/1917	7 150 DAYS	7/7/1997	216	432	432
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0086/1917-0087/1917	7 150 DAYS	7/7/1997	243	486	486
H: Mapsheet No. 1917 - Marlow Ave : MH #131 to #73 (150 DAYS)	0082/1917-0083/1917		7/7/1997	338	676	676
	Summa	ary for 'PM' =	S09C01020	1,975	3,950	3,950
PM S09C01021						
H: Mapsheet No. 1917 - Darwell Ave : MH #415 to #406 (90 DAYS)	0413/1917-0414/1917	90 DAYS	9/17/1997	181	724	724
H: Mapsheet No. 1917 - Darwell Ave : MH #415 to #406 (90 DAYS)	0406/1917-0412/1917	90 DAYS	9/17/1997	340	1,360	1,360
H: Mapsheet No. 1917 - Darwell Ave : MH #415 to #406 (90 DAYS)	0412/1917-0413/1917	90 DAYS	9/17/1997	335	1,340	1,340
H: Mapsheet No. 1917 - Darwell Ave : MH #415 to #406 (90 DAYS)	0414/1917-0415/1917	90 DAYS	9/17/1997	97	388	388
	Summa	ary for 'PM' =	S09C01021	953	3,812	3,812
PM S09C01023						
H: Mapsheet No. 1917 - R/w w/o Eastern Ave : MH #171 to #175 (150 D	0172/1917-0175/1917	7 150 DAYS	8/17/1997	293	879	586
H: Mapsheet No. 1917 - R/w w/o Eastern Ave : MH #171 to #175 (150 D	0171/1917-0172/1917	7 150 DAYS	8/17/1997	275	825	550
	Summa	ry for 'PM' =	S09C01023	568	1,704	1,136

Wednesday, October 30, 2013 Page 1 of 7

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S09C01024						
H: Mapsheet No. 1917 - N/s Lubec St : MH #300 to #305 (60DAYS)	0302/1917-0304/1917	60 DAYS	1/17/2008	202	1,212	1,212
H: Mapsheet No. 1917 - N/s Lubec St : MH #300 to #305 (60DAYS)	0301/1917-0302/1917	60 DAYS	1/17/2008	191	1,146	1,146
H: Mapsheet No. 1917 - N/s Lubec St : MH #300 to #305 (60DAYS)	0304/1917-0305/1917	60 DAYS	1/17/2008	211	1,266	1,266
H: Mapsheet No. 1917 - N/s Lubec St : MH #300 to #305 (60DAYS)	0300/1917-0301/1917	60 DAYS	1/17/2008	207	1,242	1,242
	Summai	y for 'PM' = S09C0	01024	811	4,866	4,866
PM S09C01025						
H: Mapsheet No. 1917 - Priory St : MH #175 to Trunk Line East (150 DAY	0175/1917-0176/1917	150 DAYS	9/17/1997	100	200	200
H: Mapsheet No. 1917 - Priory St : MH #175 to Trunk Line East (150 DAY	0176/1917-TRNK/1917	150 DAYS	9/17/1997	81	162	162
	Summai	y for 'PM' = S09C0	01025	181	362	362
PM S09C01026						
H: Mapsheet No. 1918 - Alley e/o Eastern Ave : MH #76 to #78 (120 DAY	0077/1918-0078/1918	120 DAYS	7/16/1997	263	789	789
H: Mapsheet No. 1918 - Alley e/o Eastern Ave : MH #76 to #78 (120 DAY	0076/1918-0077/1918	120 DAYS	7/16/1997	263	789	789
	Summai	y for 'PM' = S09C0	01026	526	1,578	1,578
PM S09C02025						
H: Mapsheet No. 1917 - Alley S/O Florence PI : MH #509 to #506 (120	0508/1917-0509/1917	120 DAYS	9/26/1997	312	936	936
H: Mapsheet No. 1917 - Alley S/O Florence PI : MH #509 to #506 (120	0506/1917-0507/1917	120 DAYS	9/26/1997	125	375	375
H: Mapsheet No. 1917 - Alley S/O Florence PI : MH #509 to #506 (120	0507/1917-0508/1917	120 DAYS	9/26/1997	152	456	456
	Summai	y for 'PM' = S09C0	02025	589	1,767	1,767
PM S09C02026						
H: Mapsheet No. 1917 - Jaboneria Rd : MH #248 to #244 (120 DAYS)	0244/1917-0248/1917	120 DAYS	8/18/1997	193	579	579
	Summai	y for 'PM' = S09C0	02026	193	579	579
PM S09C02028						
H: Mapsheet No. 1917 - Adamson Ave : MH #264 to #267 (150 DAYS)	0265/1917-0266/1917	150 DAYS	9/27/1997	292	584	584
H: Mapsheet No. 1917 - Adamson Ave : MH #264 to #267 (150 DAYS)	0266/1917-0267/1917	150 DAYS	9/27/1997	287	57 4	574
H: Mapsheet No. 1917 - Adamson Ave : MH #264 to #267 (150 DAYS)	0264/1917-0265/1917	150 DAYS	9/27/1997	290	580	580
	Summai	y for 'PM' = S09C0	02028	869	1,738	1,738

Wednesday, October 30, 2013 Page 2 of 7

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S09C02029						
H: Mapsheet No. 1917 - Lubec St : MH #123 to #263 (120 DAYS)	0130/1917-0263/1917	120 DAYS	7/24/1997	193	579	579
H: Mapsheet No. 1917 - Lubec St : MH #123 to #263 (120 DAYS)	0123/1917-0130/1917	120 DAYS	7/24/1997	202	606	606
	Summai	y for 'PM' = S09	C02029	395	1,185	1,185
PM S09C02031						
H: Mapsheet No. 1917 - Florence Ave : MH #684 to #323 (120 DAYS)	0374/1917-0684/1917	120 DAYS	8/6/1997	36	108	108
H: Mapsheet No. 1917 - Florence Ave : MH #684 to #323 (120 DAYS)	0323/1917-0374/1917	120 DAYS	8/6/1997	97	291	291
	Summai	y for 'PM' = S09	C02031	133	399	399
PM S09C02033						
H: Mapsheet No. 1917 - Clara St : Trunk Line to 1918: MH #5 (90 DAYS)	0205/1917-TRNK/1917	90 DAYS	10/25/1997	65	260	260
H: Mapsheet No. 1917 - Clara St : Trunk Line to 1918: MH #5 (90 DAYS)	0196/1917-0205/1917	90 DAYS	10/25/1997	84	336	336
H: Mapsheet No. 1917 - Clara St : Trunk Line to 1918: MH #5 (90 DAYS)	0004/1918-0005/1918	90 DAYS	10/25/1997	342	1,368	1,368
H: Mapsheet No. 1917 - Clara St : Trunk Line to 1918: MH #5 (90 DAYS)	0004/1918-0196/1917	90 DAYS	10/25/1997	315	1,260	1,260
	Summai	y for 'PM' = S09	C02033	806	3,224	3,224
PM S09C02035						
H: Mapsheet No. 1918 - E/s of Eastern Ave : MH #72 to #49 (150 DAYS)	0049/1918-0073/1918	150 DAYS	7/14/1997	285	570	855
H: Mapsheet No. 1918 - E/s of Eastern Ave : MH #72 to #49 (150 DAYS)	0072/1918-0073/1918	150 DAYS	7/14/1997	188	376	564
	Summai	y for 'PM' = S09	C02035	473	946	1,419
PM S09C02036						
H: Mapsheet No. 1918 - Alley E/O Garfield Ave : MH #122 to #230 (60 D	0170/1918-0230/1918	60 DAYS	4/21/2008	147	882	882
H: Mapsheet No. 1918 - Alley E/O Garfield Ave : MH #122 to #230 (60 D	0170/1918-0171/1918	60 DAYS	4/21/2008	166	996	996
H: Mapsheet No. 1918 - Alley E/O Garfield Ave : MH #122 to #230 (60 D	0122/1918-0171/1918	60 DAYS	4/21/2008	71	426	426
	Summai	y for 'PM' = S09	C02036	384	2,304	2,304
PM S09C02058						
H: Mapsheet No. 1971 - N/s Gage Ave : MH #69 to #71 (150 DAYS)	0070/1971-0071/1971	150 DAYS	8/14/1997	353	706	1,059
H: Mapsheet No. 1971 - N/s Gage Ave : MH #69 to #71 (150 DAYS)	0069/1971-0070/1971	150 DAYS	8/14/1997	367	734	1,101
	Summai	y for 'PM' = S09	C02058	720	1,440	2,160

Wednesday, October 30, 2013 Page 3 of 7

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S09C05006						
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0325/1917-0491/1917	180 DAYS	11/13/1997	270	540	540
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0325/1917-0684/1917	180 DAYS	11/13/1997	289	578	578
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0686/1917-0687/1917	180 DAYS	11/13/1997	336	672	672
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0493/1917-0686/1917	180 DAYS	11/13/1997	334	668	668
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0493/1917-0685/1917	180 DAYS	11/13/1997	28	56	56
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0492/1917-0685/1917	180 DAYS	11/13/1997	72	144	144
H: Mapsheet No. 1917 - s/s of Florence PI : MH #684 to #687 ??	0491/1917-0492/1917	180 DAYS	11/13/1997	223	446	446
	Summar	y for 'PM' =	S09C05006	1,552	3,104	3,104
PM S09C06039						
H: Mapsheet No.1917-Alley N/O Gage From MH 414 to MH 244 (150 DAY	0410/1917-0411/1917	150 DAYS	10/11/2001	235	705	470
H: Mapsheet No.1917-Alley N/O Gage From MH 414 to MH 244 (150 DAY	0411/1917-0414/1917	150 DAYS	10/11/2001	278	834	556
H: Mapsheet No.1917-Alley N/O Gage From MH 414 to MH 244 (150 DAY	0244/1917-0410/1917	150 DAYS	10/11/2001	226	678	452
	Summar	y for 'PM' =	S09C06039	739	2,217	1,478
PM S09C06044						
H: Mapsheet No.1918-Clara St From MH 6 to MH 138 (120 DAYS)	0008/1918-0138/1918	120 DAYS	9/18/2001	270	810	810
H: Mapsheet No.1918-Clara St From MH 6 to MH 138 (120 DAYS)	0006/1918-0007/1918	120 DAYS	9/18/2001	233	699	699
H: Mapsheet No.1918-Clara St From MH 6 to MH 138 (120 DAYS)	0007/1918-0008/1918	120 DAYS	9/18/2001	200	600	600
	Summar	y for 'PM' =	S09C06044	703	2,109	2,109
PM S09C06045						
H: Mapsheet No.1917-Jaboneria St. From MH 284 to MH 287 (150 DAYS)	0286/1917-0287/1917	150 DAYS	10/3/2001	326	652	652
H: Mapsheet No.1917-Jaboneria St. From MH 284 to MH 287 (150 DAYS)	0284/1917-0285/1917	150 DAYS	10/3/2001	347	694	694
H: Mapsheet No.1917-Jaboneria St. From MH 284 to MH 287 (150 DAYS)	0285/1917-0286/1917	150 DAYS	10/3/2001	334	668	668
	Summar	y for 'PM' =	S09C06045	1,007	2,014	2,014
PM S09C06107						
H; Mapsheet No. 1918 - Scout Ave. From Mh 222 to Mh 225 (90 DAYS)	0222/1918-0223/1918	60 DAYS	10/17/2005	359	2,154	2,154
H; Mapsheet No. 1918 - Scout Ave. From Mh 222 to Mh 225 (90 DAYS)	0223/1918-0224/1918	60 DAYS	10/17/2005	350	2,100	2,100
H; Mapsheet No. 1918 - Scout Ave. From Mh 222 to Mh 225 (90 DAYS)	0224/1918-0225/1918	60 DAYS	10/17/2005	350	2,100	2,100
	Summar	y for 'PM' =	S09C06107	1,059	6,354	6,354

Wednesday, October 30, 2013 Page 4 of 7

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S09C06115						
H; Mapsheet No. 1918 - Alley E/O Garfield Ave. From Mh 100 to Mh 106 (0100/1918-0107/1918	90 DAYS	4/27/2006	234	936	936
H; Mapsheet No. 1918 - Alley E/O Garfield Ave. From Mh 100 to Mh 106 (0106/1918-0107/1918	90 DAYS	4/27/2006	234	936	936
	Summa	ry for 'PM' =	S09C06115	468	1,872	1,872
PM S10C00077						
R: Mapsheet No. 1917 - Live Oak St. : MH #168 to #171 (60 DAYS)	0169/1917-0171/1917	60 DAYS	8/17/1997	248	1,488	1,488
R: Mapsheet No. 1917 - Live Oak St. : MH #168 to #171 (60 DAYS)	0168/1917-0169/1917	60 DAYS	8/17/1997	250	1,500	1,500
	Summa	ry for 'PM' =	S10C00077	498	2,988	2,988
PM S10C00078						
R: Mapsheet No. 1917 - Colmar Av. : MH #313 to #279 (90 DAYS)	0279/1917-0308/1917	90 DAYS	10/29/1997	320	1,280	1,280
R: Mapsheet No. 1917 - Colmar Av. : MH #313 to #279 (90 DAYS)	0308/1917-0313/1917	90 DAYS	10/29/1997	284	1,136	1,136
	Summa	ry for 'PM' =	S10C00078	604	2,416	2,416
PM S10C00079						
R: Mapsheet No. 1917 - Clara St. : MH #205 to T/L (150DAYS)	0205/1917-TRNK/1917	150 DAYS	10/25/1997	65	130	195
	Summa	ry for 'PM' =	S10C00079	65	130	195
PM S10C00081						
R: Mapsheet No. 1917 - Toler: MH #323 to T/L North (90 DAYS)	0374/1917-0684/1917	90 DAYS	8/6/1997	36	144	144
R: Mapsheet No. 1917 - Toler: MH #323 to T/L North (90 DAYS)	0323/1917-0374/1917	90 DAYS	8/6/1997	97	388	388
	Summa	ry for 'PM' =	S10C00081	133	532	532
PM S10C00084						
R: Mapsheet No. 1918 - Gotham St. #65 to #12 (90 DAYS)	0012/1918-0013/1918	90 DAYS	11/6/1997	284	1,136	1,136
R: Mapsheet No. 1918 - Gotham St. #65 to #12 (90 DAYS)	0013/1918-0065/1918	90 DAYS	11/6/1997	284	1,136	1,136
	Summa	ry for 'PM' =	S10C00084	568	2,272	2,272
PM S10C00085						
R: Mapsheet No. 1918 - Quinn St. : MH #23 to #83 (90 Days)	0083/1918-0231/1918	90 DAYS	11/23/1997	6	24	24
R: Mapsheet No. 1918 - Quinn St. : MH #23 to #83 (90 Days)	0024/1918-0231/1918	90 DAYS	11/23/1997	274	1,096	1,096
R: Mapsheet No. 1918 - Quinn St. : MH #23 to #83 (90 Days)	0023/1918-0024/1918	90 DAYS	11/23/1997	307	1,228	1,228
	Summa	ry for 'PM' =	S10C00085	587	2,348	2,348

Wednesday, October 30, 2013 Page 5 of 7

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S10C00086						
R: Mapsheet No. 1918 - Muller St. : MH #30 to #145 (90 DAYS)	0030/1918-0132/1918	90 DAYS	9/24/1997	248	992	992
R: Mapsheet No. 1918 - Muller St. : MH #30 to #145 (90 DAYS)	0132/1918-0145/1918	90 DAYS	9/24/1997	102	408	408
	Summar	y for 'PM' =	S10C00086	350	1,400	1,400
PM S10C00331						
R: Mapsheet No. 1918 - Ira Av. : Mh #151 to #149 (180 DAYS)	0149/1918-0150/1918	180 DAYS	11/21/1997	283	566	566
R: Mapsheet No. 1918 - Ira Av. : Mh #151 to #149 (180 DAYS)	0150/1918-0151/1918	180 DAYS	11/21/1997	281	562	562
	Summar	y for 'PM' =	S10C00331	564	1,128	1,128
PM S10C00431						
R: Mapsheet No. 1917 - Toler Ave: MH #372 to T/L South (90 DAYS)	0372/1917-0373/1917	90 DAYS	3/15/1999	218	872	872
R: Mapsheet No. 1917 - Toler Ave: MH #372 to T/L South (90 DAYS)	0372/1917-0373/1917	90 DAYS	3/15/1999	218	872	872
	Summar	y for 'PM' =	S10C00431	436	1,744	1,744
PM S10C00649						
R: Mapsheet No. 1917-R/W E/O Specht From MH 33 to MH 60 (180 DAYS	0033/1917-0046/1917	180 DAYS	12/10/2001	295	590	590
R: Mapsheet No. 1917-R/W E/O Specht From MH 33 to MH 60 (180 DAYS	0047/1917-0060/1917	180 DAYS	12/10/2001	295	590	590
R: Mapsheet No. 1917-R/W E/O Specht From MH 33 to MH 60 (180 DAYS	0046/1917-0047/1917	180 DAYS	12/10/2001	271	542	542
	Summar	y for 'PM' =	S10C00649	861	1,722	1,722
PM S10C00657						
R: Mapsheet No.1917-Alley N/O Gage Ave. From MH 244 to MH 414 (90D	0244/1917-0410/1917	90 DAYS	10/11/2001	226	904	904
R: Mapsheet No.1917-Alley N/O Gage Ave. From MH 244 to MH 414 (90D	0410/1917-0411/1917	90 DAYS	10/11/2001	235	940	94 0
R: Mapsheet No.1917-Alley N/O Gage Ave. From MH 244 to MH 414 (90D	0411/1917-0414/1917	90 DAYS	10/11/2001	278	1,112	1,112
	Summar	y for 'PM' =	S10C00657	739	2,956	2,956
PM S10C00661						
R: Mapsheet No.1917-Perry Rd. From MH 523 to MH 530 (90DAYS)	0523/1917-0529/1917	90 DAYS	1/30/2002	205	820	820
R: Mapsheet No.1917-Perry Rd. From MH 523 to MH 530 (90DAYS)	0529/1917-0530/1917	90 DAYS	1/30/2002	350	1,400	1,400
	Summar	y for 'PM' =	S10C00661	555	2,220	2,220

Wednesday, October 30, 2013 Page 6 of 7

Year 2011 - Year 2012

DESCRIPTION	PIPE_LOCN	DAYS MONTHS	START YEAR	PIPE LENGTH	Y2011	Y2012
PM S10C00720						
H; Mapsheet No. 1918 - Gotham St. From Mh 180 to Mh 222 (60 DAYS)	0127/1918-0128/1918	60 DAYS	7/19/2005	332	1,992	1,992
H; Mapsheet No. 1918 - Gotham St. From Mh 180 to Mh 222 (60 DAYS)	0127/1918-0180/1918	60 DAYS	7/19/2005	332	1,992	1,992
H; Mapsheet No. 1918 - Gotham St. From Mh 180 to Mh 222 (60 DAYS)	0128/1918-0129/1918	60 DAYS	7/19/2005	87	522	522
H; Mapsheet No. 1918 - Gotham St. From Mh 180 to Mh 222 (60 DAYS)	0129/1918-0222/1918	60 DAYS	7/19/2005	169	1,014	1,014
	Summai	y for $'PM' = S10C007$	20	920	5,520	5,520
PM S10C00776						
R; Mapsheet No 1918 - Gilliland Ave. From Mh 180 to Mh 178 (90DAYS)	0179/1918-0180/1918	90 DAYS	5/29/2007	134	536	536
R; Mapsheet No 1918 - Gilliland Ave. From Mh 180 to Mh 178 (90DAYS)	0178/1918-0179/1918	90 DAYS	5/29/2007	223	892	892
	Summai	y for $'PM' = S10C007$	76	357	1,428	1,428

Total Pipe Length:	23,127 ft / 4.38 mile	
Grand Total (ft):	78,476	78,925
Grand Total (Mile	14.86	14.95
Sewers (Count):	101	101

Wednesday, October 30, 2013 Page 7 of 7