



AGENDA REPORT

Meeting Date: October 2, 2007
Item Number: F-9
To: Honorable Mayor & City Council
From: Shana Epstein, Environmental Utilities Manager
Subject: RESOLUTION OF THE COUNCIL OF THE CITY OF BEVERLY HILLS
APPROVING THE WASTE DISCHARGE REQUIREMENTS
COMPLIANCE AUDIT
Attachments:

1. Resolution
2. Exhibit - Audit

RECOMMENDATION

It is recommended that the City Council to approve the audit for submission to the State Water Board and to reinforce that the City has established the goals and level of service as stated in section 1.4 of the audit.

INTRODUCTION

The State Water Resources Control Board (State Water Board) requires all public agencies that own or operate a sanitary sewer system to comply with the Statewide General Waste Discharge Requirement (WDR) for Sanitary Sewer Systems. The purpose of the order is to provide consistent regulatory measure of managing and regulating the sanitary sewer systems within the State and standardizing the documentation of preventive and emergency maintenance.

DISCUSSION

In May of 2006, the State Water Board issued an order to comply with the WDR. The purpose of this order is to raise the consciousness of maintaining the sanitary sewer systems within the State and standardizing the documentation of preventive and emergency maintenance. The City began following the order when the City submitted a notice of intent and began on-line reporting of the Sanitary Sewer Overflows in November 2006 and January 2007 respectively.

Last fiscal year, the City hired a consultant, Advanced Infrastructure Management, Inc. to perform the audit and the other components of the WDR, which include a Sanitary Sewer Management Plan. Attached is the WDR Compliance Audit, which is the first step in developing the Sanitary Sewer Management Plan. The audit reflects that a large

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sum of work is ahead of the City and the final cost to implement all of the capital work and setting up the procedures is yet to be fully realized.

FISCAL IMPACT

At this time, there is no fiscal impact, but as the Sanitary Sewer Management Plan is implemented the costs may be substantial to maintain the capital improvements schedule.

David Gustavson
Approved By



RESOLUTION NO. 07-R-

RESOLUTION OF THE COUNCIL OF THE CITY OF
BEVERLY HILLS APPROVING THE WASTE
DISCHARGE REQUIREMENTS COMPLIANCE AUDIT

The City Council of the City of Beverly Hills does resolve as follows:

Section 1. The State Water Resources Control Board (“State Water Board”) adopted a statewide general waste discharge requirement (“WDR”) for sanitary sewer systems known as Water Quality Order No. 2006-0003 on May 2, 2006 (“Sanitary Sewer Order”).

Section 2. The Sanitary Sewer Order requires all public agencies that own or operate a sanitary sewer system to conduct periodic internal audits that must occur at a minimum every two years and a report must be prepared and kept on file.

Section 3. The City has performed the WDR Compliance Audit (“Audit”) in accordance with the Sanitary Sewer Order and said Audit is attached as Exhibit A to this resolution. Accordingly, the City Council of the City of Beverly Hills hereby approves: (a) the goals for the City that are set forth in Section 1.3 of the Audit; and (b) the Audit for submission to the State Water Board by the Environmental Utilities Manager.

Section 4. The City Clerk shall furnish a copy of this resolution after it has been approved and fully executed by the City, to State Water Board Accounting Office, P.O. Box 1888, Sacramento, California 95812-1888.

Section 5. The City Clerk shall certify to the adoption of this resolution and shall cause this resolution and his certification to be entered in the Book of Resolutions of the Council of this City.

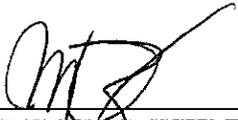
Adopted:

JIMMY DELSHAD
Mayor of the City of
Beverly Hills, California

ATTEST:

(SEAL)
BYRON POPE
City Clerk

APPROVED AS TO FORM:



LAURENCE S. WIENER
City Attorney

APPROVED AS TO CONTENT:



DAVID D. GUSTAVSON
Director of Public Works & Transportation

EXHIBIT A

AUDIT



City of Beverly Hills

Draft Final Report For
Waste Discharge Requirements (WDR) Compliance Audit
September 12, 2007



Submitted by:
Advanced Infrastructure Management, Inc.

601 Valencia Ave., Ste. 250 Brea, CA 92823

Phone: 714-982-5040

www.aim-corp.net



September 12, 2007

GIS &
Information Technology

Ms. Shana Epstein
Utility Services Manager
345 N. Foothill Rd.
Beverly Hills, CA 90210

Data Conversion

Subject: Draft Final Report for Waste Discharge Requirements (WDR) Compliance Audit

Applications Development

Dear Ms. Epstein:

Infrastructure
Master Planning

Advanced Infrastructure Management, Inc. (AIM) is pleased to submit the Draft Final Report for the above referenced project to the City of Beverly Hills. This report has been updated based on the follow up meeting and discussions with Mr. Ken Gettler, Collections System Supervisor, as well as the written comments received from the City staff.

Hydraulic Modeling

Asset Management

We look forward to receiving any additional comments, after your review, so we can finalize the report and start the implementation phase of this project. Please do not hesitate to contact me should you have any questions or comments.

GASB 34

CMOM

Sincerely,

Maintenance
Management Systems

ADVANCED INFRASTRUCTURE MANAGEMENT, INC.

Pavement
Management Systems

Yazdan T. Emrani, P.E.
Project Manager

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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 City of Beverly Hills has completed the NOI and is within the regulatory time frames.

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;
- 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 Beverly Hills that address the above issues. This document will provide recommendations to ensure the development of appropriate SSMP programs and an appropriate time schedule necessary to comply with the WDR.

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.

SSO Reporting

WDR finding number 9 states:

Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).

Furthermore, the State Water Board Fact Sheet states:

SSOs can be distinguished between those that impact water quality and/or create a nuisance, and those that are indicators of collection system performance. Additionally, SSO liability is attributed to either private entities (homeowners, businesses, private communities, etc...) or public entities. Although all types of SSOs are important to track, the reporting time frames and the type of information that need to be conveyed differ. The Reporting Program and Online SSO Database clearly distinguish the type of spill (major or minor) and the type of entity that owns the portion of the collection system that experienced the SSO (public or private entity). The reason to require SSO reporting for SSOs that do not necessarily impact public health or the environment is because these types of SSOs are indicators of collection system performance and management program effectiveness, and may serve as a sign of larger and more serious problems that should be addressed. Although these types of spills are important and must be regulated by collection system owners, the information that should be tracked and the time required to get them into the online reporting system are not as stringent.

Obviously, SSOs that are large in nature, affect public health, or affect the environment must be reported as soon as practicable and information associated with both the spill and efforts to mitigate the spill must be detailed. Since the Online

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SSO Database is a web based application requiring computer connection to the internet and is typically not as available as telephone communication would be, the Online Database will not replace emergency notification, which may be required by a Regional Water Board, Office of Emergency Services, or a County Health or Environmental Health Agency.

In order to implement the above vision, the State Water Board has developed a web based database that will be used to report all SSOs. This online spill reporting system is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov> .

This online database is maintained on a secure site and is controlled by unique usernames and passwords. Once the City has enrolled into the WDR, and has identified a Legally Responsible Official (LRO), the State Water Board will issue both a user name and password to the LRO and notify that individual of this information.

These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative. For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.

All reporting requirements are described within the Monitoring and Reporting Program (MRP) that was adopted by the State Water Board Order, along with the WDR. The MRP is also attached to this document in Appendix A.

California Health and Safety Code section 5411.5, states that:

Any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

California Water Code section 13271, also requires any SSO greater than 1,000 gallons that is discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services as soon as:

1. That person has knowledge of the discharge,
2. Notification is possible, and
3. Notification can be provided without substantially impeding cleanup or other emergency measures.

Time Schedule

The State Water Board's stated assumptions and reasoning for requiring the development of SSMPs is stated in WDR finding number 5. "In order to facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions." Furthermore, WDR finding number 7 states: "SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately."

Section D.13 et. seq. of the WDR is where all SSMP elements are addressed. Section D.13 generally states:

The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Based upon the City's population served and geographical location, Table 1 shows the required time schedule:

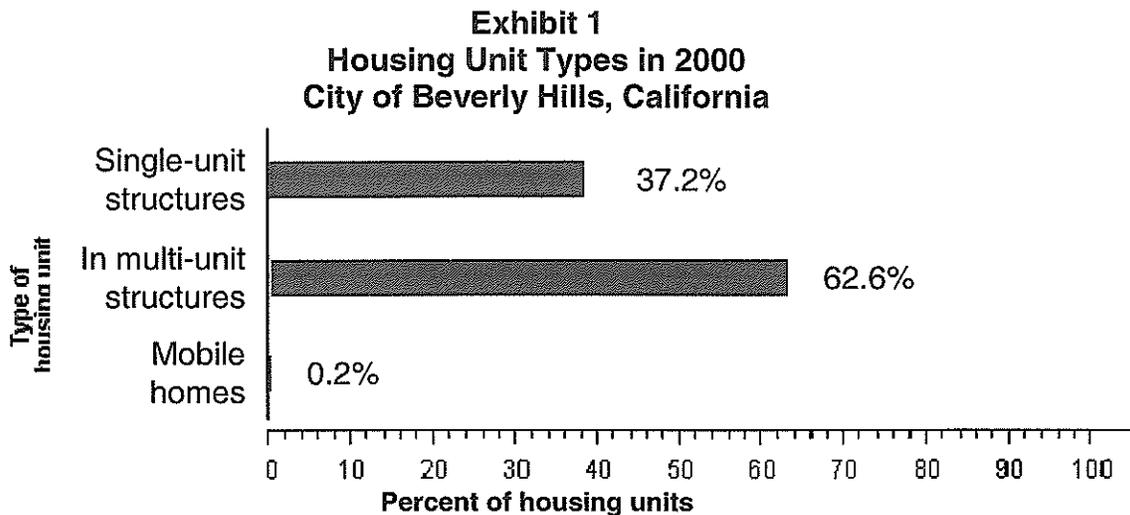
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Table 1
WDR Implementation Time Schedule

WDR Section	<10,000	10,000-100,000	>100,000
Application for Permit Coverage	6 months after WDR Adoption	November 2006	November 2006
Apply for LRO username and password for Online SSO Database	6 months after WDR Adoption	November 2006	November 2006
Complete Questionnaire (online SSO Database)	30 days after LRO sign-up	December 2006	December 2006
Begin Reporting SSOs in accordance with MRP	8 months after WDR Adoption	January 2007	January 2007
SSMP Development Plan and Schedule	15/18 months after WDR adoption	November 2007	August 2007
Goals and Organizational Structure	18 months after WDR adoption	November 2007	November 2007
Overflow Emergency Response Program	30/36 months after WDR adoption	May 2009	November 2008
Legal Authority	30/36 months after WDR adoption	May 2009	November 2008
Operation and Maintenance Program	30/36 months after WDR adoption	May 2009	November 2008
Grease Control Program	30/36 months after WDR adoption	May 2009	November 2008
Design and Performance Standards	36/39 months after WDR adoption	August 2009	May 2009
System Evaluation and Capacity Assurance Plan	36/39 months after WDR adoption	August 2009	May 2009
Monitoring, Measurement, and Program Modification Plan	36/39 months after WDR adoption	August 2009	May 2009
SSMP Program Audit Procedures	36/39 months after WDR adoption	August 2009	May 2009
Communication Program	36/39 months after WDR adoption	August 2009	May 2009
Final SSMP	36/39 months after WDR adoption	August 2009	May 2009

Infrastructure Analysis

The City of Beverly Hills is located in Los Angeles County, California, west of the City of West Hollywood, California and surrounded by all other sides by the City of Los Angeles, California. The City of Beverly Hills's approximate population is 33,784. In 2000, City of Beverly Hills had a total of 15,856 housing units, 9 percent of which were vacant. Of the total housing units, 37.2 percent were in single-unit structures, 62.6 percent were in multi-unit structures, and 0.2 percent were mobile homes, and 4.9 percent of the housing units were built since 1990. Exhibit 1 shows this breakdown.



Source: U.S. Census Bureau, 2000

City of Beverly Hills is well built out. Additional wastewater flows above and beyond the infill that may occur as a result of infill, can only be realized by existing property renovations resulting in a higher population and/or industrial density.

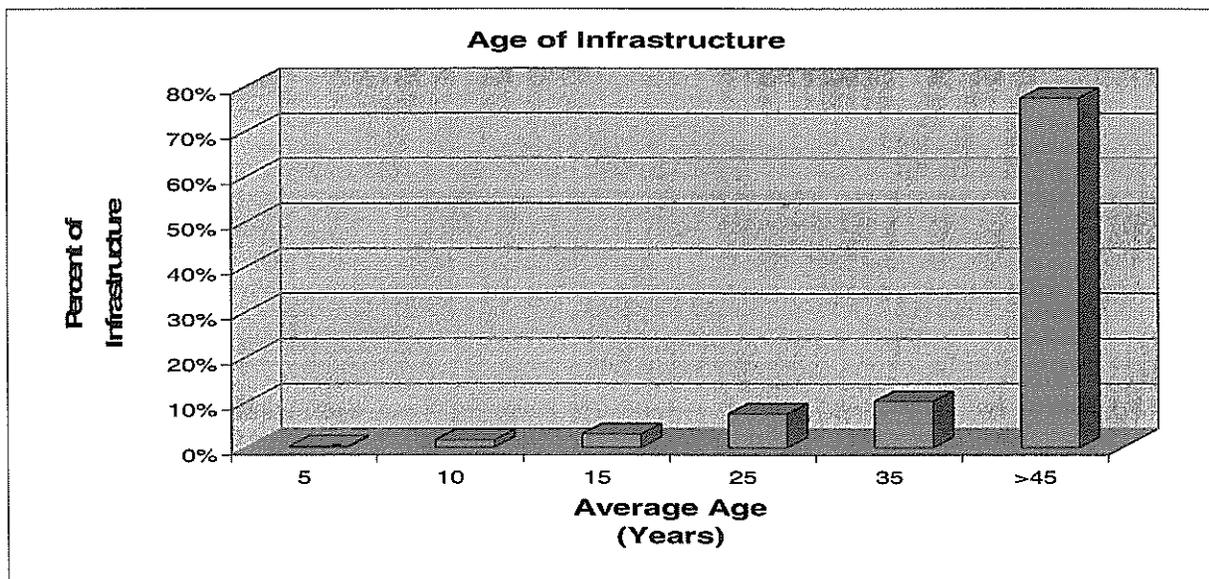
The Building Structures within the City of Beverly Hills were mainly developed before 1969 as shown in Table 2 below. As a result, it can be assumed that the sanitary sewer construction time periods should be similar. Typical construction life of sanitary sewer piping is between 30 and 70 years (average equaling 50 year useful life). Site specific characteristics that potentially impact useful life of sanitary sewer systems include: maintenance practices, pipe construction material, quality of construction, native soils, roots, seismic activity, and other geological considerations, as well as wastewater constituents and characteristic attributes. As shown in Table 2 and Exhibit 2, the sanitary sewer system within the City of Beverly Hills has most likely exceeded its useful and intended design life. All information for this section was obtained from US Census Bureau at the following web site: <http://factfinder.census.gov/>

Table 2
Building Structures by Age

YEAR STRUCTURE BUILT	Number of Structures	Average Age in 2005	Percentage of Structures
Built 1999 to March 2000	47	5	0.3%
Built 1995 to 1998	247	10	1.6%
Built 1990 to 1994	477	15	3.0%
Built 1980 to 1989	1,188	25	7.5%
Built 1970 to 1979	1,615	35	10.2%
Built 1969 or earlier	2,234	45	77.4%

Source: U.S. Census Bureau, 2000

Exhibit 2
Percent Distribution of Infrastructure by Age



1. Goals

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.

1.1 Overview

This chapter 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.

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.

1.2 Purpose

This element 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.

THE MISSION STATEMENT is the first step in the planning process to identify overall functions or missions of the organization. This broad statement of purpose is commonly known as the mission statement.

THE VISION STATEMENT is a clarifying phrase that states where the City is heading. It helps set the course of future decisions and direction.

A STATEMENT OF GOALS should include both short and long term commitments that will ultimately measure progress toward achieving and accomplishing both the stated Vision and Mission. Goals should be developed specific to the City's desired level of service. Careful thought and planning should occur when developing the Goals, because these are measurable outcomes that can be touted if accomplished or criticized

if not accomplished. The development of reasonable Goals is often a balancing act between budget and performance. Creating Goals that meet this balance is often difficult and always specific to individual communities.

1.3 Minimum Requirements

Goals that the City must commit to and are identified in the WDR include:

1. Create/develop a management, operation and maintenance plan and schedule to reduce preventable SSOs.
2. Respond to and mitigate all SSOs discharging from the City's collection system.
3. Ensure adequate system capacity for the current and future needs of the City's service area.
4. Establish measurable performance indicators and manage assets at lowest life cycle costs.
5. Provide accurate reporting of all SSOs as described by the Order.
6. Properly fund, manage, operate, and maintain, with adequately trained staff and/or contractors.
7. All parties involved, shall possess adequate knowledge skills and abilities necessary to ensure the proper management, operation, and maintenance of all parts of the sewage collection system owned and/or operated by the City of Beverly Hills.

The State Water Board also expects both a plan and schedule to be created by the City to ensure that an SSMP is developed in accordance with the time schedule identified in the WDR and will facilitate proper sanitary sewer system management, operation, and maintenance.

1.4 Evaluation

Has the agency established its goals consistent with the Order?

The City has set the following goals for meeting the minimum requirements of the Order. These include responding to and mitigating all SSOs, establishing measurable performance indicators, and providing accurate reporting of the SSOs.

Has the agency established a defined level of service?

The City has defined "Level of Service" as having a response time of less than 30 minutes.

1.4 Recommendations

In order to fully comply with the WDR, the City will have to develop these broad based statements and include short and long term goals and time schedules to implement the outcomes of these goals.

Some items that the City may want to address in its Mission Statement are contained in Sections D.3-10, of the WDR. In general these items include:

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- City shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the City shall employ steps to contain and mitigate the impacts of an SSO.
- In the event of an SSO, the City will 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 report all SSOs in accordance with Section G of the general WDRs.
- The City will comply with the requirements of the WDR, including requirements for reporting and developing and implementing a SSMP;
- The City will always try to identify the cause or likely cause of the discharge event;
- The City will take reasonable steps and attempt to provide feasible alternatives to the reduction and mitigation of SSOs, including:
 - Temporary storage or retention of untreated wastewater,
 - Reduction of inflow and infiltration,
 - Use of adequate backup equipment,
 - Collecting and hauling of untreated wastewater to a treatment facility or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP.
- The City will continually consider alternatives to identify and correct problems.
- The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.
- When a sanitary sewer overflow occurs, the Enrollee shall 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 Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:
 - Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - Cleanup of debris at the overflow site;
 - System modifications to prevent another SSO at the same location;
 - Adequate sampling to determine the nature and impact of the release; and
 - Adequate public notification to protect the public from exposure to the SSO.
- The City shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the City, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
- The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

City of Beverly Hills

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- o The City will 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 Enrollee.

2. Organization

- 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)).

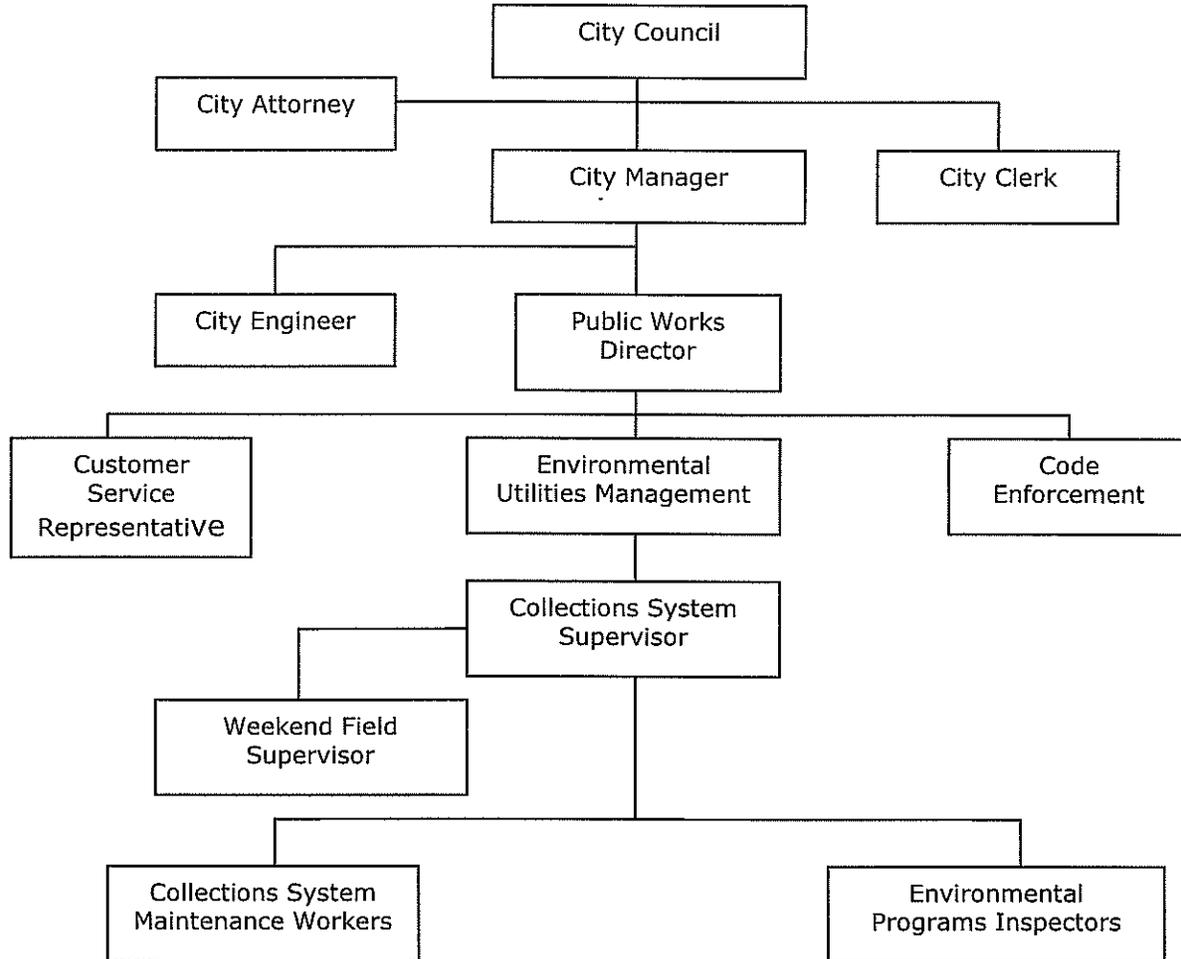
2.1 Overview

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.

2.2 Purpose

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 are shown on Exhibit 3:

**Exhibit 3
 Typical City Org Chart**



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 3 rd 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
Environmental Utilities Manager	Responsible for oversight and management of the work of sanitary sewer system and storm drain system including Collections System staff and implementation of the WDR
Collections System Supervisor/Weekend Field Supervisor	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.
Collections System 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.
Customer Service Representative	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.

2.3 Minimum Requirements

1. The name of the responsible or authorized representative as described in Section J of this Order.
2. 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
3. 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)).

2.4 Evaluation

Has the agency named a responsible party or authorized representative compliant to the Order and is that persons name and contact information available?

Yes, the Environmental Utilities Manager, Shana Epstein, and Ken Gettler, Sewer System Maintenance Supervisor are the authorized representative listed on the Notice of Intent (NOI) and are responsible for the certification of SSO reports.

Have the names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program been identified?

There is a master listing of City employee's names, titles and telephone numbers responsible for sanitary sewer system activities. However, this list needs to be updated to include clear identification or narrative of each position's responsibilities regarding the implementation of SSMP activities.

Have the lines of authority through an organization chart or similar document with a narrative explanation been developed?

There is an organizational chart with representation of City hierarchy. This chart, however, needs to be updated with responsibilities associated with the sanitary sewer system.

Has the chain of communication and protocol for reporting and responding to SSOs been developed?

The City of Beverly Hills has developed and implemented a chain of communication or protocol for who receives initial notification of collection system issues, transmits that information to field crews, or who are responsible for notifying and implementing reporting procedures.

2.5 Recommendations

Update the current organizational document to define 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 should include duty statements, job performance requirements, and other pertinent information necessary to clearly communicate roles, responsibilities, skill sets, licensures, and training needed to carry

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out specific job related duties. Update, if needed, the current protocol regarding initial SSO notification, emergency response, reporting, and certification. Currently, the City has a "Customer Service Line" which refers customers to the Fire Department Dispatch, after normal business hours. The Fire Department does have all emergency contact information in case of an SSO.

Existing procedures should be updated, and communicated to all parties that could potentially be involved with SSO response, notification, and reporting. Emergency contact telephone numbers should be 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. Additionally, clear procedures that identify communication paths between the City and any other city contractors should be developed, communicated, and routinely tested to ensure proper implementation, training, and revisions if needed. This information should readily be available on the City's web site, as well.

3. Legal Authority

- 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 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

3.1 Overview

This chapter is intended to identify and describe the necessary legal authority that an agency must have in order to implement SSMP plans, programs, and procedures. Regulatory mechanisms that are used by cities quite often include City Ordinances, Codes, and Resolutions, State and Federal Laws, Licensing and Permitting Processes, Memorandum of Agreements, Contractual Agreements, as well as other programmatic mechanisms necessary to carry out asset management activities.

3.2 Purpose

The basis of all authority to manage, operate, and maintain agency's infrastructure is derived from documents adopted by its elected board or council. In order to ensure that the City has the proper legal authority established to implement and enforce all of the programs required by the WDR, the City must first establish necessary legal authority to do so.

3.3 Minimum Requirements

The SSMP must include the legal authority, through sewer use ordinances, service agreements, or other legally binding procedures, to:

- (a) Prevent illicit discharges into its sanitary sewer system (examples may include 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.

3.4 Evaluation

Does the City Ordinance provide necessary control measures for illicit discharges including:

1. *Infiltration and Inflow;*
2. *Fats/Oils/Grease (FOG);*
3. *Chemicals that may be harmful and/or dangerous to infrastructure and the environment; and*
4. *Other debris such as root cutting and construction materials?*

After reviewing the City Ordinance, it does not appear that there are any provisions for control measures for illicit discharges. Chapter 1 – City Utility Services, Article 3, Section 6-1-307 “Wastewater System; General Regulations” does identify prohibited activities for the City’s sanitary sewer system.

Do City ordinances and/or other legally binding requirements contain adequate legal authority to require proper design and construction of new and rehabilitation work?

After reviewing the City’s website and all other online resources provided by the City of Beverly Hills, there is adequate language pertaining to the proper design and construction of new and rehabilitation work in the sanitary sewer system within the City of Beverly Hills.

Do City legal requirements provide for both access for maintenance, repair, and inspection for all collection system assets?

After reviewing the City’s website and all other online resources provided by the City of Beverly Hills, there is adequate language pertaining to access to the sanitary sewer system for maintenance, repair and inspection within the City of Beverly Hills.

Does the City’s legal authority provide for enforcement measures in case of Ordinance violations?

After reviewing the City’s website and all other online resources provided by the City of Beverly Hills, there are adequate provisions to provide the legal authority for enforcement of ordinance violations pertaining to the sanitary sewer system within the City of Beverly Hills.

Are all service agreements up to date and explicitly identify roles and responsibilities and expectations?

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According to the City's staff, currently, there is one service agreements between the City of Beverly Hills and Los Angeles County in regards to the FOG inspection and maintenance.

Are other legally binding procedures documented, kept up to date, and available?

According to the City's website, all legally binding procedures are documented, updated and available at City Hall.

3.5 Recommendations

The City should consider revising municipal codes, ordinance, and/or resolutions necessary to further develop the authority needed to implement many of the required SSMP elements and programs. Ordinances should also deal with easements and ingress-egress issues needed for access, ownership, and maintenance of all collection system assets. The City should consider revisiting agreements with all contractors, to explicitly lay out rolls, responsibilities, levels of service, programmatic implementation, and assumed liabilities and assumptions of risk.

4. Operation and Maintenance Program

- 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.

4.1 Overview

This section of the SSMP describes how the City will operate and maintain the sanitary sewer system within its jurisdiction. It will involve the development and implementation of several major programs and activities including the production of maps, maintenance and cleaning schedules, and a comprehensive rehabilitation and replacement plan.

4.2 Purpose

Thorough assessment of the present condition of the sanitary sewer system, deficiencies and defects within the system can be identified so that these issues can be targeted and prioritized for rehabilitation. This program of preventative maintenance will help to ensure that costly catastrophic system failures are preempted and will serve to reduce the amount of SSOs to be reported within the City.

4.3 Minimum Requirements

At a minimum, each enrollee must:

- 1) Create and maintain an up-to-date map of the sanitary sewer system within an Enrollee's jurisdiction;
- 2) Develop and implement a Preventative Maintenance program that describes preventative operation and maintenance activities and a system to document scheduled and conducted activities;
- 3) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and rehabilitation actions, including regular inspections of the conditions within the system.
- 4) Provide regular training for staff and contractors
- 5) Provide equipment and replacement part inventories.

4.4 Evaluation

Does the City have and maintain a current collection system map?

The City does have its own automated set of collection system maps that have been developed in a GIS system.

Has the City developed and implemented a Preventative Maintenance program that describes the Operations and Maintenance activities?

The City of Beverly Hills is responsible for the ongoing maintenance and repair of the sewer main line. This includes routine and emergency cleaning. However, there appears to be no formal Operations and Maintenance Program to identify problems in the sewer system before they result in an SSO, or something more catastrophic. The City has developed a "30-60-90" program that details methods and practices for the preventative maintenance of the sanitary sewer system. This program is designed to address hot spots within the system, namely grease. City crews perform line cleaning of areas in the "Triangle" where there is a high concentration of grease producing facilities, i.e., restaurants. These line cleanings are done every 30 days. Additionally, this program should be expanded to include regular inspection of the sewer system including

manholes, pipes, siphons, regular cleaning of all lines, repair, and related activities. This program is designed and carried out to detect and correct potential problems before they develop into major problems.

Has the City developed and implemented a rehabilitation and replacement plan?

There have been sewer rehabilitation/replacements done as part of the City's overall CIP; however, these activities have not been done as part of an overall sanitary sewer master plan.

Does the City provide regular training for staff and contractors that work with the sanitary sewer system?

There have been training for the staff responsible for the operation and maintenance of the sewer collection system. Additionally, according to the City's Sewer Overflow Response Plan, the City requires that all personnel that respond to SSOs attend training sessions on the proper procedures for reporting at least semi-annually.

Does the City have a system in place to track sewer system equipment and replacement part inventories?

No, the City does not currently have a system for tracking sewer system equipment and replacement part inventories.

4.5 Recommendations

The City of Beverly Hills should expand its "30-60-90" day program to ensure that their sanitary sewer system is properly operated and maintained. The following is a list of tasks and suggestions for inclusion in a comprehensive Operations and Maintenance Program as a part of the SSMP.

- The City should continue updating its sanitary sewer system GIS and applicable attributes. This database will enable the City to perform hydraulic modeling for system evaluation and the capacity assurance plan.
- The City of Beverly Hills should develop a Predictive Maintenance Program including plans for, planned and scheduled inspection and rehabilitation of their sanitary sewer system. This would include CCTV and hydraulic modeling as part of a comprehensive Sewer Evaluation and Capacity Assurance Plan (SECAP).
 - Pipe CCTV or by staff entry as indicated
 - Initial inspection prior to acceptance of CIP or rehab
 - Periodic system re-inspection
 - Detailed inspection of deteriorated areas prior to repair/rehab/replacement
 - Quality control on line cleaning, root cutting, etc.
 - Standardized defect coding system needed
 - Checking for pipe condition, depth and/or percentage of concrete spalling, depth of corrosion, pH

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- Manhole inspections
 - Visual from surface
 - Staff entry as indicated for detailed evaluation
 - Standardized defect coding needed
 - Should also cover: manhole concrete or protective coating condition, shelf condition and material loss, debris, roots, roaches/vermin, crown pH, flow depth of water/diameter of channel, velocity, turbulence, hydrogen sulfide levels
- Easement and Right of Way surface inspections
 - Checking for vandalism, potential problems due to vegetation, land movement, surface erosion, illegal improvements that limit access, etc.
- The City should expand its Preventative Maintenance Program for all routine preventive operation and maintenance activities, planned and scheduled, with all related documentation including replacement part inventories.
 - Gravity pipe systems
 - Line Cleaning
 - Small diameter (1-12 in)
 - Hand rodding, mechanical rodding, hydro and/or combination cleaning to minimize blockages, settled debris, grease accumulation
 - Medium diameter (15-60 in)
 - Cable rigged buckets, balls, bags or other tools to re-suspend solids or remove various debris and grease accumulations
 - Large diameter (above 60 in)
 - Cable rigged buckets or other specialized tools to re-suspend solids or physically remove debris and grease accumulations. Staff entry may also be indicated with specialized equipment.
 - Cleaning of siphon inlet structures to remove grease and floatables by manned entry or vacuum equipment
 - Crown spraying of bare concrete pipe or structures with Magnesium Hydroxide or other suitable material to protect from acid attack for short and long-term preservation of structure until CIP is indicated
 - Chemical dosing to reduce hydrogen sulfide generation and odors, wet well grease buildup (consult with downstream wastewater treatment plant operators prior to developing chemical programs)
 - Root control
- As the WDR requirements continue to unfold, the City should continuously update their Operations and Maintenance 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.

5. Design and Performance Provisions

- 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 testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

5.1 Overview

Development of standards for the design, construction, inspection, testing and acceptance of new, rehabilitated, or repaired portions for the collection system is key in ensuring a safe, and reliable collection system. Even if the City has existing standards in place a comprehensive review of these is required to establish meeting the SSMP criterion.

5.2 Purpose

This requirement will create continuity within the system, preventing inconsistencies from leading to hydraulic deficiencies which can result in a sanitary sewer overflow.

5.3 Minimum Requirements

At a minimum, each enrollee must:

- 1) Develop and implement consistent design and construction standards 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
- 2) Develop and implement procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

5.4 Evaluation

Does the City require consistent design and construction standards for the installation of new sanitary sewer systems and all applicable appurtenances?

According to Chapter 1 – City Utility Services, Article 3, Section 6-1-308 "Sewer Connection Regulations", language describing the design and construction standards will ensure that these standards are consistent throughout the system.

5.5 Recommendations

- City of Beverly Hills should continue using their established design and construction standards” for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems.
- City of Beverly Hills should continue with existing protocols for the inspection and installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems as outlined in the City ordinance.

6. Overflow and Emergency Response Plan

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.

6.1 Overview

This element of the SSMP consists of both the contingency plan and the procedures for responding to an overflow event.

6.2 Purpose

Proper procedures must be established and put into practice in order to minimize the negative effects of an SSO. This section requires the implementation of a concise set of procedures that will seek to ensure that all negative effects of an SSO on public health and the environment are minimized. Proper overflow response procedures are one of the main reasons for the development of the WDRs for SSOs.

6.3 Minimum Requirements

At a minimum, each enrollee must include in its overflow emergency response plan:

- 1) Proper notification procedures for primary responders and regulatory agencies;
- 2) A program to ensure appropriate response to all overflows;
- 3) Procedures to ensure prompt notification of appropriate officials or other potentially affected agencies for reporting purposes;
- 4) Procedures to ensure that all appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are properly trained;
- 5) Procedures to address emergency operations
- 6) A program to ensure all steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States.

6.4 Evaluation

Does the City currently have an Overflow Emergency Response Plan developed and implemented?

No, the City of Beverly Hills does not have a **current documented** Sewer Overflow Response Plan. This plan will need to incorporate many of the new requirements as outlined in the WDRs. The City should set up a dedicated telephone number used for citizens to report sewer overflows for both before and after regular business hours. As described in the WDR, 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. A protocol for proper response to sewer overflows should be developed and implemented, complete with procedures for proper and timely response, assessment of the overflow and steps to clean up the spill.

6.5 Recommendations

The City should develop and implement an Overflow Response Plan to accommodate the WDR requirements including:

- Proper notification procedures for primary responders and regulatory agencies

- Have personnel available 24 hours a day to dispatch maintenance crews to the SSO site
- Have a dedicated phone number for reporting all SSOs
- Inform all residents of the cause of the SSO
- The County Health Department should be 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 should be notified.
- A program to ensure appropriate response to all overflows
 - Assist in tracing and capturing the spill as much as possible before it reaches the waters of the United States.
 - The relevant data about the overflow such as location, volume, agencies notified, etc. should be recorded in field report forms and later stored in the computer.
- Procedures to ensure that all appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are properly trained
 - The Overflow Response Plan should be available to key personnel who are responsible for managing or responding to SSOs. Copies of the City's instruction manuals should be available to field crews and engineers at the office who manage or have the role of preparing SSO reports to regulatory agencies.
- A program to ensure that all steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States.
 - Ensure that field crews 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.
 - Sand bags and absorbent socks to prevent SSO discharge into storm drain catch basins
 - Vacuum trucks to suck up contained spills and dump effluent back into the collection system at other safe locations.
 - Reduction of response time to SSOs.

7. FOG Control

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.

7.1 Overview

Under the Order, the City is required to evaluate its service area to determine whether a Fats, Oils, and Grease (FOG) control program is needed. If the City determines that a FOG program is not needed, it must provide justification for why it is not needed. If FOG is found to be a problem, the City must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system.

7.2 Purpose

FOG is generated in most types of restaurants and food service establishments during food preparation, food service, and kitchen clean up. If flushed down the drain, FOG can build up in pipes, pumps, and equipment -- causing significant problems in the sanitary sewer system, including line blockages. Blockages can lead to sewer overflows, posing environmental and public health hazards. Understanding and controlling discharges of FOG will greatly reduce potential liability of SSOs and efforts required to keep lines clean.

The key to reducing FOG in the sanitary sewer system includes both a good source control program, as well as preventative maintenance to ensure FOG that does build up within the system is cleaned before significant buildup can occur. Additionally, understanding your collection system and the type of discharges within the service area is paramount to the strategic implementation of a FOG program.

7.3 Minimum Requirements

At a minimum, each enrollee must:

- 1) Determine if FOG is (or could be) an issue within the service area. (If FOG is found not to be an issue, then justification must be provided).
- 2) Create a plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- 3) Develop 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;
- 4) Ensure that the appropriate legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- 5) Require the installation of grease removal devices (such as traps or interceptors), including design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- 6) Make sure that the agency has the authority to inspect grease producing facilities, enforcement authorities, and whether the agency has sufficient staff to inspect and enforce the FOG ordinance;
- 7) Identify sections of the sanitary sewer system that are subject to FOG blockages and establish a cleaning maintenance schedule for each section; and
- 8) Develop and implement a source control and/or cleaning program for all sources of FOG discharged to the sanitary sewer system.

7.4 Evaluation

Does the agency have a FOG problem? If not document the reasons why the agency does not need to comply with this requirement.

Based on all information given by the City, it does appear that there exists a FOG problem; however, no documentation is available at this time to corroborate this determination. Typically, data is provided that can prove or disprove the presence of a FOG issue. Data that may be used to make a determination includes:

- 1) SSO Reports including the cause of blockage;
- 2) Cleaning and other maintenance data that identifies FOG as a potential problem;
- 3) CCTV inspection reports that identify areas or sources of FOG;
- 4) Master list of restaurants that discharge to the sanitary sewer system and that could potentially cause a FOG related problem

Does the FOG control program have a plan and schedule for public education to promote the proper disposal of FOG?

It does not appear that the City has a formal public education program to promote the proper disposal of FOG. Information on proper disposal of FOG and other SSO prevention measures, including installation of backwater valves, house lateral maintenance, etc. disseminated through brochures, articles in the City newsletter, and individual notices to property owners should be utilized. Expanded use of the City's home web page, use of radio and television announcements and other aggressive means should be explored.

Does the FOG control program provide for the proper disposal of FOG generated within the Agency's jurisdiction including a list of acceptable disposal sites?

Presently, there are procedures in place for the proper disposal of FOG contained within the City ordinance. It includes a provision for the proper disposal of FOG in which solidified fats found in the collection system during cleaning operations are trapped, collected and taken to a legal point of disposal.

Is there a FOG ordinance or other legal authority that prohibits the discharge of FOG into collection system?

After reviewing the City's website and all other online resources provided by the City, it does appear that the city ordinances have comprehensive language pertaining to FOG in the sanitary sewer system within the City of Beverly Hills.

Does the FOG control program require the installation of grease removal devices including design standards and maintenance requirements for grease removal devices?

Presently, the City of Beverly Hills does have requirements for grease removal devices as part of the City ordinance.

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Does the FOG control program require the use of BMPs including record keeping and reporting requirements?

Yes, the City has requirements for the use of BMPs.

If required, what are the minimum required BMPs?

The City requires kitchen and restaurant best management practices to be implemented.

Does the FOG control program or ordinance provide the authority to inspect grease producing facilities?

After reviewing the City's website and other online resources, it does appear that the City ordinance has language for the inspection of grease producing facilities within the City boundaries.

Does the FOG control program provide the legal authority and ability to enforce the FOG program?

After reviewing the City's website and other online resources, it does appear that the City ordinance has language for the enforcement of FOG discharges to the sanitary sewer system within the City boundaries.

Does the Agency have sufficient staff to inspect and enforce the FOG program or does the agency utilize a contractor for assistance?

At this time it is unknown if the City has enough staff needed to develop, implement, and enforce a FOG program.

Has the Agency identified segments of the collection system that are prone to FOG blockages and has an enhanced cleaning program been established for these trouble areas?

The City has not identified any segments of the sewer system prone to FOG blockages other than what has been previously identified by past overflows.

Has the Agency developed source control measures for all sources of FOG that discharge into known trouble areas?

It does not appear that the City has identified any hot spots prone to FOG blockages or have established source control measures in place other than language in the City ordinance. This language describes prohibitions on the discharge of any materials or obstructions that have the potential to clog, obstruct or fill the sewer or will interfere with or prevent the effective use of the sewer system.

7.5 Recommendations

The City of Beverly Hills will need to develop and implement a comprehensive FOG program with the requirements described in the WDRs, in addition to the language within the city's ordinance. For this reason, it is important for the City to conduct its own investigation of "hot spots" caused by FOG so that it can begin to enforce the FOG program requirements. The process should begin with a detailed assessment of the sewer system problems. As SSOs occur, they can be included in a GIS system that includes the sanitary sewer system within the City. The following is a list of projects that can be developed utilizing a sewer system GIS:

- Inventory and Characterize Potential FOG Sources
 - GIS Application for the identification of sewer system blockages due to FOG and their potential sources
 - Identify and color code sewer collection lines subject to blockage
 - Identify and plot all SSOs resulting from FOG blockages
 - Development of a GIS based "hot spots" application for regular cleaning with query and reporting capabilities on the frequency of the said cleaning by location/date
 - Development of a GIS based "source identification" application to identify and plot potential sources of FOG in "hot spot" areas
 - Include query and reporting capabilities to view the current landuse, past inspection reports and the condition of grease removal equipment installed at these potential sources:
 - Food service establishments (including restaurants, hospitals, nursing homes, grocery stores, caterers and commissaries)
 - High density multi-family dwellings
 - Residential – single family dwellings
 - Food manufacturing (industrial)
- Develop legal authority to impose FOG program requirements
 - Additional ordinance language, if necessary
 - Inspection program
 - Jurisdiction's regulatory authority over private and public property
- Monitoring and enforcement
 - Inspection, utilizing the sewer system GIS
 - Based on the "hot spot" source identification application, develop a prioritized inspection schedule to target establishments that are in FOG prone areas
 - Inspect food service establishments regularly
 - Inspect grease interceptor and grease traps regularly
 - Integrating the inspection results into a GIS based Computerized Maintenance Management System
 - Enforcement, utilizing a GIS based Code Enforcement Module
 - Ensure due process within defined legal authority
 - Escalating enforcement structure

8. System Evaluation and Capacity Assurance

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

8.1 Overview

This element of the SSMP includes several major programs and activities regarding development of a capital improvement plan and hydraulic analysis. Most of the requirements would be satisfied by a recent collection system master plan.

8.2 Purpose

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.

8.3 Minimum Requirements

At a minimum, each enrollee must:

- 1) Describe the methods used to identify areas of the sanitary sewer system that lack the sufficient capacity to convey an appropriate peak flow;
- 2) Establish consistent design criteria;
- 3) The identification of capacity needs and the approach used to take the results of the capacity evaluation to produce a prioritized list of capacity improvement projects; and
- 4) The development of a project schedule that addresses both condition-related and capacity-related projects.

8.4 Evaluation

Has the City had a recent collection system master plan done?

No, the City of Beverly Hills has not completed a comprehensive sanitary sewer master plan since 1997.

Has the City performed a hydraulic capacity study to identify areas within the system that are contributing to SSOs?

No, the City of Beverly Hills has not yet completed a comprehensive sewer master plan that included a mathematical model of the gravity collection system to identify areas that were hydraulically deficient.

Does the City have an established CIP to address hydraulic deficiencies, including prioritization alternatives analysis, and schedules?

The City has not adopted a CIP that has been based on a comprehensive sanitary sewer master plan.

8.5 Recommendations

The City should develop a sewer master plan and implement the recommendations of the master plan including a system-wide rehabilitation of those sections subject to structural or hydraulic deficiencies.

The City should include a short-and long-term CIP in the sewer master plan 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. Additionally, the CIP shall include an implementation schedule and shall identify all sources of funding.

The City of Beverly Hills shall adhere to the schedule of completion dates for all portions of the capital improvement program developed in the sections above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in the WDR.

9. Monitoring, Measurement, and Program Modification

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

- a. Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- b. 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

9.1 Overview

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.

9.2 Purpose

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. Setting up a Monitoring, Measurement, and Program Modification program will allow a community to better manage and implement SSMP programs.

9.3 Minimum Requirements

At a minimum, the enrollee must:

- a. Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- b. 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

9.4 Evaluation

Has the City developed and do they maintain a data management system necessary to collect adequate information regarding their SSMP programs?

Based upon information provided by the City it does not appear that the city maintains a data management system that tracks program performance or any other information regarding sanitary sewer system performance. Additionally, it does not appear that the City coordinates with any other agency with regards to the performance of any data or information regarding the sanitary sewer system.

Was this data management system developed in a manner that collects relevant information, necessary to determine program effectiveness?

Based upon information provided by the City it does not appear that a data system has been developed.

Have data reports been developed, which measure the effectiveness Of SSMP programs?

Based upon information provided by the City, it does not appear that reports have been developed that measure SSMP program effectiveness.

Are program indicators and measures, as well as relevant data reports reviewed on a regular basis?

The City of Beverly Hills has implemented a 30-60-90 schedule where it reviews data that is collected internally.

9.5 Recommendations

The City should consider developing a program that focusing on collecting data from all relevant sources, which will provide the City with critical information associated with the performance of the City's sanitary sewer system and associated programs. The City should begin to communicate with all relevant agencies on a regular basis (at a minimum monthly) to go over both the progress and performance of all programs, as well as issues that arise during the subject time period. Furthermore, a system for communication and data submittals that are associated with SSOs and sewer backups that are reported to the online SSO database should be developed. Questions the City may want to consider when developing a Measurement, Monitoring and Reporting Procedures (MMRP) are identified on Table 3:

Table 3
List of Questions for Development of MMRP

1. Does your agency have a formalized tracking system for collection system operational and performance related parameters or benchmarks?
2. Is the tracking system electronically (computer) based?
3. Does your agency have a CMMS?
4. Are new programs developed with clear goals, measures, and anticipated outcomes that can be measured and compared.
5. Does your agency have a system administrator, an individual that is tasked with ensuring the tracking system is up to date and complete?
6. Is there a QA/QC procedure to ensure that information is as accurate as possible?
7. Are all individuals that work within the tracking system trained on how to use the system properly?
8. Are reports generated on a regular basis from the tracking system? If so, what reports and how are they used?
9. Are policy and fiscal decisions based upon information and data contained within these reports?
10. Is the tracking system set up in such a manner that people are required to work within the tracking system platform?
11. Is the tracking system integrated with a mapping system?
12. Is the tracking system linked to a document management system?
13. Does your agency track all SSOs?
14. Does your agency track SSO causes?
15. Does your agency track blockages?
16. Does your agency track the location of blockages?
17. Does your agency track work orders?
18. Does your agency track response times?
19. Does your agency track maintenance schedules?
20. Are preventative maintenance schedules reviewed and revised on a regular basis?
21. Does your agency track hot-spots?
22. Does your agency track cleaning schedules for prioritized lines?
23. Does your agency know where all commercial establishments that generate FOG are located?
24. Does your agency track the blockages that are likely caused by particular establishments?
25. Does your agency know if these establishments have BMPs or FOG removal devices to ensure?
26. Does your agency track enforcement actions?
27. Does your agency track root blockages?
28. Does your agency have a threshold for blockages vs. pipe replacement?
29. Does your agency track line cleaning quality with follow-up CCTV?
30. Does your agency track lines that have been CCTV'd?
31. Does your agency track pipeline condition and have standards for condition assessment?
32. Are operators trained on the inspection rating standards?
33. Do you perform your own CCTV inspections or contract them out?
34. Do you perform manhole inspections?

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35. Where is the pipe and manhole condition data stored?
36. How are the images stored?
37. Does your agency track vehicle maintenance?
38. Are pump station preventative maintenance activities scheduled through the tracking system?
39. Do you perform failure analysis?
40. Does your agency track worker's time for completing certain tasks?
41. Does your agency track material costs for completing work?
42. Does your agency track equipment use for completing work?

10. Program Audit Procedures

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.

10.1 Overview

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 in to plan program or procedure revisions necessary to improve program performance.

10.2 Purpose

SSMP audit program development should be developed specifically for the sanitary sewer system, but agency-wide procedures should be incorporated to ensure program sustainability. The audit can contain information about successes in implementing the most recent version of the SSMP, and identify revisions that may be needed for a more effective program. Information collected as part of the Monitoring, Measurement, and Program Modifications program should be used in preparing the audit. Quite often, performance measures and other management indicators are developed, providing a baseline that performance can be measured against. Tables, figures, and charts can be used to summarize information about these indicators. An explanation of the SSMP development and accomplishments in improving the sewer system should be included in the audit, including:

- Progress made on development of SSMP elements, and if the sewer system agency is on schedule in developing all elements of the SSMP;
- SSMP implementation efforts over the timeframe in question;
- The effectiveness of implementing SSMP elements;

- A description of the additions and improvements made to the sanitary sewer collection system in the past reporting year; and
- A description of the additions and improvements planned for the upcoming reporting year with an estimated schedule for implementation.

10.3 Minimum Requirements

The WDR requires that all agencies develop appropriate audit procedures necessary to evaluate the effectiveness of the SSMP, as well as the agency's compliance with all requirements identified in the WDR. The audit must identify any deficiencies in an agency's SSMP programs and include steps to correct these issues. At a minimum, audits must be conducted every two years and a report of the findings must be prepared and kept on file.

10.4 Evaluation

Has an audit program been developed to ensure programs are being implemented as intended?

Based upon information provided by the City, it does not appear that the above has been completed.

Are programs developed with a clear understanding of expectations?

Based upon information provided by the City, it does not appear that the above has been completed.

Have performance measures should be identified and benchmarks established to determine programmatic success?

Based upon information provided by the City, it does not appear that the above has been completed.

Do audit checklists exist that focus on compliance as well as continual improvement?

Based upon information provided by the City, it does not appear that the above has been completed.

Has an individual been assigned (that is fairly well removed from the day-to-day activities) to perform the audit?

Based upon information provided by the City, it does not appear that the above has been completed.

Is there a process to utilize outside organizations to perform audits?

Based upon information provided by the City, it does not appear that the above has been completed.

Does the entity performing the audit have enough authority to carry out all necessary data gathering?

Based upon information provided by the City, it does not appear that the above has been completed.

Does your agency's executive management fully support and authorize the audit procedures?

Based on information received from the staff, the City's management and Council would support and authorize the audit procedures.

Do audit finding and reports should be reported directly to agency management?

Based upon information provided by the City, it does not appear that the above has been completed.

Are random interviews conducted throughout the organizations and at all levels within the organizations hierarchy may provide beneficial information regarding staff procedures and staff's knowledge of those procedures emphasizing identification, problem solving, and prevention opportunities?

Based upon information provided by the City, it does not appear that the above has been completed.

Are communication to staff on the purpose of the audit to ensure effective staff participation in the audit process, (The audit is of the SSMP implementation, not of individuals)?

Based upon information provided by the City, it does not appear that the above has been completed.

10.5 Recommendations

The City should develop an audit program that addresses the questions identified above. Additionally the audit program should address:

- Document Control
- Training
- Targets and Objectives
- Data Management
- Documented Procedures
- Outcomes

11. Communication Program

(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.

11.1 Overview

Communication programs are often underrated and overlooked. However, an effective communication program may end up being the key element that keeps your organization from missing critical SSMP deadlines. Involving the public early and at appropriate times will help your organization avoid last minute comments that delay approval of your SSMP by your governing body. A quality communication program with satellite agencies will help to minimize negative operational impacts on your plant or collection system.

It is important to identify an individual who will be responsible for development of your communication program. Larger agencies will typically have Communications and Media Officers or Public Information Officers who are appropriate to lead the development of the communication program. Smaller agencies who don’t have these staff in-house should look to those within the agency who have exhibited strong writing skills, public speaking skills, experience with customer interface, or have successfully completed controversial projects. A self assessment and rough timeline follow to help you on your way to a successful communication program!

11.2 Purpose

Identifying key stakeholders and key issues, and thinking about how various stakeholders might react is the first step 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. These issues should be considered when developing a communication program

11.3 Minimum Requirements

- a) 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.

- b) The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

11.4 Evaluation

Have resources necessary to solicit and incorporate input on each phase of your SSMP (development, implementation, and performance), as well as document your outreach efforts been identified?

Based upon information provided by the City, it does not appear that the above has been completed.

Has a lists of stakeholders who will be interested in each phase of your SSMP been developed?

Based upon information provided by the City, it does not appear that the above has been completed.

Have key milestones in each phase of your SSMP when stakeholder input would be most useful and effective been created?

Based upon information provided by the City, it does not appear that the above has been completed.

Has a convenient way for your stakeholders to provide input at appropriate milestones during each phase of your SSMP been identified?

Based upon information provided by the City, it does not appear that the above has been completed.

Have all tributary and/or satellite systems to your organization's sanitary sewer system been identified?

Based upon information provided by the City, it does not appear that the above has been completed.

Has an individual within your organization who is responsible for interface with satellite systems been identified?

Based upon information provided by the City, it does not appear that the above has been completed.

Has a list of key information you would like to communicate to satellite systems, as well as key information you would like them to communicate to your organization been developed?

Based upon information provided by the City, it does not appear that the above has been completed.

11.5 Recommendations

Develop a communication program that addresses the above evaluation questions. Additionally, the City may want to consider addressing the following issues:

- Identify an individual within your organization who is responsible for development, implementation, and interface for the communication program.
- Identify resources necessary to solicit and incorporate input on each phase of your SSMP (development, implementation, and performance), as well as document your outreach efforts.
- Identify key community stakeholders and key issues that various stakeholders may be interested in and/or concerned with.
- Make sure to involve the right stakeholders on potentially controversial issues as early as possible. 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.
- Create a convenient mechanism for stakeholder input. Additionally, key considerations, while developing a communication program include:
- Consider the 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.
- Consider joint efforts to develop a 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.
- For communication with other satellite agencies, consider regular coordination meetings, annual surveys for changes in their system, and/or web pages devoted to satellite agency issues.
- Make sure you have identified a 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 aren't wasted once the SSMP is complete.

Table 4 shows a recommended SSMP development plan and proposed time schedule.

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Table 4
SSMP Development Plan and Time Schedule

		Development	Scheduled Completion
A) Permit Application – November 2006			
	Complete Notice of Intent Form	10/06	11/06
	Identify Legally Responsible Official	10/06	11/06
	Ensure Necessary Authority is in place for LRO	10/06	11/06
	Registration for Online SSO Database (LRO) by SWRCB	10/06	11/06
	Register SSO Data Submitters (continual)	10/06	11/06
B) Questionnaire – December 2006			
	Online SSO Database Questionnaire Form Completed by LRO	11/06	11/06
	Financial Information	11/06	11/06
	Collection System Attributes	11/06	11/06
	Collection System Staffing Attributes	11/06	11/06
	Maintenance Activities	11/06	11/06
	Other Collection System Related Information	11/06	11/06
C) Reporting SSOs – January 2007			
	Training on how to use the Online SSO Database	11/06	1/07
	Develop field inspection form consistent with Online SSO Database	11/06	1/07
	Create protocol for entering information and approving records	11/06	1/07
D) SSMP Development Plan and Schedule – November 2007			
	Identify documented programmatic elements that satisfy SSMP requirements	10/06	5/07
	Develop time-schedule for SSMP elements that must be developed in compliance with WDR	10/06	5/07
1) Goals – November 2007			
	Develop Statement of Goals for Organization Consistent with the Intent of WDR	5/07	11/07
a.	Respond and Mitigate Impact Of SSOs	5/07	11/07
b.	Provide Adequate Capacity During Peak Flows	5/07	11/07
c.	Establish Measurable Performance Indicators	5/07	11/07
d.	Report All SSOs Accurately	5/07	11/07
e.	Fund, Manage, and Operate Collection System	5/07	11/07
f.	Maintain All Parts of Collection System	5/07	11/07
g.	Ensure all Parties Involved Posses Adequate Knowledge and Training	5/07	11/07
h.	Establish Programs to Encourage Continual Improvement	5/07	11/07
2) Organization – November 2007			
	Responsible or Authorized Representative Defined	5/07	11/07
	Organizational Chart	5/07	11/07
	Lines of Authority	5/07	11/07

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Contact Names & Numbers for Management	5/07	11/07
Contact Names & Numbers for Administration	5/07	11/07
Contact Names & Numbers for Maintenance	5/07	11/07
Chain Of Communication For SSO Reporting	5/07	11/07
3) Legal Authority – May 2009	Development	Scheduled Completion
Development of Sewer Use Ordinances to:	5/07	5/09
a. Limit Discharge Of Fats, Oils, Grease & Other Debris	5/07	5/09
b. Control For I&I Illicit Discharges	5/07	5/09
c. Control For Stormwater Illicit Discharges	5/07	5/09
d. Control For Chemical Dumping Illicit Discharges	5/07	5/09
e. Control For Cut Roots Illicit Discharges	5/07	5/09
f. Control For Proper New Design & Construction	5/07	5/09
g. Control For Proper Rehabilitation Design & Construction	5/07	5/09
h. Control For Proper Connection Design & Construction	5/07	5/09
i. Allow For Testing	5/07	5/09
j. Allow For Inspection	5/07	5/09
k. Ensure Access For Maintenance	5/07	5/09
l. Ensure Access For Inspection	5/07	5/09
m. Ensure Access For Repairs	5/07	5/09
n. Allow for Enforcement for Violations of Ordinance Req.	5/07	5/09
Identification of all Service Agreements	5/07	5/09
Other Legally Binding Procedures	5/07	5/09
4) Operations & Maintenance Program – May 2009	Development	Scheduled Completion
Maintain Up-To-Date Map For Gravity Lines, Manholes, Pumping Facilities, Pressure Lines, Valves, and other Sanitary Sewer Pertinences	5/07	5/09
Procedure For Maintaining Map Data	5/07	5/09
Development of GIS System	5/07	5/09
Development and Implementation of CMMS	5/07	5/09
Procedures for Routine Preventative Maintenance Activities	5/07	5/09
Schedule For Preventative Maintenance (Equipment, Pipes, Manholes, Pump Stations, Force Mains, Valves, etc...)	5/07	5/09
Schedule for Inspection (Equipment, Pipes, Manholes, Pump Stations, Force Mains, Valves, etc...)	5/07	5/09
Problem Area Identification & Prioritization	5/07	5/09
Work Order System	5/07	5/09
Condition Assessment Program (CCTV)	5/07	5/09
Inspection Criteria For CCTV (O&M)	5/07	5/09
Short & Long Term Implementation Plan	5/07	5/09
Regular Training Of Staff Specific To Agencies O&M Program	5/07	5/09
Equipment & Replacement Part Inventories	5/07	5/09
Critical Part Identification	5/07	5/09
5) Design & Performance Provisions – August 2009	Development	Scheduled Completion
Design & Construction Standards & Specifications For New Sewers, Pump Stations, and other Appurtenances	5/07	8/09

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	Design & Construction Standards & Specifications For Rehabilitation Of Existing Assets	5/07	8/09
	Acceptance Testing	5/07	8/09
	Procedures to Ensure Adequate Capacity for New Construction or Remodel to High Density	5/07	8/09
6)	Overflow Emergency Response Plan – May 2009	Development	Scheduled Completion
	Procedures for Calling in Overflows and Communication of those Procedures (Community, Fire, Police, Life Guards, etc...)	5/07	5/09
	Notification Procedures To Primary Responders	5/07	5/09
	Notification Procedures To Regulatory Agencies	5/07	5/09
	Development of Standard Operating Procedures for Spill Response, Containment, Mitigation, and Flow Restoration	5/07	5/09
	Training Program for Emergency Response	5/07	5/09
	Sewer Backup Response and Mitigation Procedures	5/07	5/09
	Equipment Availability and Appropriate Use	5/07	5/09
	Traffic Control Program	5/07	5/09
	Monitoring/Sampling	5/07	5/09
	Follow-up Activities and Investigation Procedures	5/07	5/09
	Final Reporting	5/07	5/09
7)	Fat, Oils & Grease Control Program – May 2009	Development	Scheduled Completion
	Service Area Evaluation	5/07	5/09
	Identification Of Problem Areas	5/07	5/09
	Establish FOG Cleaning Schedule	5/07	5/09
	FOG Source Control Program	5/07	5/09
	Plan & Schedule For Public Education and Outreach	5/07	5/09
	Plan & Schedule for FOG Disposal	5/07	5/09
	Legal Authority To Prohibit Discharges Caused By FOG	5/07	5/09
	Requirement FOG Removal Devices	5/07	5/09
	Develop Design Standards For Removal Devices	5/07	5/09
	Requirements for FOG Removal Device Maintenance	5/07	5/09
	Record Keeping For Maintenance	5/07	5/09
	Reporting For FOG Removal	5/07	5/09
	Inspection Authority	5/07	5/09
	Enforcement Authority	5/07	5/09
	Sufficient Staff To Manage	5/07	5/09
	Implementation Of Source Control Measures (BMPs)	5/07	5/09
8)	System Evaluation & Capacity Assurance Plan – August 2009	Development	Scheduled Completion
	Develop Design Storm Criteria	5/07	8/09
	Identify Sections with Capacity Related Problem	5/07	8/09
	Analyze Pipe Deficiencies	5/07	8/09
	Identify Capacity Enhancement Measures	5/07	8/09
	Develop CIP That Addresses Dry & Wet Weather Capacity	5/07	8/09
	Develop Hydraulic Model	5/07	8/09

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9)	Monitoring, Measurement & Program Modifications – August 2009	Development	Scheduled Completion
	Develop and Maintain CMMS Program or other Data Repository	5/07	8/09
	Maintain Relevant Information	5/07	8/09
	Create Reports that Measure the Effectiveness Of SSMP	5/07	8/09
	Review Measures and Reports on Regular Basis	5/07	8/09
	Assess Success Of Preventative Maintenance Program	5/07	8/09
	Update Program Elements As Needed	5/07	8/09
10)	SSMP Program Audits – August 2009	Development	Scheduled Completion
	Document Control Program	5/07	8/09
	Identify Key Responsible Individual for Audit	5/07	8/09
	Development of Audit Checklist focusing on both Compliance and Continual Improvement	5/07	8/09
	Audit Trigger Development	5/07	8/09
	Audit Finding Protocol with Management and Budget Integration	5/07	8/09
11)	Communication – August 2009	Development	Scheduled Completion
	Develop list of Stakeholders (Internal, Satellite, and Community)	5/07	8/09
	Identify Key Individual for Coordination	5/07	8/09
	Create Communication Plan for SSMP Development & Performance	5/07	8/09