# Sewer System Management Plan (Final Report)

September 1, 2016



City of Monrovia 415 S. Ivy Avenue Monrovia, CA 91016



#### **ABBREVIATIONS**

**BMP - Best Management Practice** 

CIP - Capital Improvement Program

CIWQS - California Integrated Water Quality System

CMMS – Computerized Maintenance Management System

CWC - California Water Code

CWEA - California Water Environment Association

DPW - Department of Public Works

FOG - Fats, Oils, and Grease

FPS - Feet per Second

GIS - Geographic Information Systems

I/I - Infiltration/Inflow

MMC - Monrovia Municipal Code

**KPI - Key Performance Indicator** 

LACSD - Los Angeles County Sanitation Districts

LRO - Legally Responsible Official

MMC - Monrovia Municipal Code

MRP - Monitoring and Reporting Program

MMRP - Measurement, Monitoring and Reporting Procedures

NOI - Notice of Intent

NPDES - National Pollutant Discharge Elimination System

OES - Office of Emergency Services

O&M - Operations and Maintenance

PDWF - Peak Dry Weather Flow

PSD - Public Services Director

RWQCB - Regional Water Quality Control Board

SECAP - Sewer System Evaluation and Capacity Assurance Plan

SO&M – Sewer Operations & Maintenance

SSMP - Sewer System Management Plan

SSO - Sanitary Sewer Overflow

SWRCB - State Water Resources Control Board

VCP - Vitrified Clay Pipe

WDR - Waste Discharge Requirements



# Table of Contents

EXECUTIVE SUMMARY		6	
SECTION 1	INTRODUCTION	7	
SECTION 2	SSO CATEGORIES AS DEFINED BY THE REVISED MRP	11	
SECTION 3	GOALS	14	
SECTION 4	ORGANIZATION	17	
SECTION 5	LEGAL AUTHORITY	25	
SECTION 6	OPERATION AND MAINTENANCE PROGRAM	29	
SECTION 7	DESIGN AND PERFORMANCE PROVISIONS	33	
SECTION 8	OVERFLOW AND EMERGENCY RESPONSE PLAN	35	
SECTION 9	FOG CONTROL	40	
SECTION 10	SYSTEM EVALUATION AND CAPACITY ASSURANCE	45	
SECTION 11	MONITORING, MEASUREMENT, AND PROGRAM MODIFICATION	48	
SECTION 12	PROGRAM AUDIT PROCEDURES	50	
SECTION 13	COMMUNICATION PROGRAM	53	



# **APPENDICES**

Appendix A ............ Waste Discharge Requirements (Order No. 2006-0003-DWQ)

Appendix B .......... Monitoring and Reporting Program (No. 2006-0003) 'Amended'

Appendix C ...... WDR 'Fact Sheet'

Appendix D ...... Agency WDR Application (NOI)



#### **DEFINITIONS**

**Blockage or Stoppage -** A build-up of debris in the main sewer line or lateral, which obstructs the flow of wastewater and allows the waste flow to back up behind the blockage, sometimes causing an overflow.

**Geographical Information System (GIS)** – A computerized database linked with mapping, which includes various layers of information used for asset management purposes. A GIS typically contains base information such as streets and parcels. Examples of information contained in sewer system GIS files can include: a sewer main map, sewer features such as pipe location, diameter, material, condition, age, last date cleaned or repaired, and links to pictures or video inspections.

**Infiltration/Inflow** (I/I) -- Infiltration is generally extraneous subsurface water that enters the sewer system over long periods of time, such as groundwater seepage through joints, cracks and manhole structures. Inflow is generally extraneous surface waters that enters the system during a storm or flooding event, such as through manholes, illicit drain connections or other defects in the sewer. While it is impossible to control all I/I, it is highly desirable to reduce I/I when cost-effective.

**Lateral** (House Connection Sewer) - The portion of sewer that connects a structure (residence or business) with the main sewer line in the street, alley, or easement.

**Wastewater Collection System --** All pipelines, pump stations, and other related facilities, upstream of the headworks of the wastewater treatment plant, which convey wastewater from its sources to the wastewater treatment plant.

Waters of the United States (Please refer to the link below to access Federal register published on June 29, 2015 for the updated and detailed definition of this item)

http://www2.epa.gov/sites/production/files/2015-06/documents/epa-hq-ow-2011-0880-20862.pdf



#### **Executive Summary**

This plan document was updated in 2014 and again in 2015, in compliance with a formal order issued by the State Water Resources Control Board. The order requires every owner and operator of publicly owned sewer systems to develop and implement a system specific Sewer System Management Plan (SSMP). This plan sets forth goals and actions to be followed, and guidelines for various activities involved in managing, operating, maintaining, repairing, replacing, and expanding the sewer system. Section 8 describes actions to follow when responding to a Sanitary Sewer Overflow (SSO) occurrence within the community, including reporting obligations. There are chapters that describe legal authorities for managing the system, and ministerial actions required in monitoring, auditing, reporting, and communicating with the public and regulators. There are specific requirements for accomplishing public involvement and the reporting and modifying (changing) of the plan. These later requirements are intended to raise public awareness of the hazards associated with SSO events and to minimize the occurrence of such events.

- The City's updated plan is to be approved and certified in September 2016
- The plan is to be monitored and updated no less frequent than every five years
- The plan must be periodically audited for effectiveness, a report compiled and kept on file and such audits must occur no less frequent than every two years
- There are reporting timeframes for both emergency and routine reporting events
- The adoption of and any revision to the plan must be adopted by the City Council at a noticed meeting.
- Copies of the approved plan must be available for public review, and when requested by the State or Local regulatory agencies copies are to be provided, including any audit reports.

The key elements to the successful implementation of this plan are: 1) design and construction of replacement pipelines for the previously identified capacity deficient pipelines in the sewer system and 2) the continuing annual CCTV inspection of designated areas within the sewer system to determine further defects that may exist. These actions in concert with the routine maintenance and operation activities will help the City to limit the risk of SSO events within the community.

Based on a comprehensive audit and overall review of the 2014 SSMP, the 2015 Sewer Master Plan, and a review of all other related documents, the City of Monrovia hereby certifies that all SSMP Goals are on-going and will be continuously monitored and updated. This SSMP also incorporates our discussions with the RWQCB and SWRCB staff, and City's response letter to the SWRCB's Notice of Violation letter and action items proposed.



#### **SECTION 1 – Introduction**

#### 1.1 Service Area and Sewer System

Monrovia is located in the southeast corner of the Los Angeles County. The City is bordered by Arcadia on the west, Duarte and Bradbury on the east, unincorporated Los Angeles County on the north and south. The City covers approximately 13.7 square miles and serves a population of approximately 37,000. The City was incorporated in August 1887.

The City through its Public Services Department owns, operates, and maintains a sanitary sewer collection system including approximately 92 miles of City sewers with sewer pipe sizes varying in diameters from 6 inches to 24 inches. The majority of City wastewater flows are conveyed to a 24-inch trunk sewer in Peck Road in the southern area of the City. The City operates its wastewater collection system under the jurisdiction of the Los Angeles Regional Water Quality Control Board, the State Water Resources Control Board, and the U.S. Environmental Protection Agency.

The sewers are primarily constructed of vitrified clay pipe with majority of the pipes sized at 6-inch to 10-inch in diameter. The majority of the existing sewer system was constructed before 1960.

#### 1.2 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 Monrovia 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 Monrovia 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.

#### 1.3 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.

#### 1.4 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 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 <a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>

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.

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.



#### SECTION 2 – SSO Categories as Defined by the Revised MRP

An SSO is defined by the WDR as any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system, including:

**Category 1** – Discharges of untreated or partially treated wastewater of <u>any volume</u> resulting from an enrollee's sanitary sewer system failure or flow condition that:

Reach surface water and/or reach a drainage channel tributary to a surface water; or Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

Category 2 – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.

**Category 3** – All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

SSOs may cause a public nuisance, particularly when raw wastewater is discharged to areas having high public exposure, such as streets or surface waters used for drinking, fishing, or body-contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

Agencies in California that own sanitary sewer systems and experience SSOs are required to enter the SSO information into California's Integrated Water Quality System (CIWQS) database—the SWRCB's information management system for regulatory and water quality data reporting. In addition, SWRCB requires that agencies notify the State Office of Emergency Services (OES) within 24 hours of any spill that exceeds 1,000 gallons.

In summary, the WDR is intended to:

- Provide a consistent and unified statewide approach for the reporting and database tracking of SSOs.
- Establish consistent and uniform requirements for SSMP development and implementation.
- Facilitate consistent enforcement of the WDR regulation and violations.



Capacity assurance is at the heart of the WDR. The SWRCB's WDR requires the preparation of SSMPs, while implementation of SSMPs is the responsibility of the nine Regional Water Quality Control Boards (RWQCBs). The SSMP consists of a set of documented plans to address how a wastewater collection system conducts business management, funding, design, operations, maintenance, and emergency response. The System Evaluation and Capacity Assurance Plan (SECAP) element of the SSMP includes evaluation of peak flows, design criteria, and capacity enhancement measures, and a schedule with planned completion dates of capital improvements.

#### Goals of the SSMP are to:

- Properly manage, operate, and maintain all portions of the agency's wastewater collection system;
- Provide adequate capacity to convey peak wastewater flows;
- Minimize the frequency of SSOs;
- Mitigate the impacts that are associated with any SSO that may occur; and
- Meet all applicable regulatory notification and reporting requirements.

The SSMP prescribes specific milestones that relate to the specific elements required in the WDR:

- 1. Goals,
- 2. Organization,
- 3. Legal Authority,
- 4. Operations and Maintenance Program,
- 5. Design and Performance Provisions,
- 6. Overflow Emergency Response Plan,
- 7. Fats, Oils and Grease (FOG) Control Program,
- 8. System Evaluation and Capacity Assurance Plan (SECAP),
- 9. Monitoring, Management, and Plan Modifications.
- 10. SSMP Program Audits, and
- 11. Communication Program.

An SSMP program audit must be conducted at least every two years, and the audit report must be kept on file by the City staff. Successful implementation of an SSMP and compliance with the WDR could result in significant cost-savings to the City and its residents.

The City performed a comprehensive Gap Analysis and audit of its SSMP, utilizing an outside consultant (Hall & Foreman) which was completed in August 2015. The results and recommendations of the Gap Analysis and audit have been incorporated into this document.

In compliance with the WDR Order, the City did file its application form with the SWRCB as required. As a result, the City received its Username and Password for accessing the California Integrated Water Quality System (CIWQS) database. Within the database reporting program, the City completed its "collection system questionnaire" and will file all subsequent updates and all required SSO reporting.



Additionally, this document has been prepared to meet the objectives contained in the WDR Order. The document is divided into 13 sections, which closely align with the respective provisions contained in the WDR. Every section or subsection of each chapter addresses one of the key elements of the SSMP directive.

This document, plus other existing agency programs referenced herein constitute the SSMP for the City of Monrovia. By implementing the procedures contained in this SSMP, the occurrence of SSO should decrease or possibly be avoided throughout the City's sanitary sewer collection system.



#### **SECTION 3 - 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.

#### 3.1 Overview

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

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.

#### 3.2 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.



#### 3.3 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 Monrovia.

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.

#### The **goals** of this SSMP are:

- 1. Collection system facilities are properly managed, operated, and maintained to eliminate preventable sanitary system overflows (SSOs);
- Response measures are in place and that all feasible steps are taken to mitigate the impacts of SSOs to public health and the environment when they occur; and reporting procedures are in place to notify the appropriate regulatory and health authorities of SSOs within the required time frames; and
- 3. SSO events, mitigation measures, and corrective actions are documented; and
- 4. City sewer system operators, employees, contractors, responders, or other agents are adequately trained and equipped to address an SSO event; and,
- 5. City sewer system is properly designed, constructed, and funded to provide sufficient capacity to convey base flows and peak flows while meeting or exceeding applicable regulations, laws, and generally acceptable practices relative to sanitary sewer system operations and maintenance.

#### The **actions** to be taken under the SSMP are:

- Conduct planned and scheduled maintenance and training programs to minimize risk and the occurrence of SSO, in support of the SSMP goals including cleaning and CCTV inspection of all sewer lines. This includes cleaning all sewer lines every 18 months, all Hot Spots quarterly, and CCTV the entire sewer system every five (5) years.
- 2. When SSO's do occur, respond to the reported site in a timely manner and undertake feasible remedial actions to contain overflow impacts, including stopping the flow from reaching the storm drain or water course, if possible; and,



- 3. Stop the overflow as soon as possible and limit public access into the overflow area to prevent public contact with any wastewater contamination; and,
- 4. Completely recover the overflow and return it to the sewer system, and clean up the contaminated area; and,
- 5. Gather and compile all pertinent information regarding the overflow event, investigate as necessary to determine probable cause, document findings, report to the appropriate regulatory agencies in a timely manner, and file the completed report; and,
- 6. Condition all development and capital projects to evaluate, design and construct sewer facilities to the city approved standards and criteria, and
- 7. Update the Sanitary Sewer Overflow Emergency Response Plan
- 8. Perform needed rehabilitation of the sanitary sewer system to address capacity deficiencies as well as structural deficiencies, as identified in the new 2015 Sanitary Sewer Master Plan
- 9. Implement all action items committed to in the Response Letter to the State Water Resources Control Board dated October 22, 2015



#### **SECTION 4 - 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)).

#### 4.1 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.

#### 4.2 Purpose

Clearly identifying specific roles and responsibilities within an organization will ensure 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.

#### 4.3 Minimum Requirements

- 1. The name of the responsible or authorized representative as described in Section J of this Order.
- 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 Quality Control Board, and/or State Office of Emergency Services (OES)).



#### 4.4 Sewer System Management

Monrovia is located in the southeast corner of the Los Angeles County. The City is bordered by Arcadia on the west, Duarte and Bradbury on the east, unincorporated Los Angeles County on the north and south. The City covers approximately 13.7 square miles and serves a population of approximately 37,000. The City was incorporated in August 1887.

The City through its Public Services Department owns, operates, and maintains a sanitary sewer collection system including approximately 92 miles of City sewers with sewer pipe sizes varying in diameters from 6 inches to 24 inches. The majority of City wastewater flows are conveyed to a 24-inch trunk sewer in Peck Road in the southern area of the City. The City operates its wastewater collection system under the jurisdiction of the Los Angeles Regional Water Quality Control Board, the State Water Resources Control Board, and the U.S. Environmental Protection Agency.

The sewers are primarily constructed of vitrified clay pipe with majority of the pipes sized at 6-inch to 10-inch in diameter. The majority of the existing sewer system was constructed before 1960.

Distribution of the City's personnel is depicted in the organization chart presented in section 4.7.1 of this plan. These personnel provide engineering evaluation of existing and proposed sewer facilities, administer the City's sewer service charge ordinance, review and permit new service connections or development projects, maintain facility record plans, and administer preventive maintenance and sewer construction programs.

#### 4.5 Authorized Representative

The City's Director of Public Services is the authorized representative who is responsible for the execution of compliance actions required under the WDR. This includes, but is not limited to, signing and certification of all reports and correspondence as required under this order.

#### 4.6 City's Responsibilities

The City is required to apply for coverage under the WDR for facilities it owns. The City is required to prepare a comprehensive SSMP, and if it has not yet fully adopted applicable codes, local ordinances, or resolutions governing the performance of items stipulated in the WDR, it will promptly undertake actions to adopt the legal means to do so.

The City Public Services Department (PSD) plays significant roles, jointly and separately, towards attaining the goals of the WDR. The degree of these collaborative efforts will vary from department to department depending on the degree of SSO related services the PSD is providing under various agreements.

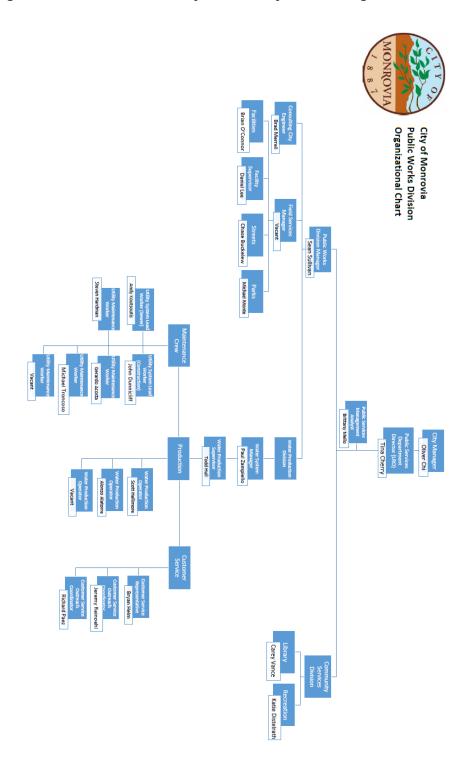


# 4.7 Organization Chart and Responsibilities

The organization chart showing the structure and relationships of the City's administrative, management and field positions relative to sewer operations and maintenance (SO&M) is presented in Section 4.7.1 and the descriptions of responsibilities and support are presented in Sections 4.7.2 and 4.7.3



# 4.7.1 Organization Chart for the City's Sewer System Management Plan





#### 4.7.2 Description of Responsibilities

The description of responsibilities or roles of each position especially as related to SSOs are as follows:

- City Council Responsible for establishing new and amending existing ordinances and
  policies governing the municipal operations, and the operations of the city's sanitary
  sewer system including the approving of all SO&M contracts and agreements within the
  community's interest.
- City Manager Responsible for the overall management and application of all legal and policy directives that relate to the city's activities, including the operation and maintenance of all City departments.
- Director of Public Services Responsible for directing the implementation of statutory
  and policy criteria, within the scope of the City Council's policy and legal requirements.
  Directs its execution and evaluates work accomplished within her areas of responsibility,
  including the SO&M program. Also directs the planning, budgeting, design, and
  construction of new and rehabilitation of existing sewage collection systems, and assists
  with claims and litigations against the City relative to public infrastructure. Legally
  Responsible Official for CIWQS reporting.
- **City Engineer** Responsible for planning, design, and construction of water, sewer, and storm drain CIP and monitoring of all related expenditures.
- Public Works Manager Responsible for managing daily operations of the Public Works Division in the Department of Public Services, including the sewer sanitation system and water system.
- Water Systems Manager Responsible for overseeing daily operations of the Water Systems Division in the Department of Public Services, including all maintenance, production, and customer service activities.
- **Senior Public Works Inspector** Responsible for performing on-site inspections of FOG-related SSOs; assists in managing SSO response and follow up.
- Environmental Services Coordinator Responsible for monitoring storm water and storm drain system for regulatory compliance; maintains documents of FOG-related SSOs; sends notices of violation and best management practices as needed; manages NPDES compliance.
- Management Analyst Responsible for reporting and correspondence to affiliated agencies.
- Sewer Maintenance Crew Responsible for repairs and replacements of sewer-related infrastructure; preventative maintenance activities; on-site containment and remediation of SSOs; CIWQS, SSO, and no-spill reporting; reports condition of City assets, mobilize, and respond to notification of stoppages and SSOs, including remediation efforts; and mobilize sewer-cleaning equipment and bypass pumping equipment.

#### 4.7.3 Chain of Communication for SSO Reporting

Once the City of Monrovia Public Services staff receives a complaint or information regarding a potential SSO event during working hours, that employee will immediately notify the Sewer Maintenance staff to respond to the SSO event. Once notified of the potential SSO event, the Sewer Maintenance Crew will respond to the location and immediately implement the Sanitary Sewer Overflow Response Plan. The Response Plan provides goals and guidance for response

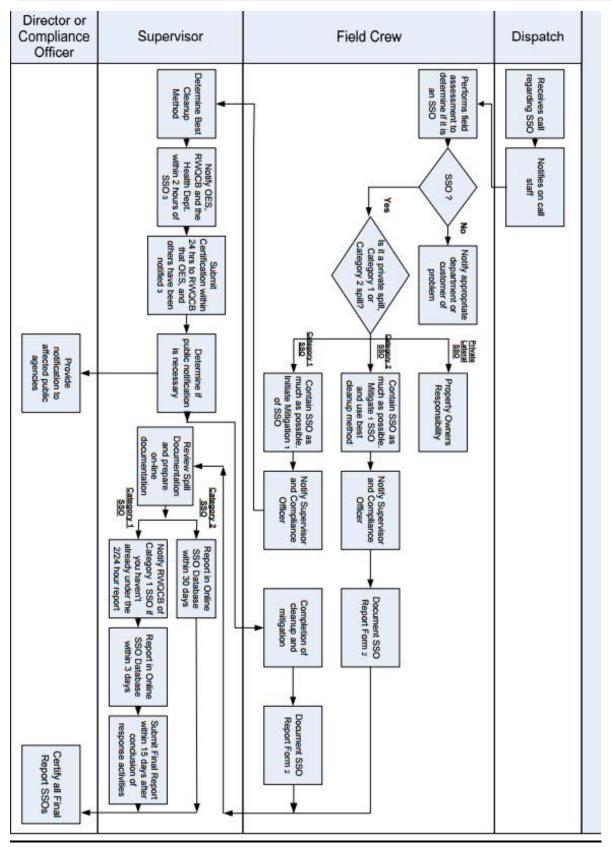


measures necessary to minimize impacts to public health and environment in the event of an SSO. The Sewer Overflow Reporting Protocol, issued by the Los Angeles County Department of Public Health is administered by the Sewer Maintenance Crew.

# 4.7.4 SSO Reporting Procedures Flow Chart

This diagram will be updated to reflect changes in City's practices and to address any issues and concerns by the State Water Resources Control Board.







# 4.7.5 City's Contact Directory for SSO Responding and Reporting

Responsible Party	Name	Telephone	After-Hours Telephone
City Manager	Oliver Chi	626-932-5585	310-663-9837
Director of Public Services (Legally Responsible Official)	Tina Cherry	626-932-5544	951-808-7449
City Engineer	Brad Merrell	626-932-5577	760-900-7526
Public Works Manager	Sean Sullivan	626-932-5522	310-993-7283
Water System Manager	Paul Zampiello	626-932-8292	626-945-9311
Management Analyst	Brittany Mello	626-932-5571	619-519-9215
Sewer Maintenance Lead	Andy Koutsoutis	626-256-8213	626-374-5626
Sewer Standby	John Dunnicliff	626-256-8215	626-332-6697
Communications Dispatch	Daniel Lee	626-932-8216	626-926-4621
Important County/State	Name	Telephone	After-Hours
Contacts			Telephone
LA County DPW	Bill Winter (Sewer Maintenance)	626-300-3304	
LA County Health Department	County Operator (notify if sewer discharge enters waters of the state)	213-974-1234	
LA County Flood Control District	Eric Baul (Civil Engineer, San Gabriel & Santa Clara Rivers/Rio Hondo & Dominguez Channels/Antelope Valley Section, Watershed Management Division, LA County Dept of Public Works)	626-458-4314	626-476-7253
County Sanitation Districts of LA (District No. 15)	Sanitation District (Report public sewer backups into dwellings or the street)	562-437-6520 or 562-437- 1881	Same after hours.
Regional Water Quality Control Board (Los Angeles Region)	Hugh Marley (Enforcement Coordinator)	213-620-6375	
California Office of Emergency Services	Contact within 2 hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons and obtain a notification control number	800-852-7550	



#### **SECTION 5 - 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

#### 5.1 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.

#### 5.2 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.



#### 5.3 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.

#### 5.4 Statutory Authority

Pursuant to the California Government Code, Sections 37100 and 54350, the City Council, as the local legislative body, may by ordinances and resolutions make and enforce all rules and regulations necessary for the administration of the city's SO&M plan. Such actions include, but are not limited to, the design, construction, cleaning, repair, reconstruction, rehabilitation, replacement, operation, maintenance, discharges into, blockage of, access to, and violation enforcement pertaining to the sanitary sewers within the City's System. Consistent with the law, several ordinances have been established by the City Council to govern all aspects of the SO&M plan. The legal authorities for the specific areas stipulated in the WDR are discussed below.

Monrovia Municipal Code (MMC), Chapter 15.04 entitled "Codes Adopted," Section 15.04.010 entitled "Adoption," Subsection "c" has adopted the California Plumbing Code, edition 2013, by reference, as the Plumbing Code of the City of Monrovia.

#### 5.4.1 Authority to prohibit illicit discharges into the sewer system

MMC, Chapter 13.12, provides control measures to prohibit illicit discharge of FOG. However, currently there are no specific languages in MMC related to other types of illicit discharges to the public sewer system of the City, including discharge of storm water, as well as specific language relating to Infiltration and Inflow (I/I) into the sanitary sewer system.

The City will be amending the MMC to add language prohibiting other non-FOG related illicit discharges to the public sewer system, including storm water, surface drainage, as well as specific language relating to I/I.

# 5.4.2 Authority to require sewers and connections be properly designed and constructed

Chapter 16.24 of the City Municipal Code, there is adequate "General" language pertaining to the "Legal Authority" to require proper design and construction of new and rehabilitation work in



the sanitary sewer system within the City of Monrovia. Also, City of Monrovia does have its own design guidelines for the sewer system, which relies on the APWA standards.

The City will add specific language related to the construction of sewer lines and manholes to prevent I/I in the system. In addition, The City will update its ordinance to add a requirement that all new sewer construction must be cleaned and televised before being accepted by the City.

#### 5.4.3 Authority to ensure access for maintenance, inspection, or repairs

The City will be amending the MMC to add requirement to its ordinance to ensure access authority for maintenance, repair, and inspection of all collection system assets within the City of Monrovia.

#### 5.4.4 Authority limiting discharge of FOG and other debris that may cause blockage

Chapter 10 of the California Plumbing Code provides the Building Official (or other Authorized Authority) with legal authority to require installation of interceptors (clarifiers) where waste flow conditions necessitate the proper handling of the liquid waste stream flow to protect the sewer system and the public (commonly at food service establishments, processing facilities, industrial facilities, etc., that generate grease, oil, grit, acids, alkaline or flammable wastes). This authority would apply at any facility that generates FOG in an amount that will damage or otherwise increase the maintenance costs of the wastewater collection system.

#### 5.4.5 Legal Authority to Enforce any Violation of Sewer Ordinances

In the Section 1.16.25 of the MMC, there is general language pertaining to the enforcement measures that can be taken by Public Works Department and the authority to issue civil citations and make arrests without a warrant.

The City will modify this language to clarify the authority of the Public Services Department and the Director of the Public Services Department. City will also add requirement to its ordinance to ensure authority for assessing fines for misdemeanors or infractions including other non-FOG related illicit discharges to the public sewer system. As such, specific violations will be delineated to facilitate establishing the authorization necessary to issue violation notices and fines specific to the wastewater collection system, including passing on to the culpable parties fines and penalties that the City may incur for the negligent and intentional acts of others.

#### 5.4.6 Legal Authority to Fund the operations & maintenance of the sewer system

On October 6, 2015, the Monrovia City Council held a public hearing to consider the proposed adjustments to the water rate and sewer rate. Following introduction and first reading on October 6, 2015, the City Council adopted Ordinance No. 2015-10 at their regular meeting on October 20, 2015. The ordinance took effect on November 20, 2015.

The proposed water and sewer rate adjustments take into account the City's ongoing operating costs, including purchasing water rights when needed, and the essential capital improvements to the City's water and sewer infrastructure identified within the Monrovia Renewal project. The estimated \$36,905,038 in needed repairs and enhancements for both systems are comprised of the following costs:



#### Monrovia Renewal Capital Improvement Plan Project Costs

#### **Sewer System Capital Projects Costs**

Sewer Rehabilitation \$8,282,038
Sewer System Street Repairs \$5,365,000
Total Sewer System Capital Costs \$13,647,038

# Water System Capital Projects Costs

Pipeline Projects \$2,502,000
Facility Projects \$7,180,000
Meter/System Upgrades \$3,750,000
Water System Street Repairs \$9,826,000
Total Water System Capital Costs \$23,258,000

Based on the estimated capital improvement and ongoing operational costs, the proposed water and sewer fee adjustments were sized to provide the required level of funding, utilizing a financing program to maximize revenues on fees collected, at a total cost of approximately \$14 per month for the typical single-family residence. Additional details related to these new rates can be found in the MMC. These new rates establish the basis for a financial plan to ensure operations and maintenance or the capital replacement or rehabilitation of the community water and sewer systems.



#### **SECTION 6 - 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 shortterm 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.



#### 6.1 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.

#### 6.2 Purpose

Through 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.

#### 6.3 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;
- 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.

#### 6.4 Personnel

The City of Monrovia maintenance services are provided from the maintenance facility located at 600 South Mountain Avenue in the City of Monrovia. This provides for efficient management of maintenance activities including SSOs and other emergencies. Their responsibilities include cleaning the system on a regular basis, clearing and cleaning hot spots, and responding to sanitary sewer overflows as well as calls from residents.

#### 6.5 Vehicles and Equipment

The Sewer Maintenance Division Section performs day-to-day operations and maintenance activities using assigned vehicles and equipment. The equipment includes, but is not limited to:

- 1 Vacuum Truck
- 1 Sewer Jetter Truck
- Pump
- Generators
- CCTV Equipped Vehicle



- Safety Equipment
- Request for Two (2) Computer Tablets.

#### 6.6 Mapping and Geographic Information Systems

The City of Monrovia utilizes a map of its wastewater collection system stored in Geographic Information System (GIS) format. The GIS mapping was developed as part of the 2015 sewer master plan. GIS is a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information (i.e. data) according to their location. The user can select a sewer and access all available information based on the selection. This system is a powerful tool when used to quickly access critical information during an emergency response. The GIS Section is responsible for maintaining the Sewer Database. A map of the entire sewer collection system is included as an Attachment to the 2015 Sewer Master Plan.

#### 6.7 Preventative Maintenance (PM) Program

A comprehensive maintenance program is an important tool in assuring reliable system operation. The City of Monrovia Sewer Maintenance Division is assigned to clean the sewer lines throughout the City on a daily basis and in addition, respond to any Sanitary Sewer Overspills that may occur. There are approximately 92 miles of sewer pipeline consisting of gravity sewer lines, and no City owned pumping stations. The Sewer System is mapped out in a grid format, which the City uses to perform its on-going operations and maintenance. The City has established a new level of service for cleaning of its sanitary sewer lines with a goal of jetting and cleaning of the entire sewer system every 18 months. Additionally, City will perform a comprehensive manhole inspection as part of its I/I Study.

The City is implementing a proactive sewer rehabilitation program utilizing sewer bond funds. These will include prioritizing and replacing lines that have been identified as hydraulically and structurally deficient, through the 2015 Sewer Master Plan. The 2015 Sewer Master Plan included CCTV inspection of approximately 20 percent of the sewer system.

Additionally, City will be initiating a new CCTV program and condition assessment, for the remaining portion of its sewer lines so that additional rehabilitation for these lines can be identified and added to the existing CIP for structurally deficient sewer lines. The City has set aside adequate funding to complete its CCTV program for the remainder of the system, within the next two fiscal years. If the problem is related to a private lateral, the responsible resident is notified. The City has also established a level of service for performing television inspection of its entire sewer system every five (5) years.

The Sewer Maintenance Division responds in a timely matter to all emergency calls regarding Sanitary Sewer Overflows (SSOs) and sewage spills from private properties following procedures detailed in Chapter 6 – Sanitary Sewer Overspill Response Plan of this report.

The Sewer Maintenance Division staff will also re-start its root control program by jetting or rodding. Additionally use of root killing chemicals has also been re-instated. The City began working with a consultant, Duke's Root Control, Inc., in February 2016 to re-institute root foaming services in sections of the sanitary sewer system damaged by root intrusion. The agreement will supplement the work done by the Sewer Maintenance Division staff as part of their root control program that utilizes jetting and rodding.



#### 6.8 Rehabilitation and Replacement Program

The City of Monrovia has implemented a proactive Rehabilitation and Replacement Program, based on the results of its 2015 Sewer Master Plan to 1) ensure the timely repair of sewer pipes in imminent danger of failure or blockage; 2) ensure the long range sustainable replacement of obsolete assets; and 3) improve system performance and reduce spills caused by hydraulic deficiencies. The Rehabilitation and Replacement Program includes spending over \$8 M to rehabilitate the deficiencies identified as the results of the 2015 Sewer Master Plan.

#### 6.9 Training Program

The City of Monrovia has implemented regular training for its staff as well as sending its staff to various training programs.

Also, staff attended the workshop for wastewater collection system professionals (March 2015) on ways to be in compliance with the new WDR requirements. This workshop also provided practical solutions for refining and implementation of your overall sanitary sewer management plan (SSMP).

Additional training will be scheduled for City staff responsible for the operations and maintenance of the sanitary sewer system as part of the City's SSMP implementation phase.



#### **SECTION 7 - 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 resting the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

#### 7.1 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.

# 7.2 Purpose

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

#### 7.3 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, other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- 2) Develop and implement procedures and standards for inspecting the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects.

#### 7.4 Design and Construction Standards and Specifications

The City of Monrovia has established standards and guideline to ensure that its wastewater collection systems facilities are properly designed and constructed. These facilities include, but are not limited to, gravity sewers and other related items. MMC Chapters 13.08 and 13.12 includes general requirements for sanitation charges and sewage discharge respectively

For each design project, the City of Monrovia develops Contract Documents that are specifically tailored for that facility. For sewer projects, the City relies upon the Standard Specifications for Public Works construction (Greenbook) and the American Public Works Association Standards.



To further assure that wastewater collection facilities are properly designed and constructed, design of all project drawings, by both in-house and outside consultants, follow an established review procedure. Licensed engineers oversee and/or perform all facility design. Project drawings are checked and reviewed by licensed engineers prior to approval for construction. City will further strengthen its standards by codifying the use of the Green Book and integrating it as part of the MMC.

# 7.5 Inspection and Testing Procedures and Standards

Inspection for the installation of all new and rehabilitated collection sewer facilities is done by the Utilities Division of the PSD and in accordance with the American Public Works Association Standards.



# **SECTION 8 - 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.

#### 8.1 Overview

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



#### 8.2 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.

#### 8.3 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.

## 8.4 Sanitary Sewer Overflow Response Plan Goals

The City of Monrovia's goals regarding overflow response are:

- Respond to the scene within one hour of notification of an overflow and assess the situation. Promptly notify the responsible agency if the overflow was not caused by a problem within the City of Monrovia's system.
- Prevent the overflow from reaching the storm drain, if possible.
- Limit public access to the overflow area to prevent public contact with wastewater and any areas contaminated by wastewater.
- Stop the overflow as soon as possible, preferably within one hour of arriving on-site.
- Completely contain the overflow as close as practical to the overflow location to prevent or minimize any environmental impact.
- Completely recover the overflow and return it to the sewer system.
- Clean up the area contaminated by the overflow.
- Gather and compile pertinent information pertaining to the overflow, simultaneous with response efforts, and notify appropriate regulatory agencies of the overflow and response status as soon as practical.
- Conduct investigations to determine the probable cause of the overflow, document the
  events during the overflow and response activities, identify, and implement measure to
  prevent recurrence.

#### 8.5 Sanitary Sewer Overflow Response Plan

Once a City of Monrovia employee receives a complaint or information regarding a potential SSO event, that employee shall immediately notify the City of Monrovia Public Services Department. Once notified of a potential SSO event, the City of Monrovia Public Services Department notifies the Sewer maintenance Division and they are the primary responder to the



site. The Sewer Maintenance Division immediately implements its *Sanitary Sewer Overflow Response Plan* (*Response Plan*). The *Response Plan* provides goals and guidance for the response measure necessary to minimize impacts to public health and the environment in the event of a sanitary sewer overflow. The crew responding to an overflow emergency is required to stop the overflow, contain it as much as possible, limit access to the contaminated area, and ensure that the facility or area is cleaned up and returned to normal operation. Residents or businesses in the immediate vicinity of the overflow are to be informed of the cause of the problem and the remedial action taken.

During business hours, emergency calls are received by the operator/staff, who will call and dispatch the nearest sewer maintenance crew to the problem site. For after hour emergencies, the Police Department dispatcher will contact the 'standby' sewer maintenance worker, in the order listed on the emergency home telephone list. The on-call worker who receives the emergency call will investigate the complaints and take appropriate action, including immediate dispatch of a standby crew with necessary equipment to take care of the problem, or refer the call to other agencies if the problem is found to be under another's jurisdiction.

The County Health Department is notified of all overflows and if the overflow reaches the storm drain system, the Regional Water Quality Control Board and the State Office of Emergency Services are notified. The Flood Maintenance District (FMD) is notified of all overflows that discharge into the storm drain system. The role of FMD is to assist in tracing and capturing the spill as much as possible before it reaches the Waters of the United States. The relevant data about the overflow, such as location, volume, agencies notified, etc. is recorded in field report forms and later stored in the computer. All field personnel are trained to be conversant with these procedures and to accurately report of SSO incidents.

The City will also take steps to address 15-day certification requirement for individual Category 1 SSO. All Public Services personnel with CIWQS reporting responsibilities are now aware of this very important element and this issue has also been documented in the update of the City's SSMP.

This along with other procedural and field training issues will be addressed and emphasized during the implementation phase of the updated SSMP which is scheduled to begin immediately. Finally, the City will develop written policies and Standard Operating Procedures to go along with the classroom training of its staff.

# 8.6 Procedure to ensure that staff and contractors are aware of and are appropriately trained to follow Emergency Response Plan

The SO&M Emergency Response Plan will be available to key personnel who are responsible for managing or responding to SSO's. Copies of the City's instruction manuals are available to field crews and engineers at the office who manage or have the role of preparing SSO reports to regulatory agencies. The experience of the Contractors' emergency response team plays a very important part in the selection process during the selection of the City's' as needed Emergency Contractors.



# 8.7 Procedures to address emergency operations such as traffic and crowd control and other necessary response activities.

The Sewer Crew personnel are retained for SSO responses are well trained in traffic and crowd control. The City's vehicles are well equipped with traffic and crowd control tools, including orange traffic control cones, yellow tape, flashing lights, orange uniforms, first-aid supplies, etc.

# 8.8 Program to eliminate or minimize discharge of SSO into Waters of the United States

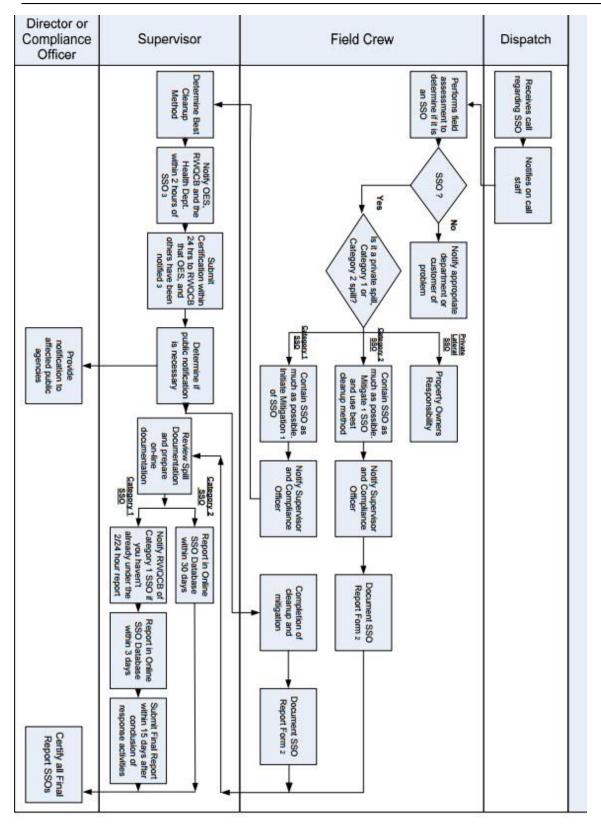
The Sewer Crew personnel and emergency contractors' crews are properly trained on methods and procedures to prevent or limit the amount of SSO into Waters of the United States and how to mitigate their impacts. Some of the methods include the use of sand bags to contain SSO's, absorbent tube socks to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

### 8.9 SSO flow estimation tables and photographs

City crews have been provided with flow estimation pictures and tables that help in estimating sewer overflows.

The following chart shows the City's current Sanitary Sewer Overflow Response Plan. City will be updating this Response Plan to ensure its adequacy, in winter 2017.







# **SECTION 9 - 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.



#### 9.1 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.

#### 9.2 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.

### 9.3 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.



### 9.4 Public education and outreach program

City has a formal public outreach program to promote the proper disposal of FOG. City also disseminates this information through publication of brochures, articles in City newsletters, Community events (Monrovia Days, Earth Day, Water Fest, Biodiversity Fair, etc.) the City's website, and individual notices to property owners. The City also utilizes personal contacts with home and business owners by our field crews and Code Enforcement staff. The City has also initiated the distribution of FOG brochures in neighborhoods with sewer lines prone to heavy grease problems.

Additionally, other effective ways to communicate with the public will be developed. These include expanded use of the City's home web page, use of announcements over radio and local cablevision and other aggressive means. Exchanges of outreach information between agencies, is another beneficial tool.

FOG in the local sewer system can be a prime contributor to an SSO and its corresponding health and safety impacts. Related health and safety issues can also result from the discharge of pharmaceuticals and pesticides into the sanitary sewer system. Although not usually a causative factor in sewer overflows, these chemicals can be toxic and have disruptive environmental and biological effects. Discharges of such chemical compounds into the sewers should also be avoided and will be addressed in the education and outreach program.

#### 9.5 Disposal method and schedule for FOG generated within the system service area

Solidified FOG, found in the public sewer system during regular scheduled cleaning operations or clearing of a blockage, are broken down with jetting operations. These and other debris collected from the system are taken to the County Sanitation District of Los Angeles County (CSD) facilities. FOG in liquid form is flushed down by hydro jetting to designated treatment facilities for disposal.

# 9.6 The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG.

The legal authority to prohibit illicit discharges (e.g. FOG, etc.) into the sewer system is discussed in Section 5 of this document. Requiring grease interceptors at FSE to prevent the discharge of grease to the public sewer system and educating the public on proper disposal methods for FOG are also discussed in this chapter. Discharges from industrial classification facilities are usually controlled under the terms of an industrial wastewater discharge permit, which is issued and monitored by the local wastewater agency.

The City operates a wastewater collection and transmission system, but does not own or operate a wastewater treatment plant. Instead, the City contracts with Los Angeles County Regional Sanitation District No. 15 (the "Sanitation District") for the treatment of wastewater transmitted through the City's Sewer System. The Sewer System consists of approximately 92.38 miles of sewer mains. The Sewer System is served by a network of gravity mains, sewer lift stations, and force mains that collect raw sewage and delivers it to main lines leading to the San Jose Creek Water Reclamation Plant, which is owned, operated, and maintained by the Sanitation District, a County sanitation district established under the California Health and Safety Code. The Water Reclamation Plant is operated pursuant to the terms of a National



Pollutant Discharge Elimination System ("NPDES") permit issued by the State Department of Environmental Protection, Los Angeles Regional Water Quality Control Board (the "Regional Board"). The Regional Board administers NPDES regulations promulgated by the United States Environmental Protection Agency and Division 7 of the State Water Code and regulations thereunder.

The relevant permit information is as follows: LA County Municipal Separate Storm Sewer System (MS4) Order No. R4-2012-0175, NPDES No. CAS004001, Effective December 28, 2012, Amended June 16, 2015 (WQ 2015-0075), Expires on December 28, 2017.

# 9.7 Requirements to install grease removal devices, design standards, maintenance, BMP's, record keeping and reporting requirements.

The City Building Official and/or County Health Officer is authorized to monitor and enforce the terms of the Plumbing Code and the Public Health Code, respectively. This includes domestic waste disposal from residential and commercial facilities. In Section 13.12.303, the City Code requires grease traps or other similar appliance to be installed. In addition, Chapter 15.04 of the MMC documents that the City adopted the 2010 edition of the State of California Plumbing Code, as the Plumbing Code of the City of Monrovia. In Section 1014.0, Chapter 10 of the 2010 Plumbing Code, it does also have requirements for the installation of the grease removal devices.

Domestic waste containing FOG can lead to SSO which are public nuisances, and California Health and Safety Code Division 5, Part 3, Chapter 6, Article 2 can also be used to impose appropriate domestic sewage discharge requirements. The effectiveness of any grease removal devices are dependent upon their routine maintenance and monitoring/inspection for conformance with its intended purpose. Regular inspection and maintenance activity logging with quarterly reporting are required and are verified by City staff as part of the Industrial /Non-Domestic Waste Permit inspections.

# 9.8 Authority to inspect grease producing facilities, to enforcement, and evidence of adequate staffing to inspect and enforce the FOG ordinance.

As discussed in Section 5 of this document, the City has legal authority to inspect and enforce the local FOG ordinances. City has recently contracted with John L. Hunter and Associates for its FOG inspections.

### 9.9 Cleaning schedule for identified FOG prone sewer segments

Experience has shown that FOG contributes to about 50% of the total SSO events that occur in a community sewer system. The remaining 50% is usually attributable to root intrusion into the system and other structural causes. As indicated in Section 6 of this document, FOG prone sections of City's collection system, otherwise called "hot spots," are identified during routine maintenance operations and investigation of stoppages resulting in a SSO event. These "hot spots" are typically cleaned by hydro jetting and rodding or cutting if roots are encountered.



The best way to combat roots in sewer lines is to develop and utilize an integrated root control program. City will utilize its GIS system to document location of system defects including roots to address this problem systematically. Additionally, the City will employ BMPs including root cutting and the use of chemicals to control this problem. Finally, utilizing the aforementioned GIS mapping, the City will also incorporate the worst segments for incorporation into its CIP and eventual rehabilitation/replacement.

Those portions of the system found to have persistent FOG problems are inspected and cleaned more frequently, depending on the magnitude of the problem. Furthermore, segments of the collection system with persistent FOG problems are referred to the DPW for additional evaluation and corrective actions.

#### 9.10 Source control measures developed and implemented for "hot spots"

Each "hot spot" cause and condition is not the same. For each identified problem location, the means of effective maintenance is noted on the respective "hot spots" list for review and regular follow-up action by the sewer maintenance crews. The activities can be amended as needed.

#### 9.11 Action Items

The City will implement a targeted program to address this issue proactively, as described below:

- a) A FOG source control program plan will be developed with targeted field visits by the City's inspectors to document and issue citations to FSE's that do not have grease interceptors
- b) Bi-lingual (English and Spanish) public outreach brochures will be developed that will also include a list of City approved FOG disposal sites
- c) Inspectors will be split into teams of one to increase the volume and frequency of their inspections
- d) City will map, in GIS, the location of sewer lines that are prone to heavy FOG build-up and will develop an intensified Enhanced Cleaning program for them.
- e) Inspectors along with Public Services Department staff will monitor the above items and develop KPIs to track the success of the aforementioned activities and to make needed adjustments



# **SECTION 10 - 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



#### 10.1 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.

#### 10.2 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.

### 10.3 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.

#### 10.4 System Evaluation

To assess the adequacy of the existing sewer system, an updated Sewer Master Plan was completed in Spring 2015 which included an updated hydraulic evaluation of the entire sewer system.

### 10.5 Adequate Capacity

City's Public Services Department is the first line of defense in ensuring that the public sewer infrastructure is adequately planned, sized, correctly designed, and easily maintainable. PSD legal authority to perform this important task is set forth in the multiple documents discussed in Section 5 and as detailed below.

For any new or expanded sewage discharges, the city requires completion of a sewer capacity study, by a registered engineer, prior to giving approval for projects that can affect the capacity of the public sewer system. The completed study will analyze the capacity in the existing system and will set forth mitigation requirements for the applicant to ensure adequate capacity. The study will also justify the sizing of proposed lines to accommodate the peak flows from all areas tributary to the mainline sewer under consideration or pumping station, now and in the future. The approved capacity study is referenced directly by the city's plan checker when design plans for the new infrastructure are submitted to assure adequate capacity. All proposals for new connection to existing sewer must also comply with the DPS' policies for managing available sewer capacity.



#### 10.6 **CIP Schedule**

An updated sewer CIP, including a detailed cost estimate, was developed as part of the 2015 Sewer Master Plan. City has developed a proactive water and sewer system rehabilitation implementation schedule. This includes completing the CCTV inspection of its remaining lines (not inspected as part of the 2015 Sewer Master Plan), in the next two fiscal years. Additionally the design and construction of the identified CIP will begin in spring of 2016. The City's budgeted plan for rehabilitating its sewer system is shown below.

<u>Sewer System Capital Projects Costs</u> Sewer Rehabilitation \$8,282,038 Sewer System Street Repairs \$5,365,000 **Total Sewer System Capital Costs \$13,647,038** 



# **SECTION 11 - 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

#### 11.1 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.

### 11.2 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.

#### 11.3 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

# 11.4 Monitoring

Relevant data on all work done in the implementation and execution of the SSMP program will be documented and maintained in the DPW filing system and used in preparing the monthly Summary of Maintenance of Productivity. These data files will include logging of work activities including the eventual implementation of an automated CMMS, which are used in the evaluation of the effectiveness of the overall program.

### 11.5 Program Effectiveness Evaluation

The effectiveness of the program shall be monitored and tracked through the City's proposed Performance Measure Indicators of key activities to minimize sewer overflows. These include:

- total number of overflows
- total number and their amount discharged or reaching the Waters of the United States
- overflow response time
- reduction in repeated incidents of overflow at the same location
- reduction in number of overflows caused by flows exceeding the capacity of the collection system.

#### 11.6 Program Modifications

The City will be establishing the preventive maintenance sewer metrics for use in monitoring, measuring, and adjusting sewer maintenance activities. After these metrics are included in the City's work order system, they will be monitored on a regular basis. Until this time, City staff will compile and monitor the most relevant indicators, which include the number and causes of SSOs, length of pipes cleaned, length of pipes televised, and length of pipes repaired.

#### 11.7 SSO Location Mapping and Trends

#### 11.7.1 Location Map

The locations of SSO occurrences will be plotted annually on a citywide map along with recording of their causes. These maps will be used for establishing SSO patterns, identifying hot spots as indicated by clusters on the maps, and for scheduling work assignments and providing information on SSO activities.

#### 11.7.2 Mapping of SSO Frequencies

The monthly numbers of SSO's will also depicted in charts and graphs. The charts will be used to identify SSO trends and as an indicator of infiltration/inflow problems that need to be corrected. The graphs will be used to identify SSO trends and to evaluate overall SSMP program success especially by comparing the graphs to different years.



#### **SECTION 12 - 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

#### 12.1 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.

### 12.2 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.

#### 12.3 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.

# 12.4 SSMP Program Audit

The City will conduct periodic internal audits and prepare a report, at a minimum of every two years. The audit will focus on evaluating the operational and cost effectiveness of the SSMP as well as the City's compliance with all elements of the SSMP. This will include:

- Identification of any deficiencies in the SSMP
- Steps taken to correct any identified deficiencies
- Notes of interviews with key responding personnel and any contractors utilized
- Notes of operational observations, especially of each SSO event
- Notes on related equipment inspections
- Findings of all reviews of related records

The City hired an outside consultant this year to conduct a comprehensive audit and gap analysis. The results and recommendations of this audit were used to update the SSMP document. All audits including the 2017 audit and gap analysis will be kept on file in the Office of the City Clerk, the DPW office and at the field maintenance yard site.

#### 12.5 SSMP Certification

The City's original SSMP has been presented to and acted upon by the Monrovia City Council at a public meeting. Subsequent SSMP approval, including the current version, must also be considered and acted upon at a public meeting. Once it is approved, the Director of Public Services must certify its approval in compliance with the WDR requirements, including completion of the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form and sending the signed form to:

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

#### 12.6 SSMP Modification and Re-certification

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



for approval and re-certification. The re-certification shall be in accordance with the certification process described in section 12.5 above.



#### **SECTION 13 - 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.

#### 13.1 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!

### 13.2 Purpose

Identifying key stakeholders and key issues, and thinking about how various stakeholders might react are 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

### 13.3 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.

#### 13.4 Communication

The City will provide all stakeholders and interested parties, the general public and other agencies, with status updates on the development and implementation of the SSMP and consider comments received from them. The City will utilize media such as quarterly newsletter, billing insert, special brochures, annual reports, notices in newspapers, and the City's home web page for conveying this information. Additionally, the City will:

- Identify an individual within its 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.
- 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 Waste 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 to have identified a staff person responsible for satellite agency coordination. This person will ensure that the program is sustained, and City's efforts to get the program up and running aren't wasted once the SSMP is complete.

### 13.5 SSMP Availability

Copies of the SSMP will be maintained in the City offices of the City Clerk, and the Director of Public Services and at the City's maintenance yard site, with applicable summaries, reports, and notices posted on the City's home web page. The adopted document shall also be made readily available to the Regional Water Quality Control Board (Region No. 4) representatives upon request and to the operators of any collection system or treatment facility downstream of the City's sanitary sewer system.



# **APPENDICES**

Appendix A ............ Waste Discharge Requirements (Order No. 2006-0003-DWQ)

Appendix B .......... Monitoring and Reporting Program (No. 2006-0003) 'Amended'

Appendix C ...... WDR 'Fact Sheet'

Appendix D ...... Agency WDR Application (NOI)