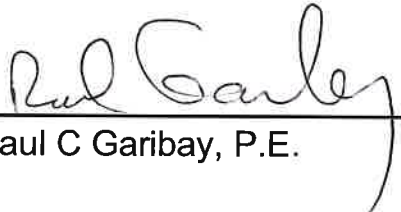


Audit Report of the City's 2013 Sewer System Management Plan (SSMP) for Waste Discharge Requirements Compliance

December 2017



City of Pomona
148 North Huntington Street
Pomona, California 91768



Raul C Garibay, P.E.

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ACKNOWLEDGEMENT

The material assembled in this report was gathered through the initial kick-off meeting and subsequent request for information from the City of Pomona (City). Additionally, supplemental information was provided by the City following the Workshop held at the City. The City would like to extend sincere thanks to the following staff from the City of Pomona who provided information for the preparation of this report. These staff included: Raul Garibay and Ishmael Lopez.

LIST OF ACRONYMS

BMP - Best Management Practice
CCTV - Closed-Circuit Television
CIP - Capital Improvement Program
CIWQS - California Integrated Water Quality System
CMMS – Computerized Maintenance Management System
CWC - California Water Code
CWEA – California Water Environment Association
DS – Data Submitter
FOG - Fats, Oils, and Grease
FSE – Food Service Establishments
GIS - Geographic Information Systems
I/I - Infiltration/Inflow
KPI - Key Performance Indicator
LACSD - Los Angeles County Sanitation Districts
LRO - Legally Responsible Official
MMRP - Mitigation Monitoring and Reporting Program
MRP - Monitoring and Reporting Program
NOI - Notice of Intent
NPDES - National Pollutant Discharge Elimination System
OES - Office of Emergency Services
O&M - Operations and Maintenance
PLSD – Private Lateral Sewage Discharge
PDWF - Peak Dry Weather Flow
PWRP - Pomona Water Reclamation Plant
RFP – Request for Proposal
RWQCB - Regional Water Quality Control Board
SECAP - Sewer System Evaluation and Capacity Assurance Plan
SSMP - Sanitary Sewer Management Plan
SSOs – Sanitary Sewer Overflows
SWRCB - State Water Resources Control Board
VCP - Vitrified Clay Pipe
WDR - Waste Discharge Requirements
WRD – Water Resources Department



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Executive Summary

Background

The City of Pomona is conducting this 2017 Audit Report to remain in compliance with the Waste Discharge Requirement (WDR).

This report has been developed based on the discussions with City staff. It is also based on a comprehensive review of all the internal SSMP related documents:

- 2008 and 2013 SSMPs
- 2005 Sanitary Sewer Master Plan
- 2010 and 2015 Internal City Audits
- 2012 Gap Analysis
- City Ordinances, and
- Pomona Standard Drawings.

A detailed review and section by section comparison between where the City is and what it needs to do to become compliant with the WDR order is shown in the following sections.

Summary of Findings

The City has been proactive in its operation and management of its sanitary sewer system and its following of the WDR regulations. In October 2013, the City completed and adopted its latest Sanitary Sewer Management Plan (SSMP) and in 2015 the City performed its first bi-annual self-audit.

Based on the WDR's requirement, the City has set the following eight goals for meeting the minimum requirements of the Order:

1. Proper management, operation, and maintenance of all parts of the system;
2. Reduced occurrence of and potential for SSOs;
3. An effective FOG control program;
4. Assurance of adequate capacity to convey peak wastewater flows
5. A current long-range planning and improvement plan;
6. Compliance with all regulatory requirements;
7. Protection of the public's health and safety; and
8. Effective public information and education efforts.

Based on an overall review of the City's 2013 SSMP, Sewer Master Plan, discussions with the Wastewater Maintenance Section, and a review of all other documents, it appears that Goals 1, 5, 6, 7, and 8 have complied with the WDR requirements. Goals 3 and 4 have been initiated by the City but still need to be developed and implemented.

- a) The City has an updated organization chart for the WDR implementation purposes and also updated the CIWQS database accordingly. This includes designating the Water Resources Director (WRD) as the Legally Responsible Official (LRO). The City also delegated some of its LRO's responsibilities to other individuals such as the Wastewater Collection System Supervisor but it is important to assign the LRO designation to an individual that by title and code has the final say on all administrative and fiscal activities of the department responsible for the sanitary sewer system. After coordinating with



CIWQIS, it seems that the City needs to upgrade its LROs and Data Submitters list as some people have either retired, left the City, or are new hires.

- b) Over the past couple of years, the City has seen an increase in SSOs. The staffing for the Wastewater Section underwent some significant fluctuations in staffing levels and as a result was not able to do their normally aggressive maintenance schedule. A posting taken from the CIWQIS is included in the Appendices.
- c) Additionally, there are several ordinances that are recommend be added to the City's code centralizing the role of the WRD in WDR related codes and giving him enforcement abilities in areas such as Fats, Oils, and Grease (FOG) compliance.
- d) City needs to add other ordinances that would strengthen City's overall municipal code in WDR enforcement, compliance, and definitions. These include adding sections addressing Infiltration/Inflow, stormwater, design issues and standards, and FOG.
- e) In terms of overall Operations and Maintenance, the City has been leveraging its GIS technology more by the use of automated GIS Applications both for field use and office use. City of Pomona should utilize a Predictive Maintenance Program including plans for, planned and scheduled inspection and rehabilitation of its sanitary sewer system. These would include "Hot Spots" identification in GIS and Trend analysis utilizing the cleaning schedule. City has done a good job establishing Key Performance Indicators (KPIs) for cleaning its sewer system. To this end, the City has been able to acquire tablets for field personnel. In doing so, they have been able to perform wireless updates to reflect work done in the field using *Sedaru®*. Additional work needs to be done to store and link videos to the mains created in the field. This will require a GIS application that connects both the as-built and the CCTV video to each sewer line will streamline functionality for City's staff. Additionally this application could also be utilized on a tablet by field staff to red line and relay field updated to City staff on a regular basis.
- f) The City should develop and adopt a comprehensive FOG program. They have conducted inspections on some of the restaurants in the area by consultant Charles Abbott and Associates, Inc..
- g) The City should migrate towards implementing a GIS based Computerized Maintenance System (CMMS) for all its work orders and to efficiently and automatically track all personnel, equipment, and material. Also, given that the Public Works Department is also reviewing potential CMMS system, the hope is that both departments can find one common program. In the interim, they are in the process of developing and implementing the software *Sedaru®* which will make operations reporting much more efficient.
- h) Under the City's 2017 Strategic Plan, a new comprehensive Sanitary Sewer Master Plan that incorporates a new hydraulic model of 8" pipelines or larger, has the latest population data, and incorporates the latest General Plan updates is being developed. Some preliminary layouts of the system are included in the Appendices.



- i) The City has hired a financial consultant (Rafetillius) to develop and adopt a new Sewer Rate Study that takes into account the cost of implementing the WDR program including the revised CIP, equipment reserves, FOG Program, additional public outreach, etc.
- j) The City currently has a construction contract wherein main replacement and/or spot repairs are being completed. The Engineering staff, working with the wastewater section, is in the process developing a scope of work in hopes of releasing a new “Red Flag” sewer repair/replacement contract later this fiscal year. The goal is also to include some manhole repair to address intrusion issues.
- k) The City should continue to develop a program that focuses on collecting data from all relevant sources, provides the City with critical information associated with the performance of the City’s sanitary sewer system and associated programs. This system needs to be integrated with GIS to help with trend analysis for Hot Spots, FOG, SSO mapping as well as CIP tracking. Furthermore, a system for communication and data submittals that are associated with SSOs and sewer backups that are reported to the online SSO database should be developed. If necessary, a matrix of additional Key Performance Indicators should be developed that would help the City develop its Measurement, Monitoring and Reporting Procedures (MMRP).
- l) The City should develop an audit program that addresses the following:
 - o Document Control
 - o Training
 - o Targets and Objectives
 - o Data Management
 - o Documented Procedures
 - o Outcomes
- m) As part of the Strategic Planning process, a SWOT Analysis is being performed on the Internal and External Communication aspects of the Department with the goal of developing and implementing a comprehensive public communication and educational program. A copy of the SWOT Matrices for Communication is included in the Appendices.



SECTION 1 – Introduction

This audit report is a means of examining systemic factors that have contributed to, or caused, a gap between the current state of the system and the future and desired state outlined in the WDR compliance requirements. The audit report analysis process includes an in-depth analysis of the factors that have created the current state, laying the groundwork for improvement planning. This approach ensures that the system improvement process does not jump from identification of problem areas to proposing and implementing solutions without first understanding the conditions that created the current state.

1.1 Service Area and Sewer System

The City of Pomona is located in Los Angeles County approximately 35 miles east of downtown Los Angeles, borders San Bernardino County's western boundary and is just 5 miles north of Orange County. The City encompasses approximately 23 square miles and serves approximately 159,810 residents. The City incorporated in January 1888, became a charter city in March 1911, and is the seventh-largest city in Los Angeles County based upon the 2010 census.

The wastewater collection service area includes incorporated areas within the City limits and a limited area outside the City limits. The City collects and conveys wastewater from the service area for treatment by the Los Angeles County Sanitation Districts (LACSD). Local City sewer mains discharge to several trunk sewers owned and maintained by the LACSD that run through the City.

The City is dedicated to improving the condition and performance of its wastewater collection system and reducing the occurrences of SSOs. Development and implementation of a wastewater collection system operations and maintenance (O&M) program serves to ensure that the wastewater collection system is routinely and properly maintained in a manner that minimizes failures and extends the longevity of the system.

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 Pomona has completed the NOI and is within the regulatory time frames.

Section 3.2.4 Authorized Representatives of the 2013 SSMP requires the following modification to make it current:

- The Water Resources Director Darron Poulsen is the City's Primary Legally Responsible Official (LRO) at (909) 620-2253 and the authorized representative registered with the State of California to officially sign and certify SSO reports submitted via the California Integrated Water Quality System (CIWQS).
- The City has also identified the following staff as alternate LROs:
 - Ishmael Lopez, Wastewater Collection System Supervisor (909) 802-7491
 - Raul Garibay, Supervising Water Resources Engineer (909) 620-2239
 - Gary Mathews, Water Resources Operations Manager (909) 620-2255



- The City has also identified the following staff as Data Submitters:
 - Ishmael Lopez, Interim Wastewater Collection System Supervisor (909) 802-7491
 - Romell Eutesy, Wastewater Maintenance Technician III (909) 620-2251
 - David Weaver, Wastewater Maintenance Technician III (909) 620-2251
 - Julie Carver, Environmental Program Supervisor, (909) 802-7491

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 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 <http://ciwqs.waterboards.ca.gov>. Included in the Appendices are snap shots of the CIWQS web sites showing Pomona's activities.

This online database is maintained on a secure site and is controlled by unique usernames and passwords. Because the City has been enrolled into the WDR, and has identified Legally Responsible Officials (LROs), the State Water Board has issued both a user name and password to each LRO and notified the individuals of this information.

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

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

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

California Health and Safety Code section 5411.5, states that:

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

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

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



SECTION 2 – Background

The City operates its own wastewater collection system and associated infrastructure facilities within the City limits. The City's Water Resources Department's vision is responsible for the operation and maintenance of an extensive wastewater collection system and is tasked with ensuring proper and efficient operation of the system. The City provides sewer service throughout the City and to a limited area outside the City limits. The City's wastewater collection system consists of approximately 317 miles of gravity sewer, four (4) pump stations, 1.4 miles of force mains, 6,360 manholes, and two (2) siphons. The City's Sewer System Map is included in the Appendices.

Sewage collected by the City's wastewater collection system is conveyed to the Pomona Water Reclamation Plant (PWRP) for treatment and disposal under the authority of the Los Angeles County Sanitation District (LACSD). The four sewage pump stations are now owned, maintained and operated by the LACSD under the terms of a **CSD C#47 40, December 18, 2012** contract.

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:

- Overflows or releases of untreated or partially treated wastewater that reach waters of the United States.
- Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States.
- Wastewater backups into buildings and on private property caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

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.

There are three categories of SSOs:

- o Category 1—A discharge that equals or exceeds 1,000 gallons and results in a discharge to a drainage channel, surface water, or drainpipe that was not fully captured and returned to the sanitary sewer system; and
- o Category 2—A discharge that is under 1,000 gallons, or does not discharge to a drainage channel or surface water, or was captured and returned to the sanitary sewer system.

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

Private Lateral Sewage Discharge – Discharges of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be **voluntarily** reported to the SSO Database.

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, Oil 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.

This report includes an analysis of the WDR regulation and the City's opinion of its current compliance status for each important element of the regulation.



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 Pomona.

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.

3.4 Evaluation

Has the agency established its goals consistent with the Order?

Based on a review of City's existing SSMP, the City has set the following eight goals for meeting the minimum requirements of the Order:

1. *Proper management, operation, and maintenance of all parts of the system;*
2. *Reduced occurrence of and potential for SSOs;*
3. *An effective FOG control program;*
4. *Assurance of adequate capacity to convey peak wastewater flows*
5. *A current long-range planning and improvement plan;*
6. *Compliance with all regulatory requirements;*
7. *Protection of the public's health and safety; and*
8. *Effective public information and education efforts.*

Has the agency established a defined level of service?

The City has established a level of service for cleaning of its sewer lines and establishing a numerical limit on SSO's per 100 mile of collection systems; or establishing a standard response time to an occurrence of an SSO. The goal is to clean every line segment every 1.5 years and reduce SSOs per year for every 100 miles of conveyance system. Based on discussions with the City's wastewater maintenance personnel, they have been able to meet and exceed both this goals. Additional Key Performance Indicators (KPI) need to be established though for all elements of the SSMP including FOG, CIP implementation, overflow emergency response and Mitigation Monitoring and Reporting Program or MMRP as well as define acceptable "Level of Service" as part of its goals.



3.5 Recommendations

Based on an overall review of the City's 2013 SSMP, discussions with the Wastewater Maintenance Section, and a review of all other City documents, it can be concluded that Goals 1, 2, 3, 4, 5, 6, 7,8 have been complied with. Goals 3 and 4 have been initiated by the City, but still need additions and refinements. These recommendations for specific sections of the SSMP have been discussed throughout this report.

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

- *The City will take reasonable steps and attempt to provide feasible alternatives to the reduction and mitigation of SSOs, including:*
 - *Temporary storage or retention of untreated wastewater; with the relocation of the annex facilities during soils cleanup phase, the temporary facilities will have an area designated for temporary storage.*
 - *Reduction of inflow and infiltration; in the one of the upcoming red flags construction contract, a bid option will be included to address rehabilitate and/or replace specific manholes in the Phillips Ranch wherein water is suspected to be to infiltrating*
 - *Use of adequate backup equipment; staff has placed an order with fleet for a new set of tires for the trailer.*
 - *Collecting and hauling of untreated wastewater to a treatment facility or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP.*
- *The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:*
 - *Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure; annual practice session for doing just this.*
 - *Vacuum truck recovery of sanitary sewer overflows and wash down water;*
 - *Cleanup of debris at the overflow site;*
 - *System modifications to prevent another SSO at the same location;*
 - *Adequate sampling to determine the nature and impact of the release; and*
 - *Adequate public notification to protect the public from exposure to the SSO. City is now in possession of the signs that will be posted at a spill site.*
- *The City shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the City, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities. All of wastewater staffers are certified with at least a level one or are in the process of getting their certification as required by the job description.*
- *The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. One such purchase, a new camera truck has been acquired and it provides more capability than the previous CCTV truck. The rate study by Rafetellius will help establish sinking funds for large purchases such as vactor and camera trucks. Also being built into this system*



program is the large maintenance items such as red flag mainline and manhole repairs and/or rehabilitation.

- These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices. The City is currently developing a revised and updated rate cost schedules for sewer fees.*
- The City will provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee. With the new sewer hydraulic model being developed as part of the Strategic Plan, the City will be able to evaluate design limitations in the current and future state; the model will reflect mainlines 8" or greater which will give us more coverage.*



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 includes typical positions and their associated activities, duties, and responsibilities.

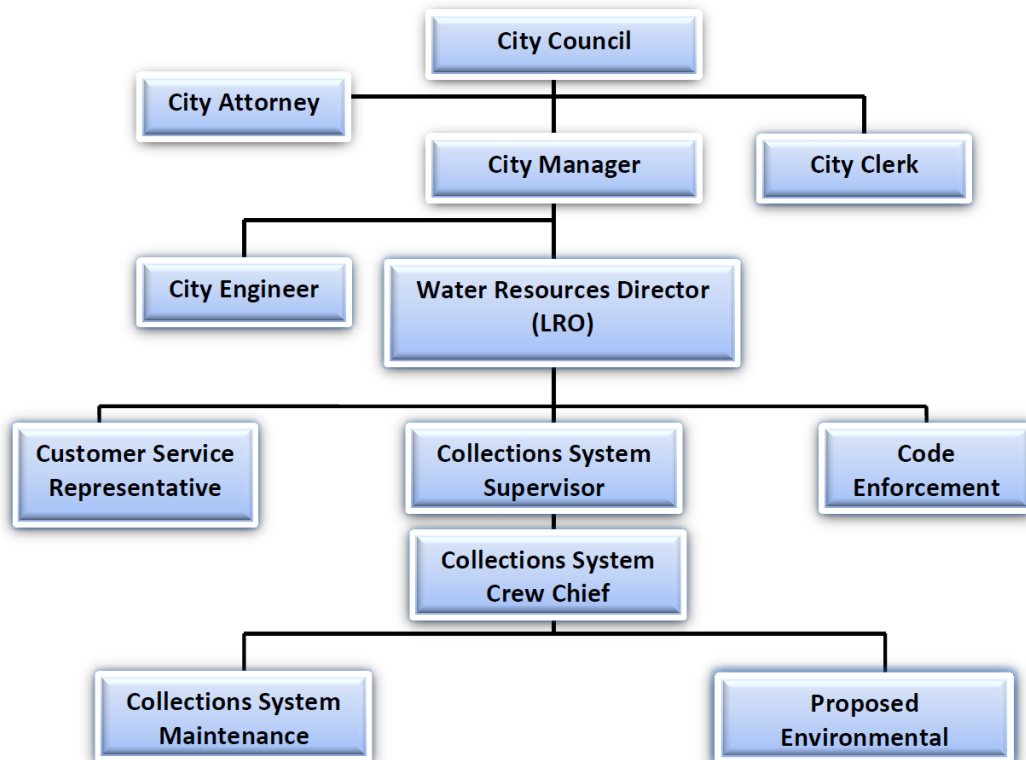
4.2 Purpose

Clearly identifying specific roles and responsibilities within the 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. Typical position and associated responsibilities are shown on Exhibit 1. The chart located in the 2013 SSMP listed the Public Works Director as the LRO. This Exhibit requires updating to replace this position with the Water Resources Director who is the primary LRO for the City.

The job title and descriptions will also require updating listed below the Exhibit 1 also require similar changes. More specifically, the Public Works Director should be removed and replaced with the Water Resources Director. The new Director title would replace the previous title of Water/Wastewater Manager held by Mr. Poulsen.



Exhibit 1 Typical City Org Chart



City Council	Establishes policies, reviews and accepts formal plans, sets overall City direction, authorizes funds for projects/plans/programs, general overview of upper management (Mayor, City Manager, City Attorney), conducts public meetings and hearings, approves SSMP.
City Attorney	The City's attorney develops and approves legal documents, provides legal advice, conducts litigation, and attends public meetings.
City Manager	Responsible for the day-to-day management and operation of the City under the direction of the City Council. Specifically the City Manager establishes procedures, plans strategy, leads staff, allocates resources defined in the City budget, delegates responsibility, authorizes outside contractor to perform services, and serves as overall public information officer.
City Engineer	Responsible for the development and implementation of city design and construction standards. Quite often responsible for 3 rd party plan check



as well as construction and building inspection. Provides engineering drawings, plans, and specifications for projects within the city. Also is responsible for developing or overseeing engineering studies such as hydraulic modeling, master planning, and CIP program development.

**Water Resources
Director**

Responsible for the management and operation of the Water Resources Department, including the operation and management of the sanitary sewer system. Reports to the City Manager and is one of the **LROs for the City.**

**Collections System
Supervisor/Weekend**

Responsible for the operation and maintenance activities of the sanitary sewer system, including direct supervision and scheduling.

Field Supervisor

Oversight of all maintenance crews, and regularly scheduling maintenance activities. Coordinates filed operations and prepares and implement overflow emergency response plan, leads emergency response, investigates and reports SSOs and trains maintenance workers and field crews.

**Collections System
Maintenance Workers**

Staff preventative maintenance activities, report condition of City assets, mobilize and respond to notification of stoppages and SSOs, and mobilize sewer-cleaning equipment and by pass pumping equipment.

**Customer Service
Representative**

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

4.3 Minimum Requirements

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

4.4 Evaluation



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

Yes; that authorized Representative is Darron Poulsen. He is located at 148 North Huntington Street, Pomona, California, 91768. His office phone number is (909) 620-2253.

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

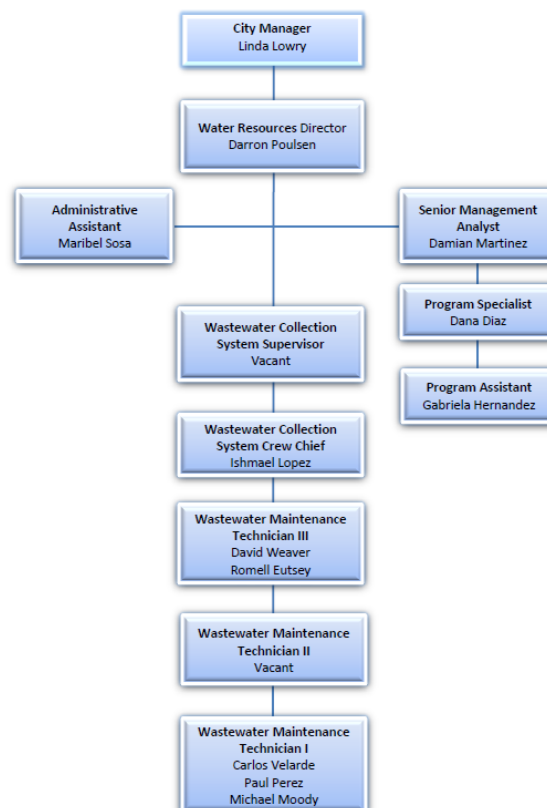
Yes; they are listed in the 2013 SSMP, Appendix D, Attachment E but they need to be updated. For example:

- Darron Poulsen is the new Water Resources Director
- Rene Salas nor Norbert Baldonado are no longer with the City

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

Yes; the City's organizational chart is listed in the 2013 SSMP, Section. 3.2.1 Governance, Figure 3-1. It is also shown on Exhibit 2 but has also been updated..

Exhibit 2: City of Pomona Wastewater System Organization
Chart





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

The City still maintains a chain of communication or protocol for those who receive the initial notification of collection system issues, transmits that information to field crews, or who are responsible for notifying and implementing reporting procedures.

4.5 Recommendations

The City has designated the Water Resources Director as the primary LRO. He has delegated his authority on a daily basis to the Wastewater Collection System Supervisor and any additional LROs in the event of their absence from the workplace.

The current organizational document has been updated to define the roles and responsibilities for all City Employees and other parties that are responsible for carrying out activities associated with sanitary sewer system. Also, the job description includes duty statements, job performance requirements, and other pertinent information necessary to clearly communicate roles, responsibilities, skill sets, licensures, and training needed to carry out specific job related duties.

Currently, the City has a "Customer Service Line" which refers customers to the Police Department Dispatch, after normal business hours. The Police Department does have all emergency contact information in case of an SSO. After checking with staff, these telephone numbers have remained the same.

The existing procedures should be updated, and communicated to all parties that could potentially be involved with SSO response, notification, and reporting. There have been changes to staffing due to retirement, job change, etc. Emergency contact telephone numbers should be distributed to the public, public agencies that may be involved with response to SSOs (fire, police, public health, regional board, etc...), and all appropriate City staff. Additionally, clear procedures that identify communication paths between the City and any other city contractors should be developed, communicated, and routinely tested to ensure proper implementation, training, and revisions if needed. This information should readily be available on the City's web site, as well.

Listed below are specific changes that need to be incorporated into the next SSMP:

- **Section 3.2**, Discussion on Organizational Structure: Need to remove the reference to the Public Works Department and replace with Water Resources Department:
- **Section 3.2.1**, Governance: Rene Salas is no longer the LRO; he needs to be replaced with Darron Poulsen name and title; the Sewer Division no longer resides under his authority so Figure 3-1 needs to be updated as well; need to change Darron's title and job description on the Definitions
- **Figure 3-1**: Needs to reflect Darron's new position and title
- **Section 3.2.2**: Need to replace text that replaces Public Works Director with the Water Resources Department Director; also, need to remove the reference to the PW Director
- **Figure 3-1, Page 3-5**: Figure numbering system is incorrect; this should be Figure 3-2; need to replace text that replaces Public Works Director with the Water Resources Director; also, need to remove the reference to the PW Director



- **Section 3.2.3:** Need to reflect Darron's new position and title; also, need to remove the reference to the PW Director
- **Section 3.2.4:** Need to reflect Darron's new position and title; need to change his telephone number to (909) 620-2253
- **Figure 3-2:** Need to reflect Darron's new position and title; also, need to remove the reference to the PW Director



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 Evaluation

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

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

The City does have ordinances providing control measures for illicit discharges such as FOG, chemicals, and other types of materials. However, there do not appear to be specific language as it relates to stormwater or I/I specific discharges and or construction. The City needs to prohibit discharge of unpolluted water, including stormwater, into a sanitary sewer through direct or indirect connection.

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

After reviewing the City's Water & Sewer Ordinance, Chapter 62 of the City's 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 Pomona. There needs to be additional "Specific" language related to the construction of sewer lines and manholes to prevent I/I in the system, a review and revision of definitions, and a modification of role definition wherein the Water Resources Director is acknowledged.

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

There is adequate language pertaining to access to the sanitary sewer system for maintenance, repair and inspection within the City of Pomona.

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

The City's Water & Sewer Ordinance, Chapter 62 of the City's Municipal Code, has language pertaining to the enforcement measures that can be taken by Public Works Director/City Engineer. However, Public Works Director/City Engineer has limited or no authority when it comes to assessing fines for misdemeanors or infractions. As such, specific violations must 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.



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

The City no longer has a service agreement for maintenance of the four sewage lift stations. An agreement was reached and executed wherein the LACSD is now the owner and thus responsible for ongoing maintenance and capital improvements of those facilities. Also included in the latest agreement is that the Force Main from Sewer Lift Station No. 4. as it is now owned and maintained by the LACSD.

As evidenced by the 2015 agenda, there has been additional coordination with the LACSD to transfer the other sewer force mains since then. A copy of the meeting agenda is included in the Appendices.

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

All legally binding procedures are documented, updated and available at City Hall.

5.5 Recommendations

The City needs to consider revising municipal codes, ordinance, and/or resolutions necessary to further develop the authority needed to implement many of the required SSMP elements and programs. One specific area that has still not been updated is centralizing the role of the Water Resources Director as the person responsible to review and condition construction plans, develop and enforce permits, and generally make decisions with respect to the wastewater collection system. Additional specific language for the construction of sewer lines and manholes for preventing I/I and stormwater needs to be developed.

Ordinances should also deal with easements and ingress-egress issues needed for access, ownership, and maintenance of all collection system assets. As a result of this review, the City may conclude that it is in its best interest to relocate facilities to exert its right to access. The City needs to revisit the agreements and locations, to explicitly lay out rolls, responsibilities, levels of service, programmatic implementation, and assumed liabilities and assumptions of risk. The City's GIS database does have shape files that show some of the existing sewer easements. Next steps would include verification of the easement, field site assessment, and finally an evaluation has to how to maintain or relocate the main.



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



6.1 Overview

This section of the 2013 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

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

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. A map is included in the Appendices.
- 2) Develop and implement a Preventative Maintenance Program that describes preventative operation and maintenance activities and a system to document scheduled and conducted activities;
- 3) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and rehabilitation actions, including regular inspections of the conditions within the system.
- 4) Provide regular training for staff and contractors
- 5) Provide equipment and replacement part inventories.

6.4 Evaluation

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

The City does have its own automated set of collection system maps in the ESRI platform that has been developed and supports a City-wide GIS system. These maps are known or referred as the Sewer Atlas Sheets. There is also a grid system that covers the entire sewer service area.

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

Yes, this program is defined in Appendix C of the 2013 SSMP. The program describes the City's responsibility for the ongoing maintenance and repair of the sewer main line. This includes routine and emergency cleaning. Elements of this plan includes preventive maintenance including cleaning of all sewer lines every 1.5 years. The City utilizes three (3) combination jetter/vactor vehicles and one (1) trailer mounted mechanical rodder. The sewers are typically cleaned by putting high pressure water jetting nozzles in the pipe and manually removing debris from the downstream manhole. Purchased equipment or staff-made appurtenances are inserted at the downstream manhole to capture and remove debris.



Included in the Appendices are pictures of the nozzle currently used by staff. What is not included in the O&M Plan of 2013 is the use of a pole camera. Staff uses this device ahead of their cleaning operation to quickly determine if the line needs to be cleaned or not; thus, allowing staff to only concentrate on line that need cleaning.

As a result of the City's CCTV monitoring program, staff is able to identify lines that have root overgrowth. Staff has acquired the technology and chemicals to now place the root foaming chemicals upon discovery and not require the services. This effort has saved costs and time, upon completion of the foaming application, staff CCTV the pipeline to determine the effectiveness of the application. A picture of the chemicals and the equipment involved in the process is included in the Appendices.

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

Yes; there have been sewer rehabilitation/replacements since the City's 2005 Sewer Master Plan and its CCTV work in 2010. However, the 2005 Master Plan's hydraulic analysis was based on modeling of larger diameter pipes, thereby yielding minimal or no recommendations for smaller diameter pipes that constitute 75% of the City's system. Although we have been able to reduce the amount of hot spots in the City system, we anticipate additional locations in need of repair and/or rehabilitation once we develop the new hydraulic model that will be reflective of mains 8" and larger. This new model is being constructed as part of the Strategic Plan. At this point, RMC is gathering all of the relevant data to build the base map.


In addition, the City's 2017 Sewer CIP program will include eliminating Red Flag repair areas identified by the previous CCTV work.

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

There has been training for the staff responsible for the normal and emergency operation and maintenance of the sewer collection system. To the extent possible, staff is sent to CWEA events where they are exposed to the latest techniques in sewer management. A Training Log



is kept current by the Wastewater Crew Chief, Mr. Ishmael Lopez.

 City Of Pomona Wastewater Department 2017 Training Database													
Name	Confined Space 2/7/2017	Confined Space 3/15/2017	Confined Space 2/2/2017	Hazmat 5/10/2017	Hazmat 5/31/2017	Hazmat 2/13/2017	Trench Shoring 4/19/2017	Trench Shoring 5/17/2017	Trench Shoring 5/31/2017	Fog Seminar OCSD 4/11/2017	Pacp training Ontario 7/27/2017		Total Hours
Ishmael Lopez		4		8				4					16
David Weaver	4				8		4						16
Carlos Velarde	4				8			4		4	16		36
Mike Moody		4		8				4		4	16		36
Romell Eutsey			8			8			8	4	16		44
Paul Perez			8			8			8	4			28

When the City purchases new nozzles for cleaning, all staff undergo a training session to understand the proper workings of the equipment. Lastly, staff is subjected to a spill scenario in January of each year wherein they have to demonstrate the proper procedure for establishing a manhole to manhole bypass system in the field.

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

The Wastewater Collection System staff maintains an inventory of vehicles and sanitary sewer system replacement parts. However, this is not an automated system and the City does not currently have a system for tracking sewer system equipment and replacement part inventories. At this time, staff has not changed this practice.

6.5 Recommendations

The City should continue to examine its cleaning program to see if it can "fine-tune" its cleaning frequency. Efforts to purchase water efficient nozzles and integrating root foaming products will provide efficiency and cost savings as the City moves forward. The City did explore the use electronic (sonic) equipment by SL Rat in hopes of being able to better identify which mains required cleaning. After some field applications on some mains that were known to be dirty, it was determined that the results were not consistent. Hence, the City did not move forward with its purchase. As stated earlier, the use of the pole camera has saved the crew cleaning time by identifying only the lines that need it.



There is 1,615,000 lineal feet of sewer pipeline in the system. Two (2) crews of two (2) persons each are assigned to continuously clean the system. To confirm the effectiveness of the cleaning activities, the City's CCTV inspection crew has begun to randomly televise approximately 4,000 lineal feet of pipe that has been cleaned within the past two (2) weeks. The locations should be equally divided among the work performed by the crews. A pipe's cleaning frequency should be based on the pipe's "grade" during its cleaning interval. The cleaning frequency for pipes should be based on tabulating the degree of cleaning required by that pipe after each cleaning interval. For example, if a pipe requires medium to heavy cleaning after an interval of every six months, it may be time to increase the frequency of cleaning from 6 month to every three months. Similarly if a pipe receives a "clear" finding three consecutive times in a cleaning interval, it may be a good idea to move that pipe down to needing a lower cleaning frequency. As of the drafting of this document, the City has not been able to acquire the resources to implement this feature at this time.

The following is a list of tasks and suggestions for inclusion in a comprehensive Operations and Maintenance Program as a part of the SSMP.

- The City of Pomona has developed a Predictive Maintenance Program that includes plans for planned and scheduled inspection and rehabilitation of their sanitary sewer system. This includes CCTV and proposed hydraulic modeling as part of a comprehensive Sewer Evaluation and Capacity Assurance Plan (SECAP) pursuant to the 2013 SSMP.
 - Pipe CCTV or by staff entry as indicated
 - "Hot Spots" identification in GIS
 - Trend analysis utilizing the cleaning schedule
 - Initial inspection prior to acceptance of CIP or rehab
 - Periodic system re-inspection
 - Detailed inspection of deteriorated areas prior to repair/rehab/replacement
 - Quality control on line cleaning, root cutting, etc.
 - Standardized defect coding system needed
 - Checking for pipe condition, depth and/or percentage of concrete spalling, depth of corrosion, pH measurement
 - Need to Complete Manhole inspections:
 - Visual from surface
 - Staff entry as indicated for detailed evaluation
 - Standardized defect coding needed
 - Should also cover: manhole concrete or protective coating condition, shelf condition and material loss, debris, roots, roaches/vermin, crown, pH, flow depth of water/diameter of channel, velocity, turbulence, hydrogen sulfide levels
 - Need to develop a database of existing easements from GIS maps and property records, develop a schedule for Easement and Right of Way surface inspections and creating assessments, and integrating into future CIP projects possible relocations
 - Checking for vandalism, potential problems due to vegetation, land movement, surface erosion, illegal improvements that limit access, etc.



- *Lastly, specific sections of the 2013 SSMP needs to be addressed:*
 - **Section 5.3.2.:** *The City has purchased a small amount of foam chemical for root treatment from RootX; they have tried a number of pipelines and met with success in at least 12 locations.*
 - *Have not implemented a new CMMS program; as an interim step, staff is working with a firm ID Modelling to develop a reporting program via Sedaru®; the program will be able to extract data from the hydraulic model and report on work orders for the Sewer Division*
 - **Section 5.3.3:** *Only 25% of the manholes in the system were inspected and recorded by Trans Consulting; infiltration was identified when encountered*
 - **Section 5.3.4:** *This section does not cite the contract specification Special Technical Provisions, Section 1170, paragraph 1.5 wherein the contractor must maintain sewage flows and sewage bypass if necessary*
 - **Section 5.3.5:** *Need to see the latest updates*

As the WDR requirements continue to unfold, the City should continuously update their Operations and Maintenance Program. Many of these recommendations have been outlined in the 2013 Sanitary Sewer Master Plan, the results which can be considered as additions or in some cases replacing the current operations and maintenance program.



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

7.4 Evaluation

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

City Code Chapter 62, Article V, Division 1, from Section 62-391 to Section 62-396 includes the general design and construction requirements for the City's wastewater collection system. The sections include the requirements for sewer connection locations, pipe size, minimum grades, manholes, and construction requirements.

In addition, the City has updated its sewer design standards in AutoCad. This was the result of review of the current standards, new image creation, and technology changes. In some cases, a new standard was developed to provide further information for contractors. The signed standards are included in the Appendices.



Old Sewer Standard	Description	No. of Pages	New Sewer Standard
B-11-83	Manhole 4' X 3' (15" Diameter and Smaller)	2	S-1
B-11-83	Manhole 5' X 3' (18" Diameter and Larger)	2	S-2
None	Drop Manhole (For 8" or 10" Pipe)	1	S-3
B-3-58	36" Manhole Frame and Two Concentric Covers (Heavy Duty)	1	S-4
B-8-61	House Connection (Sanitary Sewer Lateral)	2	S-5
B-10-61	Sewer Main Cleanout	1	S-6
B-10-61	Sewer Main Cleanout Access	1	S-7
None	4" Backwater Device (for Laterals 2-Feet or Deeper)	1	S-8
None	Backwater Device Shallow Installation (Less than 24" Deep)	1	S-9
None	Bedding and Trench Backfill	2	S-10

Inspecting and Testing

Compliance with the sewer design policy requires the contractor performing work on the City's sewer facilities to be responsible for conducting a CCTV inspection for all new and rehabilitated sanitary sewer systems and other appurtenances and submitting a copy of the CCTV report and inspection documentation to the City's Water Resources Director at least thirty (30) working days in advance of the anticipated date of final construction acceptance. The information provided by the contractor is subsequently reviewed by the City's designated inspector for compliance with City design and construction policies.

7.5 Recommendations

- City of Pomona should continue review and develop new standards to reflect the changes in practice and technology. In speaking with staff, they have reviewed current design standards and proposed changes that are making their way for adoption. In addition, some additional design standards have been added to the Department's portfolio so that the Contractors who work in the City maintain a consistent practice.*
- In Appendix G, Sewer Design Policy and Standards, Section 1.6 – Capacity it says, "New sewer mains 15 inches and smaller in diameter shall be sized to carry the projected peak hour wet weather flow at a depth not greater than half of the inside diameter of the pipe (d_r/D not to exceed 0.50, where d_r is the nominal depth of the water in the pipe and D is the diameter of the pipe). New sewer mains 18 inches and larger in diameter shall be sized to carry the projected peak hour wet weather flow at a depth of flow not greater than 3/4 of the inside diameter of the pipe (d_r/D not to exceed 0.75)."*
- Per industry standards, sewers 12 inches in diameter and smaller are designed to carry peak dry-weather flows at d/D ratios of 0.50 or less; and sewers 15 inches in diameter and larger are designed to carry peak dry-weather flows at d/D ratios of 0.75 or less. To carry peak wet-weather flows at these same d/D ratios for peak dry-weather flow appears to be too conservative. Also, there is no standard wet-weather design storm by*



which to evaluate sewers. If wet-weather flow is to be the stipulated design criteria, then a storm would need to be identified, i.e. a 5-year recurrence interval storm or a 10-year recurrence interval storm, etc. But the same recurrence interval storm can have different combinations of rainfall intensities and durations. Also, even the same recurrence interval storm can cause different wet-weather runoffs into the sewer depending on terrain, i.e. slope, percent impervious, etc.

- City of Pomona should continue with existing protocols for the inspection and installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems as outlined in the City ordinance. As an added protection, the City CCTVs newly installed mains to ensure that the final pipeline is complete and functional.
- It says in Appendix G, Sewer Design Policy and Standards, Section 1-6, "Design calculations shall include calculations of average day, maximum day, and peak hour." However, no City-accepted "general" peaking factors are provided that can be used "in the absence of flow data or other reliable information." Also, the peaking factors are not defined in terms of dry or wet-weather peaking factors. Maximum-day factors are typically not used in calculating peak wastewater flows. A range of residential peak dry-weather factors should be provided based on the number of dwelling units in the drainage basins, i.e. 2.0 to 3.0 for 2,000 DUs and less; and 1.5 to 2.0 for over 2,000 DUs.
- It says in Appendix G, Sewer Design Policy and Standards Section 1-7, "In order to minimize the formation of deposits, the minimum grade for sewer mains shall be such as to provide a velocity of not less than two (2) feet per second (fps) when the sewer is flowing full or half full under peak dry weather flow (PDWF) at the time the pipe is placed into service. Additionally, during periods of low flow an actual velocity of 1½ fps should be achieved. Manning's coefficient of roughness "n" shall be assumed to be 0.013 for all types of sewer pipe. The maximum flow velocity shall not exceed eight (8) fps. The standard minimum slope sewer main is 1.0 percent."
- Per industry standards, sewer mains are designed to provide a minimum velocity of 2 feet per second (fps) when the sewer is flowing half full under peak dry weather flow (PDWF), but not when flowing full.

In the 2013 SSMP Appendix C, Operations and Maintenance, there are repair techniques offered to rehabilitate manholes but not lids and frames for inflow defects. Inflow can enter manholes through openings in manhole lids and through defects in the frame. Manholes with such defects that are located in low earthen areas or near paved curbs and gutters are especially prone to inflow. Some methods to rehabilitate manholes for surface inflow defects include sealing the manholes that are in low level areas.

At conferences such as the Tri-State Seminar in Las Vegas, the CWEA Seminar in San Diego, and others, there are repair techniques placed on display for attendees. Sprayed on synthetic liners was one of the methods that showed promise for rehabilitation of manholes. Some of the presenters also mentioned the cost saving practice of placing a cement layer over brick the manholes but did not last as long. The City needs to continue to explore new repair techniques and conduct some sort of evaluation as to their effectiveness in the next SSMP.

Reset Frame and Raise to Grade. Resetting the frame is a method intended to adjust a frame that has moved horizontally and/or to raise the cover above grade to prevent inflow, mostly in



non-paved areas (for example, when a cover is located in a slight depression where ponding of water occurs) and where new pavement work is taking place. The installation involves minimal excavation - only enough to allow replacement of damaged concrete leveling rings and addition of new rings to bring the top of the frame above grade.

- Manhole Pans. Manhole pans fit under the manhole cover and are intended to prevent inflow through holes in the manhole cover. The pans are either HDPE or stainless steel.
- Manhole Covers. Gasketed manhole covers are steel covers with an inset gasket either in the frame or placed between the frame and cover. They are intended to prevent inflow from around the manhole cover. Solid manhole lids without holes are available, as are plugs for the holes. This is currently implemented in new construction where the ribbon gutter is in line with the sewer main as it flows around the manhole where the manhole cover is elevated above the flow line is currently practiced.
- Manhole Risers: Need to include additional discussion on synthetic risers that can be used to raise manholes covers in lieu of concrete ones. They are light weight and are made to sustain truck loading. Another topic raised at the Tri State Seminar.



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

8.4 Evaluation

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

Yes, the City does have a comprehensive Sewer Overflow Response Plan which was updated in October 2013. This plan will need to be updated in view of many organizational changes that have occurred in the City since 2013.

8.5 Recommendations

The following sections in the 2013 SSMP, Appendix D are recommended to be updated:

- *Table 2-3 with regards to the new organizational changes and positions;*
 - *Delete Pomona "Pomona Public Works Director " and replace with "Water Resources Director"*
 - *Delete "Pomona Water/Wastewater Operations Manager" and replace with "Water Resources Director"*
- *Page 41, Sanitary Sewer On-call Response Personnel table needs to be updated and the name and phone number of the Water Resources Director needs to be added*
- *Page 41, Sanitary Sewer On-call Response Personnel table, delete "Pomona Public Works Director" and replace with "Water Resources Director"*
- *Page 41, Sanitary Sewer On-call Response Personnel table, delete "Water/Wastewater Collection System Operations Manager"*
- *Page 53, Sanitary Sewer Overflow Notification List table needs be updated and the name and phone number of the Water Resources Director needs to be added*
- *Page 53, Sanitary Sewer Overflow Notification List table, delete "Public Works Director"*
- *Page 53, Sanitary Sewer Overflow Notification List table, delete "Pomona Water/Wastewater Operations Manager" and replace with "Water Resources Director"*
 - *Figure 3-2 Communication Plan for SSMP Implementation in the City's current SSMP needs to be updated by replacing the box for "Public Works Director" with a box for "Water Resources Director"*



- *Procedures to ensure that all appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are properly trained*
 - *The Overflow Response Plan should continue to be updated and made available to key personnel who are responsible for managing or responding to SSOs. Presentation of this section will be provided to maintenance staff once a year during a tail gate session prior to practicing the bypass drill. Copies of the City's instruction manuals should be available to field crews and engineers at the office who manage or have the role of preparing SSO reports to regulatory agencies.*
 - *Post the updated Sanitary Sewer Overflow Emergency Response Plan, as currently shown in Appendix D of the 2013 SSMP on the City's Intranet. Posting of public notices of SSOs should occur as soon as practical following the initial response to overflows. Signs should be posted on either side of the point of entry where sewage entered the body of water or public facility and the nearest public access point to that body of water or public facility*
- *Lastly, Section 7.2 of the 2013 SSMP needs to be addressed the following items:*
 - *Need to develop and present a short Powerpoint presentation to Public Works and Water Resources field crews; the intent is to make field staff aware on how to contain the flow if possible by setting up berms until wastewater staff can arrive*
 - *Need to verify that the wastewater staff has been presented this section overview in their tailgates; probably need to attend one of those meetings*
 - *Staff has investigated, identified, and purchased emergency spill signs; they can be mounted on barricades if necessary. A photo of the signs is included in the Appendices.*
 - *Staff needs to continue to conduct annual bypass setup training in the field; the setup was performed in the first part of February 2017; pictures of the layout are attached in the Appendices.*



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 Evaluation

Does the agency have a FOG problem?

Yes, however, past SSOs have been a combination of FOG and system related issues. A comprehensive and practical plan will be developed and implemented by the City. Both funding and resources need to be identified and secured to implement this next phase.

Typically, data is provided that can prove or disprove the presence of a FOG issue. Data that may be used to make a determination includes:

- 1) SSO Reports including the cause of blockage;
- 2) Cleaning and other maintenance data that identifies FOG as a potential problem;
- 3) CCTV inspection reports that identify areas or sources of FOG;
- 4) Master list of restaurants that discharge to the sanitary sewer system and that could potentially cause a FOG related problem; this information is available from the business database by query; the list is subject to change; could include but would be concerned about customer information; it would have to be scaled backed so as to remove ownership information; it is possible to obtain a general listing from the Internet Yellow Pages as well.

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

The City has an informal public education program to promote the proper disposal of FOG. Information on proper disposal of FOG and other SSO prevention measures, including installation of backwater valves, house lateral maintenance, etc. disseminated through public events in both Spanish and English. In fact, one such event took place at the Los Angeles County Fair where the City has set up a booth to handout brochures on FOG and water conservation. The City's has provided information on its home web page by posting the 2013 SSMP and other related sewer documents. The City has not explored the use of radio and television announcements and other means to get the word out.

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

No. Much like the *Guide for Developing and Updating of Sewer System Management Plans (SSMPs)* prepared in September 2013, this list has to be prepared without the appearance of bias. There is an organization, however, called CalFOG that publishes a list of grease haulers and grease acceptance facilities in the State. I obtained this information from a previous annual LACSD report and have attached a copy of the listing in the Appendicies.

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

The City ordinances have language pertaining to FOG in the sanitary sewer system within the City of Pomona. What is included in the Division 3. Sand and Grease Traps ordinance makes reference to installation, packing, and maintenance of grease traps and grease interceptors.



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

The City does have requirements for grease removal devices as part of its ordinance pursuant to Division 3.

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

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

If required, what are the minimum required BMPs?

The City requires kitchen and restaurant best management practices to be implemented such as installation and maintenance of grease traps and sand traps.

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

It does not appear that the City ordinance has language for the inspection of grease producing facilities within the City boundaries. The City will be working on the area in the next phase of the SSMP process.

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

It does not appear that the City ordinance has language for the enforcement of FOG discharges to the sanitary sewer system within the City boundaries.

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

The City does not have enough staff needed to inspect, and enforce a FOG program. The eventual goal was to first establish the program using outside sources. The program would be funded by charges to the establishment. Once established, and after the City gets familiar with the program, they would implement changes to the organization so that in-additional house would take over and enforce the program. In the meantime, the City has hired the services of a private contractor, Rae Beamer, who has done some basic inspection of facilities in the field. A copy of the inspection report is included in the Appendices.

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

The City has informally identified segments of the sewer system prone to combined FOG blockages and implemented regular cleaning. A copy of this was included in the 2015 SSMP Audit. A more recent map of these locations will be included in this report as well. This information has not been subjected to a trend analysis. In all of the cases so far, any spills which have occurred in the City's system have been the result of multiple factors not just FOGs accumulations.



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

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

9.5 Recommendations

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

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



- Integrating the inspection results into a GIS based Computerized Maintenance Management System



- Enforcement, utilizing a GIS based Code Enforcement Module
 - Ensure due process within defined legal authority
 - Escalating enforcement structure
- Lastly, specific sections of the 2013 SSMP need to be address the following items:
 - **Section 6.2:** City has initiated an initial survey of Food Service Establishments but it is not complete. Additional surveys will have to be conducted to include schools and convalescent homes.
 - **Section 6.4:** Staff has reached out to public by creating a booth at the Los Angeles County Fair in September 2015; FOG brochures in Spanish and English were handed out by staff;
 - Public outreach: Did not hold the Annual Public Works Fair in 2015; they continue to pass out fliers and other public events



- The City still has obtained a list of acceptable disposal facilities per the LACSD; even with this, the City is still struggling with this since we may be seen as endorsing certain private firms; this is discussed in the guidance manual
- The City has not yet established standard details for grease trap installations
- There has been no changes to the (Disaster Discharges) in the City ordinance as of yet
 - There has been changes to the High Frequency Maintenance Locations (Hot Spots) as repairs are made through the CIP program





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 Evaluation

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

Yes, the City of Pomona is currently completing a comprehensive sanitary sewer master plan as part of the 2017 Strategic Plan. In addition to the system overview, population projections, a hydraulic model, and a CIP program. The goal is to develop flexible reporting tools like Sedaru® for staff that can be used to predict future impacts. Also, the hope is that we can develop ways to get the word out quicker and more consistently with immediate staff, upper management, and residents. So, in this regard, it is a departure from our normal master planning efforts.

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

The City of Pomona has a hydraulic model that includes 10 inch and larger diameter pipes that was developed for the 2005 Sewer Master Plan. However, these pipes constituted only 15% of the system and therefore another hydraulic modeling encompassing 100% needs to be developed. The Strategic Plan includes the development of a sewer hydraulic model that incorporates mains 8" and larger and the latest GIS database. This model will reflect at least 98% of the City's sewer conveyance system. The consultant, RMC, is completing the data gathering stage prior to constructing the model. Preliminary stages of the model are included in the Appendices.



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

The City has adopted a CIP that has been based on the 2005 Sewer Master Plan and the CCTV work performed in 2010. However, the hydraulic modeling to date does not include 75% of the system that are 8 inches in diameter or less, and focused the modeling on 10 inch and larger diameter pipes. This potentially omitted 8 inch or smaller pipes that were hydraulically deficient and therefore needed to be addressed in future the CIP projects. The City currently has a contractor to address red flags (breaks and offsets). It is expected that next year another contract will be developed to address remaining red flags. By this time, the City will have been able to run a complete hydraulic analysis of the sewer system and be able to identify design deficiencies for a subsequent contract.

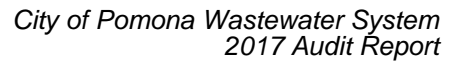
As part of the sewer rate study being undertaken, the City is working to create an annual CIP program that will address aging sewer pipelines, equipment, hardware and software on an annual basis. One of the goals is to review pipelines and recommend replacement/rehabilitation based on age, location, access, risk, and other factors. Another goal of the rate study is to develop a sinking fund to set aside money for aging equipment. Lastly, the City is exploring new CCTV technology. The current platform from CUES is no longer supported so they are acquiring some new technology from WinCan that will provide the following benefits:

- The new camera is smaller and can maneuver better; pictures are included in the Appendices.*
- The camera truck is smaller than the previous van making it less of a traffic issue*
- The CCTV technology is robust in that it can do a variety of features that were not previously available*

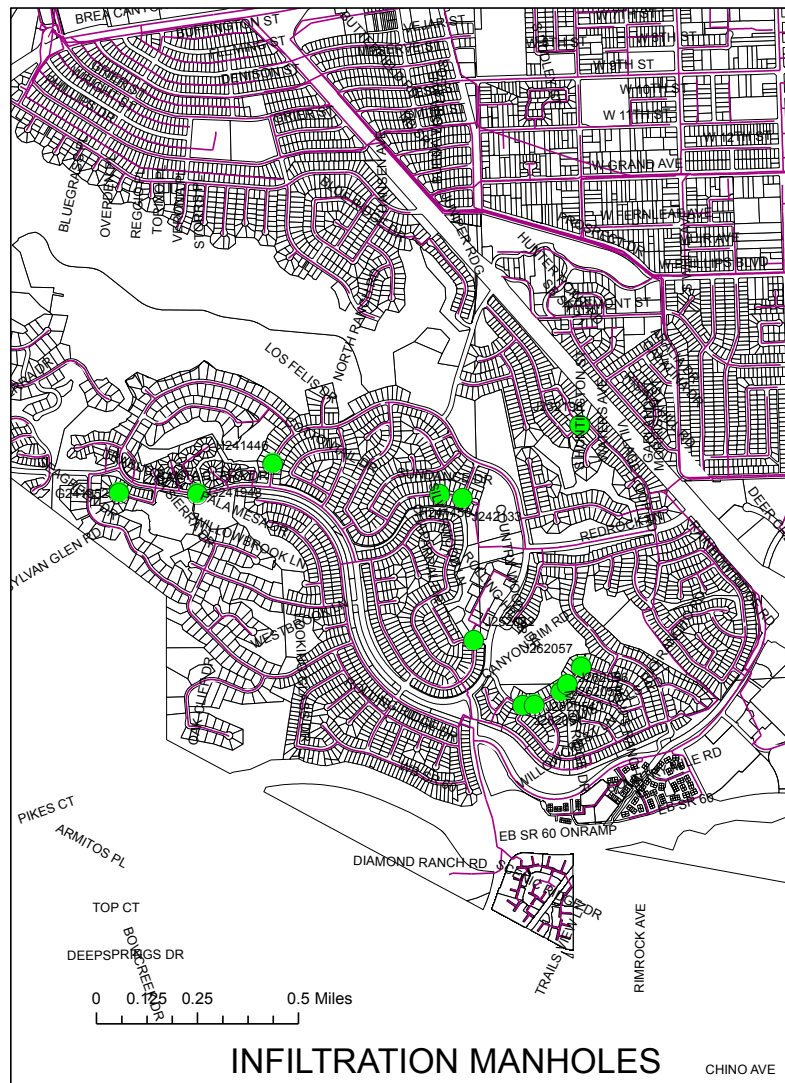
10.5 Recommendations

The following is a summary of our comments and recommendations:

- 1. A comprehensive sewer CCTV program was conducted in 2010 wherein the entire wastewater system was CCTVd by Trans Consulting and in-house wastewater crews. The condition assessment footages along with in-house camera work have initiated an on-going annual repair and rehabilitation CIP program for Sewer Red Flags.*
- 2. A comprehensive manhole inspection program should be developed to complete the initial condition assessment of the City's manholes. Under the 2010 contract, only 25% of the City's manholes were field inspected. Defective sewer manholes and their appurtenances are one of the biggest sources of Inflow and Infiltration and as such need to be evaluated on a regular basis. Due to pavement subsidence, manholes in the middle of a street can still act as area drains with large amounts of rain runoff entering the manhole through lid and frame openings. Infiltration through manhole walls can also allow a large amount of water into the system.*



3. Flow monitoring data showing basins with high inflow and infiltration (as high I/I is indicative of infrastructure defects) and areas with known problems should be investigated first. Field observations also help to gather information needed to make an informed decision on rehabilitation for manholes.



4. Sewers are no longer replaced based on age alone as the majority (87%) of the system is VCP and VCP can last longer than 50 years depending on soil conditions, loadings, root intrusion, and other issues. Only infrastructure needing replacement should be scheduled in the CIP based on age, breaks, CCTV inspections, defect, and pavement conditions.
5. The City adopted a new General Plan in March of 2014. It would be beneficial to re-evaluate land use and corresponding wastewater generation using information from the City's latest General Plan.
6. Only "major" sewers (primarily those 10 inches in diameter and greater) were included and evaluated in the 2005 hydraulic model. There is 45 miles of the 317 miles of gravity



sewers in the City's system, which is 15% of the system. There are 233 miles of 8-inch sewer in the system, which is 75% of the system, which was not included as well as 2.9 miles of 4-inch and 6-inch sewers. All of the sewers will be detailed in the City's sewer GIS for documentation and operation and maintenance purposes. All sewers will be imported into the hydraulic model and evaluated in the hydraulic analysis. Smaller sewers have the same likelihood as larger sewers to be over capacity depending on sewer slope relative to peak flows carried in the sewer. In order to demonstrate capacity assurance and to show due diligence in preventing overflows due to hydraulic deficiencies, the entire sewer system will be hydraulically evaluated with the model. If the City captures mains that are 8" or greater in their hydraulic model, it would be sufficient.

7. There is no standard wet-weather design storm to evaluate sewers with, so sewers should be designed to carry peak dry-weather flows within the appropriate d/D ratios, which were developed so sewers would have capacity to carry wet-weather flows safely. This is industry standard criteria. Sewers with diameters 10 inches and greater (15% of the system) were evaluated in the 2005 Master Plan for peak dry-weather flow capacity with a criterion of no surcharging, i.e. d/D ratio of 1.00 or less, which is too high. It is important to assess sewer capacity with appropriate d/D ratios and also to err on the side of being conservative because the LACSD sewers are not modeled, i.e. a free discharge is assumed, and there could actually be backwater from the LACSD sewers during high flow conditions or due to constrictions or obstructions in their system.
8. Sewers with diameters 10 inches and greater (15% of the system) were evaluated in the 2005 Master Plan for wet-weather flow capacity with a criterion of no surcharging greater than 125% of pipe diameter, which is too high for a 2-year recurrence interval storm. No flow level above the top of pipe should be allowed for recurrence-interval storms less than or equal to 5 years.
9. For the 2005 hydraulic model, wet-weather flows were captured at 14 flow metering sites, but there is no reporting of the magnitude of inflow and infiltration (I/I) metered in the associated meter basins. Wet-weather flow monitoring should be used to identify relative I/I in the basins metered because higher I/I is indicative of sewer system defects that let water into the system. Higher I/I basins should then be investigated via sewer CCTV and manhole investigations to identify and rehabilitate the defective infrastructure components. Considering the size of the City's sewer system, more meters are needed to identify I/I in more areas of the system. This information should then be reported in the master plan and then used to investigate the system where high I/I is occurring.
10. A Sewer Rate Study is being conducted to ensure that the entire cost of the CIPs as well as other elements of WDRs are incorporated. This should include fees for the FOG program, including, equipment replacement, new regulations, inspections and FOG mitigation.
11. There is a new development regarding sewer laterals. It seems that the Gas Company is investigating areas where their soil boring may have penetrated sewer laterals creating potential blockages. When they encounter such an instance, they inform the customer and repair the lateral.



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 Evaluation

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

The City maintains a data management system that tracks program performance so as to report its findings to executive management on sanitary sewer system performance. The Department is in the process of developing a reporting program, known as Sedaru®, to make this effort more readily available. Sedaru® Real-time communications and predictive analytics will help the City leverage its business data for findable, shareable, actionable insights, understand and prepare for impacts while minimizing risk, and coordinate and optimize response to operational events. A couple of screen shots from the program have been included in the Appendicies..

We are also still investigating the possibility of embracing CityWorks as our work management system for sewer and water.

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

Yes, it is being developed to report on what is currently happening as well as possible scenarios. The program is expected to be able to extract information from the sewer hydraulic model, financial information, GIS, and CIP progress.

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

Yes; it does appear that reports have been developed that measure SSMP program effectiveness by establishing KPI such as miles of cleaning and number of SSOs per year. As the Sedaru® program becomes more common place, I would anticipate that the City will establish more KPIs.

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

The City of Pomona has implemented a cleaning program that targets cleaning of every sewer line segment on an at least 1.5 years basis. The footages cleaned on "dailies" are no longer kept in written format. With the advent of Sedaru®, Staff enters the location and length of the cleaning totals on a tablet. It automatically uploads the data into the Sedaru® program which allows Mr. Lopez to query what work had been performed today and in the past. The program also highlights the area on the screen. A copy of a screen shoot is included in the Appendicies.

11.5 Recommendations

The City should continue to develop a reporting program that focuses on collecting data from all relevant sources which will provide the City with critical information associated with the performance of the City's sanitary sewer system and associated programs. The City should begin to communicate with all relevant agencies on a regular basis (at a minimum monthly) to go over both the progress and performance of all programs, as well as issues that arise during the subject time period.



The City has evaluated various Computerized Maintenance Management System (CMMS) to help track all Personnel, Equipment, and Material. One such program that appears to meet their needs is the CityWorks program. Whichever program is chosen, the system must be integrated with GIS to help with trend analysis for Hot Spots, FOG, SSO mapping as well as CIP tracking. Furthermore, a system for communication and data submittals that are associated with SSOs and sewer backups that are reported to the online SSO database should be developed. A matrix of Key Performance Indicators should be developed that would help the City develop its Measurement, Monitoring and Reporting Procedures (MMRP).

*Lastly, **Section 11.2** should be modified to reflect Mr. Poulsen's new job title.*



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 Evaluation

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

Yes; this will be the second audit after the 2013 SSMP utilizing WDR approved audit checklist.

Are programs developed with a clear understanding of expectations?

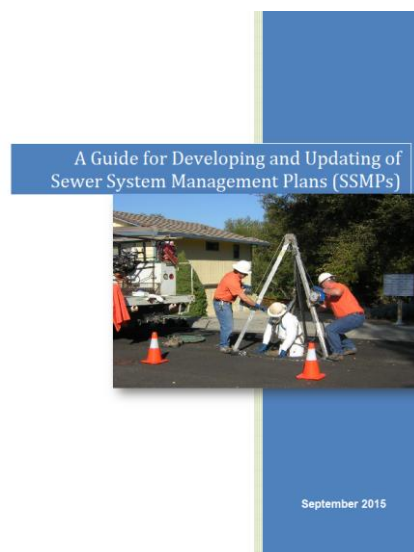
Yes; discussions take place between Engineering and the Wastewater Supervisor on KPI, new nozzle acquisition, training, etc. The Engineering Division is situated at the Yards so there is daily interaction with Wastewater staff to discuss operational issue as they arise.

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

Yes; there are KPIs for SSO per mile and line cleaning goals.

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

Yes; in developing this audit, BACWA Checklist was evaluated as well as other related references



Has an individual been assigned to perform the audit?



Yes; Raul C Garibay

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

Yes, as in 2012, the City did can go outside to procure the services of an outside firm to conduct an audit. This audit, however, is being performed in-house to reduce operating costs.

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

Yes.

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

Yes, the City's management and Council would support and authorize the audit procedures.

Are audit finding and reports reported directly to agency management?

Yes.

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

No.

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

No.

12.5 Recommendations

The City needs to continue to implement an audit program that addresses the questions identified above. There should be one or two individuals designated internally that are charged with performing these audits on a regular basis. These individuals should report their findings to the LRO and City Council and utilize the results to effect needed changes. Additionally the audit program should address:

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



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

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 Evaluation

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

The City has posted the 2013 SSMP and 2015 audit on the Web Site. In addition, there have been efforts made to make its presence known at various community events such as the LA County Fair and the City's Beautification Day.

One of the components of Strategic Plan was to perform a SWOT Analysis on Communication for the Department. Although the results are being reviewed and categorized, there were some initial areas that may be used to get the word out better:

- *Use of social media outlets like Twitter and Facebook*
- *Making a video that can be shown on Public Channel*
- *Attending neighborhood associations*

A copy of the SWOT Matrix dealing with communication is included in the Appendices.

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

It does not appear that a list was established.

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

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

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

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

Although efforts have been made to interact with the media, very few residents ask questions that require follow-up.

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

Yes, those satellite agencies include the city of La Verne and the City of Claremont, Pomona Unified School District and Cal-poly Pomona University.



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

Yes: Raul Garibay.

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

Yes; there were attempts to meet with the City of Claremont, City of La Verne and Cal-Poly Pomona. Staff followed up with verbal and face-to-face discussions with each agency.

Staff was able to conduct some meetings with both La Verne and Cal Poly Pomona.

13.5 Recommendations

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

- 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. With the advent of the Strategic Plan, it is hoped that some additional direction will come forth and be implemented.*
- Identify key community stakeholders and key issues that various stakeholders may be interested in and/or concerned with.*
- Make sure to involve the right stakeholders on potentially controversial issues as early as possible. Emphasize collaboration and shared goals to reach a workable solution.*
- Create a list of key milestones in each phase of your SSMP when stakeholder input would be most useful and effective.*
- Create a convenient mechanism for stakeholder input. Additionally, key considerations, while developing a communication program. It is believed by getting the face of the Department in the Public, we will be able to generate more interest and hence more feedback.*
- Continue to develop of a variety of communication methods, including newsletters, public meetings, web pages, and public service announcements. Different agencies will find that different communication methods are effective. Look for a method that reaches the desired audience at a reasonable cost. The City is exploring the use of social media outlets such as Facebook, Twitter and Channel 29 public television to get the word out.*
- The Department has utilized the Weekly Report to inform the City Council of significant wastewater events that have or will occur. As in the case of the sewer spill in the City of Claremont, staff was requested and assisted in the clean-up of the sewer spill in Claremont along Indian Hill Blvd.*



- *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, continue regular coordination meetings, annual surveys for changes in their system, and/or web pages devoted to satellite agency issues.*



2013 SSMP Appendicies Review

In addition to the updates and/or deletions from the 2013 SSMP, the following Appendicies items need review and possible updating:

- **Appendix A, Excerpts for Pomona's City Code:** No change required
- **Appendix B, Recommended Legal Authority:**
 - Need to review and move forward with making changes to the City Ordinance
 - The definitions provided in the City Ordinance need to be updated
- **Appendix C, City of Pomona Operations and Maintenance Program:**
 - Not much discussion on manhole inspections; the only record of such inspection was performed by Trans Consulting and that only covered 15%; need to talk about what will be done in the future to bring that up to a larger and reasonable inspection ceiling
 - Need to develop a program for identifying and recording sewer easements; especially those that are deemed in accessible; need to put together a schedule for doing this work; who knows, as a result of finding these easements, it may require or be in the best interest of the City to relocate the facilities in its entirety
 - Talk about new repair technologies for manholes and pipelines (especially the joint repair in place) as presented at events such as Tri State Seminar;
 - It does not appear that the equipment and material inventory lists have been updated
 - **Figure 12-1:** Needs to reflect Darron's new position and title; also, need to remove the reference to the PW Director
- **Appendix D, City of Pomona Sanitary Sewer Overflow Emergency Response Plan:**
 - **Table 2-3:** Needs to reflect Darron's new position and title; also, need to remove the reference to the PW Director
 - **Attachment B, Sewer Service On-Call Response Personnel:** Needs to reflect Darron's new position and title; also, need to remove the reference to the PW Director
 - **Attachment E, Sanitary Sewer Overflow Notification List:** Needs to reflect Darron's new position and title; also, need to remove the reference to the PW Director
 - **Attachment G, Possible Methods for Estimating Spill Volume:** Based upon the presentation at the last Tri-State Seminar, the City's methods do not include the bucket method; different ways to measure; point is to come up with ways to confirm spill number
- **Appendix E, City of Pomona's Fats, Oil, and Grease Control Program Characterization Study:**
 - **Page 8:** Remove reference to the Utility Services Director and replace with the Water/Wastewater Operations Director, Darron Poulsen
- **Appendix F, City of Pomona Fats, Oil, and Grease Control Program:**



- No formal program has been developed yet
 - Talk about the initial inspection list of FSEs
- **Appendix G, City of Pomona Sewer Design Policy and Standard Drawings:**
 - **Section 4.2,** Talk about the in place joint repair system from the Tri-State Seminar that places a “packer type sleeve” in the pipe; also include the presentation from Mr. Badgley and the application of polyethelene lining to perform manhole repair
 - For the 2018 SSMP, the Standard Drawings that have been adopted since the 2013 SSMP need to be included
- **Appendix H, Sewer Lift and Force Main Transfer:** Continue to work with the LACSD to turn over all of the remaining force mains; staff has been in discussion to involve them in the design of duplicate force mains to ensure the eventual transfer of force mains for all of the remaining Pump Stations.
- **Appendix I, WEF Flyers, Council Presentation, PW Week:**
 - Need to include pictures of the regional Award as well as the State award; maybe be good to provide the picture of the City being noted or recognized in San Diego
- **Appendix J, 2010 and 2012 SSMP Audits:** No change required; for the 2018 SSMP, the 2015 and 2017 audits should be inserted here
- **Appendix K, Satellite Agreements:** No change required



2017 AUDIT APPENDICIES

- Pomona's Past 3 Year Spill History
- Preliminary Sedaru® Hydraulic Model
- Draft SWOT Matrix for Communication
- Snap Shots of CIWQS Web Site for Pomona
- Transferring Pomona Force Mains to LACSD
- Pomona's Sanitary Sewer Map
- Current Spray Nozzles Used
- Foaming Chemicals and Applicator
- Photos of the "Sewer Spill" Signs
- CalFOG Listing of Facilities Accepting Grease
- CalFOG List of Grease Haulers in LA County
- Copy of the City's FOG Inspection Forms
- New Camera Truck
- Sedaru® Print Out showing one of the WW Mains Cleaned Last Week
- LA County Public Health Listing of Septic Systems
- New Standard Sewer Drawings

SSO Public Report - Detail Page

Here is the detail page of your SSO public report search for the selected region, responsible agency, or collection system. These results correspond to the following search criteria:

SEARCH CRITERIA: [\[REFINE SEARCH\]](#)

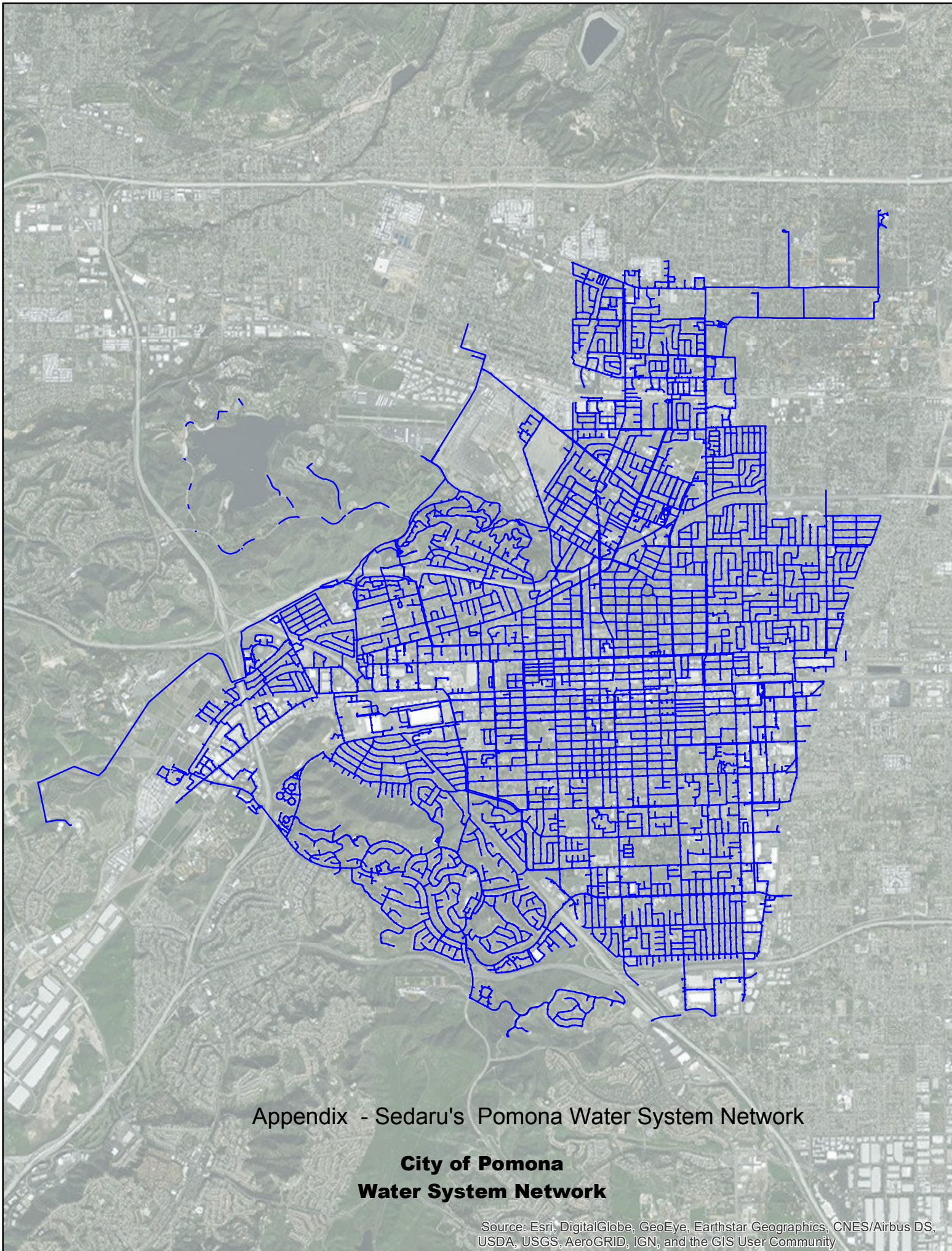
- WQID (4SSO10418)
- Spill Type (seo_cat1_2_3)
- Start Date (01/01/2015)
- End Date (11/30/2017)

The table below presents important details for all sewage discharge locations, as submitted through individual SSO reports, which meet the search criteria selected. If data is not shown for a particular field, it means the Enrollee did not provide the information and was not required to do so. To view the entire SSO report for a specific sewage discharge location, please select the corresponding EVENT ID.

DRILLDOWN HISTORY:

REGION:

EVENT ID	Region	Responsible Agency	Collection System	SSO Category	Start Date	SSO Address	SSO City	SSO Vol	Vol of SSO Recovered	Vol of SSO Reached Surface Water	SSO Failure Point	WQID
806443	4	Pomona City	Pomona City CS	Category 3	2014-05-26 09:30:00.0			900	0	0	Gravity Mainline	4SSO10418
817361	4	Pomona City	Pomona City CS	Category 3	2015-07-18 10:00:00.0			5	5	0	Manhole	4SSO10418
826456	4	Pomona City	Pomona City CS	Category 1	2016-07-15 08:30:00.0			150	0	150	Pump Station-Power	4SSO10418
831162	4	Pomona City	Pomona City CS	Category 1	2016-12-26 08:30:00.0			7,940	0	7,940	Gravity Mainline	4SSO10418
831442	4	Pomona City	Pomona City CS	Category 1	2017-01-01 07:59:00.0			17,640	0	17,640	Gravity Mainline	4SSO10418
832496	4	Pomona City	Pomona City CS	Category 1	2017-02-04 14:23:00.0			940	0	940	Gravity Mainline	4SSO10418
833446	4	Pomona City	Pomona City CS	Category 3	2017-03-01 12:45:00.0			800	800	0	Gravity Mainline	4SSO10418



Appendix - Sedaru's Pomona Water System Network

**City of Pomona
Water System Network**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Communication

Visionary Statement	Strategy	Goal	KPIs	Actions	Due Date	Lead
Establish ongoing outreach to ensure City Council understanding of WWO's activities and performance	Maximize the opportunities to speak and engage with Council Members	Participate in community events attended by Council Members	# of community events attended	Review community events and develop a schedule for attendance	2017	Raul
		Attend City Council meetings	# of City Council meetings attended	Develop a schedule for attendance	2017	Darron/Raul
		Utilize technology to provide continuous updates	Website and social media updated	Assign an employee to develop a website and maintain social media.	2017	Raul/Nichole
			# of presentations to City Council using identified technology	Identify opportunities to leverage technology and software at City Council meetings, such as Sedaru	2017	Raul/Nichole
	Establish scheduled presentations to City Council regarding activities or performance	Track City Council issues and actions	# of City Council water/wastewater committee meetings attended	Assign an employee to track City Council issues and actions	2017	Dana/Melissa
		Schedule periodic updates to the ad hoc committee		Develop a schedule for providing periodic updates to the ad hoc committee	2017	Dana/Melissa
		Present cost of service study/rate study	Presentation to City Council on cost of service study/rate study completed	Develop a presentation for the cost of service study/rate study	2017	Damien/Dana
		Provide annual report on utility department accomplishments	Annual report developed	Develop a standard annual report on utility department accomplishments	Annual	Dana/Melissa
	Establish consistent messaging regarding strategies and goals	Present Strategic Plan	Presentation to City Council on Strategic Plan completed	Develop a presentation for the Strategic Plan	2017	Tim/Raul/Damien
		Provide updates on KPIs	Report cards developed	Develop a "report card" to report progress in meeting strategies and goals	Annual	Darron/Gary
Establish customer awareness of WWO's activities and performance	Participate in community events	Develop public outreach materials for booths	# of community events attended	Assign an employee to develop outreach materials	2018	Darron/Raul
		Maintain a schedule for attendance at community events		Review community events and develop a schedule for attendance	2018	Darron/Raul/Gary
	Make presentations to City Council on activities and performance	Present completed studies, plans and accomplishments to the City Council	# of City Council presentations made	Develop presentations for City Council on completed studies, plans and accomplishments	ongoing	Darron/Raul
	Make presentations to community groups and schools	Maintain educational materials for presentation	# of community group and school presentations made	Develop educational materials for presentation	2018	Dana/Melissa
		Maintain a schedule and locations for presentations		Develop a schedule for community groups and school presentations	2018	Dana/Melissa
	Utilize technology for communication	Develop a public outreach website for the WWO	Website developed and maintained	Assign an employee to develop a website	2018	Dana/Melissa/Nichole
		Develop protocols for outreach on social media (facebook, twitter, etc.)	Social media developed and maintained	Assign an employee to maintain social media accounts	2018	Dana/Melissa
	Conduct tours of facilities	Maintain a standard tour program	# of tours given	Develop a standard tour program	2018	Dana/Melissa
		Conduct outreach to groups regarding availability of tours		Advertise availability of tours on website and in presentations	2018	Dana/Melissa
	Establish brand and messaging for WWO	Develop a new Department name	Contest conducted	Conduct contest within the WWO to develop a new Department name	2018	Dana/Melissa
		Leverage information from strategic plan to develop messaging	Brochure developed	Summarize strategic plan messaging into a brochure	2018	Dana/Melissa
	Establish a better understanding of the community	Develop a survey to better understand the community's view of the Department	% of customers surveyed per year	Conduct a community survey	ongoing	Dana/Melissa
	Establish a presence in professional organizations	Attend professional organization meetings	# of professional organization meetings attended	Identify relevant professional organizations and schedule meeting attendance	ongoing	Darron/Raul/Gary

Appendix - Draft SWOT Matrix for Communication

Visionary Statement	Strategy	Goal	KPIs	Actions	Due Date	Lead
Establish standard emergency communication protocols to the community	Establish a reverse-911 system	Identify funding for implementation of a reverse 911 system	Reverse 911 system implemented	Research funding opportunities for a reverse 911 system	ongoing	Darron/Damien
	Divide customer base by geographic location for contacting residents	Use GIS system to identify addresses impacted by WWO activities or emergencies	GIS system updated with emergency contact information and maintained	Update GIS system with necessary contact information	ongoing	Dana/Melissa/Nichole
	Utilize technology for communication	Develop a public outreach website for the WWO	Website developed and maintained	Improve existing website through use of City's existing IT contractors	2018	Nichole/Interns
			# of times website accessed			Dana/Melissa/Nichole
		Develop protocols for outreach on social media (facebook, twitter, etc.)	Social media developed and maintained	Assign an employee to maintain social media accounts	ongoing	Dana/Melissa/Nichole
Establish standard emergency protocols for coordinating with other Departments	Establish standard emergency protocols for coordination with other departments and agencies	Maintain an SOP for emergency protocols and coordination with other departments and agencies	Emergency protocols SOP developed	Develop the emergency protocols SOP	ongoing	Darron/Raul/Gary
		Involve multiple departments in training exercises	# of training exercises conducted with other departments		ongoing	Darron/Raul/Gary
	Coordinate with the safety officer regarding protocols for EOC and FEMA emergency training	Establish an annual EOC exercises that requires cross-departmental coordination	Protocols for EOC and FEMA training developed	Meet with safety officer to establish protocols for EOC and FEMA training	ongoing	Darron/Raul/Gary
		Conduct training on FEMA processes	Emergency training budget included in annual budgets	Include budgets for training in cost of service/rate studies	ongoing	Darron/Raul/Gary
	Leverage working relationships with neighboring agencies to develop mutual aid agreements	Evaluate the costs and benefits for cooperation with other agencies	Mutual aid agreements developed	Complete the cost/benefit evaluation	ongoing	Darron/Damien

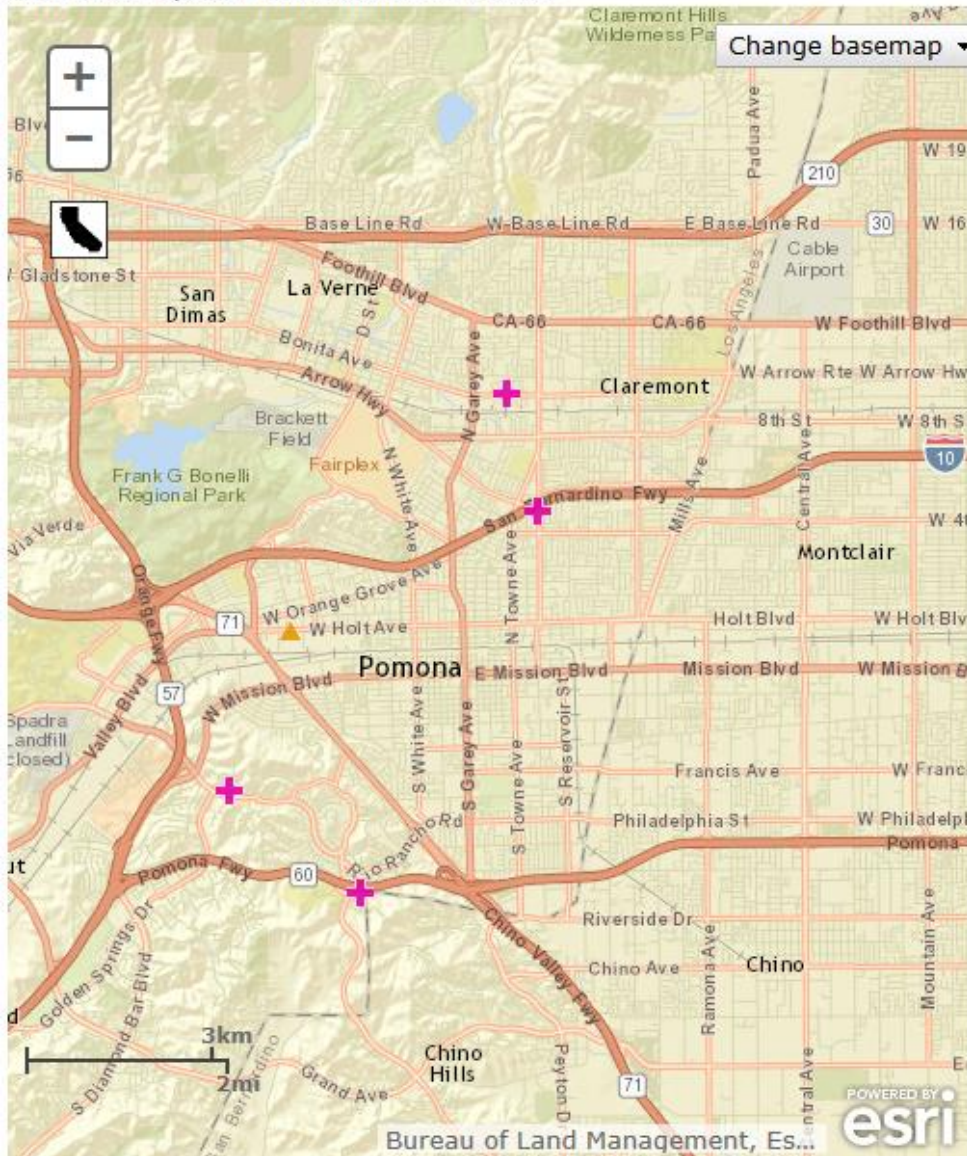
Sanitary Sewer Overflow (SSO) Incident Map

SANITARY SEWER OVERFLOWS: 05/04/2016 - 09/04/2017

Spill type: + [Category 1](#) ● [Category 2](#) ▲ [Category 3](#) [More Info](#)

Click on a map icon for incident information.

Note: Map does not include spills from sewage treatment plants.



- ☐ Show all incidents
- ☒ Show only incidents with valid GPS coordinates

Filter by volume (gallons):
0 - 1,000,000+ gal.

Minimum:

Maximum:

[Set Volume](#)

Filter by date:
05/04/2016 - 09/04/2017

Start:

End:

[Set Dates](#)

Filter by Agency:
Pomona City

[Set Agency](#) [Show All](#)

(Example: "123 Main Street, Sacramento, CA")

[Go to street address:](#)

Go to county:

[Show county layer](#)

Go to Regional Board:

[Show RB layer](#)

QA Tools

To find a Latitude/Longitude for a point or address, click [here](#).

Appendix - Snap Shots of CIWIQS Web Site for Pomona Sanitary Overflows in FY 16-17

AGENDA

June 24, 2015

10:00 am – 12:00 pm

JAO Conference Room A (1st floor, Public Information)

SUBJECT: TAKEOVER OF POMONA PUMPING PLANT FORCE MAINS

ATTENDEES:

POMONA: DARRON POULSEN, DAMIEN MARTINEZ, TIM HAMPTON

LACSD: JON GANZ, STAN PEGADIOTES, MIKE SULLIVAN, AJAY MALIK, NIKOS
MELITAS, ED STEWART

1. Introductions
2. Force Main at Pumping Plant No. 1
 - a. Significant renovation anticipated
 - b. Different schedule, separate takeover agreement
 - c. Two new force mains will be required prior to takeover
3. Proposed Takeover of Force Main at Pumping Plant Nos. 2 & 3
 - a. As-built drawings for existing force mains
 - i. Districts' drafting standards
 - ii. Plan, profile and detail
 - iii. Force mains, vaults and manholes
 - b. Designed by Pomona and reviewed by Districts
 - c. Constructed by Pomona and inspected by Districts
 - i. Include hydrostatic testing & CCTV
 - ii. Repair existing force mains as necessary
 - iii. Inspection reimbursement
4. Discussion and Closing

Appendix - Transferring Pomona Force Mains to LACSD

CITY OF POMONA SEWER MAP

CURRENT AS OF OCTOBER 2013

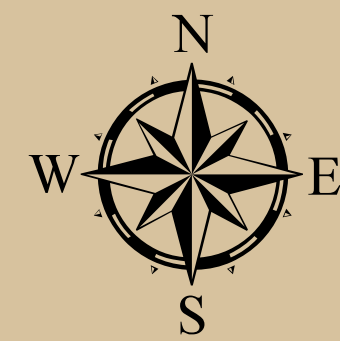


LEGEND

- Freeway
- Adjacent Cities
- Sewer Cleaning Phases
 - Needs to be Cleaned
 - Phase I Cleaning
 - Phase II Cleaning

0 600 1,200 2,400 3,600 4,800 Feet

1 inch = 1,200 feet



La Verne

Claremont

Upland

San Dimas

Montclair

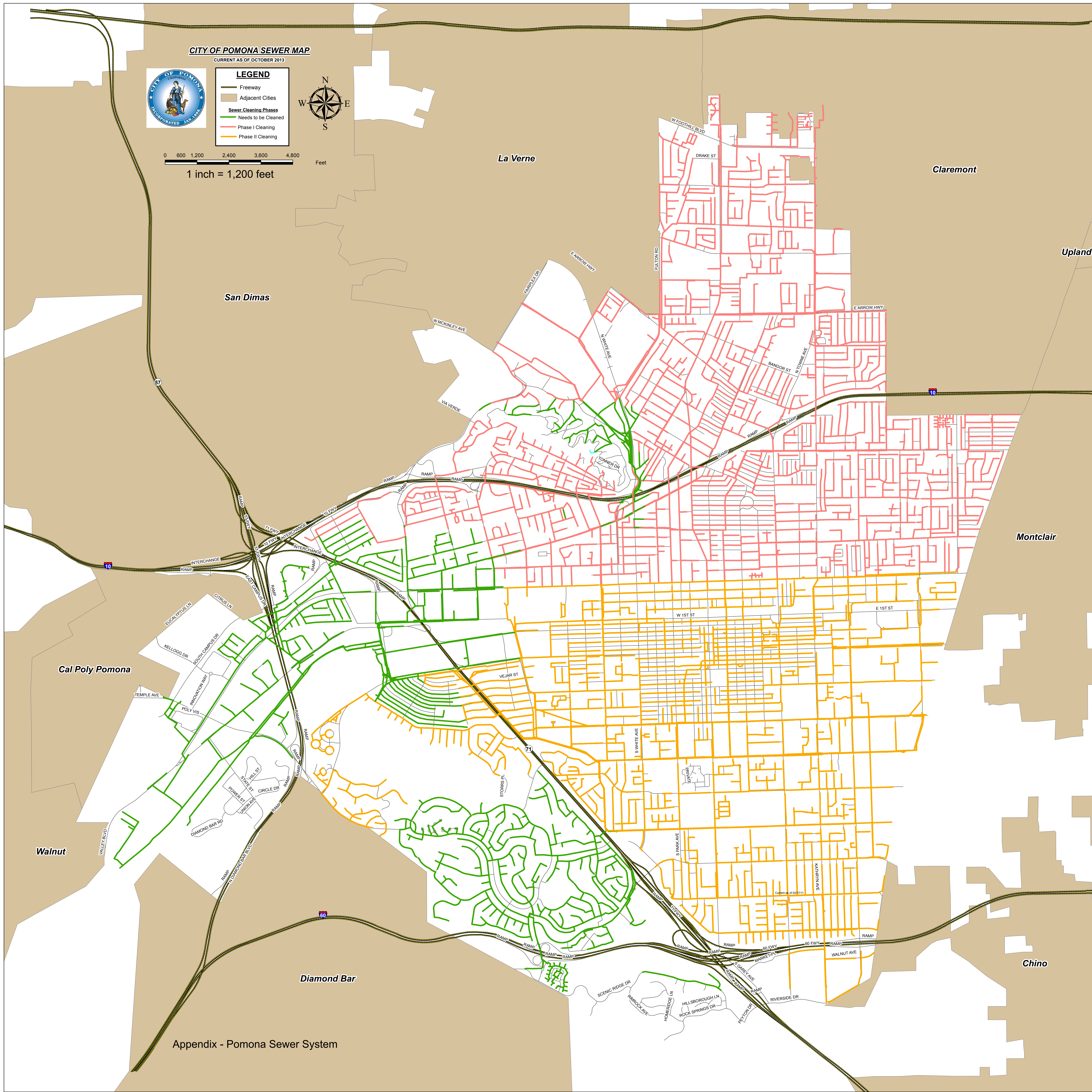
Cal Poly Pomona

Walnut

Diamond Bar

Chino

Appendix - Pomona Sewer System





Appendix - Current Spray Nozzels Used

Material Safety Data Sheet

RootX

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name & Address: General Chemical Company
P.O. Box 7626
1 705 Salem Industrial Drive, N.E.
Salem, Oregon 97303

Emergency Telephone: 800-424-9300 (Chemtrec) or 800-844-4974

Date Prepared: January 1st 2007 **Common Name (used on label):** RootX

Chemical Name: 2,6-dichlorobenzonitrile **Chemical Family:** Benzonitrile

Formula: Proprietary Mixture **EPA Reg. No.:** 68464-1

SECTION 2 - HAZARDOUS INGREDIENTS/COMPOSITION

Hazardous Component:	%/Wt.:	CAS #:	TLV* (Units):
2,6-dichlorobenzonitrile (dichlobenil)	0.55%	1194-65-6	Not Established
Silica, Crystalline Quartz	>11.00%	1 4464-46-1	10 mg/m ³ (respirable)
Sulfamic Acid	>4 0.00%	5329-14-6	1 5 mg/m ³ (respirable)

*TLV: Threshold Limit Value recommended by the American conference of Governmental Industrial Hygienists.

SECTION 3 - PHYSICAL DATA

Boiling Point: 270°C (dichlobenil) **Density:** 2.18 kg/L³

Vapor Pressure: 0.088 Pa @ 20°C (dichlobenil) **Solubility:** Disperses with H₂O

Percent Volatile by Volume: Not determined **Vapor Density:** Not determined

Evaporation Rate: Not determined **Physical State:** Solid (Wettable Powder)

Appearance & Odor: White to light brown with a slight aromatic odor.

SECTION 4 - FIRE AND EXPLOSION DATA

Flash Point: 216°C (420°F) **Flammable Limits in Air (%/Volume):** Lower - Not Determined
Upper - Not Determined

Auto Ignition Temperature: 527°C (980°F)

Extinguishing Media: Water spray, foam or dry chemical

Unusual Fire & Explosion Hazards: Decomposition may form explosive dust-air mixtures; carbon dioxide and water vapor.

Special Fire Fighting Procedures: As with any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Keep upwind. Isolate hazard area. Avoid inhalation of smoke and fumes. Use water, dry chemical or foam to reduce fumes. Do not touch spilled material. If possible, move containers from area. Extinguish only if flow can be stopped. Use flooding amounts of water as a fog. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors.

SECTION 5 - HEALTH INFORMATION

Primary Routes of Exposure: Inhalation, eye and skin contact.

Signs and Symptoms of Exposure -

Acute Overexposure: Other than the possibility of slight to moderate eye irritation, no other acute health hazards have been identified. Chronic inhalation may cause lung irritation to individuals with respiratory problems. Individuals with respiratory problems should avoid inhalation exposure.

Chronic Overexposure: In studies with laboratory animals, virtually pure grade (96%+) dichlobenil had a developmental toxicity No Observable Effect Level ("NOEL") of 20 mg/kg/day. For reproductive toxicity, (96%+) dichlobenil had a reproductive toxicity NOEL of 17.5 mg/kg/day. Analysis of chronic feeding studies in rats and mice with dichlobenil resulted in the conclusion that dichlobenil's potential to induce carcinogenicity in experimental animals is low and that the likelihood of carcinogenic effects in humans is nonexistent or extremely low. Long-term feeding studies, conducted at exaggerated dose levels, resulted in increased kidney and liver weights. An overall absence of genotoxicity has been demonstrated in mutagenicity testing on dichlobenil.

Repeated overexposure to crystalline silica (a naturally occurring component of sand and inorganic soils) for extended periods has caused acute silicosis. IARC has classified crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources as a carcinogen to humans (group 1). NTP has classified crystalline silica (quartz, cristobalite and tridymite) as "reasonably anticipated to be carcinogenic".

Carcinogenicity (pure dichlobenil): NTP - No IARC - N0 OSHA - No EPA - Possible

Carcinogenicity (crystalline silica): NTP - Anticipated IARC - Yes

Medical Conditions Aggravated by Exposure: None currently known for RootX.

Medical Conditions Aggravated by Overexposure: Slight to moderate eye irritation.

Toxicology Information for RootX: Acute Oral LD₅₀ = >5,000 mg/kg; Acute Dermal LD₅₀ = >2,000 mg/kg; Acute Inhalation LC₅₀ = > 2 mg/liter; Acute Eye Irritation = slightly to moderately irritating; Acute Dermal Irritation = None to slight irritation; Dermal Sensitization = Not a dermal sensitizer.

Acute studies with RootX place the product in EPA categories III & IV - slight acute toxicity to virtually non-toxic.

First Aid Procedures: **If Swallowed** - Call a poison control center or doctor immediately for advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **If On Skin** - If on skin or clothing, take off contaminated clothing. Rinse immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. **If Inhaled** - Move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment. **If In Eyes** - Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

Worker Exposure: The EPA requirements for concern exist when the MOE (Margin of Exposure) are less than 100 for dermal exposure and 300 for inhalation exposure. An analysis of the exposure associated with the use of RootX demonstrate the dermal and inhalation MOE to be between 38,050 and 253,664. Thus, the use of RootX according to labeled use directions far exceed the MOE concerns established by EPA for dichlobenil.

SECTION 6 - REACTIVITY DATA

Stability: Stable at ambient temperatures and pressures. **Conditions to Avoid:** Strong alkalis.

Polymerization: Will not occur.

Hazardous Decomposition Products: Thermal decomposition or unscheduled contact between both components of RootX may cause build-up of Carbon Dioxide.

SECTION 7 - SPILL OR LEAK PROCEDURES

Storage: Do not contaminate water, food or food by storage or disposal. Store in a cool, dry place. Do not store with propagative structures such as seed, bulbs, tubers, nursery stock, etc., or with food or feed products or high alkali materials.

Spills: Vacuum up to avoid creating dust. Transfer into secure disposable containers. Use personal protective equipment as outlined in Section 8. Reportable quantity for spills of RootX is 9,000 pounds.

Disposal: Wastes resulting from the use of this product may be disposed of on site according to labeled use directions, or at a Federal, state and local waste approved facility. For normal use and container/pesticide disposal, please refer to the product labeling for proper disposal.

Environmental Information: For terrestrial uses, do not use near a well or where drinking water is stored. Do not apply directly to water (except as specified on the label) or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment, wash water or rinsate.

Tests on Bluegill sunfish, Rainbow trout, and Large-mouth bass demonstrate the LC₅₀ values to be between 15 and 30 ppm. Adult Quail LC₅₀ value = 1,000 ppm. These data indicate that dichlobenil is not toxic to aquatic and avian species.

SECTION 8 - PERSONAL PROTECTION INFORMATION

Respiratory Protection: Dust mask.

Gloves: Rubber (impervious) gloves.

Eye Protection: Chemical resistant splash goggles, safety glasses or full-face shield (for spill or leak cleanups).

Ventilation: General of local exhaust to maintain exposure below established TLV limits.

Other Protective Clothing: Long-sleeved shirt, long-pants, shoes & socks and for spill clean-ups, a chemical resistant apron is recommended.

SECTION 9 - OTHER INFORMATION

Hygiene: As with any pesticidal product, always wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Always clean and maintain personal protective equipment.

National Fire Protective Association Ratings (Rating level: 4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Minimum).

NFPA Health: 1 NFPA Flammability: 0 Reactivity Hazards: 1

U.S. Environmental Protection Agency:

SARA 313 - Yes

Other:

Proposition 65 - Yes

SANITARY SEWER SPILL
DO NOT ENTER

CITY OF POMONA
(909) 772-4105



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[FOG Program Info](#)
[Laws, Regs and Codes](#)
[Technology](#)
[Technical Guides](#)
[Publications](#)
[Collection Systems](#)
[Green Business](#)
[Public Ed and Outreach](#)
[Meeting Materials](#)
[Workshops](#)
[Grease Haulers](#)
[Biodiesel](#)

<http://www.calfog.org/index.html>



Facilities Accepting Grease

Agency Name	Location	Grease Type	Areas Accepted	Number
Al-Max Sanitation	Santee	brown	San Diego County	800-404-6480
Baker Commodities, Inc.	Los Angeles	yellow, brown	Southern California	800-427-0696
Central Contra Costa Sanitary District Treatment Plant	Martinez	brown	within CCCSD service area only under a CCCSD Waste Hauler Permit	
City of Millbrae	Millbrae	yellow, brown	Accepting brown grease from licensed haulers contracted to dispose at the City receiving station. Residential used cooking oil by appointment only.	(650) 259-2388
City of Palo Alto, Recycle Center (Residential Sources)	Palo Alto	yellow	City of Palo Alto	(650) 496-5910
City of Palo Alto, RWQCP	Palo Alto	brown	RWQCP Service Area	(650) 617-3165
Darling International	Los Angeles			1-800-4-GREASE
East Bay Municipal Utility District	Oakland	yellow, brown	All areas	(510) 287-1632
Imperial Western Products	Coachella Valley			(760) 398-0815
Monterey Regional Water Pollution Control Agency	Marina, CA	brown	Within Monterey County only	(831) 883-1118
Napa Sanitation District	Napa	yellow, brown	All 1515 Soscol Ferry Road, Napa	(707) 258-6000
North San Mateo County Sanitation District	Daly City	yellow	The NSMCSO service area (most of Daly City, Broadmoor Village, Westborough Water District and portions of Colma)	(650) 991-8208
One More Time	Los Angeles	yellow	California, entire state; Yuma, Arizona area	800-624-5504
Orange County Sanitation District, Plant No. 1	Fountain Valley	yellow, brown	within OCSD's service area, i.e., Orange County, parts of San Bernardino/Riverside	(714) 593-7428
Promethean Biofuels	Riverside (South) County	yellow	South Riverside County	(951) 541-9141
Sacramento Regional County Sanitation District	Elk Grove	yellow, brown	Sacramento County, Yolo County east of the Yolo Bypass	(916) 875-6470
Sacramento Regional County Sanitation District	North Highlands	yellow, brown	Sacramento County, Yolo County east of the Yolo Bypass	(916) 875-6470
Sacramento Rendering Company	Sacramento	yellow	Northern California	(916) 363-4821
San Francisco Public Utilities Commission	San Francisco	brown	All Areas Oceanside Water Pollution Control Plant 3500 Great Highway San Francisco, CA 94132	415-242-2200 (x2232) Alexandre Miot
San Francisco Public Utilities Commission SFGreasecycle	San Francisco	yellow	San Francisco	Yellow Grease and residential cooking oil See website for locations: http://www.sfgreasecycle.com/ (415) 695-7366
South Bayside Systems Authority	Redwood City	yellow, brown	SBSA accepts grease from San Francisco, San Mateo, and Santa Clara counties. Haulers must complete a PO form and show proof of insurance for liability.	(650) 591-7121
Southwest Processors	Los Angeles			
City of Watsonville Wastewater Treatment Facility	401 Panabaker Lane, Watsonville	Brown	All Areas	(831) 768-3170
West Coast Rendering	Los Angeles			

Appendix - CalFOG Facilities Accepting Grease

Lake Tahoe	Valley Septic Sewer & Drain Service	(530) 344-3314
Lake Tahoe	Waters Vacuum Truck Service	(888) 909-7867

Lassen

Los Angeles

Los Angeles	Ameriguard Maintenance Services	(800) 347-7876 xt 14
Los Angeles	Baker Commodities	(800) 427 0696
Los Angeles	BioClear Solutions - Bacteria treatment for drain lines	(888) 433-5886
Los Angeles	Chans Grease Service	(951) 830-2172
Los Angeles	Coastal Byproducts	(805) 845-8086
Los Angeles	Grand Natural Inc.	(855)-519-5550
Los Angeles	JR Grease Traps and Interceptor Service	(323) 997-9602
Los Angeles	New Leaf Biofuel	(619) 236-8500
Los Angeles	One More Time	(800) 624-5504
Los Angeles	SMC Grease Specialist	(951) 788-6042
Los Angeles	Superior Service Recycling	(888) 888-4121
Los Angeles	Ventura Rendering	(805) 485-2217

Madera

Madera	All Valley Environmental, Inc.	(559) 498-8378
Madera	Ameriguard Maintenance Services	(800) 347-7876 xt 14
Madera	ModestoTallow/Florin Tallow Co.	(209) 522-7224
Madera	ModestoTallow/Florin Tallow Co.	(800) 564-7204
Madera	One More Time	(800) 624-5504

Marin

Marin	Ameriguard Maintenance Services	(800) 347-7876 xt 14
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Appendix - CalFOG Grease Haulers in LA County



City of Pomona
Public Works Division
505 South Garey Avenue, Pomona CA, 91766
Phone: (909) 620-3628
NPDES Inspection Form

Restaurant: Hot Cazuelas	Inspection Date: 8/24/2017
Address: 1395 W Holt Ave	Time: 10:58:55 AM
Owner/Contact: José Humberto Flores	Phone: (909) 766-8140

Key for BMP Effectiveness: Y - BMP Implemented; N - BMP Not Implemented; NA - Not Applicable

GENERAL	Y	N	NA	FOG, GREASE HANDLING & SPILL DISPOSAL	Y	N	NA
Storm drain inlets are labeled and cleaned out regularly.			X	FOG program regulations implementation.			X
Recycling program is implemented.	X			Proper Grease Trap installed and maintained. Type:	X		
Grounds, Parking and Landscaping areas are kept clean and regularly swept (no evidence of food particles, liter, staining, oils and grease). Frequency:	X			Grease Traps Maintenance records kept on site. Last Cleaned:			X
No indication of discharge to storm drain visible.	X			FOG collection by licensed hauler & manifested. Last Pickup:			X
DUMPSTER AREA				Grease disposal area is clean and free of spills.	X		
Outside area free of trash.	X			Grease disposal containers are kept closed with lids.	X		
Garbage container area free of trash (ground, walls, etc.)	X			Grease disposal containers and surrounding areas are free of overflow or liquid waste (ground wall, etc.).	X		
Outside trash bin free of leakage.	X			Spill Prevention mechanism and secondary containment in place around grease disposal area.	X		
Dumpster free of any liquid waste.	X			Fan - oil drip pan installed and maintained.			X
Trash bin lids closed.	X			Roof clean from fans blowing oil and food.			X
EQUIPMENT AND OUTDOOR CLEANING				EDUCATION AND TRAINING			
Area around restaurant are dry swept (sidewalks outdoor dining and other areas).	X			FOG program knowledge.	X		
No evidence of floor mats being washed outside.			X	Prohibiting discharge of wastewater outside.	X		
No evidence of sidewalks/parking lots being hosed down.	X			Spill prevention and control.	X		
Effective clean-out plugs on all exterior drain lines.	X			Keeping dumpster areas clean.	X		
Loading/unloading areas are free of leftover trash food, waste, debris, etc.	X			Good Housekeeping BMPs.	X		
Liquid waste from equipment cleaning is drained into an approved sewage system.	X			Educational Materials posted in a visible area onsite for employees to read and use.	X		
Ashtrays for outdoor smoking areas (no evidence of cigarette butts).			X	Proper disposal of the cigarette butts if smoking outside.			X
Outdoor drains have no evidence of stains or non stormwater discharge entering outdoor drains.	X			Restaurant owner/manager conducts regular training of current and new employees regarding all BMPs. Frequency:	X		
Outdoor storage area is free of litter.	X						

Additional Violations and/or Comments: No violations observed

Continue to maintain cleanliness of grease containers.

Follow-Up Inspection Date:

Facility Rep. and Signature: Jose

Inspector Name and Signature: Alex Escobar



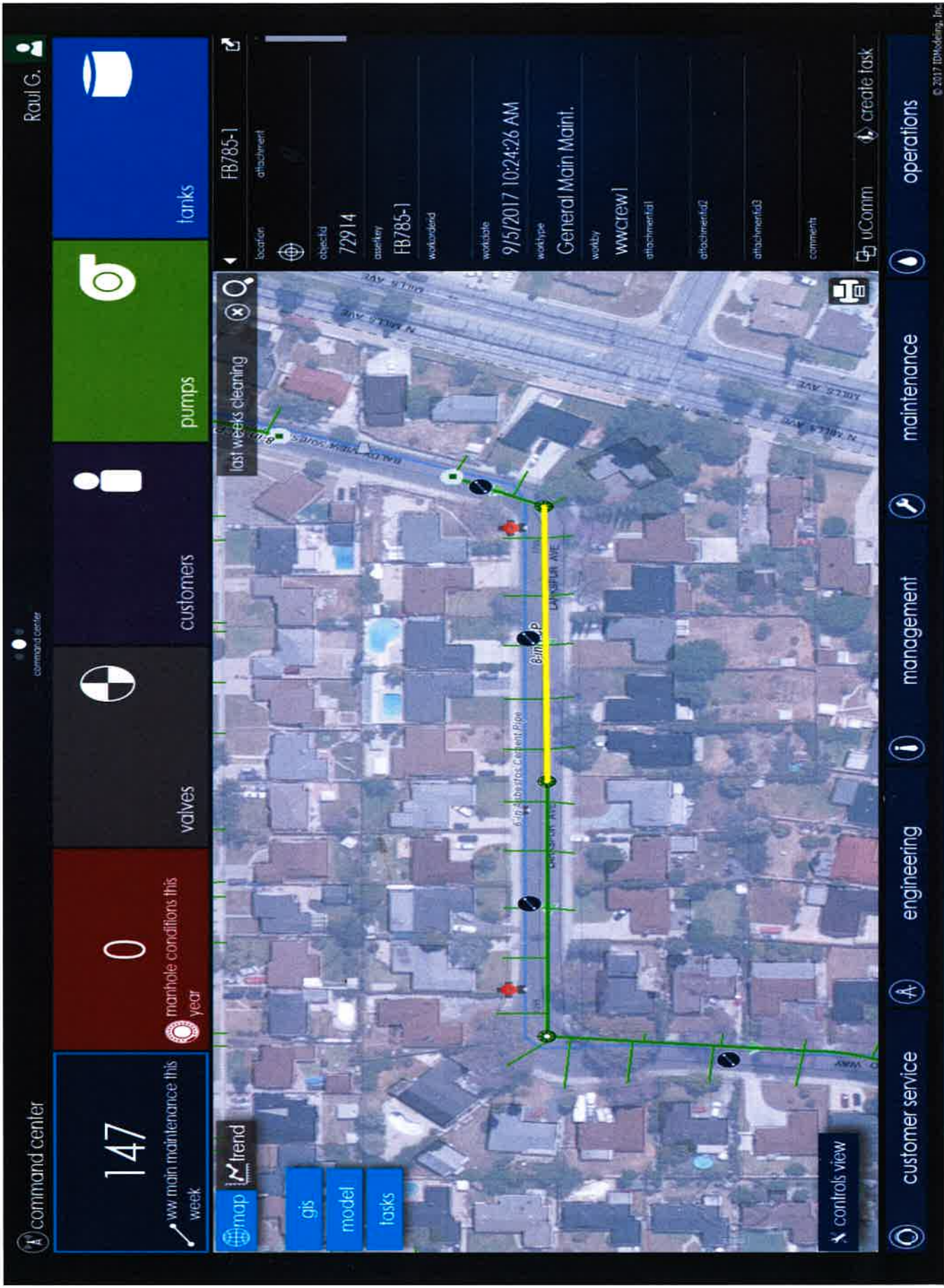
2017 New Sewer CCTV Truck Interior



New Sewer CCTV Truck Rear View



New 2017 Sewer CCTV Truck Profile



Appendix - Sedaru Print Out Showing One of the WW Mains Cleaned Last Week

Site Address	City	Program/Element Code	Program/Element
1202 ROMA PL	POMONA	4221	4221 - PC-OWTS NEW OR
1249 LOS ROBLES PL	POMONA	4221	4221 - PC-OWTS NEW OR
3727 EQUATION RD	POMONA	4221	4221 - PC-OWTS NEW OR
9326 NOTRE DAME AVE	POMONA	4221	4221 - PC-OWTS NEW OR
9341 NOTRE DAME AVE	POMONA	4221	4221 - PC-OWTS NEW OR
222 E. Foothill	POMONA	Renovation/1994	Hard copy application

Septic Status
1 - ACTIVE
1 - ACTIVE
1 - ACTIVE
1 - ACTIVE
1 - ACTIVE

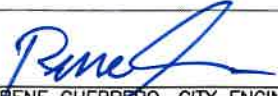
MANHOLE DIMENSIONAL DATA							
MANHOLE DIAMETER	TYPE	A	B **	C	D	E	PIPE DIAMETER
48"	REINFORCED	36"	30"	5"	4 1/8"	6'-0"+	UP TO 21"
48"	REINFORCED	36"	30"	6"	6"	6'-0"+	* 24"

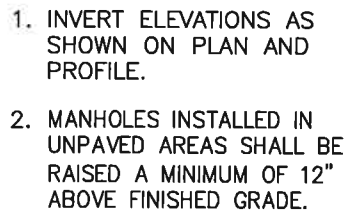
* IF CONNECTIONS AND TEES ARE REQUIRED, USE NEXT HIGHER DIAMETER MANHOLE.

** WHERE 30" OPENING IS NOT POSSIBLE, USE CONCENTRIC COVER, ALHAMBRA FOUNDRY TYPE A-1325 OR EQUIVALENT.

NOTES

1. PRECAST MANHOLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478 AND BE DESIGNED FOR AASHTO H20 LOADING.
2. MATERIALS, EMBEDMENT, PLACEMENT, AND COMPACTION OF GRANULAR EMBEDMENT AND COMPACTED BACKFILL SHALL CONFORM TO THE CITY'S STANDARD DETAILS FOR PIPE BEDDING AND TRENCH BACKFILL.

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		9/28/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				MANHOLE 4 FT BY 3 FT MAIN 15" DIAMETER OR LESS	
				DRAWN BY: DC	
				CHECKED BY: NB, IL	
				APPROVED BY: DP	
REVISIONS		DATE INITIAL		STANDARD	
△				S1 2 OF 2	



1 OF 2

DATE	INITIAL
------	---------


MANHOLE DIMENSIONAL DATA							
MANHOLE DIAMETER	TYPE	A	B **	C	D	E	PIPE DIAMETER
60"	REINFORCED	36"	30"	6"	6"	7'-0"+	27" TO 39"
60"	REINFORCED	36"	30"	6"	6"	7'-0"+	* 42"

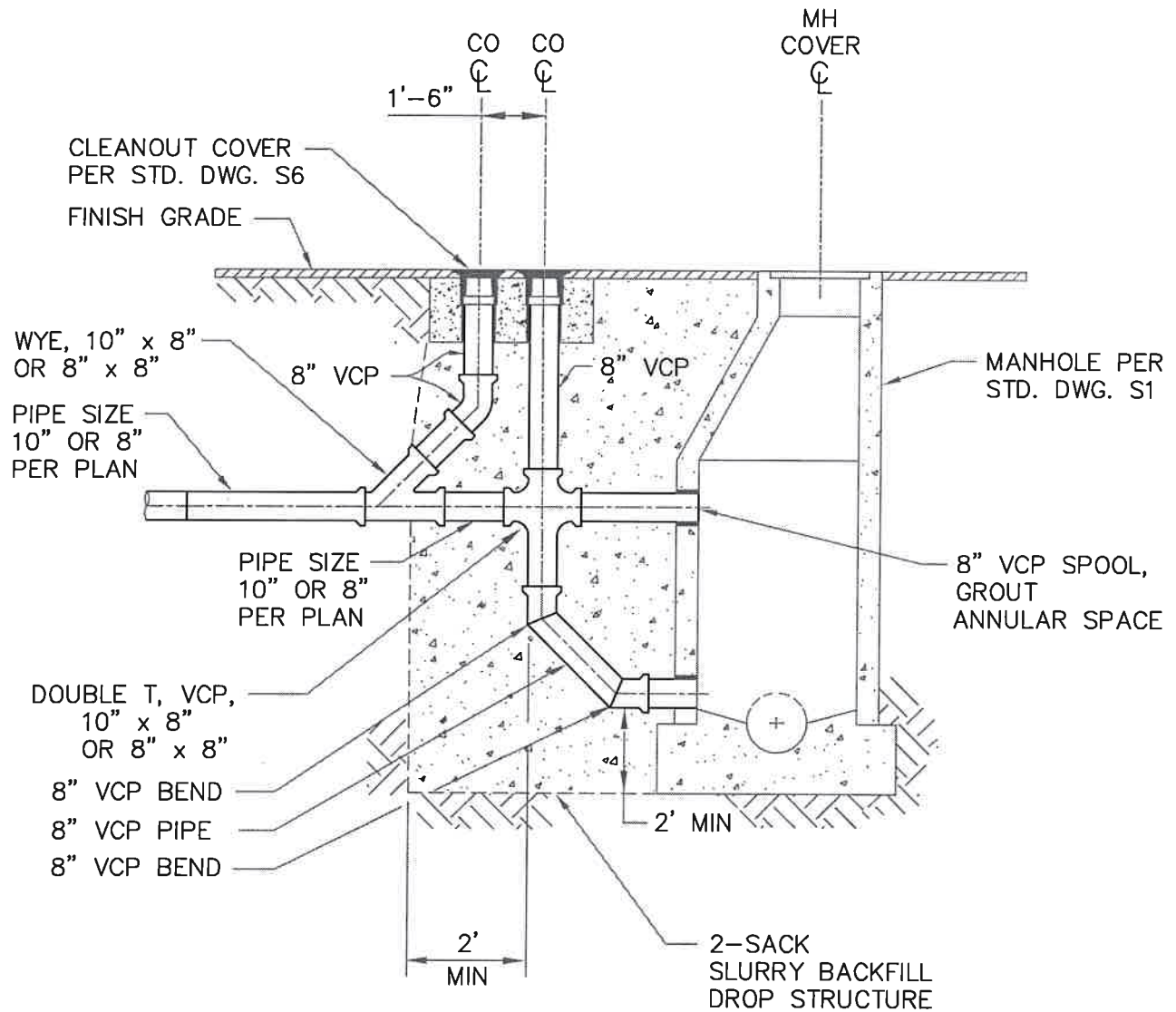
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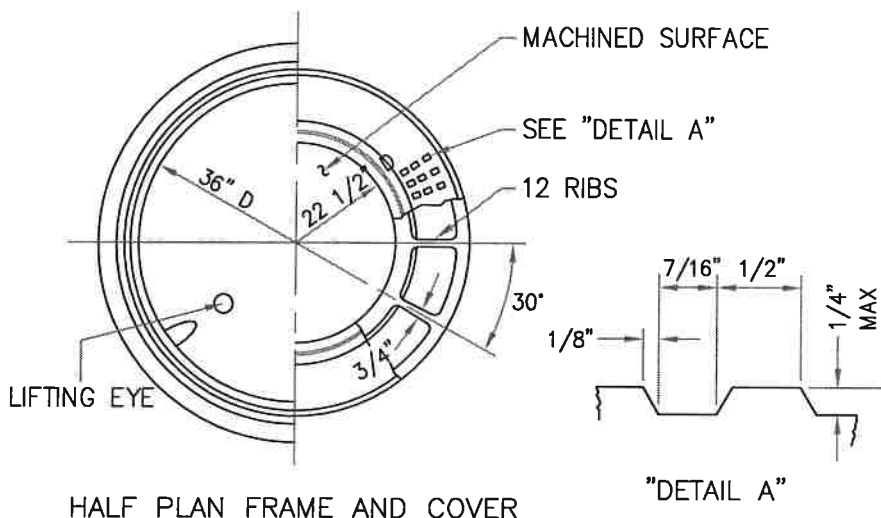
 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		8/28/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				MANHOLE 5 FT BY 3 FT STANDARD 48" MANHOLE	
				DRAWN BY: DC	
				CHECKED BY: NB, IL	
				APPROVED BY: DP	
REVISIONS		DATE INITIAL		STANDARD	
△				S2 2 OF 2	



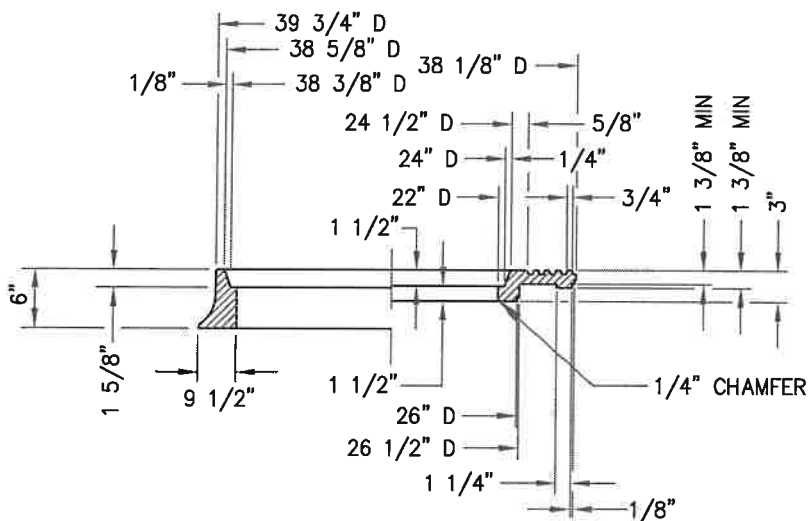
NOTES:

1. MANHOLES INSTALLED IN UNPAVED AREAS SHALL BE RAISED MINIMUM 12" ABOVE FINISH GRADE.
2. CLEANOUTS MAY BE INSTALLED AT FINISH GRADE.

RENE GUERRERO, CITY ENGINEER RCE NO. 66263		8/28/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				DROP MANHOLE	
REVISIONS		DATE		DRAWN BY: DC	
				CHECKED BY: NB, IL	
				APPROVED BY: DP	
STANDARD		S3			



HALF PLAN FRAME AND COVER



HALF SECTION FRAME AND COVER

NOTES:

1. FRAME AND COVER SHALL BE CAST IRON. CAST IRON SHALL CONFORM TO ASTM 48, CLASS 35B.
2. WEIGHTS: FRAME 314 - 363 LBS
OUTER COVER 285 - 330 LBS
INNER COVER 147 - 171 LBS
3. MACHINE ALL MATCHING SURFACES AND SEATS OF FRAME AND COVER
4. IMPORTED FRAME AND COVERS SHALL HAVE THE COUNTRY OF ORIGIN MARKED IN COMPLIANCE WITH FEDERAL REGULATIONS.

Rene Guerrero

RENE GUERRERO, CITY ENGINEER
RCE NO. 66263

8/28/17

DATE

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

MANHOLE COVER

DRAWN BY: DC

CHECKED BY: NB, IL

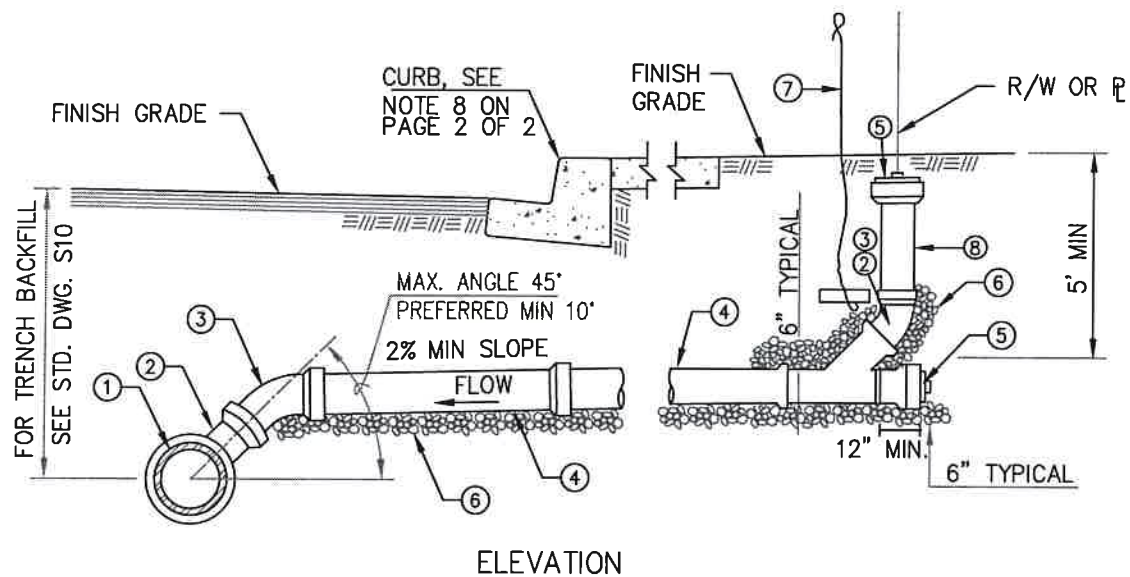
APPROVED BY: DP

STANDARD

S4

REVISIONS

DATE INITIAL



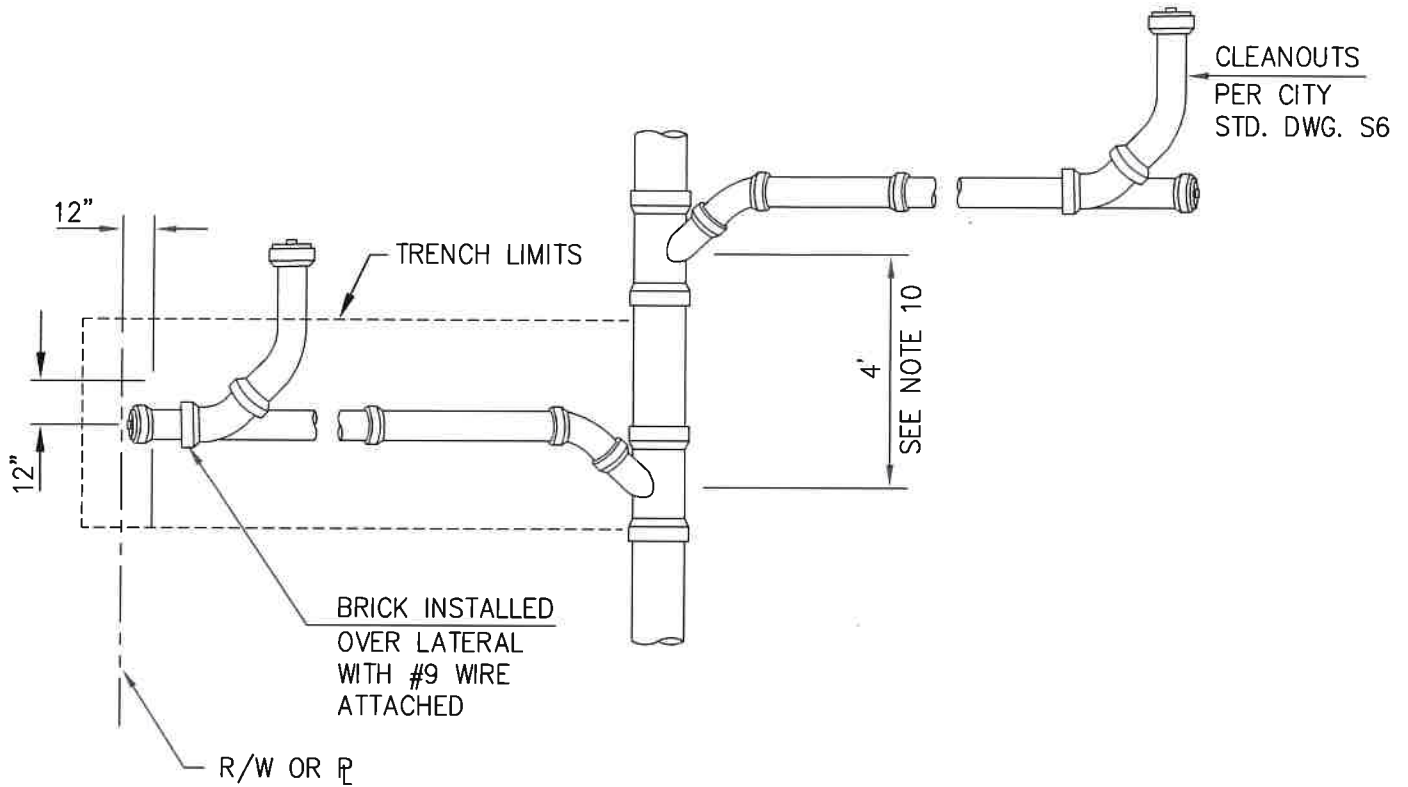
ITEM NO.	SIZE AND DESCRIPTION	ITEM NO.	SIZE AND DESCRIPTION
①	SEWER MAIN	⑤	PLUG OR CAP
②	45° WYE	⑥	3/4" MAXIMUM CRUSHED ROCK
③	45° ELBOW	⑦	9 WIRE ATTACHED TO A BRICK; WIRE TO BE LAID ON TOP OF PIPE
④	PIPE LATERAL, SEE NOTES 3 & 5 ON PAGE 2 OF 2	⑧	CLEANOUT PER STD. DWG. S6

1 OF 2

APPROVED BY: DP

REVISIONS

DATE	INITIAL
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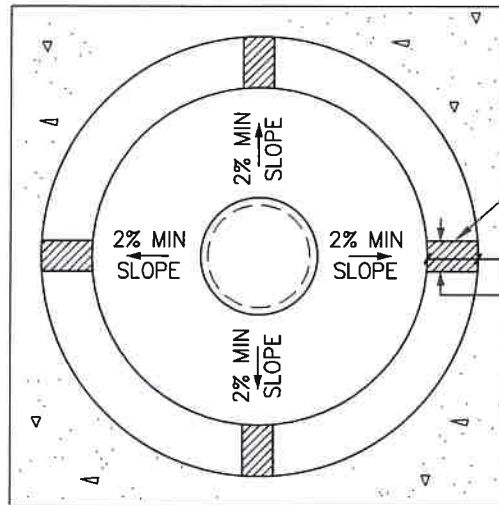


SANITARY SEWER LATERAL DETAIL
SEE NOTE 10 BELOW

NOTES:

1. REFER TO PROJECT SPECIFICATIONS WHERE APPLICABLE.
2. IN NO CASE SHALL LATERAL CONNECT DIRECTLY TO TOP OF SEWER MAIN.
3. LATERAL SHALL BE INSTALLED TO PROPERTY LINE UNLESS SPECIFIED ON PLANS.
4. MINIMUM 5' COVER ABOVE LATERAL AT PROPERTY LINE.
5. LATERAL TO HAVE A MINIMUM SLOPE OF 2%; APPROVAL REQUIRED FOR SLOPE LESS THAN 2%. INSTALL WITH "SEWER" IDENTIFICATION TAPE.
6. VERTICAL PIPE SHALL BE BRACED WHILE BACKFILLING TRENCH.
7. IDENTIFY SANITARY SEWER LATERAL LOCATION ON CURB.
8. MATERIALS SHALL BE SELECTED FROM THE CITY'S APPROVED MATERIALS LIST.
9. FOR SANITARY SEWER LATERAL INSTALLATIONS, SEE PAGE 1 OF 2.
10. FOR SEWERS SPECIFIED AS VCP PIPE, A MINIMUM 3' SECTION OF PIPE IS REQUIRED BETWEEN FITTINGS.
11. SEWER CLEANOUT, SEE STD. DWG. S6

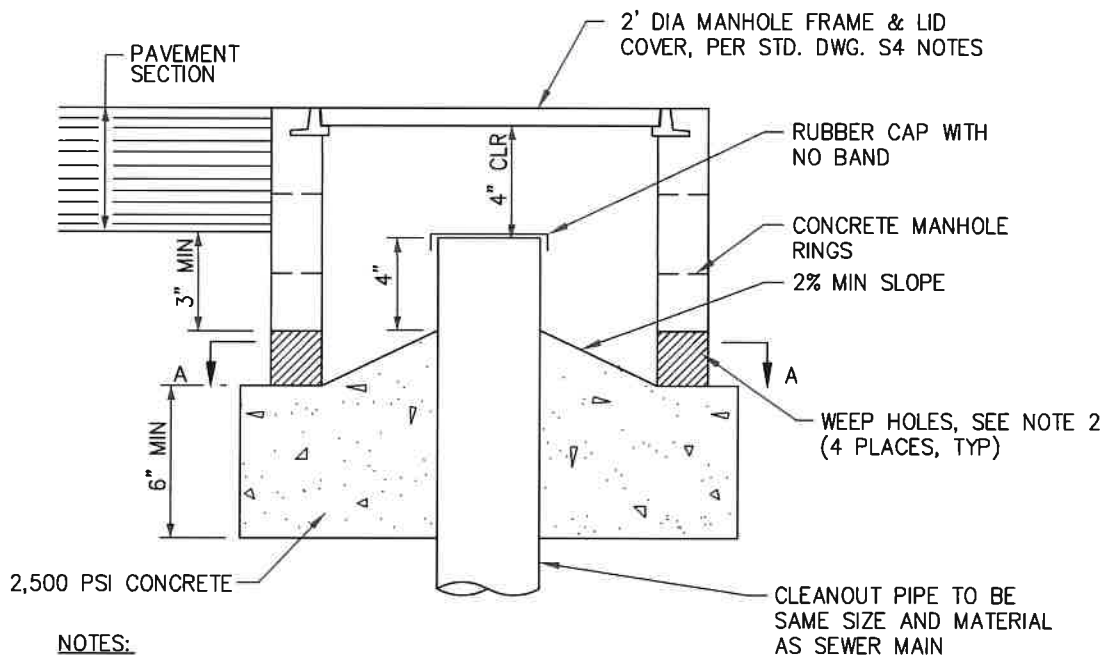
RENE GUEBRERO, CITY ENGINEER RCE NO. 66263		9/18/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				HOUSE LATERAL CONNECTION	
				STANDARD	
				S5	
REVISIONS		DATE		INITIAL	
				2 OF 2	



1/2" WIDE X 1" LONG
CUT IN MH RING FOR
WEEP HOLES

1"
1/2"

SECTION A-A



NOTES:

1. CLEANOUTS INSTALLED IN LANDSCAPED EASEMENTS SHALL BE RAISED MINIMUM 2" ABOVE FINISH GRADE.
2. WEEP HOLES SHALL NOT BE COVERED WITH AC OR CONCRETE LAYER OF PAVEMENT SECTION.

Rene Guerrero

RENE GUERRERO, CITY ENGINEER
RCE NO. 66263

9/18/17
DATE

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

SEWER MAIN CLEANOUT ACCESS

DRAWN BY: AA

CHECKED BY: IL, RG, NH

APPROVED BY: DP

STANDARD

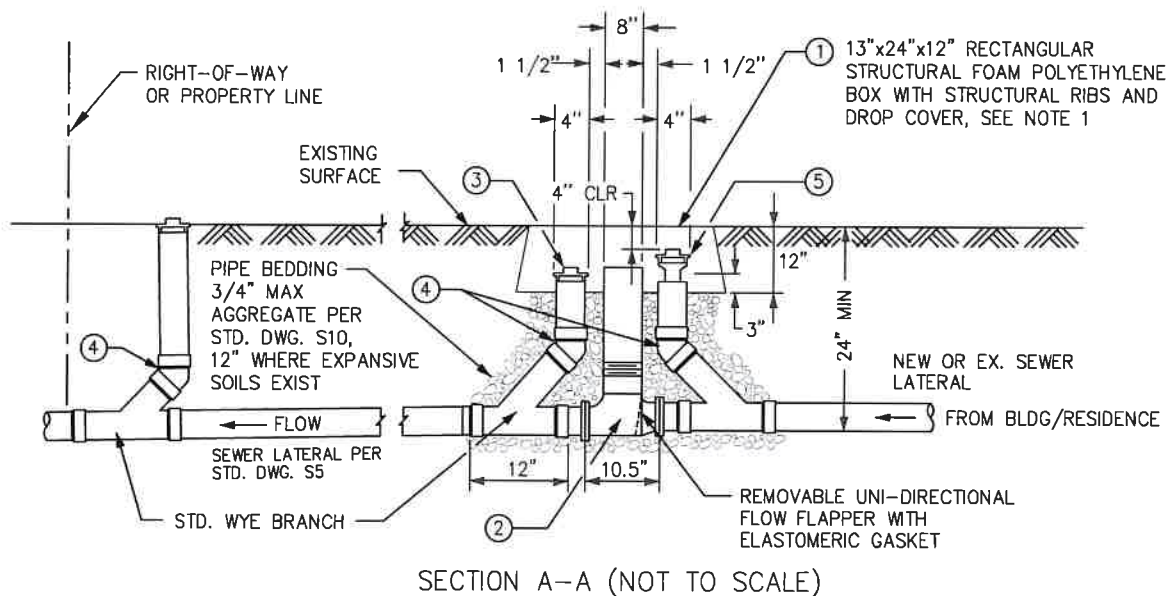
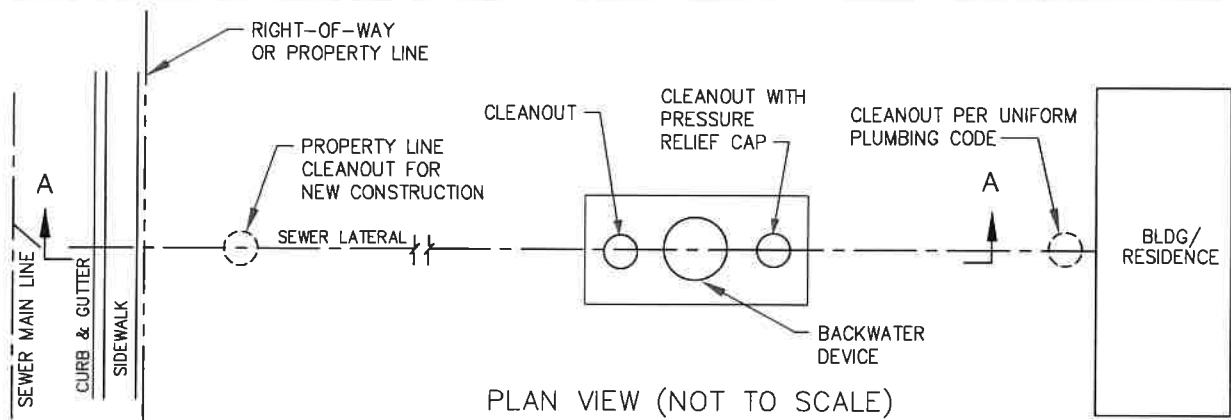
S7



REVISIONS

DATE

INITIAL



NOTES:

1. WHEN BACKWATER DEVICE IS INSTALLED IN THE DRIVEWAY, ALLEY OR STREET, A TRAFFIC RATED BOX AND LID IS REQUIRED.
2. ALL PIPING SHALL BE SPECIFIED AS VCP PIPE.

ITEM NO.	SIZE AND DESCRIPTION
①	INSTALL VALVE BOX SO THAT IT IS FLUSH WITH EXISTING PAVEMENT OR SIDEWALK SURFACE, AND 1" ABOVE GRADE WHEN INSTALLED IN LANDSCAPE AREA.
②	BACKWATER DEVICE AND ATTACHED PARTS SHALL BE PER UNIFORM PLUMBING CODE (U.P.C) AND APPROVED BY THE BUILDING DIVISION.
③	CLEANOUT PLUG (ABS) THREADED.
④	STANDARD 45° BEND.
⑤	CLEANOUT WITH AN APPROVED PRESSURE RELIEF CAP. CAP SHALL NOT PROJECT INTO THE SEWER LATERAL CROSS SECTIONAL AREA.

Rene Guerrero
 RENE GUERRERO, CITY ENGINEER
 RCE NO. 66263

9/18/17
 DATE

CITY OF POMONA
 PUBLIC WORKS DEPARTMENT

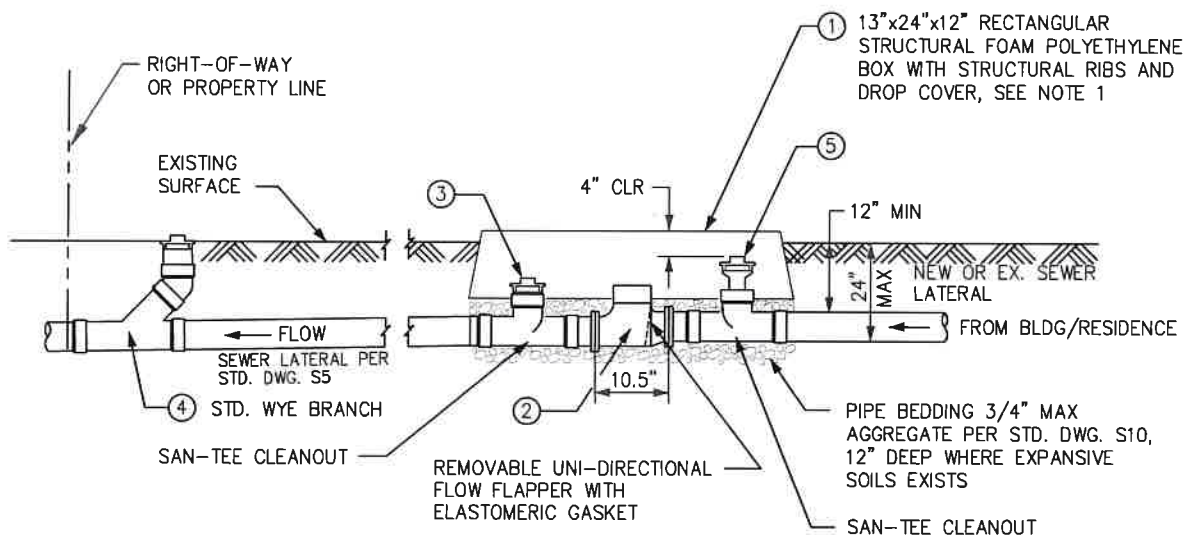
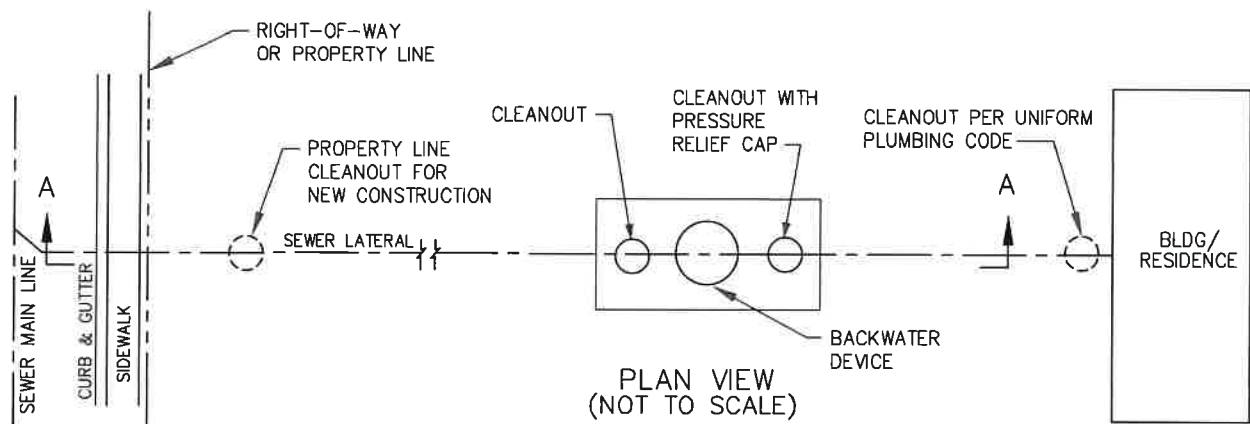
4" BACKWATER DEVICE
 (FOR LATERALS 2' OR DEEPER)

DRAWN BY: AA
 CHECKED BY: IL, RG, NH
 APPROVED BY: DP

STANDARD

S8

REVISIONS DATE INITIAL



SECTION A-A
(NOT TO SCALE)

NOTES:

1. WHEN BACKWATER DEVICE IS INSTALLED IN THE DRIVEWAY, ALLEY OR STREET, A TRAFFIC RATED BOX AND LID IS REQUIRED.
2. ALL PIPING SHALL BE SPECIFIED AS VCP PIPE.

ITEM NO.	SIZE AND DESCRIPTION
①	INSTALL VALVE BOX SO THAT IT IS FLUSH WITH EXISTING PAVEMENT OR SIDEWALK SURFACE, AND 1" ABOVE GRADE WHEN INSTALLED IN LANDSCAPE AREA.
②	BACKWATER DEVICE AND ATTACHED PARTS SHALL BE PER UNIFORM PLUMBING CODE (U.P.C) AND APPROVED BY THE BUILDING DIVISION.
③	CLEANOUT PLUG (ABS) THREADED.
④	SAN-TEES ARE ALLOWED WHERE ID IS LESS THAN 24" DEEP.
⑤	CLEANOUT WITH AN APPROVED PRESSURE RELIEF CAP. CAP SHALL NOT PROJECT INTO THE SEWER LATERAL CROSS SECTIONAL AREA.

René Guerrero
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RCE NO. 66263

9/18/17
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CITY OF POMONA
PUBLIC WORKS DEPARTMENT

4" BACKWATER DEVICE – SHALLOW
(FOR LATERALS)

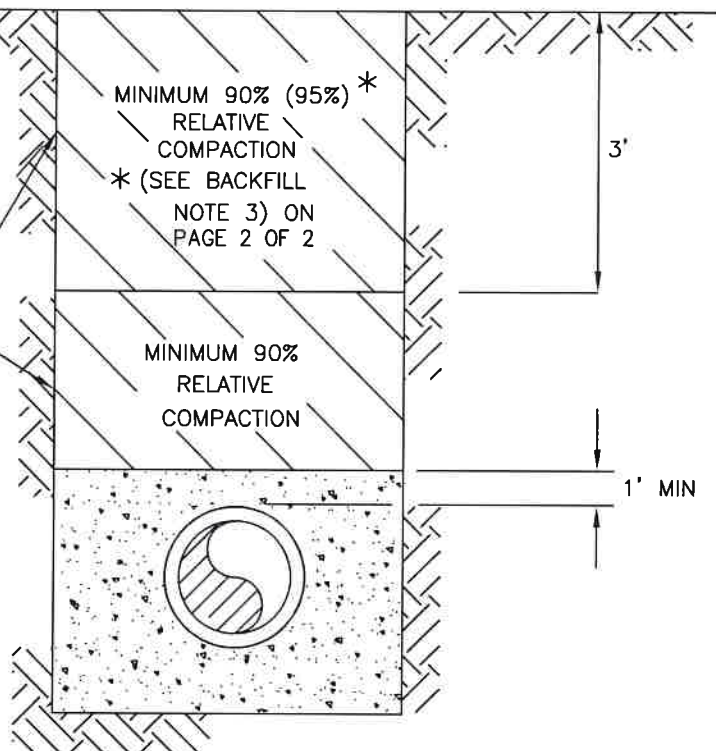
DRAWN BY: AA
CHECKED BY: IL, RG, NH
APPROVED BY: DP

STANDARD

S9

REVISIONS	DATE	INITIAL

BACKFILL PLACED AND
COMPACTED IN ACCORDANCE
WITH CITY'S STANDARD
SPECIFICATIONS FOR PIPE
BEDDING AND TRENCH
BACKFILL



BACKFILL DETAIL
NO SCALE

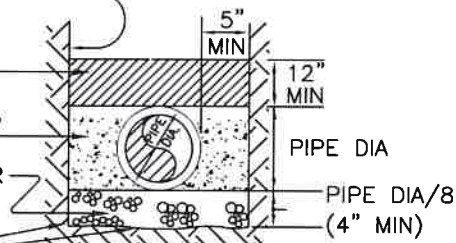
TRENCH WALLS MAY
BE SLOPED

INITIAL BACKFILL

CONCRETE OR SLURRY
MIX (1,000 P.S.I. MIN.)

CAREFULLY PLACED GRANULAR
EMBEDMENT * COMPACTED
PER SPECIFICATION

UNDISTURBED
EARTH



LOAD FACTOR: 2.7

NOTE: THIS TYPE OF CONSTRUCTION REQUIRES THE
CONCRETE TO EXTEND FROM THE PIPE TO
THE TRENCH WALL. CAUTION: NOT
RECOMMENDED WHERE NATIVE SOILS
ARE EXPANSIVE.

SLURRY BACKFILL DETAIL

René Guerrero
RENE GUERRERO, CITY ENGINEER
RCE NO. 66263

8/28/17
DATE

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

PIPE BEDDING AND
TRENCH BACKFILL NOTES

DRAWN BY: AA

CHECKED BY: IL, RG, NH

APPROVED BY: DP

STANDARD

S10
1 OF 2



REVISIONS

DATE


INITIAL

BACKFILL NOTES

1. MATERIAL FOR COMPACTED BACKFILL WILL CONSIST OF SUITABLE NATIVE EXCAVATED MATERIALS, IMPORTED SOILS, OR GRADED GRAVEL AS DEFINED IN THE PROJECT'S STANDARD SPECIFICATIONS FOR PIPE BEDDING.
2. TRENCH BACKFILL SLAG, PEA GRAVEL, CRUSHED ROCK, OR OTHER ALTERNATIVE MATERIALS ARE NOT ACCEPTABLE.
3. COMPACTION UNDER THE STREET SHALL BE 95% TO 6" BELOW PAVEMENT.

BEDDING DETAIL NOTES

1. SLAG, PEA GRAVEL, OR OTHER ALTERNATIVE MATERIALS ARE NOT ACCEPTABLE IN LIEU OF GRANULAR EMBEDMENT. GRANULAR EMBEDMENT IS COARSE GRAINED NATIVE SOIL OR IMPORTED SAND WITH A MINIMUM SAND EQUIVALENCE OF 30, AND OF SUCH SIZE THAT 90 TO 100 PERCENT WILL PASS A NO. 4 SIEVE AND NO MORE THAN 5 PERCENT WILL PASS A NO. 200 SIEVE.
2. TRENCH SHORING AND TRENCH WALL SLOPING SHALL BE IN CONFORMANCE WITH STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY REQUIREMENTS AND THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
3. MATERIALS, EMBEDMENT, PLACEMENT AND COMPACTION OF GRANULAR EMBEDMENT AND COMPACTED BACKFILL WILL CONFORM TO THE CITY'S STANDARD SPECIFICATIONS FOR PIPE BEDDING AND TRENCH BACKFILL.

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		8/28/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				PIPE BEDDING AND TRENCH BACKFILL NOTES	
				DRAWN BY: AA	
				CHECKED BY: IL, RG, NH	
				APPROVED BY: DP	
△ REVISIONS		DATE	INITIAL	STANDARD	
				S10 2 OF 2	