

CITY OF POMONA SEWER SYSTEM MANAGEMENT PLAN

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Prepared For:



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Acronyms

BMP	Best Management Practices
CCTV	Closed Circuit Television
CSA	Compliance Schedule Agreement
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
cMOM	Capacity Assurance, Management, Operations, and Maintenance
COD	Chemical Oxygen Demand
CWA	Clean Water Act
CWEA	California Water Environment Association
DEH	Department of Environmental Health
EPA	Environmental Protection Agency
FOG	Fats, Oils, and Grease
FSE	Food Service Establishment
GIS	Geographical Information System
I/I	Inflow and Infiltration
LACSD	Los Angeles County Sanitation Districts
LARWQCB	Los Angeles Regional Water Quality Control Board
LRO	Lead Responsible Official
MRP	Monitoring and Reporting Program
NASSCO	National Association of Sewer Service Companies
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OES	Office of Emergency Services
PACP	Pipeline Assessment Certification Program
PIO	Public Information Officer
PWRP	Pomona Wastewater Reclamation Plant
SSO	Sanitary Sewer Overflow
SCAG	Southern California Association of Governments
SWRCB	State Water Resources Control Board
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSOERP	Sanitary Sewer Overflow Emergency Response Plan
WDR	Waste Discharge Requirements

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Executive Summary

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order Number 2006-0003-DWQ, the Waste Discharge Requirements (WDRs), which requires all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate a wastewater collection system greater than one mile in length to develop and implement a system specific Sewer System Management Plan (SSMP). An SSMP must document how an agency manages its wastewater collection system. Each agency must present the Development Plan and Schedule to its governing body at a public meeting prior to certifying the document. The City of Pomona (City) must certify its SSMP on or before November 2, 2008.

This SSMP, prepared by the City in compliance with the requirements of the WDRs, documents the City's system specific plans and programs to operate, maintain, and manage its wastewater collection system. Goals of the SSMP include:

- Minimizing the frequency and impact of sanitary sewer overflows (SSOs),
- Effectively and efficiently mitigating the impacts of SSOs should they occur,
- Providing adequate sewer capacity to convey peak flows,
- Maintaining and improving the condition of the collection system infrastructure to provide continual reliable service, and
- Engaging and educating the public regarding programs and issues related to the wastewater collection system.

The Table ES-1 includes a summary of the mandatory components required by the WDRs and included in the City's SSMP.

**Table ES-1
WDR Requirements and Chapter Location**

WDR Element	Element Description	Chapter
(i)	Goals and Objectives	2
(ii)	Organization and Communication	3
(iii)	Legal Authority	4
(iv)	Operations and Maintenance Program	5
(v)	Design and Performance Provisions	8
(vi)	Overflow Emergency Response Plan	7
(vii)	Fats, Oils, and Grease (FOG) Control Program	6
(viii)	System Evaluation and Capacity Assurance Plan	9
(ix)	Monitoring, Measurement and Plan Modifications	11
(x)	SSMP Program Audits	12
(xi)	Communication Program	10

Executive Summary

Each element of the SSMP is described in detail in the corresponding chapter shown in the Table ES-1. Plans in support of the City's effort to meet the state requirements and formally document its current efforts are included in the appendices. The plans include detailed information regarding the City's specific policies and procedures to reduce SSOs and manage the wastewater collection system. The plans are included as appendices to facilitate implementing updates to the various programs as they are implemented, refined, and modified.

This document satisfies the WDRs requirement to complete an SSMP.

Chapter 1

Introduction

This Sewer System Management Plan (SSMP) has been prepared in compliance with the requirements of the State Water Resources Control Board, Order 2006-0003, Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems. The goal of the WDRs is to provide a consistent statewide approach for reducing Sanitary Sewer Overflows (SSOs). This chapter includes a brief overview of the City of Pomona's (City) service area and wastewater collection system, a summary of the regulations that serve as the impetus for the development of this SSMP, and the purpose and organization of this SSMP.

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 165,000 residents. The City incorporated in January 1888, became a charter city in March 1911, and is currently the fifth-largest city in Los Angeles County.

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's Water/Wastewater Operations Division 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 306 miles of gravity sewer, four (4) pump stations, 1.4 miles of force mains, 4,600 manholes, and five (5) siphons.

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 LACSD. The four pump stations, while owned by the City, are maintained and operated by the LACSD under the terms of a 1986 contract that expired several years ago. The City is currently in negotiations with LACSD wherein the ownership and responsibility for maintenance of the lift stations will be transferred to LACSD. Although the agreement has not been finalized, the City is confident that the agreement is forthcoming.

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.

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1.2 Waste Discharge Requirements

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order 2006-0003, the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR) which requires all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate a wastewater collection system greater than one mile in length to comply with the elements of the WDRs. The WDRs serve to provide a unified statewide approach for reporting and tracking SSOs, establishing consistent and uniform requirements for SSMP development and implementation, establishing consistency in reporting, and facilitating consistent enforcement for violations.

On June 27, 2006, the Executive Director of the SWRCB executed a memorandum of agreement with the California Water Environment Association (CWEA), outlining a strategy and time schedule for CWEA to provide training on the (1) adoption of the program, (2) SSO database electronic reporting, and (3) Sewer System Management Plan (SSMP) development. This agreement also extended the completion dates for most tasks by six (6) months from the dates shown in the adopted WDRs.

The WDRs include directives for owners and operators of wastewater collection systems to demonstrate adequate and efficient management, operation, and maintenance of the wastewater collection system. Generally, the WDRs require that:

- a. In the event of an SSO, all feasible steps be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
- b. If an SSO occurs, it must be reported to the SWRCB using California Integrated Water Quality System (CIWQS), the online reporting system developed by the SWRCB. The City completed its enrollment into the program, demographic questionnaire, and electronic reporting commenced in November 2006.
- c. An SSMP with all mandatory elements be developed and approved by the governing body that owns or is responsible for the operation of the wastewater collection system. The SSMP must include provisions to provide proper and efficient management, operation, and maintenance of the sanitary sewer system.

This SSMP has been prepared in compliance with the requirements of the State Water Resources Control Board, Order 2006-0003 and includes the various plans and programs that comprise a comprehensive SSMP. The completion dates for each mandatory element is determined according to the size of population served by the federal and state agencies, municipalities, counties, districts, and other public entities that own or operate a wastewater collection system. Based on an estimated population of approximately 165,000 people, the City of Pomona must comply with the schedule provided for agencies that serve a population greater than 100,000.

1.3 Additional Regulatory Requirements

The Environmental Protection Agency (EPA), in its general pretreatment regulations (40 CFR Part 403) and the City, in its city code (Sec 62-471) , prohibit any user from discharging solid or viscous pollutants, such as FOG wastes, in amounts which will cause obstructions (blockages) to the flow in the wastewater system and interfere with the operation of the wastewater system. As well, the following regulatory requirements establish the impetus for the City to develop a comprehensive SSMP, implement the elements, and follow procedures to minimize the potential of SSOs and demonstrate the proper and efficient management, operation, and maintenance of their wastewater collection systems.

California Water Code Section 13271, California Code of Regulations: Section 13271 of the California Water Code, Title 23 of the California Code of Regulations, prohibits the discharge of sewage and hazardous material into the waters of the State and requires the proper notification of authorized agencies in the event of an SSO. Entities which do not properly follow the requirements of this section may be found guilty of a misdemeanor and punished by fine, imprisonment, or both.

California Waste Discharge Requirements: On May 2, 2006, the State Water Resources Control Board adopted the Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Order No. 2006-0003. The WDRs are applicable to all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate wastewater collection systems greater than one (1) mile in length that collect and/or convey untreated or partially treated wastewater to publicly owned treatment facilities in the state of California. Specifically, the WDRs require all affected agencies, municipalities, counties, districts, and other public entities to take a proactive approach to ensure a system-wide operation, maintenance, and management plan is established to effectively reduce the potential, quantity, and frequency of SSOs that may occur and impact surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

Clean Water Act, Section 1251 of Chapter 33 of the United States Code: In 1972, the federal Congress enacted the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA). The CWA prohibits the discharge of pollutants, including sewage, into public waters of the United States. The federal government has the authority to enforce compliance with the CWA via specific permits, such as National Pollutant Discharge Elimination System (NPDES) permits, as well as court action such as administrative orders and consent decrees. The City of Pomona is not currently subject to an NPDES permit or any legal action initiated by the federal government.

1.4 Purpose

The City recognizes the importance of preventing sewage spills for the mutual protection of our surface waters and the overall environment to safeguard public health and safety. Therefore, in a proactive approach to achieve WDR compliance, the City has prepared this comprehensive SSMP. This SSMP is designed to ensure continuous improvement of system performance, response, monitoring, data recording, and documentation for future system assessments. The City considers the completeness and practicality of the SSMP a critical component for its long

Introduction

range plans and to comply with all applicable regional, State, and Federal requirements under the Clean Water Act, current Los Angeles Regional Water Quality Control Board (LARWQCB) and the WDRs.

This SSMP provides a summary of the action plan implemented by the City to comply with the wastewater collection system requirements imposed by the WDRs and other governing agencies. As well, it includes the specific details of the activities and procedures that personnel follow to implement the various programs encompassed in its overall efforts to efficiently manage, operate, and maintain its wastewater collection system and facilitate the reduction and potential elimination of SSOs.

1.5 SSMP Elements and Organization

This SSMP has been prepared by the City of Pomona in compliance with the requirements of the SWRCB and adopted WDRs. It includes detailed information demonstrating the City's efforts to comply with each of the mandatory and applicable elements required for its SSMP. The organization of this document is consistent with the SWQCB guidelines. This SSMP is divided into the eleven (11) mandatory elements as follows:

- (i) Goals
- (ii) Organization
- (iii) Legal Authority
- (iv) Operations & Maintenance Program
- (v) Design and Performance Provisions
- (vi) Overflow Emergency Response Plan
- (vii) Fats, Oils, and Grease (FOG) Control Program
- (viii) System Evaluation and Capacity Assurance Plan
- (ix) Monitoring, Measurement and Plan Modifications
- (x) SSMP Program Audits
- (xi) Communication Program

Supporting information for each element is included in an appendix associated with the chapter, as applicable. Generally, information expected to require relatively frequent updates are included in appendices, as well as other supporting information, such as forms or schedules.

Chapter 2

Goals and Objectives

The following sections include a summary of the City's goals that reflect its commitment to continue its effort towards the effective and efficient management, operation and maintenance of the wastewater collection system.

2.1 Regulatory Requirement for Goals Element

This first element of an SSMP requires that the City institute goals to properly manage, operate, and maintain all parts of the wastewater collection system. Establishing goals allows the City to effectively and efficiently manage its wastewater collection system to achieve its ultimate goal of reducing and preventing SSOs and to properly mitigate any SSOs that may occur. To achieve the goals established by the City, it becomes imperative for City staff to consistently maintain quality working procedures and to continue efforts towards identifying and implementing improvements in managing the wastewater collection system.

The WDRs require that the City, at a minimum, develop goals that incorporate and achieve the following:

- Properly manage, operate, and maintain all parts of the wastewater collection system;
- Provide adequate capacity to convey peak flows;
- Minimize the frequency and volume of SSOs;
- Mitigate the impacts of SSOs if they occur;
- Inform and educate the public on programs, projects, and issues related to the wastewater collection system; and
- Meet all applicable regulatory notification and reporting requirements.

2.2 Goals for City System Maintenance and Management

The City has identified and established several internal goals to assist with instituting comprehensive plans and procedures to properly manage, operate, and maintain the wastewater collection system and to meet all applicable regulatory notification and reporting requirements.

Establishing internal core objectives allows City staff to focus on complying with the WDRs, and develop strategies and procedures to achieve successful overall management and maintenance of the wastewater collection system. Goals promote unified efforts towards implementing improvements as they affect the operations, maintenance, and management of the wastewater collection system. They may also reflect performance, safety, levels of service, resource use, and other criteria.

Goals and Objectives

The City's current goal statement, presented in the Proposed Fiscal Year 2007/2008 Budget Citizen Guide under the Service Efforts and Accomplishments for the Utilities and Environmental Services section, states:

The Sewer Division provides for the safe, effective, and efficient operation of the wastewater collection and conveyance system through maintenance services, engineering services, customer services, and financial oversight. The Division also responds to emergencies on a twenty-four (24) hour basis, and in the event of a system failure, works to minimize sewer overflows, comply with regulatory mandates, and ensure the public's health and safety.

This Sewer Division's goal statement is itemized as follows, in no particular order:

- Conduct a well organized and comprehensive operations and maintenance program
- Minimize the potential for and occurrence of SSOs
- Comply with all regulatory requirements
- Ensure the public's health and safety
- Provide appropriate staffing
- Acquire appropriate funding

To achieve further WDR compliance, the City is incorporating similar core objectives into its overall goal statement to include:

- Manage an effective Fats, Oils, and Grease (FOG) Control Program
- Ensure adequate capacity to convey peak wastewater flows
- Maintain a long-range planning and improvements plan
- Inform and educate the public on programs, projects, and issues related to the wastewater collection system

With incorporation of the objectives listed above, the City's goal statement is summarized as follows:

To provide safe, effective, and efficient operation of the City's wastewater collection and conveyance system through:

- Proper management, operation, and maintenance of all parts of the system;
- Reduced occurrence of and potential for SSOs;
- An effective FOG control program;
- Assurance of adequate capacity to convey peak wastewater flows;

Goals and Objectives

- A current long-range planning and improvement plan;
- Compliance with all regulatory requirements;
- Protection of the public's health and safety; and
- Effective public information and education efforts.

The City's goals reflect the comprehensive efforts of City staff to be unified and effective stewards of their customers' assets by efficiently and economically operating, maintaining, and managing the City's wastewater collection system.

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Chapter 3

City Organization and Communication

An organizational chart for the City's Utility Services Department serves to identify the administrative, maintenance, and management positions responsible for implementing, managing, and updating the overall measures in this SSMP program. This chapter identifies the City staff that is responsible for implementing the SSMP, responding to SSO events, and meeting the SSO reporting requirements.

The communication plan that accompanies the organizational chart serves to identify the positions responsible for implementing specific elements of this SSMP and define the role of each position to ensure that all elements of this SSMP are addressed on a regular basis and that all appropriate staff is properly informed. In addition, a specific communication plan to document the Sanitary Sewer Overflow Emergency Response and Reporting Plan (SSOERP) was developed and is included in Appendix D. The communication plan identifies the staff positions responsible for managing the SSO response, investigating the SSO cause, and reporting the SSO to the appropriate parties. It also provides a consolidated list of contact information of key personnel with regard to SSOs. The sequence of communication for reporting SSOs, and the appropriate staff to be notified, must be clearly delineated in the organization structure.

3.1 Regulatory Requirements for the Organization and Communication Element

It is required that the City's SSMP clearly identify the staff responsible for implementing measures outlined in this SSMP. The WDRs require that the City identify the following:

1. The name of the responsible or authorized representative;
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 persons 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)).

City Organization and Communication

3.2 Discussion on Organizational Structure

The City's organizational structure for the Utility Services Department staff responsible for implementing and overseeing the SSMP program are described in the following subsections. Additionally, the general responsibilities of the personnel and chain of communication is included.

3.2.1 Governance

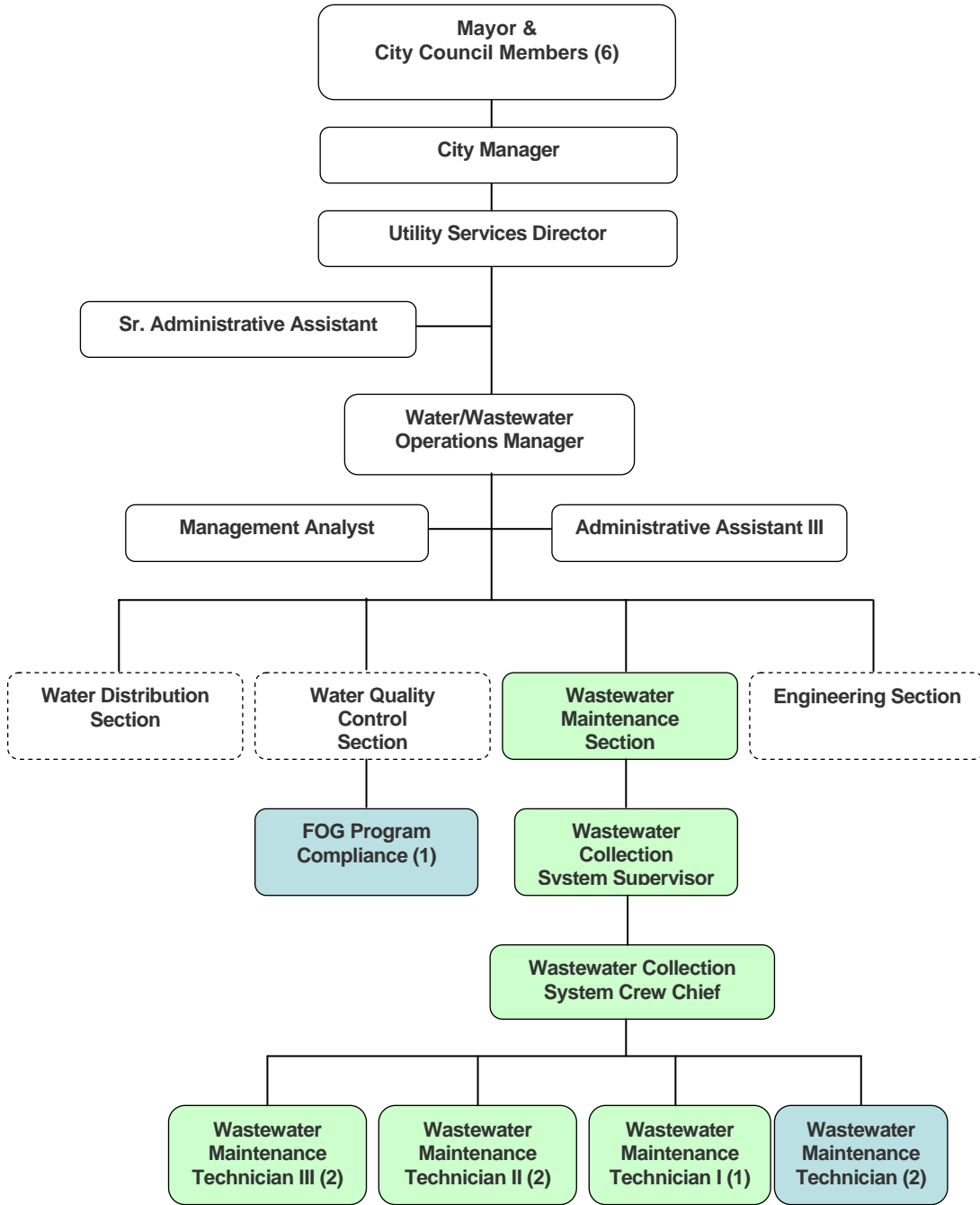
The City operates under the Council-City Manager form of government. The City's elected governing body consists of a Mayor and six (6) district council members. The Mayor is the presiding officer of the City Council and is elected at-large. Each council member is nominated by, and represents, the district in which he or she lives. The City Manager serves as the chief administrative officer of the City and is directly responsible to the Mayor and City council for the efficient and effective administration and daily operations of all City functions. The Council must certify the completed SSMP and ultimately share the responsibility that the wastewater collection system is managed efficiently.

3.2.2 Sewer Utility Organization

The Utility Services Director reports directly to the City Manager. The Water/Wastewater Operations Division Manager, who reports to the Utility Services Director, oversees six (6) sections, one (1) of which is the Wastewater Collection System Maintenance Section. All seven (7) full time positions identified as necessary for the maintenance and operation of the wastewater collection system, are currently staffed. In addition to the staff within the Wastewater Collection System Maintenance Section, staff from other Water/Wastewater Operations sections, such as the Engineering Section and Water Distribution Section, as well as continual administrative support, provide some staff time in support of the Wastewater Collection System Maintenance Section.

The organizational chart presented in Figure 3-1 shows the positions and sections within the City's current organization responsible for concurrently implementing and managing various plans and procedures required to satisfy the elements of the SSMP, including responding, reporting, and certification of SSOs and this SSMP.

**Figure 3-1
Organizational Chart of Positions Supporting the Wastewater Collection System**



- Primarily responsible for the wastewater collection system
- Proposed
- Currently providing support services

City Organization and Communication

Highlighted on the organizational chart are the current fiscal year's budgeted positions in the Wastewater Maintenance Section, the section that is primarily responsible for operating and maintaining the wastewater collection system. The boxes shown in dashed lines identify sections that provide some day-to-day support of the wastewater collection system, but these sections also have other, unrelated duties. Examples of functions provided by these sections include engineering and system mapping assistance, permit oversight, and heavy construction support. Although they fall under the Water/Wastewater Operations Division Manager's authority, the Water Production and Water Treatment Sections do not support the wastewater collection system, and therefore are not shown on this chart. Also not shown are other divisions that provide services to the wastewater collection efforts. Equipment maintenance and contract services are examples of those services paid for by the Wastewater Maintenance Section but performed elsewhere within the City for efficiency purposes.

The box labeled 'FOG Control Program' represents a new function that will support the reduction and control of FOG. Since a major component of the FOG Control Program is regulatory compliance and improved water quality, it is shown under the Water Quality Control Section. City staff is currently reviewing and evaluating recommendations regarding the development and location of the FOG Control Program. Further refining of the organizational chart may be required.

Also shown is the Wastewater Maintenance Technicians recommended to support necessary field duties and accommodate cross training and technical office requirements.

3.2.3 Description of General Responsibilities

The following information provides a brief summary of the roles and responsibilities for City staff supporting the Wastewater Collection System as illustrated in Figure 3-1.

City Manager

Under the administrative direction from the City Council Members, the City Manager plans and manages the affairs of the District and directs the staff in all functions and operations. The City Manager implements the council's policy and programs with employees, community organizations, and the general public. The City Manager reviews budget requests and makes recommendations to the council on final expenditure levels, manages all labor/management activities, and performs all related work as required.

The City Manager serves as the chief administrative officer and is directly responsible to the Mayor and City Council for the efficient and effective administration and daily operation of all City functions. The City Manager makes policy and procedural recommendations to the City Council and is responsible for implementing the final directives of the City Council. The City Manager's office includes, in addition to the City Manager, the Assistant to the City Manager and several support personnel.

Senior Administrative Assistant

Under the direction and supervision of the City Manager, the Senior Administrative Assistant performs secretarial, receptionist and administrative tasks, some of which are complex and

confidential in nature. The Senior Administrative Assistant provides technical assistance to the general public and public agencies regarding implementing City procedures for development review and permit issuance.

Utility Services Director

Under general administrative direction and supervision of the City Manager, the Utility Services Director plans, directs, manages, and oversees the activities and operations of the Utility Services Department including water, wastewater, solid waste, equipment maintenance, and customer service; to coordinate assigned activities with other City departments and outside agencies; and to provide highly responsible and complex administrative support to the City Manager.

The Utility Services Director assumes full management responsibility for all Utility Services Department services and activities including water, wastewater, solid waste, equipment maintenance, and customer service. The Utility Services Director manages the development and implementation of Utility Services Department goals, objectives, policies, and priorities for each assigned service area; establishes, within City policy, appropriate service and staffing levels; and allocates resources accordingly. The Utility Services Director continuously monitors and evaluates the efficiency and effectiveness of service delivery methods and procedures; assesses and monitors work load, administrative and support systems, and internal reporting relationships; identifies opportunities for improvement; directs the implementation of changes; represents the Utility Services Department to other City departments, elected officials and outside agencies; explains and interprets Utility Services Department programs, policies, and activities; and negotiates and resolves sensitive, significant, and controversial issues.

Water/Wastewater Operations Manager

Under administrative direction and supervision of the Utility Services Director, the Water/Wastewater Operations Manager provides direction, manages, supervises, and coordinates operations, programs, and activities of the Water and Wastewater Operations Division including water distribution, water production, water quality control, and wastewater collection; coordinates assigned activities with other City departments, divisions, and outside agencies; and to provide highly responsible and complex administrative support to the Utility Services Director.

The Water/Wastewater Operations Manager assumes management responsibility for operations, programs, and activities of the Water and Wastewater Operations Division including water distribution, water production, water quality control, and wastewater collection; manages and participates in the development and implementation of goals, objectives, policies, and priorities for water and wastewater programs; recommends, within Departmental policy, appropriate service and staffing levels; recommends and administers policies and procedures; continuously monitor and evaluates the efficiency and effectiveness of service delivery methods and procedures; assesses and monitors work load, administrative and support systems, and internal reporting relationships; identify opportunities for improvement and review with the Utility Services Director; directs the implementation of improvements; selects, trains, motivates, and evaluates assigned personnel; provides or coordinates staff training; works with employees to correct deficiencies; and plans, directs, coordinates, and reviews the work plan for the Water

City Organization and Communication

and Wastewater Operations Division; meets with staff to identify and resolve problems; assigns work activities, projects, and programs; monitors work flow; and reviews and evaluates work products, methods, and procedures.

Administrative Assistant III

Under general supervision, the Administrative Assistant III, is responsible for performing a variety of responsible and complex administrative and clerical duties involved in the support of a City department; and to provide general information and assistance to the public.

The Administrative Assistant III performs a full range of duties as assigned, working independently and exercising judgment and initiative; receives occasional instruction or assistance as new or unusual situations arise; and is fully aware of the operating procedures and policies of the work unit.

Management Analyst

Under direction, to perform journey level budgetary, financial, administrative and analytical support duties for an assigned department and/or division; to oversee assigned administrative processes, procedures and programs; and to provide highly technical and responsible assistance to assigned department and/or programs.

Wastewater Collection System Supervisor

Under general direction of the Water/Wastewater Operations Manager, the Wastewater Collection System Supervisor manages and supervises, and plans and coordinates the activities and operations of the Wastewater Section within the Utility Services Department; coordinates assigned activities with other divisions, outside agencies, and the general public; and provides highly responsible and complex staff assistance to the Water and Wastewater Operations Manager.

Wastewater Collection System Crew Chief

Under general direction of the Wastewater Collection System Supervisor, the Wastewater Collection System Crew Chief leads, oversees, and participates in the more complex and difficult work of staff responsible for the maintenance, repair, installation, and construction of the wastewater collection system and associated appurtenances; and performs a variety of technical tasks relative to assigned areas of responsibility.

Wastewater Maintenance Technician III

Under immediate supervision or direction of the Wastewater Collection System Crew Chief, a Wastewater Maintenance Technician III performs wastewater collection system cleaning and obstacle clearing work; participates in construction, maintenance, and repair of sanitary sewers; conducts CCTV video inspections of sewer lines; and operates vehicles, light and medium construction equipment, and other specialized equipment.

A Wastewater Maintenance Technician III possesses a Grade II Collection System Maintenance Certification from the California Water Environment Association and has three years of experience as a Wastewater Maintenance Technician II.

Wastewater Maintenance Technician II

Under immediate supervision or direction of the Wastewater Collection System Crew Chief, a Wastewater Maintenance Technician II performs wastewater collection system cleaning and obstacle clearing work; participates in construction, maintenance, and repair of sanitary sewers; conducts CCTV video inspections of sewer lines; and operates vehicles, light and medium construction equipment, and other specialized equipment.

A Wastewater Maintenance Technician II possesses a Grade I Collection System Maintenance Certification from the California Water Environment Association and has three years of experience as a Wastewater Maintenance Technician I.

Wastewater Maintenance Technician I

Under immediate supervision of the Wastewater Collection System Crew Chief, a Wastewater Maintenance Technician I performs wastewater collection system cleaning and obstacle clearing work; participates in construction, maintenance, and repair of sanitary sewers; conducts CCTV video inspections of sewer lines; and operates vehicles, light and medium construction equipment, and other specialized equipment.

A Wastewater Maintenance Technician I is required to obtain a Grade I Collection System Maintenance Certification from the California Water Environment Association within one year of employment.

As the various elements of this SSMP are updated, modified, and further refined, the organizational chart will be revised to reflect the correlation between staff positions that support the Wastewater Maintenance Section activities. Additionally, the organization chart may evolve to clearly delineate changes and additions to positions for activities implemented to successfully execute this SSMP. This may include some restructuring of chains-of-command to better align responsibilities and the ability of staff to comply with the WDRs.

3.2.4 Authorized Representative

The Water/Wastewater Operations Manager is the City's Legally Responsible Official (LRO) and 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 identified the Senior Water Resources Engineer as an additional LRO.

3.3 Discussion on Communication Structure

Communication of activities is important in order to keep managerial staff informed of successes and potential problems. Additionally, implementation of the various elements of the SSMP will require constant coordination between the various sections identified in the organization chart.

City Organization and Communication

Therefore, clearly identifying the specific positions and staff as well as establishing communication protocols is necessary to ensure the appropriate personnel are properly informed to respond to wastewater collection system related issues in the most effective and efficient manner.

A communication structure related specifically to SSO reporting is more thoroughly documented in Chapter 7 and Appendix D, which address the City's Sanitary Sewer Overflow Response and Reporting Plan (SSOERP).

3.3.1 SSMP Communication Structure

Continual communication among the Water/Wastewater Sections as well as along the levels of hierarchy facilitates and supports activities that allow the Wastewater Maintenance Section to manage, operate, and maintain the City's wastewater collection system and ensures that the appropriate staff is kept informed.

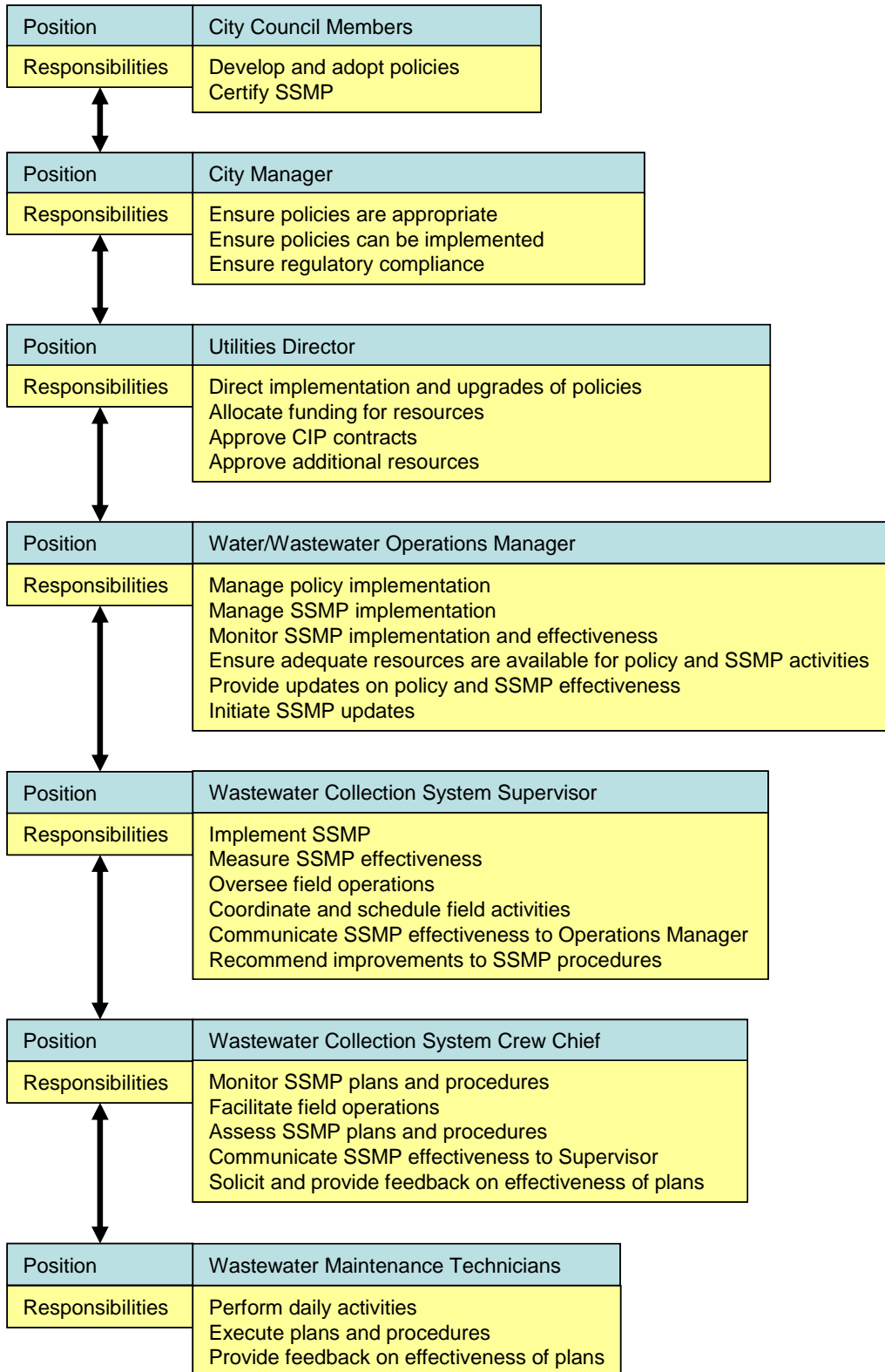
Generally the communication plan follows the chain of command identified in the organizational chart. Specific levels of authority are required to facilitate implementation and enforcement of the various plans and procedures developed and included in this SSMP. As the various plans and procedures are implemented, an assessment as to the effectiveness of the plans will best be determined by the labor force that executes and evaluates the immediate impacts of the plans and procedures. Efficient and timely response is essential to ensure that the adopted plans and procedures are effective for the management and operation of the wastewater system. Therefore, an established communication protocol and a chain of command between sections and levels within the City organization that includes clearly defined roles and responsibilities for each staff position included in the communication plan is imperative. Figure 3-2 provides a summary of the general responsibilities among the staff as it affects the management, operation, and maintenance of the City's wastewater collection system. The responsibilities listed are to illustrate the overall importance of continual communication among the organization regarding wastewater related issues.

Identifying the appropriate City staff and establishing a communication plan is necessary to ensure the efficient and timely response to facilitate the effective enforcement, monitoring, and management of the various SSMP elements.

3.3.2 SSO Communication Structure

The communication structure for responding to an SSO is also discussed in further detail in Chapter 7 and Appendix D of this SSMP. Appendix D of this SSMP includes a copy of the City's SSOERP which contains detailed information pertaining to the City's SSO response procedures. Also included in the SSOERP are the communication protocol, names, and telephone numbers for City staff required to respond, and a general description of the responsibilities for City staff responding to SSOs.

**Figure 3-2
Communication Plan for SSMP Implementation**



3.4 Summary and Continuing Efforts

As the plans and procedures are updated and further refined and revisions and/or updates to this SSMP are performed, staff positions responsible for implementing the various elements of this SSMP should be updated as necessary as well as the specific responsibilities associated with each position. To maintain compliance with the WDRs, the City's organizational chart should reflect the administrative, maintenance, and management positions responsible for implementing, managing, and updating the overall measures contained in this SSMP.

Maintaining efficient and timely communication regarding the implementation and effectiveness of these plans and procedures is essential to ensure proper management and operation of the wastewater system. This communication plan presented here indicates the chain-of-command communication that should occur between the specific staff positions as well as defines each position's role and responsibilities for the successful operation of the wastewater collection system.

Chapter 4

Legal Authority

This chapter of the SSMP includes a discussion of the City's legal authority, including its city code and agreements with cities and agencies for the conveyance, treatment, and disposal of wastewater.

4.1 Regulatory Requirement for Legal Authority Provisions

The WDRs require that the City show, through collection system use ordinances, service agreements, or other legally binding procedures, that the City possesses the legal authority to:

- Prevent illicit discharges into its wastewater collection system including, but not limited to, inflow and infiltration, storm water, chemical dumping, unauthorized debris, and cut roots, etc.;
- Require that sewers and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the City;
- Limit the discharge of fats, oils, grease, and other debris that may cause blockages; and
- Enforce any violation of its sewer ordinances.

4.2 City's Legal Authority Provisions

The City's current legal authority is established through existing codes, regulations, ordinances, and permitting procedures that allows the City to require and enforce various measures for ensuring the proper and efficient operation, management, and maintenance of the City's wastewater collection system. These mechanisms include, but are not limited to, limiting the types of substances allowed to be discharged into the City's wastewater collection system, establishing requirements for the proper design, construction and connections to the City's collection system, ensuring access to City sewer pipelines for maintaining, inspecting and repairing the system, limiting the discharge of fats, oils, grease, and other types of debris that cause blockages, and enforcing violations of its sewer related ordinances, codes, and laws. The city code sections currently governing the City's wastewater collection system are included for reference in Appendix A, Excerpts from City of Pomona City codes.

4.3 Background for Legal Authority

A vital component in preventing SSOs requires that the City have comprehensive policies and procedures that encompass, but are not limited to, the permitting, design, construction, inspection, monitoring, and enforcement of policies as they pertain to the City's wastewater collection system. To implement the various elements required to prevent SSOs to the

Legal Authority

maximum extent possible and meet state and federal requirements, the City must ensure that its existing codes, policies and procedures are such that the requirements necessary to require, implement, and fulfill the specific City needs are encompassed.

The City has codified several ordinances related to the wastewater collection system in the City of Pomona City codes in Chapter 62, titled Utilities, under Article V, titled Sewage Disposal. In addition, the City has executed various agreements with cities and agencies adjacent to the City for the conveyance, treatment, and disposal of wastewater. These agreements are approved by the City Council. Examples of these agreements include the agreement with Los Angeles County Sanitation District No. 21 to operate and maintain the four (4) pump stations within the City's boundaries, agreements to accept wastewater from adjacent communities, and agreements to send small amounts of wastewater to other agencies for conveyance and disposal.

Additionally, the California Water Code Section 13271 of the California Code of Regulations, the Clean Water Act, Section 1251 of Chapter 33 of the United States Code, and the California Waste Discharge Requirements serve to ensure the City establishes the necessary codes, agreements, policies, and procedures to provide the City the legal authority to require and enforce the necessary requirements.

4.4 Summary and Evaluation of the City's Existing Legal Authority

The City's legal authority and powers are established in the City of Pomona City code and provide the necessary measures to facilitate the control of inflow and infiltration (I/I), require proper design, construction, installation, testing, and inspection of new and rehabilitated sewers and laterals; control the discharge of FOG; and enforce violation of ordinances. Additionally, it allows the City to promote and protect the health, safety, and general welfare of all of the citizens of the City. The existing ordinances identify the City's director of public works/city engineer as the person responsible for approving and managing permit requirements with respect to the City's wastewater collection system.

The following sections include a summary of the City's existing codes and ordinances as they apply to its wastewater collection system.

4.4.1 Prevention of Illicit Discharges

The City is required to prevent discharges of illicit and undesirable substances from entering the wastewater collection system. Illicit discharges include, but are not limited to, the release of I/I, storm water, chemical dumping, unauthorized debris and constituents, and cut roots. Properly drafted ordinances provide the City the tools to identify and enforce penalties to prevent illicit discharges. The City's current ordinances prohibiting illicit discharges to control both domestic and industrial discharges are discussed in the following sections.

4.4.2 Domestic Discharges

Chapter 62, Article V, Section 62-396, Dumping in Manholes, states that

“[i]t shall be unlawful for any person to dump anything in a manhole unless the person has been issued, by the director of public works/city engineer, a permit to dump in the manhole, which permits the dumping and states what is permitted to be dumped.”

While this section controls discharges into the system via manholes, the type of substances allowed is discretionary. It is imperative that the city engineer coordinate with the City’s Utility staff to ensure that substances that may be detrimental to the operation and maintenance of the system are not allowed into the system. The intent of this section is to prevent discharges via manholes and to allow the City to track and control the type and amount of discharges. Often these discharges come from portable comfort stations or sewer cleanings.

Additionally, Chapter 62, Article V, Section 62-401, Compliance with Other Sewage Discharge Restrictions and Requirements, restricts what users can generally discharge into the collection system. This section requires that all persons “shall comply with all sewage discharge restrictions and other requirements of the [Los Angeles] County Sanitation District and the United States, the state and the city.” The Wastewater Ordinance for the Sanitation Districts of Los Angeles County, Part I, Section 103, Liquid Waste Disposal Policy, states:

Wastewater originating within the Districts' boundaries will generally be accepted into the Districts' sewerage systems, provided the wastewater will not, directly or indirectly: (1) damage structures; (2) create nuisances such as odors; (3) threaten public health; (4) impose excessive collection, treatment or disposal costs on the Districts; (5) interfere with wastewater treatment or residue disposal processes; (6) violate quality and pretreatment requirements set by the Districts or federal or state agencies; (7) detrimentally affect the environment or (8) cause the Districts to violate any terms or conditions of their facilities' permits or any other waste discharge or air quality requirements.

This statement, incorporated by reference into the City’s code, provides the City the authority to determine the extent of substances permitted to be discharged into the wastewater collection system. However, this description of prohibited substances, while specific on the intended results to avoid, is vague on the types of specific constituents that the City should not allow in the collection system.

4.4.3 Industrial Discharges

City Code Chapter 62, Article V, Division 4, Industrial Wastes, describes limitations on industrial waste discharges and special permit requirements. Section 62-546 requires that the discharge of industrial wastes into a sanitary sewer shall be governed as follows:

- (1) All wastes, however harmless, shall be reduced to a minimum in volume and strength, and fluctuations of temperature and flow shall be evened out by adequate storage before discharge.

Legal Authority

- (2) All wastes, when necessary, shall be pretreated by screening, sedimentation, neutralization, or other approved methods to produce a quality and character of waste that shall conform to Section 62-504 of the City Ordinance.
- (3) Pretreatment of industrial wastes shall be at the source and at the expense of the agency producing such.

For both the domestic and industrial waste discharges, the City has include and delineated restrictions on what may be deposited into its sewer system. These codes, while they provide the City with sufficient authority to limit and control the types of industrial waste discharged into the system, expanding the codes to include more descriptive types of industrial wastewater not acceptable in the City's wastewater collection system will reduce the potential for misinterpretation.

4.4.4 Proper Connections and Construction

The requirements for the design and construction of new, rehabilitated, and replaced sewer system facilities, including mains, tie-ins, service laterals, cleanouts, manholes, and other system appurtenances, are necessary to ensure the proper operation of the sewer system. 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. City Code Chapter 62, Article V, Division 1, Section 62-397 provides the director of public works/city engineer the authority to establish the requirements and approve the provisions of specifications for construction of any sewer built in the City.

Additionally, Section 62-504, approval of disposal requirements prerequisite to issuance of building permit, in the Industrial Wastes Division of the Code, requires every person applying for a building permit for construction of a new industrial building or industrial structure, or for an addition or alteration to an existing building or structure, to obtain a signed statement from the director of public works/city engineer allowing the discharge into the wastewater collection system. Although this requirement applies specifically to industrial facilities, it describes a process for the review and approval of construction plans, allowing the City the opportunity to ensure the safety of the wastewater collection system.

The City prepared the City of Pomona Sewer Design Policy and Standard Drawings to supplement the City's existing codes and provide additional information for the planning and design of wastewater collection facilities within the City of Pomona. The policy and standard drawings, though they have not been adopted as of the development of this document, outline and describe in one succinct document, the relevant City policies, applicable codes, engineering and operation practices, and procedures to plan, design, and build a cost-effective, reliable, and safe wastewater collection system. The policy includes minimum design standards for sewer mains, sewer manholes, sewer laterals, and general guidelines for common sewer rehabilitation options. Also included are standard drawings, specifications and industry requirements for the planning and design of wastewater infrastructure. In contrast to the City's existing ordinances, the proposed sewer design policy designates the Utilities Services Director, rather than the

director of public works/city engineer, as the person with the authority to review and approve plans and construction related to the wastewater collection system. The City of Pomona Sewer Design Policy and Standard Drawings are included in Appendix G for reference and are further discussed in Chapter 8 of this SSMP.

4.4.5 Accessibility for Maintenance, Inspection, and Repair

The City codes do not expressly document access requirements for maintenance, inspection, or repair of the wastewater collection system. Instead, accessibility requirements are managed through the plan reviews for new sewer service where City staff ensures that sewer system facilities are constructed to specific standards within the public right-of-way or within adequate, permanent easements.

However, Section 62-398, Sewer Construction Permit, Connection Permit and Inspection Fees, in Chapter 62, Article V of the City code implies that the City may have some accessibility rights in that it requires the director of public works/city engineer to issue a permit before a sewer line may be constructed. As such, the director of public works/city engineer has the opportunity to ensure that new sewer lines are accessible. Since this is not an explicit requirement, and it is based on the city engineer's best engineering abilities, not all new sewer pipes may be designed with proper access to the facilities for maintenance, repair, replacement and/or rehabilitation purposes. Plus, City crews and authorized representatives may not have the right to access existing City sewer lines located on private property. As such, adding a specific code section or adopting an ordinance that governs accessibility for maintenance, inspection, and repair efforts will provide the appropriate legal authority for City crews to access the sewer facilities.

The City of Pomona Sewer Design Policy and Standard Drawings include general procedures for ensuring proper access to the City's wastewater collection system is properly addressed in the planning and design phases of sewer projects. The policy includes information pertaining to the placement of sewer mains within the public right-of-way. It includes the requirement for easements and encroachments where public sewer mains are located outside of the public right-of-way and that permanent access easements will be provided with adequate widths to allow maintenance vehicles and necessary equipment proper access to all appurtenances and isolated reaches of sewer main. The policy also includes a summary of prohibited locations for installation of sewer mains and manholes without prior approval by the City Water/Wastewater Operations Manager.

4.4.6 Limit Fats, Oils, and Grease Discharge

Chapter 62, Article V, Division 3, from Section 62-471 to Section 62-477 addresses sand and grease traps. These sections give the City authority to require grease interceptors and sand traps. These appurtenances are required in all packing plants and other establishments that may be a source of food fats and greases with respect to grease interceptors, and in establishments equipped with wash racks, floor drains, or wash tanks for cleaning machined parts or other materials. Specifically, Sections 62-472, 62-473, and 62-474 address the requirements for the installation, minimum capacity and flow rate, and inspection and cleaning frequency of grease interceptors respectively. Sections 62-475, 62-476, and 62-477

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respectively address the requirements for grease trap installation, inspection and cleaning frequencies. While the City requires these items and regular cleaning of the same, the City Code does not authorize City staff or authorized representatives to access and routinely inspect these facilities, and issue violation notices or fines.

However, the Regional NPDES Permit for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, and the Incorporated Cities Therein, Except the City of Long Beach, requires the City to inspect, twice during the five (5) year term of the NPDES permit, all restaurants that are critical sources of storm water pollution. The inspection focuses on the Best Management Practices (BMPs) for restaurant food preparation, to ensure that workers do not pour oil and grease or its residue onto a parking lot, street, or adjacent catch basin. The City must keep updated records of these restaurants and the results of the inspections. While these inspections focus on restaurants near critical bodies of water and storm drains, they provide a starting point to track and inspect restaurants for possible grease and oil disposal in the wastewater collection system.

The City recently prepared a Fats, Oils, and Grease (FOG) Control Program, which is currently under consideration for adoption. The FOG Control Program establishes the formal procedures City staff will implement to effectively reduce the direct or indirect discharge of all wastewater or waste containing FOG into the City's wastewater collection system. It includes several components necessary to reduce the quantity of FOG discharged into the City's wastewater collection system to achieve the goal of minimizing SSOs due to excessive FOG. The elements include:

- Kitchen Best Management Practices
- Grease Trap Installation, Operation and Maintenance Requirements
- Grease Interceptor Installation, Operation and Maintenance Requirements
- Notification Requirements
- Record Keeping and Reporting Requirements
- Permits, Inspection, and Enforcement
- Drawing Submittals
- Public Education

With implementation of the FOG Control Program, the City intends to implement and enforce actions against users of the wastewater collection system that violate the prohibition of discharging FOG into the wastewater collection system. The City will initiate enforcement actions for noncompliance and it will be possible for other regulatory agencies, including the EPA or the State to initiate their own enforcement actions, if in their opinion, the City does not implement adequate enforcement. The City of Pomona Fats, Oils, and Grease Control Program is included in Appendix F for reference and is further discussed in Chapter 6 of this SSMP.

4.4.7 Violation Enforcement

The authority for the City to enforce violations of the codes or other adopted policies is not explicitly described within the sewage disposal code section. However, in Chapter 1, General Provisions, Section 1-7 describes the general penalties for violating sections of the code and for continuing violations. Individuals convicted of a violation of the City Code that is not specifically declared to be an infraction shall be considered guilty of a misdemeanor, and punished with a fine of not more than \$1,000.00, imprisonment in the city or county jail for not more than six (6) months or both such fine and imprisonment.

Chapter 2, Article X, Code Enforcement includes information regarding the City's authority to enforce penalties for violations of the City's ordinances and City Code. Division 1, Section 2-1161, Authority to Cite Persons in Violation, provides the City Council the power to authorize its officers and employees the ability to enforce the provisions of the City ordinances and the City Municipal Code. Specifically it states:

- (a) The city council hereby authorizes all officers and employees of the city who have the duty to enforce city ordinances and this Code to cite persons for violation of such ordinances and this Code, pursuant to Penal Code § 836.5, provided such officers and employees have reasonable cause to believe that the persons to be cited have committed misdemeanors and infractions in their presence which are violations of the ordinance or section of this Code which such officers and employees have the duty to enforce and further provided that such officers and employees have satisfactorily completed the peace officers standards and training course provided for in Penal Code § 832.

Division 2, Administrative Citations, summarizes the City's administrative citation program as an alternative method of enforcing violations of the City's code. Section 2-1182 recognizes the police chief as the "enforcement official" and gives the police chief the authority to administer and enforce violations of the municipal ordinance that are determined to be infractions. Enforcement of violations shall be in accordance with Sections 2-1183 through 2-1190.

Although the director of public works/city engineer, and on occasion the Utility Services Director or Director's designee, is responsible for ensuring the codes are followed, and to develop appropriate policies to address areas where the City's Code is silent, the director of public works/city engineer and/or the Utility Services Director or Director's designee has limited authority to issue violation notices or assess fines for misdemeanors and 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.

4.5 Recommendations

The City intends to update the City code to clarify and enhance the City's legal authority with respect to the wastewater collection system, and expects to implement the changes in 2008. One global modification is to change the references to the Director of Public Works/City Engineer to the Utility Services Director as the person responsible to review and condition

Legal Authority

construction plans, develop and enforce permits, and generally make decisions with respect to the wastewater collection system. The recommended revisions and additions to the City's City code are included in Appendix B of this SSMP. The proposed ordinances identify the Utility Services Director as the responsible person. Bracketed text may be appropriate when certain policies, such as a FOG Control Program, are adopted. The revised and new ordinances should be inserted into Chapter 62, Article V of the City's City code.

Chapter 5

Operations and Maintenance Program

This chapter of the SSMP discusses the City's operations, maintenance and other related measures and activities as they pertain to its wastewater collection system.

5.1 Regulatory Requirement for Operations and Maintenance Program

The WDRs require that the SSMP contain descriptive measures of the City's Operations and Maintenance (O&M) Program that are implemented by the City to facilitate proper and efficient management and maintenance of the wastewater collection system and affected appurtenances. The WDRs require that the SSMP include a description of each of the following components as they apply to the City's wastewater collection system:

- Maintenance of up-to-date sanitary sewer system map showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
- Routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventive Maintenance Program should have a system to document scheduled and conducted activities, such as work orders;
- Development of 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;
- Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and repair contractors to be appropriately trained; and
- Provide equipment and replacement part inventories, including identification of critical replacement parts.

5.2 City's Operations and Maintenance Program

The City prepared a comprehensive document titled City of Pomona Operation and Maintenance Program which includes a summary of the City's current procedures and practices as they pertain to the O&M activities related to its wastewater collection system. The City of

Operations and Maintenance Program

Pomona Operation and Maintenance Program contains information pertaining to the following components for compliance with the WDRs:

- Inventory and Mapping of the Wastewater Collection System Assets
- Preventative Maintenance Program
- Sanitary Sewer Overflow Emergency Response Plan (SSOERP)
- Fats, Oils, and Grease Control Program
- Wastewater System Inspection and Assessment Program
- Capital Improvement Program (CIP) Project Identification
- Computerized Maintenance Management System (CMMS)
- Equipment and Replacement Part Inventories
- Training Program
- Staffing Requirements and Recommendations

A copy of City of Pomona Operations and Maintenance Program is included in Appendix C for reference.

5.3 Discussion of Regulatory SSMP Elements for WDR Compliance

The following sections highlight the City's O&M efforts and include recommendations that the City could implement to improve its O&M program.

5.3.1 Wastewater Collection System Mapping

The City effectively manages and maintains information pertaining to the wastewater infrastructure by means of manually updating atlas maps and/or references to hard copy as-built drawings. Several years ago the City retained the professional services of an independent company to convert the manually drawn, paper mapping system, to a GIS using ESRI's ArcGIS software. The conversion of records to GIS has primarily included digitizing location information from the City's atlas map sheets and recording facility attributes including:

- Year of installation
- Diameter
- Slope
- Material
- Invert elevations, and
- Manhole rim elevations.

The initial phase of the task includes conversion of the City's earliest records in sequential order through and including 2005 as-builts. The subsequent phase will include the conversion of information from 2006 to the present.

To ensure that potential errors associated with the transfer of available graphic data into the GIS are omitted, City staff is performing internal reviews of the conversion for accuracy of the information. Involved in the review is staff in the Engineering and Wastewater Maintenance Sections with extensive knowledge and experience with the City's wastewater collection system.

Completion of the conversion of the graphic information to the computerized mapping system, population of the GIS database, assignment of identifying labels to all pipeline segments and manholes, and establishment of a routine updating and maintenance procedure will enhance the City's ability to effectively manage the system and implement an asset management program for the wastewater collection system. This will also facilitate planning and funding of potential future capital improvement projects.

5.3.2 Preventive Maintenance Program

The City's wastewater collection system requires frequent maintenance due to age, extended use, debris accumulation, and tree root intrusion. To minimize and prevent system blockages and extend the useful life of the wastewater collection system, the City's Preventive Maintenance Program primarily includes the routine cleaning of all wastewater pipelines. The preventive maintenance program also includes scheduled focused and cyclic cleaning, root control, and response to customer complaints. The following paragraphs describe the City's current preventive maintenance procedures as they apply to the wastewater collection system.

Mechanical Cleaning

The City's Wastewater Maintenance Section continually cleans the sanitary sewer system. In this manner, they are able to clean the entire system approximately once every one and a half years. They utilize two (2) 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. The material is stored in 55 gallon drums at the Water/Wastewater Operations yard. When there are 10 or more drums, a licensed contractor removes the drums and properly disposes of the material. Cleaning efforts are documented daily. Progress ranges from 3,000 to 18,000 lineal feet per day, depending on the existing conditions, staffing available, and other assigned duties.

The City's cleaning efforts focus on one (1) quadrant of the City at a time. Wastewater Operations crews work daily to eliminate potential pipe and manhole blockages. There are currently two (2) crews consisting of two (2) staff members each that are assigned to perform daily routine cleaning tasks. Additionally, crews clean high frequency maintenance locations monthly. These locations include areas identified as having excessive amounts of grease accumulation and concentration of roots. Staff primarily uses the combination jetter/vactor

Operations and Maintenance Program

vehicles for cleaning, and uses the mechanical rodder truck in areas known for high root concentrations and areas with blockages.

Root Treatment

The City's root treatment program is performed by a contractor retained by the City to perform routine chemical treatment of select portions of the City's wastewater collection system. A yearly contract is awarded to the lowest responsible bidder and requires the application of chemical root inhibitors to reduce or eliminate roots intruding into the pipes. Pipelines identified as locations with root intrusion problems are treated and evaluated on a yearly basis. Target sites are located in the older developed areas with large mature trees as well as locations identified via the CCTV inspection efforts that identify high concentration of roots. As locations are identified as requiring chemical treatment for root control, location information is recorded in the CCTV database, assessed, and evaluated for inclusion in the subsequent cycle of the root control program.

Manhole Treatment Program

To control infestations of insects and to maintain adequate access to the system, the City's wastewater collection system manholes are systematically treated for the removal of roaches. The roach treatment is performed by an independent contractor retained by the City. The City treats approximately 500 to 800 manholes per year. The manholes selected for treatment are identified by areas known to be prone to insect infestation, and observations made during the annual cleaning.

Response to Customer Notifications

City service calls are currently handled manually. All customer calls are routed to the Wastewater Collection System Crew Chief or designee from either the City's Customer Services Section or the Pomona Police Dispatch Center. Customer notifications may also be received via the City's Comcate eFeedbackManager notification system currently in place. The Comcate system is Customer Relationship Management/Request Tracking software that allows internal and external notification of various issues via an email system. City staff is required to respond to issues received via the Comcate system in a timely manner.

Response to customer notifications is performed by the Wastewater Collection System staff during business hours and the standby staff during non-business hours. The staff's responsibility primarily includes assessing the complaint and resolving the potential problem.

Management of Operations and Maintenance Activities

The scheduling and performance of maintenance and cleaning activities is currently performed by staff within the Wastewater Maintenance Section. Daily schedules are manually composed and delineate the type and location of work to be performed. Work is assigned and performed, and reports summarizing daily progress are generated by maintenance crews and submitted to the Wastewater Collection System Supervisor to track progress and status of wastewater collection facilities. Daily progress reports and work order forms are filed at the water operations yard for future access and reference. A wall map of the City, divided into four (4)

quadrants and depicting the City's wastewater collection system, is highlighted daily by the maintenance crews to reflect the cleaning and CCTV inspection completed. The map serves to provide City maintenance crews with a comprehensive view of the progress of the preventive maintenance efforts by quadrant.

Maintenance Data Management

In 2004, the City invested in GBA Master Series, a maintenance and asset management software that is compatible with the City's GIS. The integration of the program was intended to organize, manage, and centralize its infrastructure data to allow City staff access to information pertaining to a particular system element (such as technical data, related work orders, photographs, and videos). The GBA program is not fully utilized at this time due to significant changes to the software which places emphasis on a Geographic Information System (GIS) for asset inventory purposes. The current CCTV data storage and management process, in place since October 2005, includes transferring the recorded data onto CDs and storing the CDs for future reference as needed. Information relevant to the information on the CD is recorded in an Excel spreadsheet including the date, time and the pipeline televised.

The City continues to work toward identification, integration, and utilization of a CMMS to facilitate management of wastewater facilities and resources. A versatile CMMS will allow staff to properly and efficiently organize, plan, and schedule the appropriate resources for routine preventive maintenance activities, coordinate and prioritize urgent and/or unique maintenance activities, and ensure uniformity and consistency in processing and tracking facility related information.

5.3.3 Wastewater Collection System Inspection and Condition Assessment Program

A rehabilitation and replacement plan serves to identify and prioritize system deficiencies and establish short- and long-term rehabilitation actions to address each deficiency. The City's program includes regular visual and CCTV inspections and assessment of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation.

System Inspection and Assessment

The City employs CCTV technology for the inspection of pipelines. With the use of the City's one (1) CCTV truck, the City performs inspections of select sewer pipelines of the City's wastewater collection system. The City initiated inspection efforts in March 2004 and included the inspection of existing sewer pipelines as determined necessary and all new and rehabilitated pipelines to ensure contractor compliance with City design and construction standards. The City's CCTV truck is equipped with Granite XP GIS software developed by Cues. The inspection codes incorporated into the Granite XP Software are National Association of Sewer Service Companies (NASSCO) certified and comply with the Pipeline Assessment and Certification Program (PACP). The defect codes also include codes developed and incorporated by the City. The information obtained and recorded from the CCTV inspections is reviewed, recorded, and assigned a severity rating according to a rating scale developed by City staff. Permanent records of the inspections are made by capturing still images of the information on the TV screen and recording the information on DVDs. The City's CCTV inspection capability extends to various pipe sizes.

Operations and Maintenance Program

Inspections are performed by a two (2) person crew and are typically performed after the cleaning of the particular pipeline sections to be televised. Daily progress is recorded by the inspection crew in daily reports submitted to the Wastewater Collection Supervisor and utilized for recording, tracking, and reporting purposes. As the necessity to televise a particular location or portion of the wastewater collection system arises, staff assignments are reorganized and resources are reallocated to accommodate the requirement. Although the City's goal includes televising the sewer system one (1) complete quadrant at a time, the majority of the staff resources are currently devoted to performing routine cleaning and maintenance tasks.

Since initiating its inspection efforts, the City has completed inspection and assessment of its north-easterly quadrant consisting of approximately 87 miles of its wastewater collection system. Inspection information is recorded and rated according to the City's procedures summarized in the City of Pomona Operations and Maintenance Program included in Appendix C. Recommendations for modifying the inspection codes are also included in Appendix C.

Repair and Rehabilitation Projects

The City's Wastewater Operations Section is responsible for performing various types of wastewater facility repairs and rehabilitation improvements. Repair and rehabilitation work performed by crews may include point repairs at cracks, joints, and service interfaces, repairing collapsing or broken sewer pipe, removing obstructions in the sewers that hinder cleaning operations, manhole rehabilitation, video inspection and other related work. Repairs that require resources beyond those available within the Wastewater Maintenance Section, including staff and equipment, are coordinated and scheduled with other sections including the Water Distribution and Engineering Section. In conjunction with the City's Water Distribution Section's staff and equipment, the Wastewater Maintenance staff is responsible and able to implement mitigation efforts and perform repairs for pipeline up to 12 inches in diameter to restore or replace failing wastewater collection sewer lines. Repairs for pipelines greater than 12 inches in diameter or that require an extensive construction effort are performed by independent contractors retained by the City.

CIP Development

Using the results of CCTV inspection efforts, the City will prepare a list that prioritizes the repair, rehabilitation, or replacement of the deficient sewer pipelines and manholes. The priority list will be used to develop and initiate capital improvement program projects. These projects will be added to the list of CIP projects currently identified by the City.

5.3.4 Training Program

Prior to performing any work on City facilities, City Wastewater Maintenance staff is trained on the existence and the provisions of the wastewater operations and maintenance policies, procedures, safety policies, and the equipment used. Additionally, Wastewater Maintenance staff are required to receive Collection System Maintenance training and certification through CWEA. Training for operation of City equipment includes primarily "on-the-job" training in conjunction with weekly "tailgate" meetings to discuss safety issues.

The City requires maintenance staff to become CWEA certified and provides training opportunities to enable its maintenance staff to become and remain certified. The City assists with certifications by sponsoring preparation courses, certification exams, and requiring continuing education. Minimal certification is required for maintenance staff. However, the City will institute additional certification requirements if deemed necessary by governing authorities.

To ensure that contractors for the City have appropriate training, the City is considering incorporating language in its various programs to require contractors working on City facilities to be adequately trained for wastewater collection system work.

5.3.5 Equipment and Replacement Part Inventories

The Wastewater Maintenance Section maintains an inventory of vehicles and sanitary sewer system replacement parts. The inventory of vehicles includes the vehicle type currently utilized to perform the necessary operation and maintenance activities of the City's wastewater collection system.

The vehicles and sanitary sewer system replacement parts are made readily accessible to maintenance staff. The replacement parts maintained in the City Yard are for the specific types of repairs performed by Wastewater Maintenance staff. As necessary, maintenance staff solicits the utilization of resources, including equipment and staff, from the Water Distribution Section. For implementation of repairs that extend beyond the City's internal resource capabilities, the City retains the services of professional contractors.

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Chapter 6

Fats, Oils, and Grease (FOG) Control Program

This chapter of the SSMP discusses the City's Fats, Oils, and Grease (FOG) Control Program including identification of high frequency maintenance locations and source control.

6.1 Regulatory Requirement for a FOG Control Program

To comply with the WDRs, the City is required to evaluate its service area to determine whether a FOG Control program is necessary. If deemed necessary, the City is required to develop and implement a FOG Control Program to effectively control the quantity of FOG that is discharged into the City's wastewater collection system. The FOG Control Program 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.

6.2 Discussion of FOG Characterization Study

Prior to developing a comprehensive FOG Control Program, the City performed a characterization study, titled *City of Pomona Fats, Oils, and Grease Control Program Technical Memorandum*, to identify the sources and nature of the FOG generated. The City identified that its primary source of FOG is generated from established restaurants located throughout the

FOG Control Program

City. Large quantities of FOG is generated from the food service establishments (FSEs) during food preparation from both FOG used to assist in the cooking of the food (i.e. frying oil) and from the food itself (i.e. hamburger meat). The City identified approximately 220 existing FSEs and several high frequency maintenance sites within the City's service area boundary. The high frequency maintenance locations are routinely cleaned on a monthly basis and include areas with high FOG and root concentrations, sewer pipelines with minimal slope, and locations that have been identified to have repetitive grease accumulation. Review of historical records pertaining to wastewater related emergency calls identified additional locations of potential problem sites due to excessive FOG concentrations an/or accumulations. The characterization study served to compile and categorize information pertaining to the City's wastewater collection system as it relates to FOG.

Based on the results of the characterization study, it was determined that the City's proactive maintenance procedures have been successful in minimizing the number of SSOs. However, the City determined that it would benefit from preparing and implementing a comprehensive FOG Control Program to preemptively reduce FOG related SSOs by preventing the disposal of FOG into the City's wastewater collection system as well as reduce the occurrence of high frequency maintenance cleanings. The results of the characterization study are documented in the *City of Pomona Fats, Oils, and Grease Control Program Technical Memorandum*, which is included in Appendix E for reference.

6.3 Discussion of FOG Control Program

The City developed the *City of Pomona Fats, Oils, and Grease Control Program* to facilitate the maximum beneficial public use for the City's wastewater collection system while preventing blockages of the sewer lines and pump stations, reducing the adverse affects on sewage treatment operations resulting from discharges of FOG into the system, and specifying appropriate FOG discharge requirements for FSEs discharging into the City's wastewater collection system.

The City's FOG Control Program documents the processes and procedures intended to provide the City with a comprehensive document that includes components necessary to reduce the quantity of FOG discharged into the city's wastewater collection system to achieve the goal of minimizing SSOs due to excessive FOG. Elements of the FOG Control Program include the following:

- Kitchen Best Management Practices
- Grease Trap Installation, Operation and Maintenance Requirements
- Grease Interceptor Installation, Operation and Maintenance Requirements
- Notification Requirements
- Record Keeping and Reporting Requirements
- Permits and Enforcement
- Drawing Submittals
- Public Education

To address the components listed in Section 6.1 and as required by the WDRs, the following subsections provide a summary of the applicable FOG control procedures currently being implemented and the procedures the City is evaluating for implementation. The following paragraphs correlate to the WDR components listed in Section 6.1. The complete FOG Control Program is included in Appendix F.

a) Public Education Outreach Program

The FOG Control Program identifies several forms of media available to educate and inform the public about FOG effects and requirements including, but not limited to, direct mailers, door hangers, brochures distributed at City locations and kiosks, and announcements placed on the City's web site. An effective outreach program educates the public on ways to reduce putting FOG into the wastewater collection system. All messages that are used to communicate to the public will be prepared in English and, where appropriate, in Spanish and in any other dominant language spoken by the target audience. The Utility Services Department intends to work closely with the City's Public Information Officer to develop appropriate messages and with the type of media to be utilized to disseminate the messages to the public.

b) Disposal of FOG

The FOG Control Program includes a description of BMPs, which include simple and effective practices that an FSE can implement to prevent and reduce the quantity of FOG discharged into the wastewater collection system. Since the success of a BMP program requires proper implementation and continual re-enforcement of the adopted BMPs, a requirement for routine and proper training of FSE employees on the proper implementation methods of BMPs is also included.

Requirements for the pretreatment of wastewater flows generated at FSEs are also included in the FOG Control Program. Typical pretreatment devices include grease traps and grease interceptors. The cleaning and removal of all accumulated grease is required by a licensed waste hauler with an approved license from an authorizing agency.

c) Legal Authority to Prohibit Discharges

The City's current legal authority is established through existing codes, regulations, ordinances, and permitting procedures that allows the City to require and enforce various measures for ensuring the proper and efficient operation, management and maintenance of the City's wastewater collection system. A mechanism includes limiting the types of substances allowed to be discharged into the City's wastewater collection system. Discussed below are the City's ordinances to control both domestic and industrial discharges.

FOG Control Program

Domestic Discharges

Chapter 62, Article V, Section 62-396, Dumping in Manholes, states that

“[i]t shall be unlawful for any person to dump anything in a manhole unless the person has been issued, by the director of public works/city engineer, a permit to dump in the manhole, which permits the dumping and states what is permitted to be dumped.”

While this section controls discharges into the system via manholes, the type of substances allowed is discretionary. The intent of this section is to prevent discharges via manholes and to allow the City to track and control the type and amount of discharges.

Additionally, Chapter 62, Article V, Section 62-401, Compliance with Other Sewage Discharge Restrictions and Requirements, restricts what users can generally discharge into the collection system. This section requires that all persons “shall comply with all sewage discharge restrictions and other requirements of the [Los Angeles] County Sanitation Districts and the United States, the state and the city.” The Wastewater Ordinance for the Sanitation Districts of Los Angeles County, Part I, Section 103, Liquid Waste Disposal Policy, states:

Wastewater originating within the Districts' boundaries will generally be accepted into the Districts' sewerage systems, provided the wastewater will not, directly or indirectly: (1) damage structures; (2) create nuisances such as odors; (3) threaten public health; (4) impose excessive collection, treatment or disposal costs on the Districts; (5) interfere with wastewater treatment or residue disposal processes; (6) violate quality and pretreatment requirements set by the Districts or federal or state agencies; (7) detrimentally affect the environment or (8) cause the Districts to violate any terms or conditions of their facilities' permits or any other waste discharge or air quality requirements.

The statement is incorporated by reference into the City's code and provides the City the authority to determine the extent of substances permitted to be discharged into the wastewater collection system.

Industrial Discharges

City code Chapter 62, Article V, Division 4, Industrial Wastes, describes limitations on industrial waste discharges and special permit requirements. Section 62-546 requires that the discharge of industrial wastes into a sanitary sewer shall be governed as follows:

- (1) All wastes, however harmless, shall be reduced to a minimum in volume and strength, and fluctuations of temperature and flow shall be evened out by adequate storage before discharge.
- (2) All wastes, when necessary, shall be pretreated by screening, sedimentation, neutralization, or other approved methods to produce a quality and character of waste that shall conform to Section 62-504 of the City Ordinance.

- (3) Pretreatment of industrial wastes shall be at the source and at the expense of the agency producing such.

These codes provide the City with sufficient authority to limit and control the types of industrial waste discharged into the system.

d) Requirements for Installation of Pretreatment Devices

The FOG Control Program includes a description of acceptable pretreatment devices, including grease traps, grease interceptors, or other grease control devices approved by the City Utility Services Director or authorized designee. The City will require that each FSE be solely responsible for the proper operation, maintenance and repair of the approved pretreatment device(s). Sizing and installation requirements for the devices will be according to the manufacturer's recommendations and are required to conform to the adopted edition of the California Plumbing Code. Cleaning and removal of accumulated grease will be required by a licensed waste hauler with an approved license from the authorizing agency. Disposal of all water and material removed from the pretreatment devices at qualified disposal stations will also be required. To ensure proper disposal of the collected grease, the City will require that tracking logs be maintained by each FSE for a period of up to two (2) years and be made available to City Inspectors during scheduled and routine inspections.

e) Facility Inspection

Implementation of the FOG Control Program will require all FSEs to obtain and renew a Food Service Establishment Waste Discharge Permit. Although the requirements for compliance with the permit will vary among FSEs, generally each permit will require the FSE to meet the requirements for installation of FOG removal devices, comply with applicable City policies, and pay all required fees as set by the permit fee schedule.

To determine whether the FSE is in compliance with the conditions of the Food Service Establishment Waste Discharge Permit, FOG Control Program, and City ordinances, the City Utility Services Director or authorized designee will have the authority to inspect each FSE. Compliance with the FOG Control Program will require that reasonable access to all parts of the FSE be made available when inspection and/or sampling of the wastewater is required.

Since the City's proactive maintenance procedures have been successful in minimizing the number of SSOs and addressing the high frequency maintenance locations, the City intends to implement the FOG Control Program in phases to allow the City to address staffing and funding issues as they arise.

f) Maintenance Schedule for High Frequency Maintenance Locations

The performance and scheduling of preventive operation and maintenance activities is performed by the existing staff. The preventive maintenance program includes a cleaning cycle for the areas that have been identified by City staff as high frequency maintenance

FOG Control Program

sites. The City's high frequency maintenance sites include pipe segments with high FOG and root concentrations. The pipe segments within the wastewater system that have been identified as having an excessive amount of grease accumulation are routinely cleaned on a monthly basis.

g) Development and Implementation of Source Control Measures

Detailed information pertaining to the implementation of the FOG Control Program and the source control measures for all sources of FOG discharged to the sanitary sewer system is included in the *City of Pomona Fats, Oils, and Grease Control Program Technical Memorandum* which is included in Appendix E for reference.

Chapter 7

Overflow Emergency Response Plan (SSOERP)

The chapter of the SSMP provides a summary of the City's Sanitary Sewer Overflow Emergency Response Plan (SSOERP). Complete documents and procedures for the City's SSOERP are included in Appendix D for reference.

7.1 Regulatory Requirements for Overflow Emergency Response Plan

The WDRs require that the City develop and implement an overflow emergency response plan which identifies measures to protect public health and the environment. At a minimum, the 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 Monitoring and Reporting Program (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.

7.2 Discussion of Overflow Emergency Response Plan

The City prepared the *City of Pomona Sanitary Sewer Overflow Emergency Response Plan*, which includes the formal procedures for City staff to contain, correct, and clean up SSOs. The SSOERP is intended to provide the City with a comprehensive document that includes components necessary for minimizing the effects of SSOs on the environment while protecting the public's health and safety.

Additionally, the SSOERP includes a strategy for the Wastewater Maintenance Section to mobilize labor, material, tools, and equipment to contain, mitigate, and clean-up residuals from an SSO and correct or repair any condition which may cause or contribute to an un-permitted sewage discharge. The document provides the necessary guidelines for City staff to respond to an SSO event and contains the following elements:

- Introduction and Regulatory Requirements
- Sanitary Sewer Overflow Emergency Response Procedures
- Public Advisory of Sewage Contamination Procedures
- SSO Reporting Requirements
- Training Requirements
- SSOERP Updating Requirements
- Various Attachments

To address the components listed above in Section 7.1 and as required by the WDRs, the following subsections provide a summary of the applicable procedures that are currently being evaluated for implementation and included in the SSOERP. Further detailed descriptions of the policies and procedures as they pertain to responding to SSOs are included in the SSOERP document included in Appendix D.

a) SSO Notification Procedures

The SSOERP includes procedures for proper notification of the appropriate staff in a timely manner. Notifications of possible SSOs may be received via telephone calls or the City's Comcate notification system. Calls or complaints received via telephone for actual or possible SSOs are routed directly to the Wastewater Collection System Supervisor or designated back-up from either the City's Customer Services Section or the Pomona Police Dispatch Center.

Pump Stations Alarms: Although the City's pump stations are operated and maintained by the Los Angeles County Sanitation Districts (LACSD) under a contract between the City and LACSD created in 1986, the City is responsible to respond first to any possible or actual SSO reported at a pump station. Each pump station has telemetry to monitor certain events and activate alarms. The telemetry is connected to the City of Pomona's Police Department. The Police Dispatch Center alerts the City's Wastewater Collection System Supervisor or designated back-up. In the event that that the Wastewater Collection System Supervisor and designated back-up are not available, non-responsive, or the Department Supervisor cannot resolve the problem, LACSD will be contacted and notified.

Public Advisory: The SSOERP includes public advisory procedures as required to limit public access to surface waters and other areas potentially impacted by SSOs originating from the wastewater collection system. The City has primary responsibility for determining when to post notices of polluted surface waters or ground surfaces that resulted from uncontrolled wastewater discharges from it facilities. The posting of notices shall be done as soon as practicable following the initial response to the overflow. Examples of signs are

included in Attachment H of the SSOERP. Should additional notification of sewage contamination be deemed necessary, city staff shall, in cooperation with the City's Public Information Officer, provide further notices through the use of pre-scripted notices made available to the printed or electronic news media for immediate publication or airing, or by other measures, such as door hangers.

b) SSO Response

The City's SSOERP includes response priorities, safety, and overflow containment, correction, and clean-up measures for potential or actual SSOs of various types. Specific actions to be performed by Wastewater Maintenance Section staff and additional crews for public, private, and pump station SSOs are outlined and described. To summarize the SSO response procedures, a flow chart that illustrates the City's emergency response procedures, including notification and request of additional resources as required in the event of a large SSO, is included and offers a concise overview of the steps required to quickly respond to an actual or possible SSO event.

c) Procedures for Prompt Notification of Regulatory Agencies

The volume, impact, and location of an SSO determine the level of notifications required to comply with City and regulatory requirements. Included in the SSOERP is Table 2-3 that summarizes the officials and agencies to be notified and under what conditions they are to be notified of an SSO. Attachment E of the SSOERP includes a list of the specific names and telephone numbers of the individuals to be notified.

d) Training of Appropriate Staff and Contractor

Appropriate staff will participate in regularly scheduled training sessions to assist response crews in awareness of their responsibilities and executing their duties. The training sessions will be organized based on the latest SSOERP as well as other reference materials. Training will also incorporate hands-on field demonstrations to insure the preparedness of all response personnel to all anticipated situations.

The City is working to identify and approve various types of contractors and vendors to be available to respond to the City's needs during SSO events. Once identified, the City will address the requirements of the various contractor and vendors.

e) Emergency Procedures and Response Activities (i.e. traffic/crowd control and other necessary response activities); and

Guidelines for traffic and crowd control, for use in limiting public access to areas potentially impacted by un-permitted discharges of sewage based on the various types of SSOs, are also provided. The following traffic and crowd control guidelines include:

Small SSO (Up to 1,000 gallons)

- i. Set up cones to direct traffic away from spill area; and
- ii. Use City personnel to control traffic and pedestrians.

Medium SSO (1,000 to 10,000 gallons)

- i. Contact regulatory agencies as required;
- ii. Perform lane closures as necessary;
- iii. Place proper signage for any lane closures and contaminated area signs;
- iv. Close affected entrances or exits from public and private facilities; and
- v. Place caution tape and barricades to protect pedestrians from contaminated area.

Large SSO (greater than 10,000 gallons)

- i. Assess spill situation;
- ii. Contact regulatory agencies as required;
- iii. Inform City Police Department of any law enforcement assistance necessary for roadway closures and traffic control;
- iv. Delegate responsibility to County Health Department of informing public of hazards;
- v. Place signage to inform public of potential hazards to public health and safety; and
- vi. Block public access to hazard using barricades, cones, and caution tape.

Additional response activities may include posting of notices which shall be done as soon as practicable following the initial response to the overflow. Examples of signs are included in Attachment H of the SSOERP.

f) SSO Prevention and Containment

The City developed the *City of Pomona Operation and Maintenance Program*, included in Appendix C, that documents the City's efforts to ensure that the wastewater collection system is routinely and properly maintained and operated in a manner that minimizes the potential for failures and extends the longevity of the system. The City's preventative maintenance program includes the routine cleaning and inspection of the wastewater pipelines and specifically the high frequency maintenance locations.

The SSOERP was developed to facilitate and ensure the proper response to any type of potential SSO occurrence. It includes a strategy for the Wastewater Maintenance Section to mobilize labor, material, tools, and equipment to contain, mitigate, and clean-up residuals from an SSO and correct or repair any condition which may cause or contribute to an un-permitted sewage discharge. Appropriate mitigation measures to contain the SSO and recover spilled sewage to minimize the impact to the public or environment are included. Additionally, City staff will implement monitoring measures and perform a thorough assessment of the site for potential future SSOs and to prevent SSOs from re-occurring. The efforts serve to minimize and correct any adverse impact on the environment that may potentially result from an SSO.

Chapter 8

Design and Performance Provisions

This chapter of the SSMP discusses the City's design and construction standards and serves to fulfill the Design and Construction Standards SSMP requirement of the WDRs. A copy of the City of Pomona Sewer Design Policy and Standard Drawings is included in Appendix G for reference.

8.1 Regulatory Requirement for Design and Performance Element

The WDRs require that the SSMP include the following:

- 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.

8.2 Discussion on Design and Performance Provisions

The City's current design and performance standards are addressed in the existing codes, regulations, ordinances, and permitting procedures that allow the City to require and enforce the proper design, construction, and connections to the City's collection system, and ensure access to City sewer pipelines for maintaining, inspecting, and repairing the system. Also currently used is the City's Public Works Department's *The City of Pomona Standard Drawings*, which was last updated in February of 2003.

The City of Pomona Sewer Design Policy and Standard Drawings were developed to supplement the City's existing codes and sewer design policy, and to provide additional information for the planning and design of wastewater collection facilities within the City of Pomona. The document outlines and describes the relevant City policies, applicable codes, engineering and operation practices, and procedures to plan, design, and build a cost-effective, reliable, and safe wastewater collection system. The adoption of the City of Pomona Sewer Design Policy and Standard Drawings will supersede the wastewater related details in the 2003 Standard Drawings.

To address the components listed above in Section 8.1 and as required by the WDRs, the following subsections provide a summary of the applicable procedures that are currently being evaluated for implementation. Further detailed information of the design and performance standards and guidelines are included in the City of Pomona Sewer Design Policy and Standard Drawings in Appendix G.

Design and Performance Provisions

a) Design and Construction Standards and Specifications

The requirements for the design and construction of new, rehabilitated, and replaced sewer system facilities, including main, tie-ins, service laterals, cleanout, manholes, and other system appurtenances, are necessary to ensure the proper operation of the sewer system. 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. All public sewer mains within the City are constructed by the City or under contract to the City. The City has been using "Standard Plans for Public Works Construction" (Greenbook), prepared by the American Public Works Association.

The City of Pomona Sewer Design Policy and Standard Drawings include minimum design standards for sewer mains, sewer manholes, sewer laterals, and general guidelines for common sewer rehabilitation options. Also included are updated standard drawings, specifications, and industry requirements for the planning and design of wastewater infrastructure. Design considerations for wastewater facilities that the City considers non-standard, such as pump or lift stations, force mains, inverted siphons, internal sealing of existing sewers, treatment plants, outfall sewers, energy dissipaters, regulating devices, and/or flow measurement devices, are not included in the Sewer Design Policy and Standard Drawings and require prior approval from the City before design can begin.

b) 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/Wastewater Operations Manager 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.

Chapter 9

System Evaluation and Capacity Assurance Plan

Identified as an element of the SSMP, the WDRs require each agency to prepare a System Evaluation and Capacity Assurance Plan. This chapter of the SSMP discusses the City's capacity management measures to address the current and future capacity requirements of its collection system and the recommended capacity improvement projects.

9.1 Regulatory Requirement for System Evaluation and Capacity Assurance Plan

The WDRs require that the City 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 for 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 for the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review an update requirements as described in Section D.14 of the WDRs.

9.2 Discussion on System Evaluation and Capacity Assurance Plan

The City's current Sewer Master Plan was prepared in 2005, and presents an assessment of the hydraulic capacity of the City's major sewers and focused on approximately 44 miles of pipelines, ranging from 10 to 30 inches in diameter, and 784 manholes. The wastewater collection system was modeled using H₂OMAP Sewer Pro, a standalone geographical information system (GIS) based hydraulic model. The City has purchased this software and

System Evaluation and Capacity Assurance Plan

currently maintains the model developed as part of the Master Plan. The City intends to expand the model for future analysis.

An assessment of the hydraulic capacity of major sewers and pump stations was performed using the hydraulic model for which both dry and wet weather conditions were modeled. The system evaluation was performed to identify improvements necessary to meet the requirements of the Capacity Assurance, Management, Operations, and Maintenance (cMOM) Plan. The Master Plan includes a summary of the findings and recommendations to meet the cMOM program assessment requirements and anticipated state or federal regulations.

The City prepared the *City of Pomona Capacity Assurance and Assessment Plan Technical Memorandum* to document an independent evaluation of the City's Master Plan and hydraulic modeling program and includes recommendations to ensure that the capacity of key segments of the wastewater collection system are being evaluated for dry weather and wet weather flow conditions and for compliance with the WDRs.

The following subsections provide a brief summary of the modeled system, flow estimates, and evaluation criteria used for the City's sewer system capacity evaluation to address the components listed above in Section 9.1 and as required by the WDRs.

a) Evaluation

The capacity assessment completed as part of the City's Sewer Master Plan was based on hydraulic modeling of the City's collection system under current and future design flows. The overall objective of the City's capacity assessment efforts is to avoid capacity related sanitary sewer overflows (SSOs). Developing and updating the hydraulic model of the wastewater collection system will help to identify potential capacity problems in the City's sewer system, identify projects to address potential capacity problems, and determine an approximate completion schedule necessary for implementing the projects.

Note that the City has not experienced any sanitary sewer overflows due to hydraulic deficiencies in the sewer system. Likewise, modeling of the City's sewer system conducted during the preparation of the 2005 Sewer Master Plan also predicted no overflows due to hydraulic deficiencies.

b) Design Criteria:

Recently, the City evaluated the 2005 Master Plan, hydraulic model development, sewage flow estimates, and the sewer system capacity analysis for conformance with industry standard practices as well as for compliance with the WDRs. The City's recent hydraulic modeling effort was assessed to establish whether the wastewater collection system was evaluated to the extent required by the WDRs. The evaluation included a review of dry weather peak flow conditions and identified areas of the model that may require modification and/or expansion. Recommendations for assessing current and future capacity requirements as well as a schedule to complete the modeling within a timely period were also included.

Hydraulic Model Development

Using existing data in the City's GIS database, atlas maps, record drawings, and pump station details, the model of the sewer collection system was constructed. Missing GIS data was populated with the best information found in record drawings and on the sewer atlas maps. Vertical datum inconsistencies were found in the GIS and on the record drawings which were rectified to the City's 1957 vertical datum in the model. The developed model focused on City owned sewers of 10-inch diameter and larger, the four sewer pump stations, and force mains. This is typical within the industry for dynamic wave modeling as these facilities convey the highest flows and are generally more likely to experience future increases in flow from new development.

The modeled pipes represent approximately 15 percent of the total length of the City's sewer system. Eight-inch diameter sewers, which constitute approximately 76 percent of the City's sewer system, were not included in the model. Also, LACSD trunk sewers were not included in the model. This omission in the model means that the City's sewers were evaluated assuming that LACSD trunk sewers have adequate capacity and do not cause backwater effects into the City's sewers.

Estimated Wastewater Generation Rates

Estimates for wastewater generation rates are typically prepared using population and land use data. Residential population and non-residential square footage estimates were developed for the existing and build out conditions for the year 2025. For the existing conditions, residential population and non-residential square footage was estimated based upon 2000 Census block data, Southern California Association of Governments (SCAG) 2001 estimates, and existing City land use data. Estimates for the build out condition were based upon SCAG growth projections and City planning input. The existing condition residential population and non-residential square footage estimates were compared to temporary flow meter data, collected at 14 locations, to determine unit generation rate factors. Table 9-1 summarizes the unit generation rate factors that were developed in the 2005 Master Plan. These factors are within typical values for cities in Southern California.

**Table 9-1
Unit Generation Rates**

Land Use	Unit Generation Rate
Residential	70 gallons per day per capita
Light Industrial & Institutional	0.04 gallons per day/square feet
Other Non-Residential	0.08 gallons per day/square feet

The unit generation rates were then applied to the estimated residential population and non-residential square footage to develop sewage flow estimates for the build-out condition. Large domestic water users were also identified and point loads were developed as inputs into the model.

System Evaluation and Capacity Assurance Plan

System Capacity Analysis

To calibrate the model and establish the estimated flow within the pipes for dry and wet weather conditions, the consultant created a temporary flow monitoring program. The temporary flow monitoring program consisted of 14 temporary flow meters, which captured depth and velocity readings at 15-minute intervals, and three (3) rain gauges located within the City. All meters were installed on February 21, 2004. Six (6) meters, installed for capturing dry weather flows, were removed after approximately two (2) weeks, and the other eight (8) meters, installed for capturing wet weather flows, were removed after approximately six (6) weeks. All major rainfall occurred during the initial two-week period, resulting in dry weather and wet weather flow readings at each monitoring location.

The dry weather flow calibration involved adjusting unit flow rates and hourly diurnal profiles. The hourly diurnal profiles were developed based on flow meter data from typical patterns within surrounding cities for residential, low-income residential, and non-residential land uses. The dry weather flow period was determined to occur after the third rainfall event and, as such, ground water infiltration was added to the model. The model was calibrated to the dry weather condition to within 11 percent for several meters utilized for flow monitoring.

The wet weather model includes hydrologic algorithms that translate 15-minute rainfall data into input hydrographs, utilizing a unit hydrograph method. The wet weather calibration parameters were: (1) percent of rainfall entering the system; (2) response time; and (3) recession time. The model was calibrated by first determining the most appropriate parameters for each basin metered and then applying the parameters uniformly to the upstream sub-catchments. Several meters, specifically, Meters 05, 06, and 07, recorded basins higher dry weather flows than wet weather flows for the respective basin. The disparity was attributed to high volumes of groundwater inflow and infiltration (I/I) during the dry weather flow calibration process. Consequently, to account for and include I/I, wet weather parameters were adjusted to mimic a wet weather response rather than utilize actual conditions and flow data obtain from the meters. Thus the unit generation rates developed may have been conservatively estimated.

Design flows for future dry and wet weather conditions were developed and input into the model to assess capacity deficiencies and develop a CIP. Future dry weather flows were developed by applying the future flow estimates to the calibrated unit generation rates and diurnal flow patterns. This process was also utilized in developing the dry weather portion of the future wet weather flows. Rain derived inflow and infiltration (RDI/I) flows were determined by developing a uniform hyetograph using the maximum rainfall for Event 2 and shifting the hyetograph to correspond with the dry weather peak flow. The design flow conditions were then run in the model and results were compared to threshold criteria to determine capacity deficiencies. The threshold criteria for the future wet and dry weather conditions were a depth-to-diameter ratio (d/D) of 1.25 and 1.0. These ratios are higher than industry standards. Furthermore, using this data, the model indicates that portions of the gravity pipe system become pressurized during a two-year frequency storm event. Consequently, the existing pipelines are prone to ex-filtration and an increased probability of premature failure since wastewater collection systems are typically not designed to routinely withstand internal pressure.

c) Capacity Enhancement Measures

To date, the City has not experienced a capacity related SSO. Based upon the threshold criteria discussed above, four pipeline improvements were recommended in the capacity CIP. The projects are shown in the order of their priority based on the modeling results and all projects are still in the planning stages. A brief description of each project is provided below.

Project 1 is located on Phillips Boulevard from Rebecca Street to west of Hamilton Boulevard and consists of 2,130 feet of 10 and 12-inch diameter pipeline recommended to be upgraded to 15-inch diameter pipeline. This project, identified as a future wet weather flow deficiency, was placed as the highest priority due to its shallow depth of cover.

Project 2 is located on Kingsley Avenue from Washington Avenue to Towne Avenue and consists of 3,120 feet of 12-inch diameter pipeline recommended to be upgraded to 15-inch diameter pipeline. This project was identified as an existing weather flow deficiency. This area was not metered during the flow monitoring period, and hydraulic capacity should be field verified or flow monitored.

Project 3 is located between Holt Avenue at Fairplex Drive and Mount Vernon Avenue at Bellevue Avenue and consists of 1,600 feet of 12-inch diameter pipeline recommended to be upgraded to a 15-inch diameter pipeline. This project avoids replacing the pipeline underneath Highway 71, allowing minor surcharging in this reach.

Project 4 is located between Second Street and Mission Boulevard west of Oak Avenue and east of Highway 71, and consists of 1,500 feet of 10-inch diameter pipeline recommended to be upgraded to a 15-inch diameter pipeline.

d) Schedule

All projects were identified as having capacity limitations in either the existing or future wet weather flow condition. No projects were identified as deficient under dry weather conditions. The four projects are listed in order of priority. With the exception of Project 1, which reaches its trigger surcharge level ($d/D > 1.25$) under wet weather conditions after 2020, all projects reached the trigger surcharge levels under wet weather flow conditions after 2025. Therefore, the City must consider other factors (such as age of pipe, accessibility for construction, and interruption of service) to determine a schedule to complete the design and construction.

The City's Master Plan identifies all wastewater collection system CIP short and long-term projects necessary to correct the system hydraulic deficiencies. Projects are summarized by priority, cost, and schedule and also include an alternative analysis. Current projects in the CIP are considered short-term projects if the completion date is within five years.

Sources of funding for the CIP projects are identified in the sewer system financial plan, a component of the 2005 Master Plan. The financial plan includes both internally produced funds and external sources of income. Internal funds may include reserved funds from previous operations or from the sale of revenue bonds. External funds include Federal grants or state loans.

System Evaluation and Capacity Assurance Plan

9.3 Recommendations for Capacity Assurance Plan

Included in the *City of Pomona Capacity Assurance and Assessment Plan Technical Memorandum* were recommendations to ensure that adequate capacity of key segments of the wastewater collection system are being properly evaluated and for compliance with the WDRs. While the 2005 Master Plan adequately analyzed the City's system of pipelines of 10-inch diameter and larger, the City may consider the following actions in the subsequent update of its Master Plan:

- Within the next 18 to 24 months, populate the 8-inch diameter invert data to be able to model these pipes; this will create a much more robust GIS database and allow the pipes to be modeled in the future.
- Within the next 18 to 24 months, obtain and incorporate existing and projected hydraulic flow data for the LACSD trunk sewers in order to evaluate whether the trunk sewers produce backwater effects into the City's system.
- Expand the hydraulic model completed as part of the 2005 Master Plan to include the 8-inch diameter pipelines and the LACSD trunk sewer data and project peak dry weather and wet weather (10-year storm event) flows.
- Re-evaluate dry weather calibration in Meter Basins 05, 06, and 07, shown in the 2005 Master Plan, to determine whether the model reflects actual flow characteristics and make adjustments accordingly.
- Apply industry standard (i.e. more conservative) trigger criteria and re-evaluate: (1) recommended projects; (2) potential capacity constraints within the wastewater collection system; and (3) the estimated required completion dates (in order to avoid capacity related SSOs).
- Develop a rainfall derived inflow and infiltration reduction program, which establishes a flow monitoring schedule and targets locations of known or suspected high inflow and infiltration. Using these flow records, update the model to fine tune wet weather flow analysis performed as part of the Master Plan.
- Update the wastewater collection system capacity assessment, and consequently the Master Plan, at least every ten (10) years. The capacity assessment update should occur sooner if planned development or re-development plans change significantly, if there are changes in contracts with LACSD, or if other conditions arise that are expected to have significant capacity impacts on the system.
- The City should evaluate funding sources on an annual basis and regularly complete a rate analysis of its sewer revenues to assure the necessary incremental rate increases are obtained.

Chapter 10

Public Education and Outreach

The primary objective of a Public Education / Outreach Program is to increase public awareness of wastewater collection system issues and to promote a sense of stewardship for the City's system and facilitate its efforts towards the effective and efficient management, operation, and maintenance of the wastewater collection system. This chapter of the SSMP discusses the City's efforts to educate and inform the public and affected agencies regarding the proper use of the City's wastewater collection system.

10.1 Regulatory Requirements for Public Education and Outreach

The WDRs require the City to communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the City as the program is developed and implemented.

10.2 Discussion of Public Education and Outreach

The City's Public Education and Outreach Program to communicate its efforts to comply with the WDRs and address the development and implementation of this SSMP will serve to educate, inform, and engage key stakeholders, such as agencies served by the City's wastewater collection system or that may be affected by an SSO, and businesses, developers, contractors, vendors, and plumbers whose business could be impacted by specific requirements or elements of this SSMP.

Through the City's Public Information Office (PIO), the City will work to coordinate external communications between the City and the public regarding the development and implementation of this SSMP and the various elements. The PIO will be responsible for preparing and providing pertinent information for news releases, articles, the City's monthly electronic newsletter, the City's *News & Pastimes* quarterly newsletter, and the website. Additionally, the PIO will work closely with the City Council, City departments, news media, the public and affected agencies to assist in promoting an open and frequent exchange of information necessary for the systematic and effective implementation of the various SSMP elements.

The following includes a summary of the City's efforts to educate, inform and engage the public's support and participation in the proper utilization of the City's wastewater collection system and comply with the WDR requirements.

Public Education and Outreach

City of Pomona Official Website

The City's current outreach efforts include maintaining a website (<http://www.ci.pomona.ca.us/>) to inform the public about City activities. The City's website is an effective communication channel for providing alerts and news to the public. The main page of the website provides access to various City departments including the Public Information Office, and links to diverse information, important announcements, agendas and minutes for City Council meetings, and other key information for City residents. The City can utilize the website to publish its SSMP to provide the public the opportunity to view and offer input to the City as the SSMP elements are implemented. As well, the City can utilize the website to notify the public of important upcoming activities related to sewer system management.

City of Pomona FOG Control Program

The public outreach element included in the *City of Pomona FOG Control Program* includes educating the public on the negative impacts of putting FOG into the wastewater collection system. Providing information via various forms of media is an effective way to engage the public in recognizing the importance of reducing the quantity of FOG introduced to the wastewater collection system and the threat of excessive quantities to the potential and actual occurrence of SSOs. Examples of educational campaigns are included in Attachment G of the FOG Control Program in Appendix F, which includes a flyer advertising that the drain is not a dump for FOG, a door hanger, presented in both English and Spanish, that can be left with residents, and best kitchen practices for businesses. Additionally, an example of text that may be included on a postcard and mailed to residents soon after a FOG related SSO has occurred to alert people to the effort required to clear a blockage and to reinforce not to put FOG down the drain.

City of Pomona Sanitary Sewer Overflow Emergency Response Plan

The SSOERP, in Appendix D includes a Public Advisory of Sewage Contamination Procedures which includes a description of the action that City staff must take to limit public access to surface waters and other areas that may have been impacted by an SSO as well as notify the public of potential hazardous conditions. Examples of signs that may be posted to provide a warning of potential public health risk are included in Attachment H of the SSOERP. Additionally, pre-scripted notices are included in Attachment I of the SSOERP which may be modified to accurately reflect the conditions at the time of publication and/or airing.

Should additional notification of sewage contamination be deemed necessary, City staff is required to, in cooperation with the City's PIO, provide further notices through the use of pre-scripted notices made available to the printed or electronic news media for immediate publication or airing, or by other measures, such as door hangers

Public Meetings

Public meetings to discuss the City related issues are held regularly in the City Council Chambers located between City Hall and the Library. The City encourages residents to attend City council meetings to become better informed about how the City of Pomona works and various issues. The council meetings provide the residents and concerned citizens a forum to

provide the council with input on particular programs through the Public Hearing process, and through the Citizen Participation portion of each City Council meeting. During Citizen Participation, each person who wishes to address the City Council on an item not on the agenda may do so. Certification of the completed SSMP will be required by the City Council during a public city council meeting.

Copies of the Council Agenda are made readily available to the public at the City Clerk's Office and in the lobby of the Council Chambers during the meeting. A complete agenda packet is also available for review in the Special Collections section of the Pomona Public Library and at the Council meeting.

Project specific meetings may also be convened with community leaders and other citizens to discuss the impacts, schedule and criteria of sewer related projects and efforts. These meetings give citizens a forum to learn about the City's activities, voice their concerns, and receive clarification on a variety of issues. Often the project managers will arrange these meetings.

10.3 Public Education and Outreach Media

A variety of means exist to educate and inform the public regarding impacts to the City's wastewater collection system facilities. The following list identifies several forms of media available for the City to use to educate and inform the public:

- Bi-annual inserts in water and/or sewer bills;
- Press releases;
- Direct mailers;
- Door hangers;
- Brochures distributed at City locations and kiosks;
- Posters and flyers displayed prominently in public areas, such as on buses, libraries, and recreational centers;
- Announcements and notices placed on the City's web site;
- Advertisements placed in the City's news magazine and recreation guide, *Pomona Pastimes*;
- Public service announcements on the City's cable television channel; and
- Specific events to educate the public on the effects of SSOs to the public and environment such as at an earth day fair, open house events, and other appropriate venues.

All messages that are communicated to the public should be prepared in English, and, where appropriate, in Spanish and any other dominant language spoken by the target audience. Translation services may be required and anticipated during any educational campaign. Staff from the Utility Services Department and other affected departments should work closely with the City's Public Information Office to develop appropriate messages and with which media the

Public Education and Outreach

messages should be disseminated. Educational activities should occur regularly throughout the year, but the City may consider enhancing education campaigns near holidays when many residents increase their cooking activities, and consequently generate more FOG.

The City will communicate on a regular basis with interested parties on the implementation and performance of this SSMP. The Public Education and Outreach program will allow interested parties to provide input as the SSMP and its elements are developed and implemented.

Chapter 11

Monitoring, Measurement, and Program Modifications

This chapter of the SSMP discusses the parameters the City will utilize to track and monitor the progress of implementing elements of the SSMP, the effectiveness of the SSMP, and how the City intends to update and revise the SSMP to keep it current.

11.1 Regulatory Requirements for Monitoring, Measurement, and Program Modifications

The WDRs require the City to:

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

11.2 Discussion of Monitoring, Measurement, and Program Modifications

To date, the City has effectively managed and maintained information pertaining to the wastewater infrastructure by means of manually recording preventive maintenance activities and documenting notifications received regarding potential and actual SSO occurrences. The City has tracked performance measures through logs and reports including, but not limited to, the length of pipe cleaned and televised, the quantity, cause and location of stoppages, SSOs, and the scheduled maintenance of high frequency maintenance locations. The City will continue to monitor the performance measures it currently tracks.

To address the components listed above in section 11.1 and as required by the WDRs, the following subsections provide a summary of the procedures to be implemented to properly monitor program progress and implement necessary modifications.

- (a) Maintain information to establish and prioritize SSMP activities;

The City will designate an individual responsible to continually monitor the SSMP provisions to ensure that the system is maintained in conformance with the document. As improvements or modifications are identified, the City will implement the necessary adjustments to the program at the earliest practical time.

Monitoring, Measurement, and Program Modifications

- (b) Monitor the implementation and measure the effectiveness of each SSMP element;

As the SSMP elements are implemented and evolve, the City will modify the elements due to new technology, equipment, code changes, specific program enhancements, and the collection system's rehabilitation through implementation of the CIP. The Wastewater Operations Division Manager should identify and recommend updates to this SSMP as part of the City's regular performance measurement assessments.

The following performance parameters may be utilized along with typical industry and EPA performance indicators for the City's system:

1. Pipe age
2. O&M cost/mile/year
3. O&M staff/100miles
4. Percent of system each year
5. Total annual percent cleaned
6. System cleaning cycle frequency
7. FOG program activities
8. Percent CCTV per year
9. I&I monitoring
10. Planning goals status

- (c) Assess the success of the preventative maintenance program;

The City developed the *City of Pomona Operation and Maintenance Program* that includes a summary of the City's current procedures and practices as they pertain to the O&M activities and includes recommended changes to augment the City's current activities to facilitate compliance with the WDRs. A comprehensive evaluation of the elements affecting the O&M of the City's wastewater collection system including, but not limited to, system inventory and mapping, the work order process, inspection and assessment of the system including objective standards, CIP project identification process, preventative maintenance procedures, repair and rehabilitation procedures, and training programs is included. Also discussed in the technical memorandum are staffing requirements and work schedules necessary to develop and implement an effective and efficient program for the long term maintenance of its wastewater collection system that satisfies the WDRs. Additional details relevant to the preventative maintenance efforts are included in the *City of Pomona Operation and Maintenance Program* included in Appendix C for reference.

- (d) Update program elements based on monitoring or performance evaluations; and

The City will review this SSMP and its elements on a regular basis and update the document with any significant changes. The SSMP must be reviewed, updated, and re-certified at least once every five (5) years. The City's process should include distributing the SSMP to appropriate City staff for review to ensure the most current legal authority,

Monitoring, Measurement, and Program Modifications

response plans, organizational charts, equipment lists, and contact/notification information is included. Once the City makes operational, maintenance, management, and administrative changes, the City may consider distributing the SSMP to other agencies to perform a peer review of the document. Once recommendations are incorporated into the document, the SSMP will be ready for public dissemination and ultimately for recertification by the Council. The City is responsible for maintaining the SSMP program as required by the Los Angeles RWQCB and will make the SSMP accessible to the public.

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

The City currently maintains a spreadsheet with information as to the emergency calls received reporting potential and/or actual SSOs. The City will continue to document SSO trends. Additional information to be included in the documentation process is the frequency and approximate volume of the SSO. The City is efficiently and effectively implementing the measures to properly document and report any SSOs as required by the WDRs.

11.3 SSMP Modifications

The City must update the SSMP periodically to maintain current information, and modify the programs as necessary to ensure program effectiveness and continual compliance with the WDRs. Information that will be routinely updated includes, but is not limited to, contact names and phone numbers for City staff responsible for implementation of specific SSMP programs, staff on stand-by for SSO response, and approved contractors and vendors.

As modifications to elements of this SSMP are deemed necessary, the City will implement them at the earliest practical time. However, changes will be officially made to this SSMP during the annual or bi-annual update to the document. A comprehensive SSMP update and recertification will occur every five (5) years as necessary and will include any significant program changes.

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Chapter 12

SSMP Program Audits

This chapter of the SSMP discusses the City's SSMP Auditing Program.

12.1 Regulatory Requirements for SSMP Program Audits

The WDRs require the City to 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 (2) years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the City's compliance with the SSMP requirements identified, including identification of any deficiencies in the SSMP and steps to correct them.

12.2 Discussion of SSMP Program Audits

The City will conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. These audits will occur every two (2) years and a report will be prepared and kept on file. Any modifications identified while monitoring the implementation of this SSMP will be officially noted during the SSMP audit to ensure this SSMP is up to date. The audit will be completed internally, and the City may elect to have the audit performed by an appropriate third party auditor or a neighboring agency. The audit may include, but not be limited to:

- Reviewing the progress made on the development of SSMP elements
- Reviewing the status of the SSMP programs implemented
- Identifying the success of various SSMP programs implemented
- Identifying the improvements necessary to various SSMP programs
- Describing system improvements within the two (2) year audit period
- Describing system improvements planned for the upcoming two (2) years
- Reviewing data related to SSO occurrences

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Appendix A
Excerpts from the Pomona City Code

Appendix B
Recommended Legal Authority

Appendix C
City of Pomona Operations
and Maintenance Program

Appendix D
City of Pomona Sanitary Sewer Overflow Emergency
Response Plan

Appendix E
City of Pomona Fats, Oils, and Grease
Control Program Characterization Study

Appendix F
City of Pomona Fats, Oils, and Grease
Control Program

Appendix G
City of Pomona Sewer Design Policy and Standard
Drawings

Appendix A
Excerpts from the Pomona City Code

Excerpts from the City of Pomona City Code, codified through Ordinance No. 4093, adopted October 15, 2007 (Supplement No. 7), pertaining to the wastewater collection system

Chapter 1 – General Provisions

Section 1-7. General penalty; continuing violations.

- (a) In this section "violation of this Code" means any of the following:
- (1) Doing an act that is prohibited or made or declared unlawful, an offense, a violation, an infraction or a misdemeanor by ordinance or by rule or regulation authorized by ordinance.
 - (2) Failure to perform an act that is required to be performed by ordinance or by rule or regulation authorized by ordinance.
 - (3) Failure to perform an act if the failure is prohibited or is made or declared unlawful, an offense, a violation, an infraction or a misdemeanor by ordinance or by rule or regulation authorized by ordinance.
- (b) In this section "violation of this Code" does not include the failure of a city officer or city employee to perform an official duty unless it is specifically provided that the failure to perform the duty is to be punished as provided in this section.
- (c) Except as otherwise provided by law or ordinance, a person convicted of a violation of this Code that is not specifically declared to be an infraction shall be punished as a misdemeanor, with a fine of not more than \$1,000.00, imprisonment in the city or county jail for not more than six months or both such fine and imprisonment.
- (d) A person convicted of a violation of this Code that is an infraction shall be punished by:
- (1) A fine not exceeding \$100.00 for a first violation.
 - (2) A fine not exceeding \$200.00 for a second violation of the same provision within one year.
 - (3) A fine not exceeding \$500.00 for each additional violation of the same provision within one year.
- (e) When a person under the age of 18 is charged with a violation of this Code and a peace officer issues a notice to appear in superior court to that minor, the charge shall be deemed an infraction unless the minor requests that a petition be filed under Welfare and Institutions Code §§ 601, 602.
- (f) Except as otherwise provided by law or ordinance, with respect to violations of this Code:
- (1) That are continuous with respect to time, each day that the violation continues is a separate offense.

- (2) That are not continuous with respect to time, each act constitutes a separate offense.
- (g) The imposition of a penalty does not prevent suspension or revocation of a license, permit or franchise or other administrative sanctions.
- (h) Violations of this Code that are continuous with respect to time are a public nuisance and may be abated by injunctive or other equitable relief. The imposition of a penalty does not prevent injunctive relief. (Code 1959, § 1-8; Ord. No. 3945, § 1(16-48), 2-11-2002)

Section 1-8 - Severability

If any section, subsection, sentence, clause, phrase, provision or portion of this Code, or the application thereof to any person or circumstances, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions or provisions of this Code or their applicability to distinguishable situations or circumstances. In enacting this Code, it is the desire of the city council to validly regulate to the full measure of its legal authority in the public interest, and to that end, the city council declares that it would have adopted this Code and each section, subsection, sentence, clause, phrase, provision, or portion thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases or portions thereof might be declared invalid or unconstitutional in whole or in part, as applied to any particular situation or circumstances, and to this end the provisions of this Code are intended to be severable. (Code 1959, § 1-5)

ARTICLE X. CODE ENFORCEMENT

DIVISION 1. GENERALLY

Sec. 2-1161. Authority to cite persons in violation

- (a) The city council hereby authorizes all officers and employees of the city who have the duty to enforce city ordinances and this Code to cite persons for violation of such ordinances and this Code, pursuant to Penal Code § 836.5, provided such officers and employees have reasonable cause to believe that the persons to be cited have committed misdemeanors and infractions in their presence which are violations of the ordinance or section of this Code which such officers and employees have the duty to enforce and further provided that such officers and employees have satisfactorily completed the peace officers standards and training course provided for in Penal Code § 832.
- (b) The city council further authorizes civilian volunteer patrol members (C.V.P.) of the city to cite parked vehicles for violations of the Vehicle Code, this Code and city ordinances. (Code 1959, § 1-9; Ord. No. 3095, § 1; Ord. No. 3273, § 1; Ord. No. 3794, § 1)

DIVISION 2. ADMINISTRATIVE CITATIONS*

Sec. 2-1181. Purpose

It is the purpose and intent of this division to provide an alternative method of enforcement for violations of this Code and any other city ordinances (collectively referred to as the "Code"). The city council finds that an administrative citation program is an appropriate method of enforcement. (Ord. No. 3950, § 1(5.2-1), 3-4-2002)

Sec. 2-1182. Enforcement authority

The police chief (referred to as the "enforcement official") shall have the authority to administer and enforce this division and to promulgate rules and regulations for uniform policies and procedures to be followed in the implementation of the administrative citation program. In addition, the enforcement official shall have the authority to nullify or void a citation which was issued in error or to the wrong person. (Ord. No. 3950, § 1(5.2-2), 3-4-2002)

Sec. 2-1183. Scope

- (a) For purposes of this division only, the enforcement official has discretion to treat any violation of this Code as an infraction. This division shall apply only to violations of this Code determined to be infractions (referred to as "municipal ordinance violations").
- (b) The procedures established in this division supplement and are an addition to or an alternative to any criminal, civil or other remedy available or established by law or under other sections of this Code. (Ord. No. 3950, § 1(5.2-3), 3-4-2002)

Sec. 2-1184. Administrative citation

- (a) *Issuance.* Except as set out in section 2-1185 for correction conditions, the enforcement official, upon determining that a person has committed a municipal ordinance violation (referred to as "responsible party"), may issue an administrative citation to the responsible party using the procedures set out in this section. As used in this division, the term "responsible party" shall mean the occupant or owner of the property or the person otherwise responsible for complying with Code requirements. The administrative citation shall be served by personal service on the responsible party or by certified mail, return receipt requested, to the responsible party's last known address. The responsible party's refusal to accept the administrative citation shall not affect the validity of the administrative citation or any proceeding undertaken under this division.
- (b) *Contents.* To the extent the following information is reasonably available to the enforcement official, the administrative citation shall:
 - (1) State the date the administrative citation is issued;
 - (2) State the responsible party's name, current residential address, and mailing address;
 - (3) Refer to the Code section violated and describe how the responsible party violated the Code section;
 - (4) State the date the violation was discovered by the enforcement official;

- (5) State the amount of fine imposed for the violation;
- (6) Explain how the responsible party may pay the fine, including the location and manner, as well as the time period by which the fine must be paid and the consequences of failure to pay the fine (i.e., ten working days to pay the fine);
- (7) Explain the procedure for obtaining an administrative hearing; specifically, notice that the responsible party must make a written request within ten working days from the date the administrative citation is issued and that the responsible party will be notified by mail of the date of the hearing;
- (8) Include a warning that a failure to pay the fine and/or failure to appear at a requested administrative hearing may result in the penalties described in section 2-1190(b); and
- (9) Describe the action necessary to correct the municipal ordinance violation and explain that failure to do so may result in the issuance of additional administrative citations and the imposition of additional fines. (Ord. No. 3950, § 1(5.2-4), 3-4-2002)

Sec. 2-1185. Correction conditions

- (a) *Issuance of correction notice.* This section shall apply when the municipal ordinance violation pertains to building, plumbing, electrical, landscape maintenance, or other similar structural or zoning issues that do not create an immediate danger to health or safety (referred to as "correction condition").
- (b) *Correction period.* A responsible party shall have a reasonable period of time to correct or otherwise remedy a correction condition prior to the issuance of an administrative citation and the imposition of a fine.
- (c) *Correction notice.* Upon discovery of a correction condition, the enforcement official shall issue a written correction notice to the responsible party by personal service or by certified mail, return receipt requested, to the responsible party's last known address. The responsible party's refusal to accept the correction citation shall not affect the validity or any other proceeding set forth in this division.
- (d) *Correction notice contents.* To the extent the following information is reasonably available to the enforcement official, the correction notice shall:
 - (1) Refer to the Code section violated and describe how the responsible party violated the Code section;
 - (2) Describe the action necessary to correct the municipal ordinance violation;
 - (3) State the final date by which the correction must be completed; and
 - (4) Include a warning that failure to correct the violation may result in the issuance of an administrative citation and imposition of an administrative fine and shall state the amount of the fine to be imposed for the violation.

- (e) *Procedure upon expiration of correction period.* If the responsible party does not remedy the municipal ordinance violation within the period set forth in the correction notice, the enforcement official may issue the responsible party an administrative citation pursuant to section 2-1184. (Ord. No. 3950, § 1(5.2-5), 3-4-2002)

Sec. 2-1186. Responsible party's obligations

Within ten working days from the date the administrative citation is served on the responsible party, the responsible party shall pay the fine amount designated on the administrative citation and may also make a written request for an administrative hearing. The issuance date shall mean the date the administrative citation is released from the official's possession by any of the methods specified in section 2-1184. (Ord. No. 3950, § 1(5.2-6), 3-4-2002)

Sec. 2-1187. Administrative fines

- (a) *Amount.* The amount of administrative fines shall be determined by resolution of the city council, which shall include penalty charges for late payments and increased fines for repeated violations. The fine amounts for infractions set forth in other sections of this Code shall not apply to this division and shall in no way limit the amounts which may be imposed for administrative fines. However, the fine amounts shall not exceed the maximums set forth in Government Code § 53069.4(a)(1).
- (b) *Continuing violation.* Each and every day during any portion of which any municipal ordinance violation is committed, continued, or permitted shall constitute a separate offense.
- (c) *Payment of fine.* The responsible party must pay the administrative fine within ten working days from the date the administrative citation is issued.
- (d) *Obligation to correct violation.* Nothing in this division shall be interpreted to mean that, because a responsible party has paid the administrative fine, he is not required to correct the municipal ordinance violation. Failure to correct the municipal ordinance violation may result in additional fines. (Ord. No. 3950, § 1(5.2-7), 3-4-2002)

Sec. 2-1188. Administrative hearing

- (a) *Ability to contest administrative citation.* Any responsible party to whom an administrative citation has been issued may contest that there was a violation of this Code or that he is the responsible party by filing a written request with the enforcement official for a hearing within ten working days from the date of issuance of the administrative citation. Such request shall be accompanied by payment of the administrative fine or notice that a request for a hardship fee mitigation has been filed pursuant to section 2-1187(a). The enforcement official shall set a date for a hearing within 30 calendar days of the request.
- (b) *Notification of hearing.* At least ten working days prior to the date of the hearing, the city shall, by certified mail, return receipt requested, or personal service, give notice to the responsible party of the time, date and location of the hearing. The city also shall provide the responsible party in advance with any materials provided to the hearing officer.
- (c) *Hearing officer.* Appointment and responsibilities of the hearing officer shall be in accordance with the following:

- (1) The city manager shall appoint a person who shall preside at the hearing and hear all facts and testimony presented and deemed appropriate (referred to as the "hearing officer").
 - (2) Any person designated to serve as a hearing officer is subject to disqualification for bias, prejudice, interest, or for any other reason for which a judge may be disqualified pursuant to Code of Civil Procedure § 170.1. The responsible party may challenge the hearing officer's impartiality by filing a statement with the city manager objecting to the hearing before the hearing officer and setting forth the grounds for disqualification. The question of disqualification shall be heard and determined in writing by the enforcement official within 30 days following the date on which the disqualification statement is filed.
- (d) *Administrative hearing procedures.* Administrative hearing procedures are as follows:
- (1) The administrative hearing is intended to be informal in nature. Formal rules of the Evidence Code and discovery shall not apply, except that irrelevant and unduly repetitious evidence may be excluded at the hearing officer's discretion.
 - (2) Each party shall have the opportunity to offer testimony and evidence and cross examine witnesses in support of his case.
 - (3) Pursuant to Penal Code § 196, a responsible party shall not be entitled to a jury for an infraction charge, nor shall a responsible party be entitled to have the public defender or other counsel appointed at public expense to represent him.
 - (4) The hearing officer may continue the hearing or request additional information from either side.
- (e) *Administrative order.* The administrative order shall be issued in accordance with the following:
- (1) Within ten working days of the conclusion of the hearing, the hearing officer shall provide the responsible party with his decision in writing (referred to as "administrative order"). The hearing officer shall provide the responsible party with the administrative order by personal service or by certified mail, return receipt requested, to the responsible party's last known address.
 - (2) The administrative order shall contain the hearing officer's reasons for the decision and the procedure described in Section 2-1189 for seeking judicial review.
 - (3) A decision in favor of the responsible party shall constitute a dismissal of the municipal ordinance violation. The city shall promptly return any monies paid by the responsible party.
 - (4) If the hearing officer renders a decision in favor of the city, the responsible party must comply with the administrative order or seek judicial review of the administrative order pursuant to section 2-1189.
- (f) *Failure to attend administrative hearing.* The effects of failing to attend the administrative hearing are as follows:

- (1) *Waiver of right of hearing.* The responsible party's failure to appear at a hearing shall constitute a waiver of the right to a hearing, a forfeiture of the fine, and a failure to exhaust administrative remedies.
- (2) *Good cause.* Upon a showing of good cause by the responsible party, the hearing officer may excuse the responsible party's failure to appear at the hearing and reschedule the hearing. Under no circumstances shall the hearing be rescheduled more than one time. (Ord. No. 3950, § 1(5.2-8), 3-4-2002)

Sec. 2-1189. Judicial review

If an administrative order is rendered in favor of the city pursuant to this division, the responsible party may seek judicial review of the administrative order by doing one of the following:

- (1) Appeal the administrative order pursuant to Government Code § 53069.4 within 20 calendar days after service of the administrative order. Pursuant to Government Code § 53069.4, the appealing party shall serve a copy of the appeal notice in person or by first class mail upon the city. Appeal notices shall be sent to the city clerk. If no appeal notice is filed within the 20-calendar-day period, the decision shall be deemed confirmed and final; or
- (2) File a petition for a writ of mandate pursuant to Code of Civil Procedure §§ 1094.5--1094.8 within 90 calendar days after service of the administrative order. (Ord. No. 3950, § 1(5.2-9), 3-4-2002)

Sec. 2-1190. Failure to comply

- (a) *Definition.* As used in this section, the term "default" shall mean any of the following occurrences:
 - (1) The responsible party fails to either pay the administrative fine within ten working days from the date the administrative citation is issued.
 - (2) The responsible party fails to either comply with the administrative order or to seek judicial review of the administrative order.
- (b) *Late penalty.* The occurrence of a default may result in the city increasing the administrative fine, not to exceed the maximum amounts set forth in the council resolution adopted pursuant to section 2-1187(a).
- (c) *Account receivable.* Upon the occurrence of a default, the city may treat the administrative fine or penalty fine, whichever is applicable, as an account receivable, subject to the established policy for delinquent accounts receivable.
- (d) *Misdemeanor.* Except for the failure to pay an applicable administrative fine, a default shall constitute a misdemeanor punishable by a maximum fine of \$1,000.00 or six months in jail or both.
- (e) *Collection.* The city may use all appropriate legal means to collect the fines imposed pursuant to this division.

- (f) *Lien against property.* The city council may pass a resolution to place a lien on the real property upon which the violation occurred to collect any unpaid administrative and/or penalty fines as a special assessment against the real property. The resolution shall further direct that the city clerk shall file with the county auditor and the county tax assessor and tax collector certified copies of the resolution. The clerk shall direct the auditor to enter the amounts of the fines against the real property described in the resolution as it appears on the current assessment roll. The amount of the fines shall constitute a lien against the real property against which the fines have been imposed. The tax collector shall include the amount of the fines on bills for taxes levied against the real property. Thereafter, the amount of the charges shall be collected at the same time and in the same manner and by the same person as, together with and not separately from, the general taxes for the city and shall be subject to the same penalties and interest upon delinquent payment. (Ord. No. 3950, § 1(5.2-10), 3-4-2002)

Sec. 24-1. Public Health Code adopted.

- (a) The City of Pomona hereby adopts as its own Public Health Code, Chapter 8.04 of Title 8 and Titles 11 of the Los Angeles County Code as they are now constituted as of April 26, 2005 and as amended in the future, to the extent that they do not conflict and/or are inconsistent with the Pomona City Charter and Code as it is now constituted and as amended in the future.
- (b) A copy of the pertinent titles of the Los Angeles County Code as constituted as of April 26, 2005 and as amended in the future shall be on deposit in the office of the city clerk and shall be maintained by the city clerk for use and examination by the public. (Ord. No. 4047, § 2, 11-21-2005; Ord. No. 4048, § 1, 12-5-2005)

Chapter 62 – Utilities

ARTICLE V. SEWAGE DISPOSAL*

DIVISION 1. GENERALLY

Sec. 62-391. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Domestic refers to single- and multiple-residential units, stores, offices, schools, places of public assemblage, garages, service stations and other commercial establishments.

Sewage includes the following:

- (1) Sewage, garbage, feculent matter, offal, refuse and filth.
- (2) Any animal, mineral or vegetable matter or substance that is offensive, injurious or dangerous to health.

Sewer includes the following:

- (1) Main trunk or outfall, interceptor and lateral sewers.
- (2) Catchbasins, flush tanks, manholes, reception basins and all other appurtenances thereto that may constitute a sewer system. (Code 1959, § 27-1; Ord. No. 910, §§ 320, 321 and 322)

Sec. 62-392. Connections with trunk and outfall lines.

Connection of lateral lines to a main trunk or outfall sewer shall be made at points and in the manner determined by the director of public works/city engineer and subject to such terms and conditions as the city council may prescribe. (Code 1959, § 27-3; Ord. No. 910, § 324)

Sec. 62-393. Size of lateral lines; house connections.

(a) To obtain good depth and velocity of flow, but of sufficient size to prevent undue stoppage, eight inches shall be the minimum diameter for all lateral sewer lines.

(b) To prevent the introduction, accidental or otherwise, of articles of an injurious nature, all house connections shall be restricted to a minimum inside diameter of four inches. (Code 1959, § 27-4; Ord. No. 910, § 325)

Sec. 62-394. Grades.

In order to prevent, so far as possible, the formation of deposits, the minimum grade for sanitary sewers shall be such as to provide a velocity of not less than two feet per second when the sewer is flowing full or half full, in order that during periods of low flow an actual velocity of 1 1/2 feet per second may prevail. (Code 1959, § 27-5; Ord. No. 910, § 326)

Sec. 62-395. Manholes generally.

- (a) All sewer manholes shall be constructed according to designs and specifications approved by and on file with the director of public works/city engineer.
- (b) Manholes shall be placed at all sewer junctions, at every change of grade or alignment, and at distances not greater than 400 feet on sewers of constant diameter and having a straight line gradient and alignment; provided, however, a manhole shall be made available for sampling and measurement of flow of industrial wastes before their discharge into a sanitary sewer. (Code 1959, § 27-6; Ord. No. 910, § 327)

Sec. 62-396. Dumping in manholes.

It shall be unlawful for any person to dump anything in a manhole unless the person has been issued, by the director of public works/city engineer, a permit to dump in the manhole, which permit permits the dumping and states what is permitted to be dumped. The permit shall expire on January 1 of each year; however, each permit shall be subject to recall at any time by the director of public works/city engineer in order to change the manhole in which dumping is permitted. The director of public works/city engineer shall provide an application form for the permit and shall provide such information as shall be necessary to protect the city sewer system. It is declared that any person violating this section shall be guilty of a misdemeanor. (Code 1959, § 27-7; Ord. No. 1224)

Sec. 62-397. Construction of sewers generally.

- (a) Any sewer built in the city shall be constructed in compliance with the provisions of specifications approved by the director of public works/city engineer and the provisions of any other city ordinance applicable thereto.
- (b) As a requirement of a lot split, subparcel, parcel map, subdivision, or building permit, the director of public works/city engineer may require a main sewer and sewer laterals to be constructed to serve each possible lot that can be created from each parcel created by the lot split, subparcel, parcel map, or subdivision or parcel built upon, under the zoning district in which the parcel is located at the time of the approval of the lot split, subparcel, parcel map, or subdivision or the issuance of the building permit. (Code 1959, § 27-8; Ord. No. 910, § 329; Ord. No. 2322, § 1 (part))

Sec. 62-398. Sewer construction permit, connection permit and inspection fees.

- (a) Any person or his duly authorized representative who makes, causes, permits, or allows to be made any connection to a sanitary sewer shall first apply for and be issued a permit by the director of public works/city engineer. Such permit shall be for a single sewer connection.
- (b) Any person or his duly authorized representative, who makes, causes, permits, or allows to have a sewer line constructed or who desires to make any connection to a sanitary sewer shall first apply for and be issued a permit therefor by the director of public works/city engineer. If any of the work to be done is located within a street travel way, the permit will be issued only to a contractor licensed to perform this type of work.

- (c) There shall be a permit issued for every sewer built or connection made, and a sum equal to three percent of the estimated cost of the sewer, as computed by the director of public works/city engineer, shall be charged to cover the cost of inspection. A minimum charge for inspection services shall be as determined by resolution. If a sewer is built for any other governmental agency and no city inspection is required, the inspection fee may be waived.
- (d) If there is no record of a property being connected to the city's sanitary sewer system, the city may, at the written request of the property owner, perform a dye test to certify the property being connected to an existing sanitary sewer. Such dye test will be performed by the city upon payment of a fee as determined by resolution.
- (e) After payment of the prescribed fees and deposits in the manner provided, the director of public works/city engineer may issue a permit to construct a domestic sanitary sewer or to construct a sewer connection. Such permit shall be issued in quadruplicate; one copy shall be filed by the director of public works/city engineer, one copy shall be delivered by the permittee to the office of the plumbing inspector, one shall be sent to the sewer inspector, and the original shall be retained by the permittee. However, all work done pursuant to each permit shall be in compliance with the provisions of all other ordinances and sections of this Code that may be applicable thereto.
- (f) Any person who makes, causes, permits, or allows to be made any domestic connection to a sanitary sewer without first having applied for and been issued a permit therefor by the director of public works/city engineer is guilty of a misdemeanor.
- (g) Any person who makes, causes, permits, or allows to be made any domestic connection to a sanitary sewer and fails, refuses or neglects to apply for and be issued a permit therefor by the director of public works/city engineer shall be assessed an additional 100 percent of the fixed fees and deposits for such connection, which penalty shall be added thereto and shall be collected with the fees and deposits. (Code 1959, §§ 27-9--27-13; Ord. No. 910, §§ 340--344; Ord. No. 1539, § 4; Ord. No. 2322, § 1 (part); Ord. No. 2872, § 1; Ord. No. 2969, § 1; Ord. No. 3354, § 1)

Sec. 62-399. Connection charges and deposits.

- (a) A connection charge is levied so as to provide from the private property served by the sewer lines a contribution to the cost, maintenance, and upkeep of the line for the benefit that will be received by the private property connecting to the sewer line, which is determined by the council to be equal to the charge levied by this section.
- (b) If the real property to be connected has an existing city or sanitation district sewer running adjacent to its front or rear lot lines and the boundary lines thereof are substantially parallel, the connection fee shall be based upon distances measured parallel to the lot line nearest to and parallel with the sewer line; but where the boundary lines are not substantially parallel, the connection fee shall be based upon the average width of such lot or parcel of land as determined by the director of public works/city engineer. However, the connection fee shall cover only that portion of the property which is within 150 feet from the street front of the property, and the remainder of the property shall be charged a connection fee based upon acreage. A corner lot shall be charged for its addressed street front width if the sewer line is in the side yard street. Lots which have access to a street by a narrow strip or easement shall be charged on the portion of the lot that can be developed.

- (c) The director of public works shall update and charge appropriate fees as approved by the city council by resolution.
- (d) The director of public works/city engineer shall not permit a private sewer connection to the sewer lines without there being paid to the city treasurer the sum determined in this section, which sum shall be deposited in the sewer construction fund.
- (e) The amount of any sewer connection fee shall be deemed a debt owing to the city, and any person who connects to a street sewer without having paid the connection fee in full or any portion thereof as provided in this section shall be liable to any action in the name of the city in any court of competent jurisdiction for the amount of such fee. The conviction and punishment of any person for connecting to a street sewer without obtaining a permit to do so shall not relieve such person from paying the connection fee due and unpaid at the time of such conviction, nor shall the payment of any connection fee prevent a criminal prosecution for the violation of any of the sections of this article. All remedies prescribed under this subsection shall be cumulative, and the use of any one or more remedies shall not bar the use of any other remedy for the purpose of enforcing this article.
- (f) The director of public works/city engineer shall require a sum to be deposited with the city treasurer that will cover the cost of replacing the surface of any street, alley, or sidewalk that may be damaged or destroyed by the construction of the sewer line or private connection.
- (g) The property owner shall also be responsible for maintaining the house connections up to and including the connection to the sewer line. (Code 1959, §§ 27-14--27-16; Ord. No. 910, § 341; Ord. No. 1292, § 1; Ord. No. 1539, §§ 1, 2, 5; Ord. No. 2322, § 1 (part); Ord. No. 2969, § 2; Ord. No. 3354, § 2)

Sec. 62-400. Sewer service charge.

- (a) Effective at the beginning of the first billing period on/or subsequent to the first day of July 1, 2003, and continuing thereafter until changed by resolution of the city council, there is hereby imposed a service charge for sewer use comprised of a fixed charge and a volumetric charge.
 - (1) The "fixed charge" shall be a set fee established by resolution of the city council and adjusted as set forth in subpart (b) and (c) below.
 - (2) The "volume charge" shall be computed by multiplying the volumetric charge rate, as established by resolution and adjusted by paragraphs (i), (ii) and (iii) below, by each 100 cubic feet (hcf) of water consumed ("volumetric data"), regardless of whether the sewage be generated from residential, commercial or industrial land uses, except that single family residential use shall be on a "winter-months basis" as defined below. Volumetric data for residential, commercial and industrial sewer users shall be based upon records of water consumption available to the City of Pomona for each sewer customer location. Such data shall be compiled by the city utilizing water consumption records for each sewer user location, regardless of water provider or duration of service to such sewer user.

- i) For City of Pomona single-family residential water customers, each July 1, the "winter months' basis" for each such user shall be calculated, where such basis is defined as an average of two complete months data within the period of December of the previous year through the following March. The city may utilize historical data of prior users at such location for such computation if insufficient data exists for said at such location until appropriate data is established.
- ii) For all other City of Pomona water customers, volumetric data shall be computed on a bi-monthly basis. Where insufficient data initially exists, the city may utilize historical data at such users location for such computation without regard to the duration of use by said customer at said location until appropriate data is established.
- iii) For all City of Pomona water customers, where volumetric data is not available, due to a loss of data, or other occurrence, the city shall use the lesser of the average for all similarly situated customers in the city or the 12-month average for the prior user as such location. This process would apply to a new or incoming user until a 12-month review period or winter-months basis (as applicable) has been determined. Such calculation shall be used until the appropriate data is established for normalized calculation.
- iv) For City of Pomona sewer users who receive water service from a provider other than the City of Pomona ("Non-Pomona water customer"), where volumetric data is not available to the City of Pomona, aggregated data available from the water service provider will be used to establish an average user volumetric data consumption amount ("aggregated average"). For residential customers, the aggregated average will be computed to establish an aggregated winter months' basis each July 1 for the Non-City of Pomona water service area in which that address is situated. For all other customers, the aggregated average will be computed to establish an aggregated average based on industrial and commercial users respectively each July 1 by averaging the previous 12 months data for each such use in each non-City of Pomona water service area in which that address is sited.
- v) Nothing in this section shall prevent any Non-Pomona water customer from providing or authorizing release of water records to the City of Pomona for computation of more accurate volumetric water data ("released records"). Released records shall be used to provide volumetric data to calculate adjusted volume sewer charges in accordance with procedures for calculating city provided water customers. Such adjusted volume sewer charges will become effective the billing period following release of such data. A Non-Pomona water customer's released records shall be removed from any calculation of any aggregated average for the following computation period. Any City of Pomona sewer user authorizing release of water records from a non-city water provider to the City of Pomona shall agree that such authority to release will remain effective for a period of no less than five years and continue in effect until written notice is received by both the water service provider and the city rescinding such authorization by said user. In the event a Non-Pomona water customer rescinds the city's access to released records, volume sewer charges for volume sewer charges for such Non-Pomona water customer shall be calculated by the method described in subpart iv) above.

- (3) The sewer service charge shall be invoiced and collected bi-monthly in the same manner as the water service charges are billed within the city or in such manner as the city council shall determine. For partial payment of utility billing, the utility services director reserves the right to credit any monies remitted for payment of sewer service charges. The city council reserves the right to adjust the sewer service charges for actual discharge and metered usage or other special circumstances. Nothing in section 62-400(a) shall cause any written agreement between a City of Pomona water and/or sewer customer and the City of Pomona relating to sewer service charges existing and in force at the time of adoption of such section to be abrogated.
- (b) Notwithstanding any other section of this Code, the fees and charges set forth in this section shall be automatically updated annually on January 1 each year, beginning January 1, 2004, by an adjustment of all rates and fees contained in this section as follows: The annual adjustment shall be made by multiplying each rate and fee included in the fee resolution by the Los Angeles-Long Beach Consumer Price Index for All Urban Consumers of the preceding July and by dividing the result of such multiplication by the same index of the July of the prior year, as reported by the CPI Detailed Report, Bureau of Labor Statistics. The result of the calculations shall be rounded to the next lower cent and added to the old rate to become the rate and the amount for the ensuing year. The new rates shall be effective on January 1 without further approval by the city council.
- (c) Additionally, on January 1 of each year beginning January 1, 2004, the fees and charges set forth in this section shall be updated annually for the following expenses:
- (1) Federal and state water quality requirements;
 - (2) Cost of purchased water adjustments;
 - (3) Groundwater basin replenishment assessments and other costs; and
 - (4) Other extraordinary operating expenses which exceed the Consumer Price Index adjustment. (Code 1959, § 27-8.5; Ord. No. 3867, § 1; Ord. No. 3973, § 1, 1-27-2003; Ord. No. 4075, § 5)

Sec. 62-401. Compliance with other sewage discharge restrictions and requirements.

All persons shall comply with all sewage discharge restrictions and other requirements of the county sanitation district and the United States, the state and the city.

DIVISION 2. SERVICE OUTSIDE OF CITY

Subdivision I. In General

Sec. 62-421. Compliance for industrial waste.

Industrial liquid waste pretreatment facilities or industrial sewage treatment plants and all appurtenances thereto shall conform with all sections of this article and those of the California Plumbing Code as well as any regulations of the appropriate state or local agency that may be applicable thereto. (Code 1959, § 27-52; Ord. No. 910, § 356)

Sec. 62-422. Additions to facilities; permit.

If an existing industrial liquid waste pretreatment facility or industrial sewage treatment plant is added to or altered because of a change of use, a permit shall be secured in accordance with this article before commencing work thereon. The completed work shall be accepted only when the entire plant shall meet all of the requirements for new facilities as provided in this article, except that existing facilities, used and undisturbed, may not be rejected because they are not new. (Code 1959, § 27-53; Ord. No. 910, § 357)

Sec. 62-423. Maintenance and operation of facilities.

All industrial liquid waste pretreatment facilities or industrial sewage disposal plants and all appurtenances thereto, existing or constructed, shall be maintained and operated by the owner of the property affected in a safe and sanitary condition. All devices and safeguards for the operation thereof shall be maintained in good working order. This section shall not be construed as permitting the removal or non maintenance of any device or safeguards on existing facilities unless authorized in writing by the director of public works/city engineer. (Code 1959, § 27-54; Ord. No. 910, § 358)

Sec. 62-424. Fees.

- (a) The council prescribes a fee set by resolution as a charge for services and facilities furnished by the city outside its territorial limits in connection with its sewer system.
- (b) The charge shall be paid annually and be the sum set by resolution of the city council per year for each connection to the city sewer system on all connections of private property owners made outside of the territorial city limits.
- (c) The money collected from charges imposed by this division shall be used for the acquisition, construction, reconstruction, and maintenance and operation of sewage facilities. (Code 1959, §§ 27-17, 27-18; Ord. No. 1537, §§ 1, 2; Ord. No. 2163, § 1; Ord. No. 2322, § 1 (part))

Sec. 62-425. Prescribed contracts for service.

Before any connection is made to a city sewer facility outside the territorial city limits by a private property owner, the property owner shall execute the following contract, and the contract shall be acknowledged and recorded:

The undersigned, being the owner of the following described real property, agrees to pay to the City of Pomona the prescribed fees, tolls, rates, rentals, or other charges for services and facilities furnished by the City of Pomona in connection with its sewer system as prescribed by ordinance of the City of Pomona as now adopted, or as hereafter may be adopted by the Council of the City of Pomona. The undersigned agrees that the City of Pomona can sever, without notice, the sewer connection if the prescribed fees, tolls, rates, rentals or other charges are not paid as prescribed by ordinance of the council of the City of Pomona. It is understood and agreed that the City of Pomona has the power to discontinue the furnishing of sewage facilities to the following described real property at any time when done by ordinance of the council of the City of Pomona adopted by a three-fifths vote of the council. The real property being served by the City of Pomona with sewer facilities under this agreement is described as follows:

(Description)

Dated this _____ day of _____, _____.

Owner

STATE OF CALIFORNIA (COUNTY OF LOS ANGELES)

On _____, _____, before me, the undersigned, a Notary Public, in and for said County and State, personally appeared _____ known to me to be the person whose name is subscribed to the within instrument and acknowledged that _____ he executed the same.

Notary Public in and for said County and State

WITNESS MY HAND & OFFICIAL SEAL:

(Code 1959, § 27-19; Ord. No. 1537, § 3; Ord. No. 2322, § 1 (part))

Subdivision II. Collection of Charges

Sec. 62-441. Filing of report of charges.

- (a) The charges prescribed in this division for each forthcoming fiscal year shall be collected on the tax roll in the same manner and by the same persons and at the same time, together with and not separately from its general taxes. The director of public works/city engineer is directed to prepare a written report and file it with the clerk on or before June 30 of each year. The report shall contain a description of each parcel of real property receiving such service and facilities and the amount of the charge for each parcel for the year, computed in conformity with the charges prescribed in this division.
- (b) The real property may be described by reference to maps prepared in accordance with Revenue and Taxation Code § 327 and on file in the office of the county assessor or by reference to plats or maps on file in the office of the clerk. (Code 1959, § 27-20; Ord. No. 1537, § 4)

Sec. 62-442. Notice of filing of report of charges required

- (a) The clerk shall cause notice of the filing of the report pursuant to section 62-441 and of a time and place of hearing thereon to be published pursuant to Government Code § 6066 prior to the date set for the hearing in a newspaper of general circulation printed and published within the city.
- (b) Before the city may have such charges collected on the tax roll, the clerk shall cause a notice in writing of the filing of the report proposing to have such charges for the forthcoming fiscal year collected on the tax roll and of the time and place of hearing thereon, to be mailed to each person to whom any parcel of real property described in the report is assessed in the last equalized assessment roll available on the date the report is prepared at the address shown on the assessment roll or as known to the clerk. If the council adopts the report, the requirements for notice in writing to the persons to whom parcels of real property are assessed shall not apply to hearings on reports prepared in subsequent fiscal years, but notice by publication as provided in this section shall be adequate. (Code 1959, § 27-21; Ord. No. 1537, § 5)

Sec. 62-443. Hearing on report

- (a) At the time stated in the notice given pursuant to section 62-442, the city council shall hear and consider all objections or protests, if any, to the report referred to in the notice and may continue the hearing from time to time. If the council finds that protest is made by the owners of a majority of separate parcels of property described in the report, the report shall not be adopted, and the charges shall be collected separately from the tax roll and shall not constitute a lien against any parcel of land.
- (b) Upon the conclusion of the hearing, the council may adopt, revise, change, reduce or modify any charge or overrule any or all objections and shall make its determination upon each charge as described in the report, which determination shall be final. (Code 1959, § 27-22; Ord. No. 1537, §§ 6, 7)

Sec. 62-444. Filing copy of final report with county tax collector

On or before August 10 of each year following the final determination of the city council pursuant to this subdivision, the clerk shall file with the county tax collector a copy of the report with a statement endorsed thereon over his signature that it has been finally adopted by the council. The county tax collector shall enter the amount of the charges against the respective lots or parcels of land as they appear on the current assessment roll. If the property is not described on the roll, the county tax collector may enter the description thereon, together with the amounts of the charges, as shown on the report. (Code 1959, § 27-23; Ord. No. 1937, § 8; Ord. No. 2322, § 1 (part))

Sec. 62-445. Method of collecting charges

The amount of the charges imposed under this division shall be collected at the same time and in the same manner and by the same persons as, together with and not separately from, the general taxes for the city and shall be delinquent at the same time and thereafter be subject to the same delinquency penalties. (Code 1959, § 27-24; Ord. No. 1537, § 11)

Sec. 62-446. Inclusion of charges in tax bill

The tax collector shall include the amount of the charges on bills for taxes levied against the respective lots and parcels of land pursuant to this division. (Code 1959, § 27-25; Ord. No. 1537, § 10)

Sec. 62-447. Lien

The amount of the charges imposed pursuant to this division shall constitute a lien against the lot or parcel of land against which the charges have been imposed as of 12:00 noon on the first Monday in March immediately preceding the date of levy. (Code 1959, § 27-26; Ord. No. 1537, § 9)

Sec. 62-448. Applicability of other laws

All laws applicable to the levy, collection and enforcement of general taxes of the city, including but not limited to those pertaining to the matters of delinquency, correction, cancellation, refund and redemption, are applicable to the charges imposed pursuant to this division. (Code 1959, § 27-27; Ord. No. 1537, § 12)

DIVISION 3. SAND AND GREASE TRAPS*

Sec. 62-471. Grease interceptors required for packing plants and certain other establishments

In order to prevent clogging of waste lines with grease and to prevent large quantities of grease from reaching the disposal plant, grease interceptors shall be installed in all packing plants and in any other establishment that may be a source of food fats and greases. (Code 1959, § 27-28; Ord. No. 910, § 335; Ord. No. 2322, § 1 (part))

Sec. 62-472. Installation of grease interceptors

All grease interceptors shall be installed as near as possible to fixtures discharging greasy waste and in such a manner that the top shall be easily accessible for cleaning. The discharge pipe shall be properly vented to prevent siphonage of the interceptor contents and in compliance with the California Plumbing Code. (Code 1959, § 27-29; Ord. No. 910, § 335)

Sec. 62-473. Capacity of grease interceptors

Every grease interceptor shall have a minimum rate of flow capacity adapted to the fixture to which it may be connected and an accumulated grease capacity large enough that its average efficiency will not drop below 90 percent at the end of a normal cleaning period. (Code 1959, § 27-30; Ord. No. 910, § 335)

Sec. 62-474. Cleaning of grease interceptors

All grease interceptors shall be inspected at regular intervals by the plumbing inspector and cleaned by the owner or operator at least once each week and more often if necessary to maintain the required efficiency of grease removal. (Code 1959, § 27-31; Ord. No. 910, § 335)

Sec. 62-475. Sand traps required for certain establishments

In all establishments equipped with wash racks, floor drains, or wash tanks for cleaning machined parts or other material, there shall be installed sand boxes of an approved type and having such a capacity that the flow-through velocity shall be not greater than one foot per second, for the interception of mud, sludge or grease. (Code 1959, § 27-32; Ord. No. 910, § 336)

Sec. 62-476. Installation of sand traps.

All sand boxes required under this division shall conform to and be installed in accordance with the California Plumbing Code. (Code 1959, § 27-33; Ord. No. 910, § 336)

Sec. 62-477. Cleaning of sand traps

All sand boxes required under this division shall be inspected at regular intervals by the plumbing inspector and cleaned by the owner or operator at least once each week and more often if necessary to maintain the required efficiency of grease, mud or sludge removal. (Code 1959, § 27-34; Ord. No. 910, § 336)

DIVISION 4. INDUSTRIAL WASTES*

Subdivision I. In General

Sec. 62-501. Acceptance under special permit

Should there exist the available sewage treatment capacity, industrial wastes that are acceptable as to analysis and population equivalent but in excess of the proportional amount for a certain industry, may be accepted for disposal under a special permit whereunder the industry shall agree to bear the entire cost of such excess disposal. If such disposal facilities should become overloaded, the director of public works/city engineer may, with the approval of the state agency having jurisdiction, upon 90 days' notice of intention, terminate any such special permit. (Code 1959, § 27-35; Ord. No. 910, § 350)

Sec. 62-502. Proportional use of city sewers

Any industry which lies within or partly within the city for which sewerage is available and whose wastes have been determined to cause no damage to the system or unjustifiable expense to other users shall have a right to a proportional use of any available capacity of such sewerage and treatment plant maintained by the city. (Code 1959, § 27-46; Ord. No. 910, § 351)

Sec. 62-503. Proportional use defined.

Proportional use, as used in this division, is the amount per capita of domestic sewage, normal as to volume, suspended solids and biochemical oxygen demand which shall be equated to the basis of \$1,000.00 of assessed valuation and shall constitute one unit of industrial waste. Any industry whose wastes are in compliance with this division and for which there exist available sewerage and disposal capacity may discharge to the sewers as many such units of waste as there are whole units of \$1,000.00 each in such industry's assessed valuation as lies wholly within the city or in the assessed valuation of such part thereof as may lie within the city limits. (Code 1959, § 27-47; Ord. No. 910, § 351)

Sec. 62-504. Approval of disposal requirements prerequisite to issuance of building permit

- (a) Every person applying for a building permit for construction of a new industrial building or structure or for an addition or alteration to an existing building or structure shall secure a signed statement for the director of public works/city engineer as to requirements for disposal of industrial liquid wastes, industrial sewage, and other waste materials from such building or structure. The person for whom such building or structure is to be constructed shall furnish the director of public works/city engineer such plans, information, data, statements or affidavits as the director of public works/city engineer may require for determination of the nature and quantity of the wastes involved and the facilities to be provided for the disposal thereof.
- (b) Upon completion of his examination of the data submitted, the director of public works/city engineer shall promptly issue a statement made in accordance with one of the following conditions, which shall be incorporated in the approved plans and made a part of the building permit:

- (1) Disposal of all industrial wastes, industrial sewage or other waste materials shall be made by connection to the public sewer in accordance with this division, and plans for the facilities required shall be submitted to and approved by the director of public works/city engineer and a permit issued before construction of such waste disposal facilities is started.
- (2) Connection to the public sewer is not feasible; the applicant has certified that the wastes involved consist only of domestic sewage, uncontaminated cooling water, or other innocuous materials; and disposal shall be made into septic tanks, cesspools or other similar facilities to be approved by the county health officer and constructed in accordance with the California Plumbing Code.
- (3) Connection to the public sewer is not feasible; the proposed use of the building or structure will produce wastes containing impurities which cannot be reduced to safe or reasonable limits by any known processes; disposal of such wastes in the manner proposed may create a menace to the public health or safety, create a public nuisance, pollute underground water supplies, or cause serious damage to public or private property; and no permit for disposal of such wastes can be issued under this division. (Code 1959, § 27-50; Ord. No. 910, § 355)

Subdivision II. Connection Permit

Sec. 62-521. Required

- (a) Any person who makes, causes, permits, or allows to be made any connection to a sanitary sewer for the disposal of any industrial waste shall first file an application with the director of public works/city engineer in the manner provided in this subdivision and be issued a permit therefore. Such permit shall be for a single industrial sanitary sewer connection.
- (b) Any person who makes, causes, permits, or allows to be made any industrial connection to a sanitary sewer without first having filed an application with the director of public works/city engineer and being issued a permit thereof is guilty of a misdemeanor.
- (c) Any person who makes, causes, permits, or allows to be made any industrial connection to a sanitary sewer and who fails, refuses or neglects to apply for and be issued a permit therefore by the director of public works/city engineer shall be assessed an additional 100 percent of the fixed fee for such permit, which penalty shall be added thereto and shall be collected with the fee. (Code 1959, §§ 27-36, 27-42, 27-43; Ord. No. 910, §§ 360, 366, 367)

Sec. 62-522. Application contents

Every person or his duly authorized representative applying for a permit to make a connection to a sanitary sewer for the purpose of discharging industrial wastes shall file with the director of public works/city engineer an application in duplicate, signed and setting forth the following:

- (1) The name and address of the applicant.
- (2) The name and official status of the authorized representative, if any.

- (3) The character and analysis of waste proposed to be discharged.
- (4) The volume and rate, periodic or otherwise, of discharge.
- (5) The location of the point of discharge.
- (6) A scale drawing or print of the plant layout showing in outline all equipment producing industrial wastes, buildings, and railroad sidings or spurs, if any. Such drawing or print shall be attached to and be a part of each copy of the application as filed.
- (7) The applicant agrees to provide at his expense any manhole necessary for adequate sampling and measurement as referred to in section 62-395 should such sampling and measurement be deemed necessary by the director of public works/city engineer. (Code 1959, § 27-37; Ord. No. 910, § 361)

Sec. 62-523. Pretreatment plans

- (a) If pretreatment is required to make the waste acceptable, the applicant for a permit to dispose of industrial liquid waste or industrial sewage shall be accompanied by four copies of suitable plans showing the method of collection and pretreatment proposed to be used. A permit shall not be issued until such plans or required modification thereof have been checked and approved by the director of public works/city engineer and any other affected governmental agency.
- (b) Whenever, in the opinion of the director of public works/city engineer, special field investigation is required or when plans for construction of any industrial sewer or industrial waste pretreatment facilities must be checked and approved, the applicant shall deposit a sum estimated by the director of public works/city engineer to cover the cost of checking the plans and based on the following schedule:
 - (1) For sewage treatment plants or industrial liquid waste pretreatment plants or other facilities, the fee shall be set by resolution of the city council times the estimated number of man-hours required for checking the plans and making field examinations.
 - (2) An amount equal to ten percent of the amounts in subsection (b)(1) of this section to cover indirect costs.
 - (3) In no case shall the fee be less than the amount set by resolution of the city council. (Code 1959, §§ 27-38, 27-39; Ord. No. 910, §§ 362, 363; Ord. No. 2322, § 1 (part))

Sec. 62-524. Fees.

The fixed fee, payable in advance, for a permit to discharge any industrial waste into a sanitary sewer shall be as follows:

- (1) For each permit for an industrial connection to a sanitary sewer, the sum as computed in section 62-399(a) through (c).
- (2) For each special permit to discharge into a sanitary sewer any industrial waste exceeding in volume the allowed proportional amount, per section 62-503, the sum it will

cost the city to expand its facilities to the nearest industrial outfall line. (Code 1959, § 27-40; Ord. No. 910, § 364; Ord. No. 2322, § 1 (part))

Sec. 62-525. Action on application.

If, after due investigation, the director of public works/city engineer determines that the proposed wastes will be in compliance of all applicable laws, ordinances and regulations, he shall so inform the applicant and furnish him a statement of the amount of charges to be levied for treating such wastes. (Code 1959, § 27-41; Ord. No. 910, § 365; Ord. No. 2322, § 1 (part))

Sec. 62-526. Issuance.

The prescribed fees and deposits having been deposited in the manner provided in this subdivision, the director of public works/city engineer may issue a permit, provided that sewerage and disposal capacity are available and it has been determined that the wastes conform to the provisions of all applicable laws, ordinances and regulations and that the volume of waste that is in excess of the allowed proportional amount will not cause overloading of the disposal plant. (Code 1959, § 27-44; Ord. No. 910, § 368)

Sec. 62-527. Transferability.

Permits issued under this subdivision are not transferable from one location to another, and discharge of wastes shall be made strictly in accordance with all provisions contained in the permit, at the location specifically designated therein. (Code 1959, § 27-45; Ord. No. 910, § 369)

Subdivision III. Pretreatment

Sec. 62-546. Requirements.

The discharge of industrial wastes into a sanitary sewer shall be governed as follows:

- (1) All wastes, however harmless, shall be reduced to a minimum in volume and strength, and fluctuations of temperature and flow shall be evened out by adequate storage before discharge.
- (2) All wastes, when necessary, shall be pretreated by screening, sedimentation, neutralization, or other improved methods to produce a quality and character of waste that shall conform to section 62-504.
- (3) Pretreatment of industrial wastes shall be at the source and at the expense of the agency producing such waste. (Code 1959, § 27-51; Ord. No. 910, § 354)

Appendix B
Recommended Legal Authority

Recommended Legal Authority

The following draft code sections are recommended for inclusion in either the City's municipal code or as a policy to be adopted by Council. These codes must be modified to ensure compliance with the City's municipal code format and to avoid creating conflicting codes. Bracketed text may be appropriate when certain policies, such as a FOG Control Program, are adopted. The ordinances below should be inserted into Chapter 62, Article V.

General Recommendations:

The City's current ordinances should be modified to designate the Utility Services 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 instead of the Director of Public Works/City Engineer. For consistency, the proposed ordinances below identify the Utility Services Director as the responsible person.

Sec. 62-XX. Administration

Except as otherwise provided herein, the Utility Services Director shall administer, implement, and enforce the provisions of Chapter 62, Article V, of this Code. Any powers granted to or duties imposed upon the Utility Services Director may be delegated by the Utilities Service Director to designated persons authorized to act in the beneficial interest of or in the employ of the City.

Sec. 62-XXX. Restrictions for sewer discharges

- A. No person shall throw or deposit any substance or liquid into any vessel or receptacle directly or indirectly connected to the City's wastewater collection system that is not in conformance with current LACSD district regulations. This shall include, but not be limited to, storm drainage discharge, ground water discharge, cut or dislodged roots, and toxic or malodorous gases or materials.
- B. No person or business shall introduce into the sewer system a quantity of fats, oils, or grease that would cause or contribute to a blockage of any lateral, collector, main line[, **in accordance with the City's Fats, Oils, and Grease Control Program**]. Each person or business who discharges wastewater into the sewer system shall take all practicable steps to prevent the accidental or intentional introduction of such materials into the sewer system.
- C. The City shall enforce the general and specific prohibitions of the national pretreatment program under Title 40 of the Code of Federal Regulations, Section 403.5, as they pertain to the City's status as a collector system for the County Sanitation District No. 21. No person or business shall therefore introduce any of the following into the City's sewer system:

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- a. Pollutants which create a fire or explosion hazard in the sewer collection system or Publicly Owned Treatment Works (POTW), including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 Code of Federal Regulations 261.21
 - b. Pollutants which will cause corrosive structural damage to the sewer collection pipes and structures, but in no case discharges with pH lower than 5.0 or higher than 11.0, unless the work is specifically designed to accommodate such discharges
 - c. Solid or viscous substances in amounts which will cause obstruction to the flow or result in the interference in the sewer collection system or the POTW
 - d. Any “emulsifying agent” which suspends or emulsifies any fats, oils, and grease and is specifically used to prevent oil and grease build-up in any gravity separation device or interior plumbing
 - e. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW
 - f. Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes, are sufficient to create a public nuisance or hazard to life, or are sufficient to prevent entry into the sewers for maintenance and repair
 - g. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Utility Services Director, upon the request of the POTW, approves alternate temperature limits
 - h. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil in amounts that will cause interference with the maintenance of the sewage collection system
 - i. Pollutants which result in the presence of toxic gases, vapors, or fumes within the sewer collection system or the POTW in a quantity that may cause acute worker health and safety problems
 - j. Any transported substances

Sec. 62-XXX. Improper use of connected sewers

The City may inspect any lateral or collecting sewers that discharge wastewater directly or indirectly to the City's trunk sewers. If the Utility Services Director determines that the improper use, maintenance, or construction of a lateral or collecting sewer causes or contributes to the discharge of septic wastewater, excessive groundwater, debris or any other objectionable substance to the City's sewers, the Utility Services Director may give notice of the violation to any discharger contributing to such condition and to the local sewerage agency responsible for the maintenance of such sewer, and shall direct that condition be corrected. In the event of a failure to comply with the Utility Services Director's directive, the City may disconnect such lateral or collecting sewer from the City's wastewater collection system.

Sec. 62-XXX. Damage to City's facilities or equipment

Any unauthorized entering, breaking, damaging, destroying, uncovering, defacing or tampering with any temporary or permanent structure, equipment or appurtenance which is owned by the City or a part of the City's sewerage systems shall be a violation of this Code.

Sec. 62-XXX. Penalty for violation and civil liability

(this section may be superseded by other penalty and administrative citation provisions in the code, including, but not limited to, Chapter 1, Section 1-7, and Chapter 2, Division 2)

Every person violating any provision of this Article, including the failure to pay any fees, charges or surcharges imposed hereby, or any condition or limitation of a permit or plan approval issued pursuant thereto, is guilty of a misdemeanor, and upon conviction is punishable as provided by law. Each day during which any violation continues shall constitute a separate offense. The Utility Services Director or Director's designee is hereby authorized to seek, through the office of the District Attorney of Los Angeles County or other appropriate authority, prosecution of criminal charges against any person or establishment violating any provision of this Code. Violations of discharge limitations established under this Code may also be violations of state and federal environmental laws which may be punishable as felonies and which may also carry substantial fines and penalties.

In addition, any person who violates any provision of this Code or any term or condition of any permit issued pursuant to this Code or plan approval which prohibits or limits the discharge of any waste or imposes any pretreatment requirement shall be civilly liable to the City in the maximum sum provided by law for each day in which such violation occurs.

City is hereby delegated the sole authority to, and by action of its Council may, elect to have any fees or charges prescribed by this Code collected on the tax roll, and may, as provided by law, impose liens on property to collect any fees and charges which have become delinquent. City is further delegated the sole authority to commence civil actions to enforce the provisions of this Code and to recover any sums due hereunder and may further delegate such portions of that authority to the Utility Services Director or Director's designee as the City Council may deem appropriate. The City may agree to submit such actions to binding arbitration in those instances in which the Council determines that it is in the best interest of the City to do so.

Sec. 62-XXX. Charge for excessive sewer maintenance

No person shall discharge or cause to be discharged to the City's wastewater collection system, either directly or indirectly, any waste that obstructs, interferes with, or otherwise requires excessive maintenance of any City's sewer or sewerage facility, including: any waste that creates a stoppage or breakage; any toxic, hazardous or odorous condition; or any damage or deterioration of any City's sewer or sewerage facility. Any excessive sewer or sewerage maintenance expenses or reconstruction costs including administrative costs attributable thereto shall be charged to the discharger causing or contributing to such conditions. Any refusal to pay such charges shall constitute a violation of this Code.

Sec. 62-XXX. Inspectors and monitoring personnel

The Utility Services Director shall provide adequate identification for all City inspectors, monitoring personnel, and other authorized personnel and these persons shall, when so requested, identify themselves when entering any property for inspection or sampling purposes, or when inspecting the work of any contractor.

Authorized personnel of the City may inspect and monitor any facility or industrial process that is involved directly or indirectly with any discharge to the City's sewerage systems. These facilities shall include but not be limited to: sewers; wastewater pumping plants; pollution control plants; industrial wastewater generation, conveyance and pretreatment facilities, devices and connection sewers; wastewater monitoring facilities or stations; Food Service Establishments (FSEs); and all similar or related sewerage facilities and appurtenances. Inspections may be made to determine whether such facilities are maintained and operated properly, to verify that the discharger is in compliance with a cease and desist order, and to determine whether the discharger is otherwise in compliance with the provisions of this Code.

Authorized personnel of the City shall be provided immediate access to all of the above facilities or to other facilities directly or indirectly connected to the City's sewerage systems any time wastewater is being discharged to the City's sewerage system, and any time the discharger's facility is open or operating, and during any other reasonable times including, but not limited to, emergency situations. A condition for the issuance of any industrial wastewater discharge permit described in Sections 62-501 through 62-504, Sections 62-521 through 62-527, and Section 62-546 of this Code and for the continued use of the City's sewerage system shall be that the discharger expressly consents to inspection of the discharger's facility and industrial processes at reasonable times by City's personnel or authorized representatives. Inspections of other facilities for which no permit has been applied or issued may be made pursuant to the procedures set forth in Title 13 (commencing with Section 1822.50) of Part 3 of the Code of Civil Procedure. However, those procedures need not be followed in the event of an emergency affecting public health and safety, or if the discharger consents.

Access to wastewater monitoring facilities or stations shall be granted immediately upon request during any time the discharger's establishment is open, any time wastewater is being discharged to the City's sewerage system, and during any other reasonable time. Any permanent or temporary obstruction to the safe and easy access to the sewerage facility to be inspected shall promptly be removed by the discharger or property owner at the written or verbal request of the Utility Services Director or the Director's designee and shall not be replaced.

Dischargers of wastewater that have been determined by the Utility Services Director or the Director's designee to present identifiable hazards to the City's sewerage systems, and those individual dischargers whose security procedures or plant configurations restrict or delay access, shall provide an approved, secured monitoring facility which is directly accessible to City's personnel without having to pass through other secured property of the discharger. The costs of providing facilities with such access shall be borne by the discharger and not by the City.

No person shall interfere with, delay, resist or refuse entrance to authorized City's personnel attempting to inspect any facility involved directly or indirectly with a discharge of wastewater to the City's sewerage system.

Sec. 62-XXX. Inspection of construction

All sewer laterals to be connected directly to the City's wastewater collection system will be inspected by personnel of the City during construction. The City shall be notified at least 48 hours prior to excavating to expose a City sewer or commencing construction of a manhole on a City sewer. In making a connection to a City sewer, no physical alteration of the City's facilities shall commence until a City inspector is present.

Sewerage facilities which will not be directly connected to the City's sewer will not be inspected routinely by the City during construction. Upon completion of construction and prior to removal of the downstream bulkhead and upon receiving 48 hours notice, the City will inspect the work to determine if it has been constructed according to the City's sewer design guidelines or as approved by the Utility Services Director or the Director's designee, in a satisfactory manner, and to determine if all facilities are cleaned of construction debris that could be flushed into the City's sewers.

No wastewater shall be discharged into any sewerage facility directly connected to or tributary to a City facility prior to obtaining inspection and approval of sewerage construction by the City.

Following satisfactory completion of construction, the City will, if requested, issue a construction inspection completion statement.

Sec. 62-XXX. Additional requirements by the Utility Services Director

Nothing contained in this Code shall be construed to prevent the Utility Services Director or the Director's designee from requiring compliance with higher or more stringent requirements or specifications than those contained herein where compliance with such higher or more stringent requirements or specification is necessary to maintain a sanitary condition.

Below are recommended ordinances for the City to consider and adopt as part of Article 5, Division 3.

Waste Disposal – Permit Required

Facilities engaged in preparing food for consumption by the public desiring to discharge wastewater into a public sewer shall obtain a permit to discharge from the City Utility Services Director known as a permit Food Establishment Wastewater Discharge.

Permit for Food Service Establishment Waste Discharge

The permit for Food Service Establishment Waste Discharge may require pretreatment of wastewater prior to discharge, restriction of peak flow discharges, discharge of certain wastewater only to specified sewers of the City, relocation of point of discharge, prohibition of discharge to certain wastewater components, restrictions of discharge to certain hours of the day, payment of additional charges to defray increase costs of the City created by the wastewater discharge and such other conditions as may be required to effectuate the purpose of this ordinance. No person shall discharge industrial wastewater in excess of the quantity or quality limitations set by the Permit of Industrial Wastewater Discharge Permit and City ordinance.

Permit Application

Persons seeking a Food Service Establishment Waste Discharge Permit shall complete and file with the City Utility Services Director, an application in the form prescribed by the City Utility Services Director, and accompanied by the applicable fees. The applicant may be required to submit, in units and terms appropriate for evaluation the following information:

- Name and address of applicant
- Volume of wastewater to be discharged
- Time of daily food preparation operations
- Description of food preparation, type, number of meals served, cleanup procedures, dining room capacity, number of employees and size of kitchen
- Any other information as may be deemed by the City Utility Services Director to be necessary to evaluate the permit application. The City Utility Services Director will evaluate the data furnished by the applicant and may required additional information. After evaluation and acceptance of the data furnished, an on-site inspection of the waste discharge system, treatment systems or other system relating to the waste discharge may be required. The City Utility Services Director may then issue an Industrial Wastewater Discharge Permit subject to terms and conditions provided.

Duration of Permit

A Food Service Establishment Waste Discharge Permit shall be issued for a specified period, not to exceed one (1) year. A permit may be issued for a period less than one (1) year or may be stated to expire on a specific date. The terms and conditions of the permit may be subject to modifications and change by the City during the life of the permit as limitations or requirements as deemed necessary the City Utility Services Director. The FSE owner shall be informed of any proposed changes in his permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

Transfer of Permit

Food Service Establishment Waste Discharge Permits shall be issued only for specific use for a specific operation. Any sale, lease, transfer or assignment of the premises or operation for which the permit was issued shall require a new permit to be issued. Any new or changed conditions of operation shall require a new permit to be issued.

Revocation of Waste Discharge Permit

The City Utility Services Director may revoke the permit of any FSE who is found to be in violation of this ordinance or who:

- Fails to comply with the conditions of the Food Service Establishment Waste Discharge Permit
- Fails to install required grease pretreatment devices as required by the Food Service Establishment Waste Discharge Permit;
- Fails to comply with the reporting and/or pretreatment requirements or pretreatment device maintenance as required by the Food Service Establishment Waste Discharge Permit;
- Fails to comply with a Notice of Violation or a Compliance Schedule Agreement issued to require compliance with a Food Service Establishment Waste Discharge Permit or other provision of the City's municipal codes;
- Knowingly provides a false Food Service Establishment Waste Discharge Permit application or makes false representations, or submits false documents, reports or logs to the City Utilities Director or the Director's designee;
- Refuses to allow inspections during normal business hours or after hours;
- Interferes with a City Utility Services Director or the Director's designee during the FSE inspection or in sampling an FSEs discharge or in inspecting and sampling an overflow event; and/or
- Causes or contributes to sewer blockages or sewer overflows within the public sewer, or fails to address the conditions leading to more than one (1) overflow event from a private and/or public system within a twelve (12) month period.

Maintenance Reports

The City Utility Services Director shall require the FSE to keep records of grease pretreatment device cleaning, maintenance and grease removal and to report on such maintenance to the City permit administration. The City Utility Services Director may require the FSE to provide results of periodic measurements of its discharge which is to include chemical analysis of oil and grease content. FSEs owners or designee shall allow the City or its representative ready

access at all reasonable times to all parts of the premises for purposes of sampling and inspections.

Penalty for Violation and Civil Liability

a) Injunction

A discharge of wastewater which is in any manner in violation of this ordinance, or of any order issued by the City Utilities Director as authorized by this ordinance, is hereby declared a public nuisance and shall be corrected or abated by the discharger as directed by the City Utility Services Director. Any person creating such a public nuisance is guilty of a misdemeanor.

b) Falsifying of Information

Any person who knowingly makes any false statements, representation, record, report, plan or other document filed with the City Utility Services Director or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this ordinance, shall be guilty of a misdemeanor.

c) Termination of Service

The City may revoke any Food Service Establishment Waste Discharge Permit issued or terminate or cause to be terminated any wastewater service to any premise if a violation of any provision of this ordinance is found to exist or if a discharge of wastewater causes or threatens to cause a condition of contamination, pollution or nuisance. This provision is in addition to other statutes or rules authorizing termination of service for delinquency in payment.

When deemed necessary by the City Utilities Services Director for the preservation of public health or safety or for the protection of public or private property, he/she may suspend sewer service to any person or persons using the wastewater collection system in a manner or way to endanger the public health or safety, or public or private property. In suspending service he/she may sever all pertinent connections to the public sewer. If such endangerment shall be imminent, the City Utilities Service Director may act immediately to suspend sewer service without notice or warning to said person or persons.

Notice and Appeal Procedures

Unless otherwise provided herein, any notice required to be given by the City Utility Services Director under this ordinance shall be in writing and served in person or by registered or certified mail. If discharger is served by mail, the notice shall be sent to the last address known to the City Utility Services Director. Where the address is unknown, service may be made upon the owner of record of the property involved.

Notice shall be deemed to have been given at the time of deposit, postage prepaid, in a facility regularly serviced by the United States Postal Service.

Any person found to be violating any provision of this ordinance shall be served by the City Utility Services Director or designated representative with written notice stating the nature of the violation. Within ten (10) days after the date of the notice, unless a longer time is necessary due to the nature of the violation, a plan for the satisfactory correction thereof shall be submitted to the City Utility Services Director. If the violation is not corrected by timely compliance, or a satisfactory correction plan submitted within the specified time, the City Utility Services Director may order any person to show cause before the City Utility Services Director why enforcement action should not be taken. A written notice shall be served on the person specifying the time and place of a hearing, the reason why the actions is to be taken, and the proposed enforcement action. The City Utility Services Director may propose any enforcement action reasonably necessary to abate the violation. Based upon the evidence presented at the hearing, the City Utility Services Director shall determine the appropriate enforcement action which should be taken, if any.

Appendix C
City of Pomona Operations
and Maintenance Program

CITY OF POMONA OPERATION AND MAINTENANCE PROGRAM

September 2008

Prepared For:



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Chapter 1

Introduction

The City of Pomona's (City) Wastewater Operations Division 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 306 miles of gravity sewer, four (4) pump stations, 1.4 miles of force mains, 4,600 manholes, and one (1) siphon. 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 Districts (LACSD). The four pump stations, while owned by the City, are maintained and operated by the LACSD under the terms of a 1986 contract that expired several years ago. The City is currently in negotiations with LACSD wherein the ownership and responsibility for maintenance of the lift stations will be transferred to LACSD. Although the agreement has not been finalized, the City is confident that the agreement is forthcoming.

The City is dedicated to improving the condition and performance of its wastewater collection system and reducing the number 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.

This technical memorandum summarizes the City's current procedures and practices as they pertain to the O&M activities, and recommends changes to augment the City's current activities to facilitate compliance with the WDRs. Specifically, this chapter contains a comprehensive evaluation of the elements affecting the O&M of the City's wastewater collection system including, but not limited to, system inventory and mapping, the work order process, inspection and assessment of the system including objective standards, CIP project identification process, preventative maintenance procedures, repair and rehabilitation procedures, and recommended training programs. Also discussed in this chapter are staffing requirements and work schedule needed to develop and implement an effective and efficient program for the long term maintenance of its wastewater collection system that satisfies the WDRs.

1.1 Purpose of an Operations and Maintenance Program

Establishment and documentation of a comprehensive program provides the specific details of the activities and procedures that personnel follow to implement the program. A well planned, documented, and executed O&M program can provide the optimum level of maintenance activities for the least total maintenance cost. At a minimum, the following components are part of a good O&M program:

- Inventory and Mapping of the Wastewater Collection System Assets
- Preventative Maintenance Program
- Sanitary Sewer Overflow Emergency Response Plan (SSOERP)

Introduction

- Fats, Oils, and Grease Reduction and Management Program
- Wastewater System Inspection and Assessment Program
- Capital Improvement Program (CIP) Project Identification
- Computerized Maintenance Management System (CMMS)
- Equipment and Replacement Part Inventories
- Training Program
- Staffing Requirements and Recommendations

The following sections include a summary of the activities currently performed by Wastewater Maintenance staff and provide recommendations to supplement the City's current efforts.

Chapter 2

Wastewater Collection System Inventory and Mapping

A comprehensive inventory of the City's wastewater collection system assets documents the horizontal and vertical locations of sewer system facilities, as well as the attributes of various sewer system components. This information is used to develop a Geographic Information System (GIS) database of the facilities which facilitates management of O&M activities and expedites data management and retrieval for reporting purposes.

The locations of most sewer pipes and associated appurtenances within the City are currently documented using atlas map books and as-built drawings. The City has effectively managed and maintained information pertaining to the wastewater infrastructure by means of manually updating atlas maps and/or reference to hard copy as-built drawings. Several years ago the City retained the professional services of an independent company to convert the manually drawn, paper mapping system, to a GIS using ESRI's ArcGIS software. The conversion of records to GIS has primarily included digitizing location information from the City's atlas map sheets and recording facility attributes including:

- Year of installation
- Diameter
- Slope
- Material
- Invert elevations
- Manhole rim elevations
- Effective length of pipeline segments between manholes
- Flow direction of sewage
- Coordinates of manholes, clean outs, and dead ends
- Service connections (approximate location is acceptable)
- Location of asset (e.g. street name, block name, cross road, etc.)

The initial phase of the task includes conversion of the City's earliest records in sequential order through and including 2005 as-builts. The subsequent phase will include the conversion of information from 2006 to the present.

To ensure that potential errors associated with the transfer of available graphic data into the GIS are omitted, City staff is performing internal reviews of the conversion for accuracy of the information. Involved in the review is staff in the Engineering and Wastewater Maintenance Sections with extensive knowledge and experience with the City's wastewater collection system.

Completing the conversion of the graphic information to the computerized mapping system, population of the GIS database, assignment of identifying labels to all pipeline segments and manholes, and establishment of a routine updating and maintenance procedure will allow the City to effectively manage the system and implement an asset management program for the wastewater collection system, which will facilitate planning and funding of potential future capital improvement projects.

Wastewater Collection System Inventory and Mapping

2.1 System Inventory and Mapping Recommendations

The following are recommendation to facilitate comprehensive documentation of additional attributes of the City's sewer facilities.

Complete Data Conversion

Completing the data conversion and entry will position City staff to better manage and maintain the GIS asset data. Due to a significant change to the GBA computer software placing an emphasis on a geographic information system for asset inventory has become vitally important. The expected completion date of the existing mapping efforts is not certain at this time. It is recommended that GIS mapping update work be included as part of the Utility Services Department CIP Program until the GIS map data is current.

Gather Additional Attribute Data

In addition to the data captured for the wastewater collection system, including the unique identifiers for each asset, the City should consider capturing the following data:

- Rehabilitation and repair data
 - Acceptance date of work
 - Rehabilitation material
 - Effective nominal diameter of pipe

Develop and Implement a Routine Data Maintenance Procedure

Maintaining and updating data is a continuous process that becomes overwhelming if not completed on a routine basis. Improvements by property owners and developers are continuously changing or adding new sewer pipelines and connections that the crews need to be aware of. Also, while working on the system, crews will identify errors in the printed data that requires updating. Staff should establish a procedure to collect this data, regularly enter new asset information, and correct errors found in the data.

A possible procedure is to have the crews, when returning at the end of a shift, transfer updated information to a hardcopy master map that is kept in a readily accessible area of the office. Additionally, development and tentative maps submitted for review should be kept and tracked. Once the work is completed in the field and accepted in by the City, the information should be transferred to the hardcopy master map. Ideally, the information could be entered into the GIS and coded to indicate proposed work, in progress work, in service facilities, and abandoned facilities.

At least once a month, the identified staff person, competent to use the GIS system, should enter the data into the GIS, and then back check the data for accuracy. A new hardcopy master map can be produced to allow the next month's changes to be tracked. The existing hardcopy master map should be marked as complete and archived for at least one (1) year. Atlas map books should be reproduced depending on the number of changes and updates, but at least once a year. This will ensure that crews and other staff have current data which will alleviate problems in the field with maintenance and repair efforts.

Chapter 3

Wastewater Collection System

Preventative Maintenance

The City's wastewater collection system, as many aging utilities serving more mature communities, has required frequent maintenance due to age, extended use, debris accumulation, and tree root intrusion. To minimize and prevent system blockages and preserve and extend the useful life of the wastewater collection system, the City's Preventive Maintenance Program has primarily included the routine cleaning of the wastewater pipelines. This section discusses the cleaning program, and methods available to the City, and recommendations for cleaning efforts.

3.1 Cleaning Program

A component of a comprehensive operations and maintenance program includes performing routine cleaning services of the wastewater collection system. The primary purpose of cleaning the wastewater collection system is to remove the accumulation of foreign material from the sewer system. Cleaning should be performed in response to or in anticipation of one or more of the following conditions:

- Blockages (solid and/or semisolid obstructions resulting in cessation of flow)
- A reduction of hydraulic capacity due to sediment, roots, intrusions (connections or other foreign bodies), grease, encrustation and other foreign material restricting the capacity of a sewer, which may result in a surcharge or flooding
- Pollution caused by either the premature operation of combined wastewater overflows due to downstream restrictions in hydraulic capacity or the washing through and discharge of debris from overflows during storms
- Odors caused by the retention of solids in the system for an extended period of time, which may result in septic conditions producing hydrogen sulfide
- Sewer inspections that may include visual, CCTV, or manned entry inspections to improve visibility of the pipeline surface
- Sewer rehabilitation efforts - the wastewater collection pipelines should be cleaned prior to implementing any sewer rehabilitation work.

Generally, an effective routine cleaning program requires accurately determining the cleaning needs, establishing priorities and scheduled cleaning activities, acquiring the support of an appropriate number of crews and personnel, acquiring necessary equipment, establishing written standard cleaning procedures, preparation of standard forms, establishing performance measures, and a mechanism for including cleaning information in the CMMS.

The City's wastewater collection system generally requires cleaning to remove accumulated debris and sediment that has fallen out of suspension from the waste stream. All pipes should be cleaned in a methodical and systematic manner to ensure consistency in the cleaning efforts.

Wastewater Collection System Preventative Maintenance

Generally, cleaning is recommended to occur from the upstream manhole to the downstream manhole, since the flow in the pipe can assist moving debris downstream.

3.1.1 Descriptions of Cleaning Methods Available

Common cleaning methods include jetting, mechanical rodding, bucketing (also referred to as winching or dragging), and manual or mechanical digging. The method employed is usually determined in advance and is typically contingent upon the pipe type and size and on the conditions expected in the pipe. Table 3-1 (next page) provides a summary of the most commonly used methods to a clean sewer system.

Although the commonly used cleaning methods have proven effective in maintaining sewer systems, there are limitations to several of the cleaning methods used. Table 3-2 provides a summary of the limitations of several cleaning methods.

**Table 3-2
Limitations of Cleaning Methods***

Cleaning Method	Limitations
Mechanical	
Rodding	Continuous rods are harder to retrieve and repair if broken and they are not useful in lines with a diameter greater than 12 inches because the rods have a tendency to coil and bend. This device also does not effectively remove sand or grit, but may loosen the material to be flushed out at a later time.
Bucketing (Winching, Dragging)	This device has been known to damage sewers. The bucket machine cannot be used when the line is completely plugged because this prevents the cable from being threaded from one manhole to the next. Set-up of this equipment is time-consuming.
Hydraulic	
Balling and Jetting	In general, these methods are only successful when necessary water pressure or head is maintained without flooding basements or houses at low elevations. Jetting - The main limitation of this technique is that caution need to be used in areas with basement fixtures and in steep-grade hill areas. Balling - Balling cannot be used effectively in pipes with bad offset joints or protruding service connections because the ball can become distorted.
Flushing	This method is not very effective in removing heavy solids. Flushing achieves temporary movement of debris from one section to another in the system.
High Velocity Cleaner	The efficiency and effectiveness of removing debris by this method decreases as the cross-sectional areas of the pipe increase. Backups into residences have been known to occur when this method has been used by inexperienced operators. Even experienced operators require extra time to clear pipes of roots and grease.
Kites, Bags, and Poly Pigs	When using this method, use caution in locations with basement fixtures and steep-grade hill areas.

*United States Environmental Protection Agency (Sept. 1999). *Collection Systems O&M Fact Sheet - Sewer Cleaning and Inspection*. (EPA 832-F-99-031).

Wastewater Collection System Preventative Maintenance

**Table 3-1
Common Sewer Cleaning Methods***

Technology	Uses and Applications
Mechanical	
Rodding	<ul style="list-style-type: none"> • Uses an engine and a drive unit with continuous rods or sectional rods • Blades rotate and break up grease deposits, cut roots, and loosen debris • Rodders also help thread the cables used for TV inspections and bucket machines. • Most effective in lines up to 12 inches in diameter
Bucketing (Winching, Dragging)	<ul style="list-style-type: none"> • Cylindrical device, closed on one end with 2 opposing hinged jaws at other • Jaws open, scrape off the material, and deposit it in the buckets. • Partially removes large deposits of silt, sand, gravel, and some types of solid waste
Digging (includes manual digging)	<ul style="list-style-type: none"> • Involves excavating material by machine or hand and placing into buckets to remove material • Optimal in large diameter sewers • Requires confined space entries • Techniques now used infrequently
Hydraulic	
Balling	<ul style="list-style-type: none"> • A threaded rubber cleaning ball that spins and scrubs the pipe interior as flow increases in the sewer line • Removes deposits of settled inorganic material and grease build-up • Most effective in sewers ranging in size from 5 to 24 inches in diameter
Jetting	<ul style="list-style-type: none"> • Directs high velocities (at approximately 2,000 psi) of water against pipe walls • Removes debris and grease build-up, clears blockages, and cuts roots within small diameter pipes • Efficient for routine cleaning of small diameter, low flow sewers • Using jetter/vector vehicles is considered a best practice
Flushing	<ul style="list-style-type: none"> • Introduces a heavy flow of water into the line at a manhole • Removes floatables and some sand and silt • Most effective when used in combination with other mechanical operations such as rodding or bucket machine cleaning
Kites, Bags, and Poly Pigs	<ul style="list-style-type: none"> • Similar in function to the ball • Rigid rims on bag and kite induce a scouring action • Effective in removing accumulations of decayed debris and grease downstream
Traps	<ul style="list-style-type: none"> • Collect sediments and large items at convenient locations • Must be emptied on a regular basis as part of the maintenance program

*United States Environmental Protection Agency (Sept. 1999). Collection Systems O&M Fact Sheet - Sewer Cleaning and Inspection. (EPA 832-F-99-031).

3.1.2 Mechanical Cleaning Efforts by the City

The City's Wastewater Maintenance Section continually conducts routine cleaning of the sanitary sewer system. In this manner, it is able to clean the entire system approximately once

Wastewater Collection System Preventative Maintenance

every one and a half (1.5) years. The City utilizes two (2) combination jetter/vactor vehicles and one (1) trailer-mounted mechanical rodder. The sewers are typically cleaned putting high pressure water jetting nozzles in the pipe and manually removing debris from the downstream manhole. Purchased or staff-made appurtenances are inserted at the downstream manhole to capture large debris. The debris is then vacuumed from the manhole with the high-powered vacuum hose. The vactored material is stored in 55 gallon drums and stored at the operations yard. When there are 15 or more drums, a licensed contractor removes the drums and properly disposes of the material. Cleaning efforts are documented daily. Progress ranges from 3,000 to 18,000 lineal feet per day, depending on the existing conditions, staffing available, and other assigned duties.

The City's cleaning efforts focus on one (1) quadrant of the City at a time. Wastewater Operations crews work daily to eliminate potential pipe and manhole blockages. There are currently two (2) crews consisting of two (2) staff members each that are assigned to perform daily routine cleaning tasks. Additionally, crews clean high frequency maintenance locations monthly. These locations include areas identified as having excessive amounts of grease accumulation and root concentrations. Staff primarily uses the combination jetter/vactor vehicles for cleaning, and use the mechanical rodder truck for areas known for high root concentrations and areas with blockages.

3.1.3 Root Removal Efforts by the City

Root intrusion can damage sewers and cause sewer pipelines to restrict flow and/or plug. A component of the City's cleaning efforts includes utilization of the City's trailer-mounted mechanical rodder as well as routine chemical treatment to minimize the potential for SSOs due to root related problems. As necessary, the mechanical rodder is used to clear roots from the wastewater collection system.

The City's root treatment program is performed by a contractor retained by the City to perform routine chemical treatment of select portions of the City's wastewater collection system. A yearly contract is awarded to the lowest responsible bidder and requires the application of chemical root inhibitors to reduce or eliminate roots intruding into the pipes. Pipelines identified as locations with root intrusion problems are treated and evaluated on a yearly. Target sites are located in the older developed areas with large mature trees as well as locations identified via the CCTV inspection efforts that identify high concentration of roots. As locations are identified as requiring chemical treatment for root control, location information is recorded in the CCTV database, assessed, and evaluated for inclusion in the subsequent cycle of the root control program.

3.1.4 City's Manhole Treatment Program

In an effort to control infestations of insects and to maintain adequate access to the system, the City's wastewater collection system manholes are systematically treated for the removal of roaches. The roach treatment is performed by an independent contractor retained by the City. The City treats approximately 500-800 manholes per year. The manholes selected for treatment are identified by areas known to be prone to insect infestation, and observations made during the annual cleaning.

Wastewater Collection System Preventative Maintenance

3.2 Preventative Maintenance Recommendations

The City of Pomona has a cleaning program to clean every pipe at least once every one and a half (1.5) years, and to clean the identified high frequency maintenance sites once every month. This interval of cleaning has proven sufficient for adequate maintenance of the system. This report is formally documenting this effort.

To improve the cleaning efforts, the City should establish cleaning metrics to measure progress and effectiveness of the program. It is recommended that the City continue to divide the sewer system into four, substantially equal quadrants for easy identification and tracking. Further, work assignments should be made on a weekly basis, to ensure the completion of specific weekly cleaning goals by crews. As well, this will allow the crews to adjust their progress based on the diameter of pipe being cleaned (larger diameter pipe takes longer to clean than smaller diameter pipe), emergencies as assigned, and unforeseen impediments, such as rain, traffic, easement access, and so on, that reduce their progress on any given day. Based on the assumptions that follow Table 3-3, two (2) crews would be responsible for cleaning approximately 16,825 lineal feet of pipe per week. This will result in an average of 2,103 lineal feet per day per crew, which is within industry standards. As crews complete their assignment, subsequent assignments should be issued, regardless if the work is completed in less than one week.

**Table 3-3
Weekly Cleaning Footage Benchmark**

Weekly Cleaning Target	16,825 lineal feet	3.187 miles
Monthly Cleaning Target	67,300 lineal feet	12.746 miles
Quarterly Cleaning Target	403,750 lineal feet	76.468 miles

Assumptions for annual cleaning efforts include:

- Two (2) crews of two (2) persons each will be assigned to continuously clean the system
- Each crew will average 48 weeks to complete the assigned weekly cleaning tasks; this accommodates four (4) weeks for vacations, holidays, and training
- Each crew will average four (4) days per week on any cleaning assignment to account for equipment repair, emergency repair assignments, and other unforeseen activities that may be assigned
- Crews are responsible to document and report anomalies (e.g. material, diameter, depth, length, etc.) in the map book data for correction in the master GIS database
- There is 1,615,000 lineal feet of sewer in the system

To confirm the effectiveness of the cleaning activities, the City's CCTV inspection crew should randomly televise approximately 4,000 lineal feet of pipe that has been cleaned with in the past two (2) weeks. The locations should be equally divided among the work performed by the crews

Wastewater Collection System Preventative Maintenance

cleaning during the two week period, and will result in checking approximately 5% of the pipe recently cleaned. The CCTV effort should occur on a quarterly basis. The inspection should identify what the cleaning crews have done well and what areas need improvement. This information should be regularly shared with the cleaning crews at tailgate meetings or status meetings, to allow them to improve their techniques using the cleaning equipment. It should be noted that debris can, and often, enters the pipeline after cleaning, and therefore the video inspection should not be used as evidence to document job performance. Rather, the information should be used as a training tool and to document possible trends of improper or illegal disposal of material in the wastewater collection system.

3.2.1 Accelerated Cleaning Program Plan

An improved documented cleaning interval should be established for High Frequency Maintenance Sites (HFMS) segments that include pipe segments with the potential to accumulate debris more quickly than other sections and those areas susceptible to blockages that can lead to an SSO. Examples of HFMS include pipe segments with shallow slopes, areas where the pipe diameter reduces as the flow moves downstream, areas where higher concentrations of debris are discharged into the system, areas where the sewage may be difficult to recover if an SSO occurs, and areas with potentially high impacts to environmental areas if an SSO occurs.

Currently the City cleans these sites on a monthly basis, typically the first week of every month, based on field observations and supervisor recommendations. Establishing a cleaning schedule based on more objective standards could reduce the amount of routine cleaning occurring in the City and optimize the use of the City’s crews. Prior to adopting changes in the accelerated cleaning program, the HFMS should be documented in a data base, with the lengths, diameters, and current cleaning frequency intervals. Furthermore, the crews should document the type and amount of debris removed from these segments. The information obtained recorded as condition findings that include four (4) standard Condition Findings: “clear”, “light”, “medium”, and “heavy”. Table 3-4 includes a description for each potential condition finding. The condition finding for a pipe that is being cleaned on an appropriate cleaning frequency will return a “light” condition finding. A pipe consistently indicating a “clear” condition finding indicates that the pipe cleaning may be occurring too frequently. A pipe returning a “medium” or “heavy” condition finding is an indication that the cleaning frequency at the pipe is not frequent enough. Situations that may result in false condition findings include pipelines with structural failure, vandalism, construction related blockages, and so on.

**Table 3-4
Guidelines for Condition Findings**

Clear	Light	Medium	Heavy
No observable grease, roots, sludge, or debris	1.0 to 1.5 gallons of sludge, small chunks of grease, 20 – 30 minutes to clean a line, 1 – 2 passes to clear the water	2 – 3 gallons of sludge, moderate chunks of grease, 30 minutes to clean an line, 2 – 3 passes to clear the water	4 or more gallons of sludge, grease, clumps of roots; more than 30 minutes to clean a line; more than 4 passes to clear the water

NOTE: a “line” is a pipe segment that averages 300 feet between two manholes

Wastewater Collection System Preventative Maintenance

Throughout the year, the operations staff, in consultation with the engineering staff, should evaluate the data and determine whether the interval between cleanings should be adjusted. To determine if the cleaning interval should be adjusted for an HFMS, staff should review the following items:

- History of SSOs for the specific segment
- The past four (4) condition findings
- CCTV inspection data collected during the past 12 months
- As-built data

It is recommended that cleaning frequency intervals include:

- One month
- Two months
- Three months
- Six months
- Twelve (12) months (annual maintenance interval)

Pipes should not be cleaned on an interval less than once every 12 months. However, for instances where cleaning may occur prior or subsequent to the scheduled cleaning date, the cleaning frequency will be considered in conformance if the cleaning occurred within an acceptable range of time. Table 3-5 provides a summary of a possible range of time which may be acceptable for the cleaning of specific facilities and is based on the initially established cleaning frequency.

**Table 3-5
Cleaning Frequencies**

Established Cleaning Frequency	Acceptable Range for Cleaning Frequencies
Monthly	1 week (before or after)
Every 2 Months	1 week (before or after)
Every 3 Months	2 weeks (before or after)
Every 6 Months	3 weeks (before or after)
Every 12 Months	4 weeks (before or after)

Decreasing a pipe's cleaning frequency: a pipe's cleaning frequency can be reduced to the next cleaning frequency interval if the condition finding for the pipeline has been three (3) consecutive "clear" findings, when cleaned according to its target interval each time. For example, if a pipe on a one (1) month cleaning interval receives 3 "clear" findings, it will move to

Wastewater Collection System Preventative Maintenance

a cleaning interval of once every 2 months. If the segment then receives 3 “clear” findings while on a 2 month cleaning interval, it will move to a cleaning interval of once every 3 months. Pipes cleaned *before* their target cleaning interval window will not be considered for a decrease in their cleaning frequencies. Pipes cleaned *after* their target cleaning interval will still be considered for a decrease in their cleaning frequencies.

Increasing a pipe’s cleaning frequency: a pipe’s cleaning frequency should be increased to the next cleaning frequency interval if the pipeline receives a “medium” or “heavy” condition finding. For example, if a pipeline on a six month cleaning interval receives a “medium” finding, it will be placed on a cleaning frequency of every 3 months. Additionally, CCTV investigations that show substantial debris or conditional defects that may cause an SSO can increase the cleaning frequency of a pipe. Further, a maintenance related SSO (i.e. not vandalism or construction related) is grounds to increase cleaning frequency of a pipe.

Maintaining a pipe’s cleaning frequency: a pipe’s cleaning frequency will remain at the same interval if it repeatedly receives a “light” condition finding, or alternating condition findings of “clear” and “light.”

Chapter 4

Sanitary Sewer Overflow Emergency Response Plan (SSOERP)

SSOs may occur due to blocked sewers, a restriction in the wastewater collection system, pipe failures, flows exceeding the capacity of the system, mechanical malfunctions, and other natural or man-made causes. The City recognizes the importance of protecting the health and safety of the public as well as the environment by preventing sewer flows from reaching surface waters and waters of the United States. This requires implementation of procedures to minimize the impact of an SSO if one were to occur and comply with the requirements of state regulations.

In response to the potential occurrence of an SSO, the City prepared a Sanitary Sewer Overflow Emergency Response Plan (SSOERP) which establishes the formal procedures for City staff to respond to, contain, correct, and clean up SSOs, and minimize the effects of SSOs on the environment while protecting the public's health and safety. The City's SSOERP serves to supplement and be consistent with existing emergency plans and standard operating procedures currently implemented by the City. The overall plan facilitates coordination and mobilization of necessary equipment and personnel in an organized and efficient manner when responding to an SSO. The SSOERP also incorporates the Monitoring and Reporting Procedures mandated by the WDRs. The primary goal in establishing an official SSOERP is to ensure that City staff responds appropriately and efficiently to all known SSOs immediately.

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Chapter 5

Fats, Oils, and Grease (FOG)

Reduction and Management Program

Proper disposal and handling of waste containing excessive fats, oils, and grease (FOG) quantities is important since it can accumulate in the wastewater collection system and eventually block collection pipes and sewer lines, resulting in backups and overflows on streets, properties, and potentially in private residences.

Wastewater discharges containing high concentrations of FOG from food service establishments (FSEs) have been identified as the primary cause of blockages and overflows in the City's wastewater collection system. Overflows of wastewater into the storm water collection system that ultimately reach our natural bodies of water could be greatly reduced by controlling the discharge of FOG into the wastewater collection system. SSOs are readily preventable by good management practices and proper maintenance at FSEs.

Although the City's proactive preventative maintenance procedures have been successful in minimizing the frequency of SSOs, the City determined it will benefit from formally implementing a FOG Control Program. The program serves to facilitate the maximum beneficial public use of the City's wastewater collection system while preventing blockages of sewer lines and pump stations, reducing the adverse affects on sewage treatment operations resulting from discharges for FOG into the system, and specifying appropriate FOG discharge requirements for FSEs discharging into the City's wastewater collection system. The FOG Control Program serves to establish the general prohibitions, restrictions, and requirements for FSEs that handle and discharge wastes containing FOG. It also provides information on various methods for effectively controlling and limiting the quantity of FOG discharged into the City's wastewater collection system. In addition to requiring compliance with the City Code, policies, and the WDRs, the FOG Control Program serves as an additional enforcement mechanism to require accountability by the FSE for site specific maintenance and management of the facility.

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Chapter 6

Wastewater Collection System

Inspection and Assessment

Routine inspection of wastewater collection system facilities provides a means to monitor the condition of the facilities and the effectiveness of the maintenance operations. Information obtained from routine inspections serves to:

- Identify existing or potential problems;
- Provide accurate information regarding any existing or potential problems;
- Isolate the location of any existing or potential problems;
- Provide information regarding the criticality of any existing or potential problems; and
- Facilitate identification of the optimal method to rectify problems.

Regular and systematic inspection and assessment of wastewater collection system infrastructure provides a basis for identifying and scheduling capital improvements as well as identifying needed maintenance activities. The results of the overall assessment are then used to determine the funding required to repair, rehabilitate, and replace an aging collection system and to prioritize how the funds should be allocated. Recommendations for capital improvements will optimize the expenditure and efforts to operate a sewer collection system.

The City employs CCTV technology for the inspection of pipelines. With the use of the City's one (1) CCTV truck, the City began performing inspections of select sewer pipelines of the City's wastewater collection system. The City's efforts were initiated in March 2004 and include inspection of existing sewer pipelines as determined necessary and all new and rehabilitated pipelines to ensure contractor compliance with City design and construction standards. The City's CCTV truck is equipped with Granite XP GIS software developed by Cues. The inspection codes incorporated into the Granit XP Software are National Association of Sewer Service Companies (NASSCO) certified and comply with the Pipeline Assessment and Certification Program (PACP). The defect codes also include codes developed and incorporated by the City. The information obtained and recorded from the CCTV inspections is reviewed, recorded, and assigned a severity rating according to a rating scale developed by City staff. Permanent records of the inspections are made by capturing still images of the information on the TV screen and recording the information on DVDs. The City's CCTV inspection capability extends to pipes of various sizes.

Inspections are performed by a two (2) person crew and are typically performed subsequent to the cleaning of the particular pipeline sections to be televised. Daily progress is recorded by the inspection crew in daily reports submitted to the Wastewater Collection Supervisor and utilized for recording, tracking, and reporting purposes. As the necessity to televise a particular location or portion of the wastewater collection system arises, staff assignments are reorganized and resources are reallocated to accommodate the requirement. Although the City's goal includes televising the sewer system one (1) complete quadrant at a time, the majority of the staff

Wastewater Collection System Inspection and Assessment

resources are currently devoted to performing routine cleaning and maintenance tasks. Thus minimal resources are available to televise and assess the City's wastewater collection system.

6.1 Inspection Equipment Specifications

Inspection and condition assessment of wastewater facilities is typically completed using Closed-Circuit Television (CCTV). All equipment inserted into a sewer line shall be of a type and design, which provides protection from hazards arising from the combustibility and flammability of vapors, liquids, gases, dusts or fibers. Safety requirements for all equipment or devices which will be in the sewer lines (Confined Space) shall comply with all existing CAL OSHA. A television camera, mounted on skids having either a track and wheel movement or rubber wheel movement that is controlled remotely, shall be used to capture the images. The cameras shall have a rotary head with rotational, pan and tilt movement in order to allow a full circumferential inspection and observe all portions of the pipeline. It shall have a high resolution lens capable of spanning 360 degrees circumference and 270 degrees on a horizontal axis to televise pipelines. Optical focal distance shall be adjustable through a range of 1 inch to infinity. The camera source image capture shall provide an image with a minimum resolution of 320 x 240 pixels capture. The cameras shall be operative while submerged.

6.2 Inspection Criteria and Standards

CCTV cameras offer valuable insight to the internal structural condition of buried infrastructure. Video inspection of sewer pipelines and manholes is used to locate and evaluate the existence and severity of defects which can contribute to potential overflows, may include missing pipe sections, broken pipe, root intrusion at misaligned joints or cracks, and potential sources of inflow and infiltration entering into the system through cracks in pipes, manholes or via illegal storm drain connections. This section provides recommendations for improvements to the City's inspection codes to provide more consistency and objectivity.

6.2.1 Pipeline Inspection

Uniform and consistent application of the observation codes, comments, and ratings is paramount in providing informative evaluation results. Utilization of standardized inspection observation codes by appropriately trained CCTV crew members serves to provide a consistent evaluation of the condition of the pipeline. The City Wastewater Maintenance staff utilizes the defect observation codes summarized in Table 6-1 to describe the interior condition of the pipe(s) during CCTV inspection. The severity rating levels utilized include Level 1 through Level 5. The severity rating Level I indicates a relatively adequate pipe needing maintenance, and Level V indicates conditions needing immediate attention, with incremental increases in severity between these levels. The severity rating level corresponding to the assigned defect observation code serves to assist City staff in determining whether further assessment of the condition is necessary.

Wastewater Collection System Inspection and Assessment

**Table 6-1
Existing City Defect Observation and Severity Levels**

Rating	Defect Observation Code Descriptions
Level I	Small Hair Line Crack in Pipe
	Light Roots In Pipe
	Light Grease
Level II	Cavity in Pipe Above the Water Line
	Crack in Pipe But Not Visibly Open
	Joint Gasket Exposed
	Root In Pipe and At Joint of Pipe
	Roaches/Rats in Pipe or Manhole
Level III	Joint Offset (More than 1 1/2-inches)
	Sag In Pipe
Level IV	Infiltration/Exfiltration in Pipe
	Intruding Lateral or Other Objects in Pipe
	Fracture in Pipe At or Below Water Line
	Joint Separation in the Pipe
Level V	Pipe is Collapsed
	Hole in Pipe at or Below Water Line
	Multiple Cracks with Soil Visible
	Missing Pipe
Other City Codes	Stub Lateral
	Sewer Manhole
	Cleanout
	Dead End
	Change in Pipe Diameter
	Change in Pipe Material

Wastewater Collection System Inspection and Assessment

The current system relies on the CCTV operator's subjective assessment of the entire reach of pipe between two manholes. Different operators and reviewers will reach different conclusions, resulting in inconsistent rankings. Also, the defect coding should be independent of the severity of the specific type of defect. The City's current defect code description does not allow for multiple conditional defects to be properly identified and documented. This results in inappropriate repair, rehabilitation, and replacement recommendations (e.g. a recommendation for rehabilitation or replacement may be made when a point repair may be sufficient). Since defects can often be ranked on severity, such as light, moderate, heavy, or critical, the system should document and record these severity levels to better facilitate appropriate repair and/or rehabilitation methods as thus the selection of CIP improvements during the assessment process as is described below. The process currently used by the City requires staff to re-evaluate the CCTV data and images of a pipe segment to determine the most appropriate CIP recommendation. This results in duplicative efforts because the videos must be reviewed multiple times: once to determine the severity, and then again to develop the best renewal solution.

Defect observation codes should be utilized in conjunction with digital information to document the condition of the entire pipe segment. Due to the wide range of potential conditions that may be encountered during inspection of each individual facility, the observations developed and utilized should encompass a wide range of typical observations encountered with additional detailed descriptions to further refine the data in a format easy for querying. Attachment A provides the recommended observation codes and descriptions that the City should implement to document potential conditions encountered during the inspection of sewer pipe segments.

Each defect observation code, identified by a one, two, or three letter designation, is easy to memorize and represents most of the conditions that an operator will encounter. A severity level of A through E is provided for each applicable defect, and each contains a detailed description to assist the operator to objectively assign the most appropriate observation defect code. For each type of defect encountered, a severity level should be assigned to provide comprehensive and detailed information for each pipe segment inspected. City staff will need to reevaluate the preliminary recommended method of repair or improvement to ensure the most appropriate improvement method is implemented.

6.2.2 Pipeline Inspection Frequency

Every pipe should be inspected at least once every five (5) years to document the condition of the pipes and establish benchmark information that allows staff to identify trends and predict useful life. Segments that experience an SSO should be inspected within 24 hours after the spill or as soon as practical if longer. As well, other segments may require more frequent inspection, such as pipes that are close to the end of their useful life or segments prone to problems. These segments should be documented and scheduled in the City's CMMS system (discussed more fully below). Using a five (5) year schedule, one (1) City CCTV crew would need to complete approximately 80,750 lineal feet of inspections every quarter. Industry standards indicate crews can complete an average of 3,000 lineal feet of inspection per day. Consequently, City crews would need 27 days per quarter, or about 7 days per month, to complete the routine inspection of the entire wastewater collection system within a five (5) year period.

To establish a benchmark for the system, inspection and documentation of the existing condition of the entire system should occur within the next 18 to 24 months. This may require

Wastewater Collection System Inspection and Assessment

retaining the services of consultants to complete a portion, or all, of the initial inspection efforts using the recommended standards. The City should implement efforts to ensure consistency is maintained throughout the inspection and assessment process.

6.2.3 Manhole Inspections

As an integral part of the wastewater collection system, access manholes require the same degree of inspection and maintenance as the pipeline sewer network. Manhole inspections are generally visual and include evaluating the condition of the manhole cover, ring, barrel, steps (if included), trough, and bench for any defective condition. Manholes should be inspected on a routine basis to ensure that they are in adequate condition. Older manholes may require more frequent inspections to detect signs of possible inflow and infiltration (I/I) and ensure structural integrity. During the inspection of manholes, the following information may be obtained and documented for assessment of sewer manholes and future planning purposes:

- Exact location of the access manhole (inaccessible, buried, etc.)
- Diameter of the clear opening of the manhole
- Condition of frame and cover (include defects that allow inflow to enter)
- Access manhole lid is located at proper grade or elevation
- Whether cover is subject to ponding or surface runoff
- Type of material and condition of the cone and walls
- Condition of steps, cone and riser joints
- Configuration, size, and type of the incoming and outgoing lines (including drops)
- Signs of leakage in the riser or damage to the frame's seal
- Observed infiltration sources and the rate of infiltration, and
- Indications of height of surcharge

Attachment B shows a typical manhole inspection form that has been coded for easy conversion into a database to facilitate queries on manhole condition, location, and construction. The City currently does not have a formal manhole inspection and assessment program. It is recommended that the City start documenting manhole inspections. The inspections should occur concurrently with pipeline cleaning and inspections. As such, all manholes will be identified and documented each one and a half (1.5) years.

6.3 Assessment Criteria and Procedures

Data obtained from inspection of the sewer system pipelines and manholes provides essential information to evaluate the existing system conditions and assess the criticality of potential defects. As the information is obtained and recorded during the CCTV inspections, City wastewater staff should review, evaluate, and identify the defects according to established criteria and standards noted in Attachment A. Based on the assigned defect, the appropriate severity rating level is determined. The severity rating assigned to the pipeline segment

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inspected should correspond to the severity description provided and according to the type of observation code.

The severity ratings, which are provided for each potential defect code, include rating levels A to E. The severity rating levels serve to quickly capture descriptive information that is specific to the type of defect observation code assigned. Urgent issues and conditions, often reflective of level E conditions, should be brought to the engineering staff's attention for immediate resolution. For the remainder of the data, staff can implement a routine process to evaluate the data on a quarterly basis, using the coding and point values to sort the problematic conditions for review and consideration.

The results of the assessment are utilized to determine the most effective method of repair or rehabilitation to restore the facility to its most efficient state. A comprehensive assessment of all defects noted and preliminary repairs and rehabilitation methods recommended is performed to ascertain the condition of the portion of the wastewater collection system televised. Based on the comprehensive evaluation, projects are identified and prioritize based on the impact to the overall wastewater collection system. Once the projects, identified via this inspection and assessment process, are prioritized, the potential project costs are determined based on the recommended repair, rehabilitation, or replacement method. Using the priority and criticality ranking, the project is included and scheduled into the City's CIP for proper funding allocation.

6.3.1 Condition Criticality Criteria and Ranking

During the assessment process, each pipeline segment and manhole should be ranked to indicate the criticality of the asset condition. Table 6-2 provides a summary of the general criticality ranking associated with the severity of the condition of the asset as well as the recommended response time to complete the recommended action. The assets should be ranked from 1 to 5. A criticality rating of 1 is assigned to an asset in good condition, with only maintenance work being required, and a criticality rating of 5 is assigned to an asset in the worst condition and requiring immediate attention.

Table 6-2
Condition Criticality Ranking

1	2	3	4	5
Good	Adequate	Moderate	Poor	Failing
Maintain	Maintain	5+ Year	3-5 Years	High Priority

The criticality ranking is assigned based on the severity of the defect condition of each pipe segment should be based on specific criteria for each type of defect observation. Table 6-3 includes descriptions of the severity levels (A through E) as summarized in Attachment A, for each type of defect observation and the corresponding condition criticality ranking for pipe segments. These descriptions are used to help staff reviewing inspection data to determine the severity of the condition or maintenance required.

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With an assigned defect code and severity description assigned to a pipe segment, staff is able to make a preliminary recommendation for each pipeline segment. Table 6-4 includes a summary of typical preliminary recommendations available for each type defect observation and severity ranking.

Similarly for manholes, staff should use a uniform rating system to rank the severity of the manholes and make preliminary recommendations. Table 6-5 shows the criteria to determine the severity for the various defect code observations made during manhole inspections.

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**Table 6-3
Pipeline Severity Assessment Criteria and Condition Criticality Ranking**

Observation	Severity Criteria and Criticality Ranking				
	1	2	3	4	5
Cracks • Circular • Longitudinal • Multiple	None	Very small hair line crack(s)	Hair line crack(s) <50% of ID in length	Cracks ≤1/8" wide or >50% of ID in length	Cracks >1/8" wide
Broken Pipe	None	Connecting cracks, no displacement	Connecting cracks, displacement ≤1/4"	Connecting cracks, displacement >1/4"	Collapsed pipe, impassable
Joints - Offset	Minimal	Up to 1/2 of the pipe thickness	1/2 to thickness of the pipe	Thickness of the pipe to 1 1/2 times	> 1 1/2 times the thickness of the pipe
Joints – Separation	None	Gasket exposed	Bell exposed	Dirt exposed at top	Dirt exposed at invert
Roots	Minimal	10% to 35% Fine roots	35% to 60% Fine/medium roots	60% to 80% Medium roots	80% to 100% Tap root(s) visible
Grease	None	≤1/4" thick	1/4" to 1/2" thick	1/2" to 2" thick	>2" thick
Debris Accumulation	Minimal	Sporadic deposits (no rocks)	≤10% of ID (no rocks)	10% to 25% of ID and/or rocks	>25% of ID or impassable
Erosion (typical concrete pipe)	None	Rough surface	Exposed aggregate	Exposed rebar	Missing concrete
Corrosion (metal pipe only)	None	Minimal	Light tuberculation	Moderate tuberculation	Impassable, heavy tuberculation
Mineral Deposits	None	Minimal (possible infiltration)	≤10% ID thickness	>10% ID thickness	Impassable, heavy mineral deposits
Infiltration	None	Dripping	Seeping	Constant stream	Gushing water
Sag	None	Minimal (probably not perceptible)	≤25% of ID	25% to 75% of ID	>75% of ID
Flow Capacity	Minimal	2/5 or less full	2/5 to 1/2 full	1/2 to 3/4 full	3/4 to totally full

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**Table 6-4
Preliminary Pipeline Recommendation Criteria**

Observation	Condition Criticality Ranking				
	1	2	3	4	5
Cracks •Circular •Longitudinal •Multiple	No Action	No Action or Rehabilitate	No Action or Rehabilitate	Rehabilitate	Rehabilitate or Replace
Broken Pipe	No Action	No Action or Rehabilitate	Point Repair or Rehabilitate/ Replace	Point Repair or Replace	Immediate Point Repair
Joints – Offset	No Action	No Action or Rehabilitate	Point Repair and/or Rehabilitate	Point Repair and/or Rehabilitate/ Replace	Point Repair and/or Rehabilitate/ Replace
Joints – Separation	No Action	Rehabilitate	Rehabilitate	Point Repair and/or Rehabilitate/ Replace	Rehabilitate or Replace
Roots	No Action	Clean and Rehabilitate	Clean and Rehabilitate	Clean and Rehabilitate	Clean and Rehabilitate/ Replace
Grease	No Action	Clean	Clean	Clean	Clean
Debris Accumulation	No Action	Clean	Clean	Clean	Clean
Erosion (typical concrete pipe)	No Action	Rehabilitate	Rehabilitate or Replace	Rehabilitate or Replace	Replace
Corrosion (metal pipe only)	No Action	Ream and Rehabilitate	Ream and Rehabilitate	Replace	Replace
Mineral Deposits	No Action	No Action or Rehabilitate	Point Repair or Rehabilitate	Rehabilitate	Rehabilitate
Infiltration	No Action	No Action or Rehabilitate	Point Repair or Rehabilitate	Rehabilitate	Rehabilitate
Sag	No Action	No Action	Any Option	Replace	Replace
Flow Capacity	No Action	No Action	No Action	Evaluate Capacity	Evaluate Capacity

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**Table 6-5
Manhole Severity Assessment Criteria and Condition Criticality Ranking**

Observation	Condition Criticality Ranking				
	1	2	3	4	5
Cover	Good condition	Slight corrosion	Moderate corrosion	Severe corrosion	Missing
Frame	Good condition	Slight offset	Offset < 1"	Offset 1" to 3"	Missing or offset >3"
Grade Adjustments	Good condition	Hairline cracks	Cracks with gaps or some corrosion	Large gaps or spalling	In pieces and/or offset
Cone/Top	Good condition	Rough surface	Exposed aggregate and/or offset < 1"	Exposed aggregate and/or offset 1" to 3"	Dirt visible and/or offset >3"
Wall/Barrel	Good condition	Rough surface and/or slight offset	Exposed aggregate and/or offset < 1"	Exposed aggregate and/or offset 1" to 3"	Dirt visible and/or offset >3"
Bench	Good condition	Rough surface	Exposed aggregate	Exposed aggregate, ponding water	Missing concrete, ponding water
Trough	Good condition	Rough surface	Eroded edges	Deformed trough	No trough
Pipe Seal	Good condition	Concrete backfill visible	Gaps and shadows visible	Infiltration evident, roots incoming	Dirt visible
Infiltration	None	Dripping	Seeping	Constant stream	Gushing water
Lining (if applicable)	Good condition	Tiny bubbles in lining but no visible breaches in lining	Bubbles/ separation from MH and visible breaches in lining	Evidence that lining is separating in sections > 1 s.f.	Lining is torn and/or missing

Applying these assessment standards, City staff can objectively determine the general condition of the inspected pipes and manholes, primarily using the severity of the asset assigned according to the defect observation code assigned (Attachment A). Processing the initial review data results can assist in narrowing the focus to segments and manholes that require immediate improvements. Detailed review and evaluation of the facilities based on the preliminary severity and criticality and the recommended improvements will refine the method of repair or rehabilitation as well as facilitate the timing of the required improvement. Table 6-6 is a summary of criteria that may affect and reclassify the type of repair or rehabilitation method required.

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**Table 6-6
Re-Classification Criteria**

Rules	
1	If the line segments upstream and downstream of a segment are to be replaced, then the segment in between will be shifted to replacement.
2	If a larger line flows into a smaller line, then it will be replaced to a point of similar size pipe or larger pipe to normalize the pipe size. A specific application of hydraulic modeling will be required to keep the smaller line size. This rule is intended to prevent conditions where pipe sizes decrease going downstream.
3	If a line segment includes un-reinforced concrete pipe in combination with other materials, then the concrete pipe will be replaced.
4	If a pipe is more than 30 years old and requires more than two point repairs, it will be shifted to rehabilitation depending on hydraulic condition, slope and location.
5	If a segment is classified as point repair and rehabilitation, then the segment will be shifted to rehabilitation.
6	If a pipe is classified for rehabilitation or replacement, but a review of the video indicates that the defects are minor and there are no adjoining replacement projects, then the segment will be shifted to maintenance.
7	If a pipe is classified as point repair, but a review of the video indicates that the point defect is not likely to cause a spill, then the segment will be shifted to maintenance.
8	If a segment is classified as rehabilitation or point repair, and an adjoining segment is classified for replacement, then the segment will be shifted to replacement.
9	If a segment is classified as point repair, and an adjoining segment is classified as rehabilitation, then the segment will be shifted to rehabilitation.
10	If a segment is classified for maintenance or rehabilitation, and it has one major defect, it will be shifted to rehabilitation.
11	If a segment is classified as evaluate for rehabilitation or replacement, then the segment will be shifted to rehabilitation or replacement after review of the video and other data.
12	If a segment is classified as point repair, and review of the video indicates the pipe is in poor condition, then the segment will be shifted to replacement or rehabilitation depending on location, slope and hydraulic information.
13	If a pipe is in a high traffic area or an environmentally sensitive area, rehabilitation may be preferable to open-trench replacement.
14	The recommendation of the CCTV operator was considered during the manual review, but it did not automatically override the initial classification.
15	A Planning Report or Pre-Design Report will take precedence over the CCTV Inspection reports. The CCTV inspection report is intended to further support the Planning or Pre-Design Reports.

At the completion of the assessment efforts, CIP projects and repairs will be identified and prioritized based on the observable conditions. This information will be used by staff to appropriately budget and schedule future work. The next section describes common repair, rehabilitation, and replacement methods available to the City.

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Chapter 7

Repair, Rehabilitation, and Replacement Options

Wastewater collection system repair, rehabilitation, and replacement is necessary to restore and maintain the structural integrity of the collection system and to provide adequate hydraulic capacity, including the reduction of I/I. The purpose of developing and implementing a repair and rehabilitation program is to cost-effectively maintain system performance and extend the service life and maintain system capacity of the City's sewer infrastructure. Specifically, a well developed program should serve to:

- Improve the performance and reliability of the system;
- Reduce ongoing maintenance costs;
- Reduce groundwater infiltration and stormwater inflow (I/I);
- Provide adequate capacity to reduce incidents of overflow;
- Maintain the value and extend the service life of this publicly owned asset; and
- Comply with current and anticipated future public health and environmental regulations.

This section describes the City's current repair efforts, describes the various repair, rehabilitation, and replacement methods available, and outlines criteria to help identify which method would be the most appropriate and cost effective for a given situation.

7.1 Current City Repair Procedures

The City's Wastewater Operations Section is responsible for performing various types of wastewater facility repairs and rehabilitation improvements. Repair and rehabilitation work performed by crews may include point repairs at cracks, joints, and service interfaces, repairing collapsing or broken sewer pipe, removing obstructions in the sewers that hinder cleaning operations, manhole rehabilitation, video inspection and other related work. Repairs that require resources beyond those available within the Wastewater Maintenance Section, including staff and equipment, are coordinated and scheduled with other sections including the Water Distribution and Engineering Section. In conjunction with the City's Water Distribution Section's staff and equipment, the Wastewater Maintenance staff is responsible and able to implement mitigation efforts and perform repairs for pipeline up to 12-inch in diameter to restore or replace failing wastewater collection sewer lines. Repairs for pipelines greater than 12-inches in diameter or that require an extensive construction effort are performed by independent contractors retained by the City.

7.2 Capital Improvement Program (CIP) Improvement Options

Several factors set the priority of projects identified during the assessment process, although the condition of the pipe is usually the primary factor. Additional factors may include goals to reduce sanitary sewer overflows, reducing infiltration and inflow in pipes located below the water table, or reducing maintenance efforts by improving the pipe condition. Other considerations

Repair, Rehabilitation, and Replacement Options

include coordinating surface and utility improvements with the other agencies that may be impacted by improvements.

Also, the available methods to repair and rehabilitate a segment or manhole, in lieu of actual replacement, factor into the decision. Certain methods can be performed quickly and with little impact to the community at a fraction of the cost of replacing a facility but the ability to maintain rehabilitated facilities, along with the estimated benefits, must be considered. As a reminder, the selection of a method based on the general rules below is not a substitute for the experience and knowledge of the staff and engineers performing the assessment. The unique situation and condition of each segment must be considered when finalizing recommendations. As such, not every recommendation will rigidly adhere to the methods and rules below.

7.2.1 Determining the Best Improvement Method

Sewer collection systems can be rehabilitated without construction of new replacement or relief sewers. In many cases, the sewer problem may have isolated or point defects that can easily be repaired. Replacement of a portion on an existing system can be very disruptive to a community, and alternative construction techniques, such as lining, can significantly reduce the impacts and provide a cost effective option to replacement. Of course, there are cases where due to the age of the sewer and the extent of defects, there may be no alternative but to replace the sewer line.

There are several alternatives to consider for the rehabilitation of sewer infrastructure. Depending on the severity of the defects identified by the inspection and assessment process, rehabilitation alternatives include point repairs, lining and other no-dig alternatives.

A typical approach to selecting appropriate rehabilitation alternatives is described in the following sections and are summarized Table 7-1 below.

**Table 7-1
Sewer Pipeline Improvement Alternatives**

Description of Defect	Recommended Method
Roots, broken or cracked pipe, misaligned or open joint, and/or grade break at 1 or 2 locations along a pipe segment.	Point repair (if total pipeline length is > 300 feet); Replacement (if total pipeline length is < 300 feet)
Roots only, more than 2 locations	Lining, Chemical Herbicide or Repetitive Cleaning
Multiple cracks only – minor to medium	Lining
Roots at most joints with multiple cracks, no offsets	Lining
Roots at most joints with major offsets, breaks, major cracks or major grade breaks and all other conditions not noted.	Replacement
Severe defects requiring replacement in difficult to access locations or areas of high traffic congestion	Pipe bursting, bore and jack, directional drilling or micro tunneling

7.2.2 Infrastructure within Easements

Sewer mains located in easements are a concern due to inadequate access to maintain these facilities and to replace with traditional dig and replace methods. Sewer mains in easements with poor or no access for maintenance or emergency repair work often result in higher repair costs due to using specialty access equipment, hand labor, and mitigation of unplanned environmental impacts. Another option is using carrier pipes or casings in the easements, so that sewer mains can be replaced from outside the constrained easement areas. Private pumping is also an option. In most cases, the topography of the area will dictate the alignment of the new gravity sewer system. As such, relocating easement sewers may not be cost effective.

Realignment of sewers is often costly because the associated expenses include realignment and construction of new facilities, as well as abandoning the old facilities. If the annual cost of maintaining an aging sewer within an easement, plus the benefits to the community and environment, outweigh the capital expense to relocate, it may be prudent to relocate easement sewers. However, if operations staff can adequately access the sewer, and the facility is in good condition or easily improved, the sewer does not need relocating. To properly evaluate the feasibility of realigning pipelines, with poor or no access, into the public streets and out of private property, the City should conduct re-direction of flow studies on a case-by-case basis to consider alternatives and recommend accessibility improvements.

The following sections describe common sewer improvement methods available for pipelines and manholes, and include advantages and disadvantages of each method.

7.2.3 Pipe Point Repairs

Where defects are documented at one or two locations between manholes via the video inspection and assessment process, point repairs may be recommended. However, for pipe segments less than 300 feet in length, with defects noted in two locations, implementation of point repairs may affect the integrity of the remaining pipe. Therefore, the replacement of the entire pipe segment is recommended. Point repairs are cost effective alternatives to full pipe replacement if remaining portions of the pipe are in good condition as noted from video inspections. The following methods are common point repair options available to correct localized deficiencies in pipes.

Grouting Sleeve System

The grouting sleeve system is a trenchless, mechanical, spot repair technology designed for the permanent repair of straight, short sections of damaged sewers. The grouting sleeve has been installed in pipes with full flow; however, high velocity flows may result in reduced amounts of grout, which will increase the chance of infiltration and exfiltration. Most repairs can be carried out in approximately 30 minutes.

The core element uses a stainless steel grouting sleeve with a maximum thickness of $\frac{3}{4}$ inch, and in lengths of 1, 2, and 3 foot long segments. The annular space between the stainless steel and the host pipe is filled with grout. Various grouts are available for different pipe conditions. Curing commences 20 minutes after the grout is exposed to water. The result is a cured-in-place pipe repair with a protective stainless steel cover. The grouting sleeve is designed to

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retain its structural strength for a minimum of 100 years. The average product life predicted by manufacturers is 225 years.

CIPP Sleeve

A Cured-in-Place Pipe (CIPP) sleeve involves inverting an 8-ft long resin-impregnated fabric tube into a clean, existing pipeline, then curing it in place with hot water or steam. It is a seamless, jointless, pipe-within-a-pipe capable of rehabilitating pipes as large as 96-inches in diameter. CIPP can provide a system with independent structural integrity that does not rely on the host pipe for strength. CIPP can significantly reduce infiltration and exfiltration and acts as a root barrier. CIPP is a structural product with a 100-year design life.

Robotic Sewer Pipe Repair (Grinding and Epoxy Coating)

Robotic repair systems for gravity pipelines use grinding and filler robots. The former removes encrustation and intrusions and mills out cracks to provide a good surface for adherence by the repair materials. High pressure air, steam, or water cleaning, with or without approved cleaning agents, is used to clean the inside of the existing pipe wall. Cleaning includes the removal of all fine residues in the prepared area produced by grinding. The filler robot inserts an epoxy mortar into the slot formed by the grinder and trowels off the excess material for a smooth finish. Repair robots are equipped with CCTV cameras to ensure adequate visibility of the work area. Robots are positioned in the pipe and all work functions are executed remotely by the operator.

Open Trench

Excavation for open trench repair is the traditional dig and repair method. A spot repair is a good option when the problem area is easily accessible, confined to one spot, and the remainder of the pipe is in good condition. Open cut excavations involve digging a trench to replace segments of pipe up to about 8 feet long. Open trench repairs are usually associated with large disruptions to the area surrounding the project and can take longer to complete than trenchless options.

7.2.4 Pipe Lining

Pipeline lining offers a trenchless method to rehabilitate deteriorating sewer mains. Since no open trench is required during the lining application, there is minimal disruption to residents and business owners during construction. Lining of sewer mains is recommended for pipes with rooting problems and/or cracks with no major offset joints. Lining is not recommended for offset joints identified from data over 10 years old since the severity of offsets has likely increased over time. Additional inspection and possible trenchless point repairs, such as grinding, may be required before lining can proceed, or replacement is deemed the best alternative.

Where breaks, major offsets, or bends are noted in the video inspections, lining is not recommended because the lining material tends to constrict, fold, or collapse where these defects occur. In choosing an appropriate repair method, there may be cases where it may be cost effective to consider combining point repairs with lining.

CIPP Pipe Lining

Cured-in-Place Pipe (CIPP) lining involves inverting a resin impregnated fabric tube into a clean, existing pipeline, then curing it in place with hot water or steam. Fold-and-form lining requires pulling a fabric tube, saturated with a resin and folded into a U-shape, into a clean, existing pipe, then expanding the tube to the shape of the pipe with pressurized water before curing with heated water or steam. Both of these methods require the flow to be plugged or diverted during the process.

Spiral wound pipe involves inserting a continuous strip of reinforced plastic into an existing pipe, in a manner that causes the edges to interlock and form a watertight seal. Spiral wound pipe, usually in 6-inch and 8-inch wide strips, can be installed in a live sewer.

The lining methods presented can provide a strong system that does not rely on the host pipe for strength.

7.2.5 Pipe Replacement

Replacements of pipe segments are recommended where multiple occurrences of breaks, cracks, misaligned joints, grade breaks, and moderate to excessive roots are identified in the video inspections. Replacement is also the preferred alternative when upsizing the pipe diameter to accommodate increased flows, and for relatively flat segments. Where pipe replacement is recommended, replacement of both manholes at each end of the pipe is also recommended. The following sections describe methods available for replacing pipelines.

Open Trench

Open trench excavation is a traditional dig and repair method. It involves extensive digging and trenching to replace large sections and is associated with large disruptions to the immediate area surrounding the project and can take longer to complete when compared to trenchless options. Pipeline replacement using open trench methods requires long stretches for efficient pipe laying, which causes extreme disruption to the community.

Pipe Bursting

Pipe bursting offers a solution to replacing defective pipe that has access at its end points but not between, such as pipe that crosses a freeway or major intersection. The alignment must be straight with very minor or no sags and adequate slope. Access pits are required at the ends of the pipe segment being burst. If any service connections must be reinstated, access pits are required at these locations as well. The size of the pipe can generally be increased to the next standard pipe diameter above the existing diameter, and possibly two (2) standard pipe sizes depending on the existing soil conditions and adjacent utilities. The material used for the replacement pipe includes high density polyethylene (HDPE) pipe or joint-fused PVC pipe. This method may be more costly than traditional dig and replace, but it is generally faster and less disruptive to the community, thereby resulting in intangible benefits.

Repair, Rehabilitation, and Replacement Options

Jack and Bore

Jack and Bore for installation of pipe includes a multi-stage process consisting of constructing a temporary horizontal jacking platform and a starting alignment track in an entrance pit at a desired elevation. The pipe is jacked by manual control along the starting alignment track with simultaneous excavation of the soil being accomplished by a rotating cutting head in the leading edge of the annular space in the pipe. The ground up soil (spoil) is transported back to the entrance pit by helical wound auger flights rotating inside the pipe. Jack and Bore typically provides limited tracking and steering as well as limited support to the excavation face. Consequently, Jack and Bore is not suited for gravity lines with shallow slopes or in sand or other loose fill materials.

Directional Drilling

The use of directional drilling is used primarily of the installation of pipe under crossings. In addition to crossings under rivers and waterways, directional drilling can be used for the installation of pipes under highways, railroads, airport runways, shore approaches, islands, areas congested with buildings, pipeline corridors and future water channels. This type of pipe installation requires a large staging area and work space for the multiple operations involved in the installation process.

Micro-tunneling

Micro tunneling is conducted similar to Jack and Bore with the exception that it is a remotely controlled, guided pipe jacking process that provides continuous support to the excavation face. The guidance system usually consists of a laser mounted in the tunneling drive shaft which communicates a reference line to a target mounted inside the microtunneling machine's articulated steering head. The microtunneling process provides the ability to control the excavation face stability by applying mechanical or fluid pressure to counterbalance the earth and hydrostatic pressures. This process avoids the need to have long stretches of open trench for pipe laying, which causes extreme disruption to the community.

7.2.6 Manhole Renewal and Replacement Options

Manhole rehabilitation varies greatly due to the various components of a manhole. Several manhole rehabilitation options are summarized in the subsections below.

Concrete Liners – Poured-in-Place

A poured-in-place seamless concrete manhole liner extends from the bench to the frame. Prior to installation, the manhole should be cleaned to remove loose material and debris. Existing steps that might interfere with the erection of forms should be removed. Infiltration that may adversely affect placement of the concrete should be eliminated or reduced to an acceptable level. After steel forms are positioned in the manhole, concrete is poured into the forms. When the concrete has sufficiently cured, the forms are disassembled and removed. A polyvinyl chloride (PVC) or high density polyethylene (HDPE) liner is fitted to the exterior of the steel forms during erection within the manhole and when the forms are removed, joints in the liner are welded and tested. This method results in a loss of three to six inches of manhole diameter.

Liners – Cured-in-Place

Cured-in-place (CIP) liners for manhole chimneys are made of stretchable, “one size fits most”, coated polyester and are vacuum impregnated with a silicate resin. Prior to curing, the manhole chimney should be cleaned with a minimum of 5,000 psi pressure, grinder, or sand blasting. Large voids must be filled with hydraulic cement and interfering steps must be removed. Then, the liner is inserted and impregnated under controlled conditions. Resins may be heat or steam cured. Resins that cure under ambient temperature and pressure are available. CIP liners have a high level of chemical resistance, eliminate inflow and infiltration, and structurally enhance the manhole chimney. A two person crew often installs these liners. The liner is typically backed by a ten-year, non-prorated, material and labor warranty from the manufacturer and the installer.

Cementitious Coatings and Grouts – Sprayed, Pumped, and Troweled

Cementitious coatings and grouts are centrifugally applied to the manhole walls. To prepare the surface, cover the manhole base to prevent washed debris from entering the sewer line. Then, wash the interior surface with at least a 3,500 psi water blast. Pressures sufficient to etch the existing surface will improve adhesion. Plug active leaks with adequate plugging material and fill voids and overhangs with patching material prior to application of mortar. The synthetic mortar is cast from a robotic applicator positioned in the center of the manhole. A dense, uniform layer is compacted in place at any thickness from 0.5 inch to 2.0 inches depending upon the degree of deterioration and the depth of the manhole. Multiple passes can be made until the specified thickness is attained. Cementitious coatings are typically a fast setting, ready-to-use, cement-based concrete and masonry patching compound formulated specifically for underwater use. When properly mixed and applied, they can develop a very high strength bond, but they are still prone to chemical corrosion. A quick-setting hydraulic cement compound can be used to stop running water or seepage leaks in masonry or concrete.

Polymer Coatings and Grouts – Sprayed, Pumped, Troweled

Polyurethane Coating. A Polyurethane coating is characterized by a multi-layered polyresin liner system, consisting of a moisture barrier (modified polymer), a surfacer (polyurethane/polymeric blend foam), and a final corrosion barrier (modified polymer). Before system application, the surface is prepared by hydro blasting to remove all corrosion from the structure. Any cracks and holes that leak are sealed with a chemical or hydraulic sealant. Severe cracks are repaired using a urethane based chemical sealant. Repairs to exposed rebar, defective pipe penetrations or inverts, etc. are done utilizing non-shrink grout or an approved alternative method.

Epoxy Coating. A structural epoxy manhole liner system provides a stand-alone, self-supporting structure when applied with a thickness of at least 0.25-inch. The system will protect new concrete from hydrogen sulfide attack, seal out infiltration, enhance the flow, and reduce buildup in the structure when applied with a thickness of at least 0.10-inch. Prior to application, damaged concrete and contaminants must be removed. Surfaces should be cleaned and abraded with low-pressure water cleaning until the pH does not exceed 8.5. Detergent water cleaning and hot water blasting may be used to remove oils and grease from the concrete. Active water infiltration should be stopped by using a hydroactive urethane grout that is

Repair, Rehabilitation, and Replacement Options

compatible and suitable for topcoating with the epoxy manhole liner system. The two-part epoxy system is formulated with special additives and modifiers to enhance water and chemical resistance and to increase internal strength. This epoxy system allows for a long open time before topcoating is applied, cures at low temperature and high humidity, and provides water and chemical resistance with ambient cure. Epoxy coating tends to be between 25 and 40 percent more costly than polyurethane coating; however, its product life usually lasts between 10 to 20 years.

Mechanical Seals and Inserts

PVC inserts and mechanical seals are installed between entry castings, precast concrete cones, and flat top sections for a corrosion resistant and watertight connection. The connector is flexible so that freeze/thaw and heat expansion cycles do not compromise the watertight integrity. It provides relatively easy installation and does not require special tools or special preparation of the existing manhole surface. In addition, its design allows for future grade adjustment (up to 14 inches) without added parts. The connector is available for manhole openings of 24-inch, 27-inch, and 30-inch diameters.

Chapter 8

CIP Development

A well planned and long range Capital Improvement Program (CIP) for the wastewater collection system allows the City to plan, design, and construct sewer infrastructure projects in a planned and organized manner that best serves its customers. Integrating the results of the inspection and assessment efforts, with the capacity modeling efforts, the City will pursue a proactive and comprehensive long-range planning effort.

Prioritizing projects relies on the several factors including:

- Severity and extent of the conditional defects
- Hydraulic capacity needs and projections
- Estimated remaining useful life of the facilities
- Maintenance records (condition findings) and SSO occurrences
- Identified major new developments

Using this data, it is recommended that the City develop a rolling 10-year CIP list of projects, which identifies projected costs and dates for start and end of construction. The wastewater staff should review the list at least every two (2) years to revise the priorities and update estimated costs based on new information. This will assure that the necessary projects will be completed timely, thereby reducing the potential occurrence of an SSO.

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Chapter 9

Computerized Maintenance Management System (CMMS)

Use of a Computerized Maintenance Management System (CMMS) provides a method for agencies to track equipment, maintain an inventory of its assets, detail timing and method in which work orders will be performed to maintain the assets, and accumulate all associated costs for labor, materials and equipment. The ability to track activities such as scheduled and performed work, and workforce productivity will allow City staff to determine the resources necessary for routine preventive maintenance activities as well as additional activities necessary to ensure proper operation and maintenance of the City's wastewater collection system.

A versatile CMMS in conjunction with a GIS-based tool for maintaining specific wastewater collection system data may be utilized and customized to manage specific activities and resources associated with the City's collection system including, but not limited to the following:

- Tracking and monitoring ongoing operation and maintenance activities
- Ensuring proper coordination between wastewater collection system maintenance work and other activities
- Establishing a more efficient and systematic approach planned maintenance activities that enables a more efficient use of staff resources
- Affecting inventory control enabling better spare parts forecasting to eliminate shortages and minimize existing inventory
- Tracking and monitoring work orders for specific system activities
- Eliminating paperwork and manual tracking activities, thus enabling staff to become more productive.

9.1 Activity Scheduling and Tracking

Scheduling and performance of maintenance and cleaning activities is currently performed by the Operations Manager and Wastewater Supervisor. Daily schedules are manually composed and delineate the type and location of work to be performed. Work is assigned and performed and reports summarizing daily progress are generated by maintenance crews and submitted to the Wastewater Collection Supervisor to track progress and status of wastewater collection facilities. Daily progress reports and work-related forms are filed at the water operations yard for future access and reference. A wall map of the City divided into four (4) quadrants and depicting the City's wastewater collection system, is highlighted daily by the maintenance crews to reflect the cleaning and CCTV inspection completed. The map serves to provide City maintenance crews with a comprehensive view of the progress of the preventive maintenance efforts by quadrant.

Computerized Maintenance Management System

9.2 Maintenance Data Management

In 2004, the City invested in GBA Master Series, a maintenance and asset management software that would be compatible with the City's GIS. The integration of the program was intended to organize, manage, and centralize its infrastructure data to allow City staff access to information pertaining to a particular system element (such as technical data, related work orders, photographs, and videos). The City also intended to utilize the GBA program to facilitate storage of inventory data and CCTV inspection data, and allow the automatic downloads of data from the CCTV inspection equipment to GIS to facilitate performing condition assessment of information captured with the CCTV equipment. The CCTV data storage and management process has been in place since October 2005 and includes transferring the recorded data onto CDs and storing the CDs for future reference as needed. Information relevant to the information on the CD is recorded in an Excel spreadsheet including the date, time and the pipeline televised.

9.3 Implementation of CMMS components

The City continues to work toward identification, integration, and utilization of a CMMS to facilitate management of wastewater facilities and resources. Utilization of a versatile CMMS will allow staff to properly and efficiently organize, plan, and schedule the appropriate resources for routine preventive maintenance activities, coordinate and prioritize urgent and/or unique maintenance activities, and ensure uniformity and consistency in processing and tracking facility related information.

Concurrently with completing a comprehensive wastewater collection system survey, inventory, and the associated mapping, the City should identify and implement a CMMS to more fully support the management, operation, and maintenance efforts by the Wastewater Maintenance Section for the wastewater collection system. Ultimately, the proper management of wastewater facility maintenance and asset data will allow City staff to:

- Understand the condition of the physical assets including replacement costs, lifecycle analysis, and current and future funding needs;
- Understand the implications of deferred Capital as it relates to measured conditions and strategic goals;
- Develop a basis for the funding needs and allocations;
- Produce consistent reports designed to deliver accurate planning data in presentable form; and
- Approve and implement Capital planning activities based on set priorities that are in line with the City's strategic goals.

Additional benefits of implementing a comprehensive and versatile CMMS facilitates tracking and data management of specific type of work performed and the resources necessary to support and ensure the proper operation of the City's wastewater facilities including, but not limited to:

Computerized Maintenance Management System

- Preventive Maintenance efforts (track progress and dates)
- CCTV efforts (tracked by quadrants)
- HFMS by segment with cleaning interval
- Repairs (to track materials, duration, etc.)
- GIS updates
- Chemical root treatment (specific locations and dates)
- Manhole spraying (MH ID and dates)

By documenting the progress of the activities listed above, the City will establish a benchmark from which future work orders can be issued. For instance, entering the chemical root treatment locations and dates for treatment, staff can monitor the progress and effectiveness of the program. Plus, the information can trigger alerts to schedule the next round of chemical root treatment, to avoid missing a cycle or the funding of the upcoming year's activities.

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Chapter 10

Equipment and Replacement Part Inventories

The Wastewater Maintenance Section maintains an inventory of vehicles and replacement parts. The inventory of vehicles includes the vehicle type currently utilized to perform the necessary operation and maintenance of the City's wastewater collection system. Table 10-1 includes a summary of vehicles available to maintenance staff. Table 10-2 includes a summary of the inventory of replacement pipe which ranges from 4- to 12-inch in diameter and maintained on site.

**Table 10-1
Wastewater Section Vehicle List**

Unit Type	Unit Number	Unit Year	Make	Equipment Class	License Number
Vactor	27002	1991	Volvo	Combination Unit	292016
Vactor	27013	2001	Sterling	Combination Unit	109694
Utility	27014	2002	GMC	HD-2500 Utility Truck	1129108
Utility	27015	2004	GMC	HD-2500 Utility Truck	1172390
Utility	27017	2006	Chevrolet	HD-3500 Utility Truck	No Plates
Dump	27006	1996	GMC	HD-3500 Lowbed	36323
Trailer	27011	2001	Sreco	Mechanical Rodder-Trailer	952696
CCTV	27016	2004	Ford	F-450 CCTV Sewer Van	1195013

**Table 10-2
Replacement Pipe Inventory List**

Diameter	Total Pipe Length (ft)	Repair Couplings	1/4 Bends	1/8 Bends	1/16 Bends
4 - inch	136'	81	4	4	4
6 - inch	90.5'	23	3	3	3
8 - inch	109'	23	3	3	3
10 - inch	42'	13	-	-	-
12 - inch	24'	12	-	-	-

Equipment and Replacement Part Inventories

Table 10-3 includes a summary of the repair fittings maintained in the City's inventory in the City Yard.

Table 10-3
Replacement Fitting Inventory List

Size	Tees	Wyes
4 X 4	-	1
6 X 4	3	3
8 X 4	3	5

Summarized in Table 10-4 are the parts maintained for potential manholes repairs.

Table 10-4
Replacement Manhole Inventory List

Size	Manhole Lids / Rings	Grade Rings
24 - inch	7	5
25 - inch	7	-
26 - inch	2	-
30 - inch	-	5

Additionally, the City's inventory includes seven (7) 4 -inch cleanout lids.

The vehicles and replacement parts are made readily accessible to maintenance staff. The replacement parts maintained in the City Yard are for the specific types of repairs the Wastewater Maintenance staff performs. As necessary, maintenance staff solicits the utilization of resources, including equipment and staff, from the Water Distribution Section. For implementation of repairs that extend beyond the City's internal resource capabilities, the City retains the services of professional contractors.

Routine assessment of the resources will ensure that City maintenance staff is adequately prepared to perform necessary system repairs. The inventory should include adequate sizes and types of critical repair and replacement parts. The City should also develop and maintain a resource list of contractors and vendors who stock the specific types of supplies used by the City and that are available for emergency and short notice deliveries.

Chapter 11

Training Program

Training programs are developed to ensure that personnel are well-trained to implement all applicable and necessary components of City established programs to successfully achieve established strategic goals. Typically, training programs specify and include the curriculum required prior to permitting an employee to undertake specific work assignments or tasks. Prior to performing any work on City facilities, City Wastewater Maintenance staff is trained on the existence and the provisions of the wastewater operations and maintenance policies, procedures, safety policies, and the equipment used. Additionally, Wastewater Maintenance staff is required to receive Collection System Maintenance training and certification through CWEA. Training for operation of City equipment includes primarily “on-the-job” training in conjunction with weekly “tailgate” meetings to discuss safety issues.

The City’s instructional program for initial and refresher training should incorporate curriculum that includes information specific to the level of knowledge, commensurate with duties and the overall functions of the facilities included in the City’s infrastructure. A training program specifically for the management and operation of the City’s wastewater collection system should include, but not be limited to, the following information:

- Purpose and procedures for proper implementation of the Inspection and Assessment Program including related activities, equipment, and inspection and assessment criteria
- Procedures for tracking all training activities
- Proper operation and maintenance of equipment utilized for performing job related duties
- Repair and rehabilitation program and available resources
- Importance of communication between all affected City staff including, but not limited to, staff within Water Operations and Engineering Sections
- Importance of following all safety policies and procedures
- Procedures for tracking and documenting all job related information
- Procedures and specific tasks related to effective and efficient execution of SSO Emergency Response
- Preventative Maintenance Program and related activities

All appropriate staff should be required to participate in regularly scheduled training sessions to assist staff in awareness of their responsibilities and executing their duties. These training sessions should be organized to include the latest City policies and procedures as well as other relative materials. Training sessions should incorporate hands-on field demonstrations to insure the preparedness of all personnel to all anticipated situations. Field demonstrations will be performed to test equipment, response time, training effectiveness, resources, and manpower capabilities.

Training Program

Additional instructional material should include the City's approved Sewer System Management Plan (SSMP) and the SSOERP. This will serve as a mode of instructing staff on the SSMP, SSOs, and all the required documentation. Training and event participation must be documented and maintained by either the Wastewater Supervisor or the Risk Management Department. As necessary and determined by appropriate managerial staff, training programs may also include supplemental technical training required to efficiently and safely perform specific job related duties. Currently, minimal certification is required. However, additional certification requirements may be implemented in the future if deemed necessary by governing authorities.

Chapter 12

Organization and Staffing

The City's Wastewater Maintenance Section staff is responsible for the operation and maintenance of the wastewater collection system and performs the regularly scheduled preventative maintenance and intermittent televising of select locations. The current staff available to implement the various elements of the City's operations and maintenance activities includes the seven (7) people within the Wastewater Maintenance Section shown in the organizational chart in Figure 12-1.

Generally, establishing the elements required for a comprehensive and effective operations and maintenance program is critical to determining the staffing necessary to implement and execute each specific element and the associated tasks. To comply with the WDRs, the City intends to augment its current operations and maintenance activities to include several additional elements to the overall operation and maintenance program. This will require that current staff responsibilities vary and/or expand to include additional duties. Attachment C includes a summary of the estimated level of effort required to implement various elements of the WDRs. It also includes a general description of the efforts and labor necessary to implement each element of the WDRs as well as the associated frequency of each task and the anticipated work schedule.

The job duties presented in the Estimated Level of Effort Associated with Waste Discharge Requirements, included in Attachment C, include the establishment, implementation and enforcement of a FOG control program, CCTV inspection and assessment efforts, GIS mapping and updates, as well the effort by staff necessary to respond to emergency SSOs and repair and replacement construction work. Assumptions of the estimated number of hours for each duty are included. Additionally, hours have been estimated to annually review and report on the status of the various SSMP elements and to update the SSMP at least once every two years. To properly manage these tasks, adequate staff must be available to perform the annual monitoring and update.

The estimated hours for the duties presented in Attachment C reflect implementation of comprehensive programs. However, other duties may be required of staff which may not be listed in Attachment C. Since current staff responsibilities vary and include performing various operations and maintenance types of activities, the work schedule to perform the tasks incorporates the estimated effort for the nine (9) Wastewater Collection System staff including the Wastewater Collection System Supervisor, the Crew Chief, and seven (7) Wastewater Maintenance Technicians. The 1,200 hours included for the supervisory duties for the Wastewater Collection System Supervisor and 600 hours for the Crew Chief, as shown in Attachment C, may include, but are not limited to the following:

- Plan, organize, schedule, assign, and supervise the work of crews engaged in a range of maintenance and operations work activities; coordinate and participate in the selection and evaluation of staff as required, counsel staff and take necessary disciplinary action; ensure that employees receive appropriate and adequate job-related training; resolve personnel administrative matters.

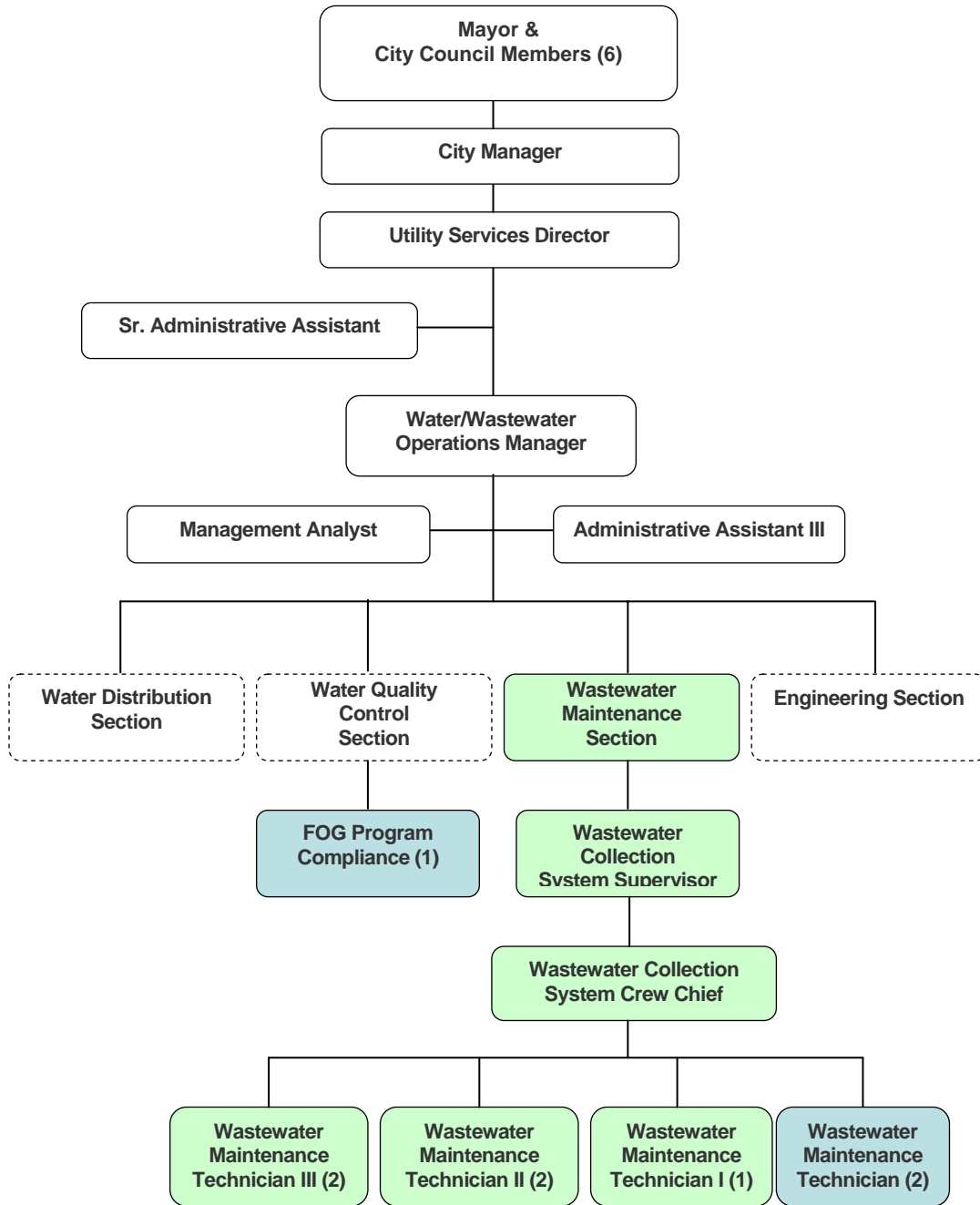
Organization and Staffing

- Review and evaluate the staffing, material, and equipment needed for projected activities; establish work priorities and timelines and make recommendations on project implementation; prepare and present project recommendations.
- Conduct project inspections to evaluate progress and ensure conformance with specifications; confer with other City staff to coordinate work schedules and ensure effective and efficient operations.
- Develop, recommend, and implement section goals, objectives, policies, procedures and work standards; develop, review, and update written instructions and schedules; coordinate activities with those of other divisions, sections, outside agencies, and contractors.
- Assist with preparation and administration of assigned budgets; develop budget estimates based on anticipated material and personnel needs; participate in long-term planning activities to assess future needs; research and recommend new operations methods, techniques, and equipment as appropriate; provide assistance with developing departmental and project budgets as assigned.
- Monitor staff compliance with safety procedures; ensure that work activities are carried out in a safe and efficient manner; respond appropriately to emergency situations as necessary.
- Ensure that adequate resources to perform assigned activities; requisitions necessary tools, supplies, materials and equipment to maintain appropriate inventories.

Table 12-1 provides a summary of the estimated hours to implement the various WDR elements. The hours are summarized according to staff classification and the frequency the tasks should be performed to establish the procedures for the specific program. Consideration should be given to the overall time that will be required to fully implement the programs included and described in Attachment C. For instance, many tasks are a one (1) time effort to set up and implement procedures; other tasks are annual activities that will occur routinely from year to year.

As noted in Table 12-1, one new position, a FOG Compliance Officer, is recommended. Currently, the Wastewater Collection System Supervisor and Crew Chief are “working” supervisors who perform a variety of activities at a journey and advanced journey level needed to facilitate project completion. With respect to the overall Wastewater Maintenance Section staff, it is recommended that two (2) additional Wastewater Maintenance Technicians, assuming 1,675 productive hours per year per crew member (e.g. 11,288 hours/ 1,675 hours/crew member = 7 persons) be added. Five (5) existing plus (2) additional Wastewater Maintenance Technical positions should provide adequate coverage of field duties and accommodate some cross training and technical office requirements to achieve compliance with WDR. Additional support for the ongoing implementation of the WDRs includes administrative assistance, engineering expertise, and some consultant support.

**Figure 12-1
Existing Organizational Structure**



- Primarily responsible for the wastewater collection system
- Proposed
- Currently providing support services

Organization and Staffing

**Table 12-1
Summary of Estimated Staff Hours**

Effort for Elements of WDRs	Estimated Hours
FCO (FOG Compliance Officer)	
One Time	1325
Annually	2134
Crew (wastewater operations crew member)	
One Time	400
Annually	10348
Crew Chief	
Annually	940
Supervisor	
Annually	1576
AA/T (Administrative Assistant/Technician)	
One Time	960
Annually	344
Engineer	
One Time	100
Annually	670
Bi-Annually	60
OTHER (Consultant)	0
Bi-Annually	200
TOTAL ESTIMATED HOURS	19,057

As the individual programs and the associated tasks are phased into the City's current procedures, continual monitoring and evaluation of the programs should be performed in order to facilitate further refinement of the staff resources necessary for each required task. Additionally, City staff should consider the overall time to complete WDR program phasing and implementation.

Attachment A

Recommended Observation Codes

Recommended Observation Codes

DEFECT CODES FOR CITY OF POMONA

Code	Severity	Observation	Maintenance Points	Structural Points	Definitions	Standard Comments	Joints
ST	A	Start Inspection	0	0	Use at the start of all inspections	"Re-Inspection after cleaning", Note if depth of flow is 1/3 pipe or more, note if pipe material from manhole is different from line	
FH	A	Finish Inspection	0	0	Use at the end of all inspections	Note the cause for ending the observation if you are not in the manhole, e.g. "camera blocked", "Overlap Point", "Clean Out", or "Dead End". If you are ending a reinspection use "End Re-Inspection".	
MH	A	Manhole	0	0	Upstream/Downstream manhole	Manhole number	
MB	A	Manhole Description	0	0	Buried / paved over manholes shown on plans, manholes not on plans	MH # & Note if it is buried or paved over; Note if it is an inside, outside or direct drop	
SA	A	Inspection Suspended	75	100	Impassable blockage, note apparent cause	Precede Observation with a General Observation Noting the apparent cause, e.g. by roots	
CUB	A	Camera Underwater Begin	50	50	Whenever the camera lens is partially or fully submerged, obstructing the view	Note if apparent pipe sag begins	
CUE	A	Camera Underwater End	50	50	Whenever the camera lens is returned to a normal state	Note if apparent pipe sag ends	
DND	A	Dead End	0	0	Used when camera reaches a dead end main	Note if "Plug" & condition	
CO	A	Cleanout	0	0	Use when the camera reaches a cleanout	Call out Clean out number	
MC	A	Material Change	0	0	Any change of pipe material	"Transition to (new pipe material)"	
DC	A	Diameter Change	0	50	Any change of pipe size	"Transition to (new pipe size & material)"	
SR	A	Spot Repair	0	50	Existing repair	"Spot Repair at (footage)"	
LL	A	Bend in Pipe Left	0	50	Any bend in pipe to the left		
LR	A	Bend in Pipe Right	0	50	Any bend in pipe to the right		
LD	A	Bend in Pipe Down	0	50	Any bend in pipe down		
LU	A	Bend in Pipe Up	0	50	Any bend in pipe up		
GE	A	Gasket Exposed	0	50	Gasket visible		
RS	A	Restricted Channel	0	0	Use when the camera is unable to access a channel		
X	A	Collapsed Pipe	0	700	Use if a section of the pipe wall has fallen in and the structural integrity of pipe has been compromised.	Note the approximate size and give a description. Note footage.	

Code	Severity	Observation	Maintenance Points	Structural Points	Definitions	Standard Comments	Joints
V	A	Vermin	0	0	Any animal, rodent, or insect infestation inside the pipe/manhole	Type of rodent / vermin/ bug	
GO	A	General Observation	0	0	General observation	If no opposite direction inspection done for an incomplete inspection, note the reason why. Note defects in service connections.	
R	B	Roots, Light	25	0	fine roots, root fingers following the wall of the pipe covering not more than 10% of the pipe wall	Note if roots are coming from a crack, hole, joint or around a lateral. Note approximate location (e.g. 12 o'clock)	
	C	Roots, Moderate	75	50	Fine to medium roots covering 10 to 20% of the pipe wall		
	D	Roots, Heavy	150	50	Fine to heavy roots blocking 20% to 50% of pipe - a carpet of roots following the walls of the pipe		
	E	Roots, Critical	200	50	Medium to heavy roots; tap roots visible; more than 50% of pipe blocked by roots; impassable		
	I	Infiltration, Light	0	50	Seeping	Note location of crack (e.g. 12 o'clock)	
E	C	Infiltration, Moderate	0	75	Dripping		
	D	Infiltration, Heavy	0	150	Constant stream		
	E	Infiltration, Critical	0	200	Gushing water		
	B	Mineral Deposits, Light	0	50	Minimal (Possible indication of Infiltration)		
	C	Mineral Deposits, Moderate	0	75	Less than 10% of ID thick		
	D	Mineral Deposits, Heavy	0	150	Greater than 10% of ID thick		
	E	Mineral Deposits, Critical	0	250	Impassable, heavy mineral deposits		
	B	Circular Crack, Small	0	75	Very small hairline crack(s)	Note if they are spiral cracks. Note location of crack (Top/bottom of pipe from 12 to 6 o'clock)	Cracks at joints are within 4" of joint
	C	Circular Crack, Moderate	0	100	Hairline less than 50% of circumference		
	D	Circular Crack, Large	0	175	Less than 1/8" open, or hairline greater than 50% of circumference		
E	Circular Crack, Critical	0	250	1/8" or greater, open			

Code	Severity	Observation	Maintenance Points	Structural Points	Definitions	Standard Comments	Joints
CL	B	Crack -Longitudinal, Small	0	50	Very small hairline crack(s)	If the crack extends past one section of pipe, note the end footage, e.g. to 105'. For continuing cracks, note every 3 pipe lengths with a "continuing" note. Note location of crack (5 o'clock)	Cracks at joints are within 4" of joint
	C	Crack -Longitudinal, Moderate	0	100	Hairline less than 1 section of pipe		
	D	Crack -Longitudinal, Large	0	175	Less ≤ 1/8" wide or hairline > 50% of ID in length		
	E	Crack -Longitudinal, Critical	0	250	1/8" or greater, open		
	B	Cracks -Multiple, Small	0	75	Very small hairline crack(s)		
CM	C	Cracks -Multiple, Moderate	0	150	Hairline cracks in multiple directions, less than 1 section of pipe	Note location of crack (top or bottom of pipe)	Cracks at joints are within 4" of joint
	D	Cracks -Multiple, Large	0	200	Less than 1/8" open, or hairline greater than 1 section of pipe, in multiple directions		
	E	Cracks -Multiple, Critical	0	300	Cracks in multiple directions, 1/8" or greater, open		
	B	Broken Pipe, Small	0	200	Connecting cracks, no displacement		
	C	Broken Pipe, Moderate	0	250	Connecting cracks, some displacement (less than 1/4")		
B	D	Broken Pipe, Large	0	300	Connecting cracks, displacement greater than 1/4"	Note appearance of break and approximate location of pipe (5 o'clock)	Within 4" of joint, crescent crack with no displacement, or displaced / gone less than 1 hr, within bell, no dirt
	E	Broken Pipe, Critical	0	500	Collapse pipe, impassable		
	B	Hole in Pipe, Small	0	250	15" pipe or less: <1" dia. of hole >15" pipe: <2" dia. of hole*		
	C	Hole in Pipe, Moderate	0	300	15" pipe or less: 1" to 3" dia., pipe is sound, no void >15" pipe: 2" to 4" dia., pipe is sound, no void		
	D	Hole in Pipe, Large	0	400	15" pipe or less: 1" to 3" dia., void visible >15" pipe: 2" to 4" dia., void visible		
H	E	Hole in Pipe, Critical	0	500	Holes are bigger than severity 4; potential for collapse	* If a hole is below the waterline it moves up to the next severity - Note the approximate size of the hole, e.g. 1.5". Note if there is an apparent void. Note approximate location in pipe (top/bottom or 12 o'clock)	Within 4" of joint, crescent crack with displacement >3hrs, or displaced / gone >2hrs, within bell, no dirt showing
	B	Debris, Light	50	0	Sporadic deposits (no rocks)		
	C	Debris, Moderate	75	0	10% of ID or less, rough debris (no rocks)		
	D	Debris, Heavy	150	0	10-25% of ID, rough debris		
	DE						

Code	Severity	Observation	Maintenance Points	Structural Points	Definitions	Standard Comments	Joints
	E	Debris, Critical	200	0	Greater than 25% of ID or impassable, rough debris and/or rocks		
DEG	B	Debris -Grease, Light	50	0	Less than 1/4" thick		
	C	Debris -Grease, Moderate	75	0	Slight indication 1/4"-1/2"	Note percentage of pipe (similar to roots), for continuing grease, enter observation every 25'	
	D	Debris -Grease, Heavy	150	0	1/2" to 2" thick		
	E	Debris -Grease, Critical	225	0	Greater than 2" thick		
	B	Lining Defect, Light	0	50	Wrinkles, bubbles, dimples	Note the defect	
LC	C	Lining Defect, Moderate	0	100	Tear, up to 25% flow restriction		
	D	Lining Defect, Heavy	0	250	Greater than 25% flow restriction		
	E	Lining Defect, Critical	0	300	Missing liner		
	B	Erosion of CP, Light	0	100	Rough walls	Use only with concrete pipe	
	C	Erosion of CP, Moderate	0	200	Exposed aggregate		
SS	D	Erosion of CP, Heavy	0	300	Exposed rebar		
	E	Erosion of CP, Critical	0	500	Missing concrete		
	B	Corrosion of Ci, Light	0	100	Minimal	Use only with Metal Pipe	
	C	Corrosion of Ci, Moderate	0	200	Heavy tuberculation		
	D	Corrosion of Ci, Heavy	0	300	Moderate tuberculation		
CO	E	Corrosion of Ci, Critical	0	500	Impassable; excessive tuberculation		
	B	Separated Joint, Light	0	50	Gasket visible		
	C	Separated Joint, Moderate	0	100	Bell visible		
	D	Separated Joint, Heavy	0	200	Dirt visible at top		
	E	Separated Joint, Critical	0	400	Dirt visible at invert		
SJ	B	Displaced Joint, Light	0	50	Pipe offset up to 1/2 the pipe thickness		
	C	Displaced Joint, Moderate	0	100	Pipe offset from 1/2 to the full pipe thickness		
	D	Displaced Joint, Heavy	0	200	Pipe offset from full to 1 1/2 times thickness of pipe		
	D	Displaced Joint, Heavy	0	200	Pipe offset from full to 1 1/2 times thickness of pipe		
	D	Displaced Joint, Heavy	0	200	Pipe offset from full to 1 1/2 times thickness of pipe		
DJ	D	Displaced Joint, Heavy	0	200	Pipe offset from full to 1 1/2 times thickness of pipe		

Code	Severity	Observation	Maintenance Points	Structural Points	Definitions	Standard Comments	Joints
	E	Displaced Joint, Critical	0	300	Pipe offset greater than 1 1/2 times thickness of pipe		
CN	A	Service Connection	0	0	All factory lateral 'Y' or 'T' service connections		
CB	A	Break in Connection	0	50	All laterals connected into a hole broken or cut into the main	Note if it is "broken in" rather than cut	
CXC	B	Connection w/ Small defect	0	50	Light roots and/or hairline cracks	Use after CN or CB - Note the defect	Use for lateral defects, not pipe defects
	C	Connection w/ Moderate defect	25	100	Medium roots and/or medium cracks		
	D	Connection w/ Large defect	50	150	Heavy roots and/or open cracks		
	E	Connection w/ Critical defect	75	200	roots impassable and/or dirt visible		
CNI	B	Intruding Lateral, Small	0	75	Less than 1"	Use after CN or CB - Note how far it intrudes	
	C	Intruding Lateral, Moderate	0	150	1"to 2"		
	D	Intruding Lateral, Heavy	0	250	Greater than 2"		
	E	Intruding Lateral, Critical	0	300	Lateral is impassable		
CR	B	Roots in Lateral, Light	20	0	Small Roots in / from lateral		
	C	Roots in Lateral, Moderate	50	0	Medium roots in / from lateral		
	D	Roots in Lateral, Heavy	75	50	Heavy roots in / from lateral		
	E	Roots in Lateral, Critical	150	50	Lateral full of roots		
CP	A	Plugged Connection	0	0	Lateral not in use	"Plugged" "Full of Rocks", etc.	

Attachment B
Recommended Manhole Inspection Form

CITY OF POMONA MANHOLE CONDITION ASSESSMENT FORM

Quadrant #: _____ Inspection Firm: _____ MH ID No.: _____
 Inspection Date: _____ Inspection Time: _____ Field Book Page: _____
 Dispatch: _____ Inspection Crew: _____ Street: _____
 Dispatch Comments: _____

DEFECT	BROKEN	CORROSION	ROOTS	I / I CODE	ATMOSPHERE
Cover	<input type="text"/>	<input type="text"/>			
Frame	<input type="text"/>	<input type="text"/>	<input type="text"/>		Note: All measurements at MH bottom.
Frame Seal	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Grade Ring	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OXYGEN <input type="text"/> %
Riser	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	LEL <input type="text"/> %
Cone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	H2S <input type="text"/> PPM
Wall	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	CO <input type="text"/> PPM
Bench	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Trough	<input type="text"/>	<input type="text"/>	<input type="text"/>		
SEVERITY CODE: 1) MILE: <25% 2) MODERATE: 25-50% 3) SEVERE: >50%					I / I CODE: 1) INFLOW 2) INFILTRATION

OBSERVATION	CODE NO.	CODE
Access:	<input type="text"/>	1) DRIVE, PAVED 2) DRIVE, UNPAVED 3) DRIVEWALK <30' 4) DRIVEWALK >30' 5) NO MAINT. ACCESS, EASY WALK 6) NO MAINT. ACCESS, DIFFICULT WALK 7) ON MAINT. ACCESS, EASY WALK, CONTACT PROPERTY OWNER 8) NO MAINT. ACCESS, DIFFICULT WALK, CONTACT PROPERTY OWNER
Inspection Type:	<input type="text"/>	1) INTERNAL 2) SURFACE 3) NOT INSPECTED 4) BURIED 5) NOT FOUND
Structure Type:	<input type="text"/>	1) STND 2) CLN OUT 3) IN DROP 4) OUT DROP 5) ROCK TRAP 6) FILLED IN 7) TEE 8) JUNCTION
Location:	<input type="text"/>	1) STREET 2) ALLEY 3) SIDEWALK 4) DRIVEWAY 5) PARKWAY 6) YARD 7) PARKING LOT 8) STORM DITCH 9) CREEK BED 10) OPEN SPACE
Surface Type:	<input type="text"/>	1) ASPHALT 2) CONCRETE 3) GRAVEL 4) LANDSCAPING 5) NATIVE VEGETATION
Cover:	Type: <input type="text"/>	1) PICK 2) CONCEALED PICK 3) GASKETED 4) VENTED 5) STORM 6) 5/8" ALLEN BOLT 7) 3/4" ALLEN BOLT 8) PLASTIC 9) ALFALFA BOLT
	Fit: <input type="text"/>	1) GOOD 2) TIGHT 3) LOOSE 4) ROCKING 5) BOLT MISSING 6) GASKET BAD/GONE 7) GOOD O-RING
	Seal: <input type="text"/>	1) NONE 2) GASKET 3) SILICONE
	Securing: <input type="text"/>	1) NONE 2) STRAPPING BAR 3) ANGLE IRONS 4) 5/8" ALLEN BOLT 5) 3/4" ALLEN BOLT 6) 5 POINT BOLT 7) ALFALFA BOLT 8) 6 POINT BOLT 9) BURIED 10) ASPHALT CAP 11) CONCRETE CAP
	Size: <input type="text"/>	DIAMETER IN INCHES
Frame:	Offset: <input type="text"/>	1) NO 2) YES
Grade Ring or Riser:	Type: <input type="text"/>	1) NONE 2) PRECAST 3) BRICK 4) BLOCK 5) POURED 6) PLASTIC 7) MORTAR 8) LINED
	Height (in): <input type="text"/>	IF > 18" ADD COMMENT
	Mn. Dia (in): <input type="text"/>	IF < 36" ADD COMMENT
	Comment: <input style="width: 100%;" type="text"/>	
Cone:	Type: <input type="text"/>	1) NONE 2) PRECAST 3) BRICK 4) BLOCK 5) PURED 6) BRICK/CONCRETE 7) CLAY 8) PVC 9) LINED
	Shape: <input type="text"/>	1) CONCENTRIC 2) ECCENTRIC 3) FLAT TOP
Wall:	Type: <input type="text"/>	1) NONE 2) PRECAST 3) BRICK 4) BLOCK 5) POURED 6) BRICK/CONCRETE 7) CLAY 8) PVC 9) LINED
	Diameter (in): <input type="text"/>	
	Height (in): <input type="text"/>	IF <= 36" ADD COMMENT (Calculated in field)
	Comment: <input style="width: 100%;" type="text"/>	
Bench:	Type: <input type="text"/>	1) NONE 2) PRECAST 3) BRICK 4) BLOCK 5) POURED 6) LINED
Trough Type:	<input type="text"/>	1) NONE 2) PRECAST 3) POURED 4) VCP 5) PVC 6) BRICK
Steps:	Type: <input type="text"/>	1) NONE 2) BAR 3) CAST IRON 4) PLASTIC 5) PLASTIC COATED STEEL
	Condition: <input type="text"/>	1) GOOD 2) CORRODED 3) MIS-ALIGNED 4) BROKEN 5) MISSING 6) UNSAFE
Drop Manhole:	<input type="text"/>	1) NO 2) YES
MH Insp Depth (ft):	<input type="text"/>	RIM TO BENCH
Surcharge:	Ht. Above Bench <input type="text"/>	0) NONE, IF SURCHARGE EVIDENT, RECORD DEPTH OF SURCHARGE (INCHES)

Attachment C
Estimated Level of Effort for WDRs

Attachment C

City of Pomona Sewer System Management Plan Estimated Level of Effort Associated With Waste Discharge Requirements

Description	Frequency	Staff	Hours
FATS, OILS, AND GREASE (FOG) PROGRAM			
Initial Implementation			
Identify each Food Service Establishment (FSE)	One Time	FCO	80
Initial inspection of each FSE (ID grease traps/interceptors, Best Management Practices (BMPs), document restaurant type, etc.) (assume 225 FSEs at 2 hours each FSE)	One Time	FCO	450
Create FSE database for permit tracking/compliance monitoring	One Time	AA/T	160
Assist with the implementation of the FOG ordinances and updates	One Time	FCO	80
Permitting Process and Procedure			
Issue initial permits to known FSEs (estimated 225 at 3 hours each)	One Time	FCO	675
Evaluate permits annually and renew permits (assume 225 at 2 hours each)	Annually	FCO	450
Issue new permits, add to database	Annually	FCO	100
Assist permittees with completing permit application	Annually	FCO	80
Update Permit fee and FOG ordinances as necessary	Annually	FCO	24
Construction Plan Reviews			
Establish plan review procedure with the building review section	One Time	FCO	40
Review new/remodeled FSE plans for compliance with FOG ordinances, municipal codes, appropriately sized FOG devices, and compliance with the FSE Waste Discharge Permit (assume 25 per year at 4 hours each)	Annually	FCO	100
Conduct inspection of FSEs under construction to ensure compliance with FOG requirements (assume 25 per year at 4 hours each)	Annually	FCO	100
Enforcement and Monitoring of the FOG Program			
Inspections of FSEs to ensure BMPs are implemented, grease traps/interceptors installed and maintained (assume 225 at 2 hours each)	Annually	FCO	450
Monitor compliance with FOG requirements/permits and maintenance requirements for grease traps/interceptors	Annually	FCO	450
Monitor, evaluate, and screen inspection results to identify violations and issue appropriate notices of violation	Annually	FCO	100
Implement consistent and timely responses to all types of violations to ensure long-term compliance	Annually	FCO	120
Maintain appropriate documentation and records of FSEs, inspections performed, violations issued, types of violations, and resolution of issues	Annually	FCO	80
Oversee and implement efforts to educate the public and FSEs on effective ways to reduce and eliminate FOG from entering the wastewater collection system	Annually	FCO	80
OPERATIONS AND MAINTENANCE PROGRAM - CLEANING			
Jetting/Vactoring pipelines (assume 4,200 LF/day; total 1,453,500 LF) (2 person crew)	Annually	Crew	5540
Mechanical rodding of pipelines (assume 3,000 LF/day; 161,500 LF) (2 person crew)	Annually	Crew	875
Initial inspection of manholes and complete entire inspection form	One Time	Crew	400

Attachment C

Description	Frequency	Staff	Hours
Manhole inspections - update condition data	Annually	Crew	320
Clean High Frequency Maintenance Sites (HFMS) (assume 8,000 LF/Month; 2,500 LF/day)	Annually	Crew	625
Data entry of manhole inspection data	One Time	AA/T	800
Data entry of routine and HFMS cleaning condition findings	Annually	AA/T	200
Respond to inquiries and complaints from the public (assume 5 calls/mo @ 4 hrs/call)	Annually	Crew Chief	240
Prepare status tracking and monitoring reports (assumes 5 hrs/mo)	Annually	Crew Chief	60
OPERATIONS AND MAINTENANCE PROGRAM - CONSTRUCTION			
Plan and review work of staff for repair, installation, and construction activities	Annually	Crew Chief	120
Repairs and replacement work (assumes 4 days/mo)	Annually	Crew Chief	400
Repairs and replacement work (assumes 2 person crew @ 4 days/mo)	Annually	Crew	800
Inventory management (assume 4 hrs / mo)	Annually	AA/T	48
Coordinate construction/CIP projects with Engineering (assumes 8 hrs/mo)	Annually	Supervisor	100
OPERATIONS AND MAINTENANCE PROGRAM - CCTV INSPECTION			
Establish CCTV assessment routines/algorithms	One Time	Engineer	100
Inspect pipelines (assume 3,000 LF/day; 7 days/mo) (2 person crew required)	Annually	Crew	1344
Data management and data entry of CCTV inspection results	Annually	AA/T	96
Assessment of CCTV inspection data (assumes 8 miles per week)	Annually	Engineer	350
Perform CCTV inspection of new/remodeled FSEs or of developments with new and/or upgraded sewer lateral to City sewer main (assumes a 2-person crew @ 2 days/mo)	Annually	Crew	384
Coordinate mapping updates with GIS (assumes 4hrs/mo)	Annually	Crew Chief	48
Coordinate improvement projects with Engineering (assumes 8 hrs/mo)	Annually	Supervisor	100
Coordinate, plan, and perform staff training	Annually	Supervisor	80
CCTV inspection and assessment training	Annually	Crew	60
OPERATIONS AND MAINTENANCE PROGRAM - SSO RESPONSE			
Respond to SSO calls (assume 2/mo @ 4 hrs each)	Annually	Crew	96
Emergency Repairs (3 person crew required)	Annually	Crew	120
SSO Reporting (assume 2 hrs / mo)	Annually	Supervisor	24
Post SSO CCTV Inspection (2 person crew required)	Annually	Crew	64
SSO remediation and follow up responses (assume 4 hrs per month)	Annually	Crew Chief	48
Preparation and implementation of regularly scheduled training (assumes 5 crews @ 1.5 days for 2 times per year)	Annually	Crew	120
Preparation and implementation of regularly scheduled training (assumes 1.5 days for 2 times per year)	Annually	Crew Chief	24
Preparation and implementation of regularly scheduled training (assumes 1.5 days for 2 times per year)	Annually	Supervisor	24
Monitor necessary SSOERP updates (assume 4 hrs/mo)	Annually	Supervisor	48
GIS MAPPING AND UPDATES			
Updates to GIS data based on crews' comments/markups (assume 2 days/mo)	Annually	Engineer	192
Printing of updated map books (assume printing occurs 1 time annually)	Annually	Engineer	24

Attachment C

Description	Frequency	Staff	Hours
WASTE DISCHARGE REQUIREMENTS ROUTINE MONITORING/EFFORTS			
California Integrated Water Quality Control System (CIWQS) on-line reporting requirements (assume about 2 hours per month)	Annually	Engineer	24
Waste Discharge Requirements (WDRs) and Sewer System Management Plan (SSMP) annual monitoring and reporting	Annually	Engineer	80
Bi-annual updates of the SSMP	Bi-Annually	Engineer	60
Bi-annual updates of the SSMP	Bi-Annually	Consultant	200
Update and revise SSOERP	Bi-Annually	Supervisor	20
OPERATIONS AND MAINTENANCE PROGRAM - SUPERVISORY			
Supervisory Duties	Annually	Supervisor	1200
Supervisory Duties	Annually	Crew Chief	650

Definitions:

AA/T - Administrative Assistant/Technician

FCO - FOG Compliance Officer

Crew-Wastewater Maintenance Section Crew Members and Crew Chief

Supervisor-Wastewater Maintenance Section Supervisor

Appendix D
City of Pomona Sanitary Sewer Overflow Emergency
Response Plan

CITY OF POMONA SANITARY SEWER OVERFLOW EMERGENCY RESPONSE PLAN

September 2008

Prepared For:



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PBS&J Project No.: 049125300

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Chapter 1

Introduction

Because Sanitary Sewer Overflows (SSOs) of various volumes occur from time to time in spite of concerted prevention efforts, the City of Pomona (City) has prepared this Sanitary Sewer Overflow Emergency Response Plan (SSOERP). SSOs may occur from blocked sewers, pipe failures, mechanical malfunctions, and other natural or man-made causes. City crews are constantly on alert and ready to respond upon notification and confirmation of an SSO.

This SSOERP establishes the formal procedures for City staff to respond to, contain, correct, and clean up SSOs, and it is intended to minimize the effects of SSOs on the environment while protecting the public's health and safety. Chapter 1 provides an overview of the City's wastewater collection system, the purpose and goals of the SSOERP, the regulatory authority requiring this plan, an overview of this document's organization, and definitions of terms contained in this document.

1.1 Wastewater Collection System Overview

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 306 miles of gravity sewer, four (4) pump stations, 1.4 miles of force mains, 4,600 manholes, and one (1) siphon. 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 Districts (LACSD). The four pump stations, while owned by the City, are maintained and operated by the LACSD under the terms of a 1986 contract that expired several years ago. The City is currently in negotiations with LACSD wherein the ownership and responsibility for maintenance of the lift stations will be transferred to LACSD. Although the agreement has not been finalized, the City is confident that the agreement is forthcoming.

1.2 Purpose and Goals

The City recognizes the importance of protecting the health and safety of the public as well as the environment by preventing sewer flows from reaching surface waters and waters of the United States. The City also understands the necessity to implement procedures to minimize the impact of an SSO if one were to occur and comply with the requirements of state regulations. The primary goal in establishing an official SSOERP is to ensure that City staff responds appropriately and efficiently to all known SSOs immediately.

The objectives of the SSOERP can be summarized as:

- Protect public health and safety, and the environment;
- Minimize the effects of SSOs;
- Satisfy regulatory and discharge permit conditions;

Introduction

- Notify appropriate regulatory agencies and other affected entities;
- Protect private and public property;
- Protect City personnel; and
- Protect all City owned assets.

This SSOERP is intended to supplement and be consistent with existing emergency plans and standard operating procedures currently implemented by the City. The overall plan will facilitate coordination and mobilization of necessary facilities and personnel in an organized and efficient manner when responding to an SSO.

1.3 Organization of this SSOERP

This document provides the necessary guidelines for City staff to respond to an SSO event. This SSOERP contains the following elements:

- Introduction
- Sanitary Sewer Overflow Emergency Response Procedures
- Public Advisory Of Sewage Contamination Procedures
- SSO Reporting Requirements
- Training Requirements
- SSOERP Updating Requirements
- Various Attachments

1.4 Regulatory Requirements

The following regulatory requirements establish the impetus for the City to develop and follow procedures to minimize the potential and impact of SSO occurrences.

California Water Code Section 13271, California Code of Regulations: Section 13271 of the California Water Code, Title 23 of the California Code of Regulations, prohibits the discharge of sewage and hazardous material into the waters of the State and requires the proper notification of authorized agencies in the event of an SSO. Entities which do not properly follow the requirements of this section may be found guilty of a misdemeanor and punished by fine, imprisonment, or both.

California Waste Discharge Requirements: On May 2, 2006, the State Water Resources Control Board adopted the Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Order No. 2006-0003. The WDRs are applicable to all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to publicly owned treatment facilities in the state of California.

Specifically, the WDRs, as part of the Monitoring and Reporting Program and Order No. WQ 2008-0002 EXEC (adopted on February 20, 2008), require that the City establish monitoring, record keeping, reporting, and public notification requirements for SSOs, including on-line reporting requirements through the State's California Integrated Water Quality System (CIWQS) web-site. The WDRs required that the City begin the on-line reporting by January 2, 2007 and that the City prepare an Emergency Response Plan by November 2, 2008. This SSOERP fulfills the second requirement and documents the City's efforts to comply with the on-line reporting.

Clean Water Act, Section 1251 of Chapter 33 of the United States Code: In 1972, the federal Congress enacted the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA). The CWA prohibits the discharge of pollutants, including sewage, into public waters of the United States. The federal government has the authority to enforce compliance with the CWA via specific permits, such as National Pollutant Discharge Elimination System (NPDES) permits, as well as court action such as administrative orders and consent decrees. The City of Pomona is not currently subject to an NPDES permit or any legal action initiated by the federal government.

1.5 Definition of Terms

Category 1 Sanitary Sewer Overflow: All discharges of sewage resulting from a failure in the City's wastewater collection system that:

- Equals or exceeds 1,000 gallons; or
- Results in a discharge to a drainage channel and/or surface water; or
- Discharges to a storm drain and was not fully captured and returned to the wastewater collection system.

Category 2 Sanitary Sewer Overflow: All non-Category 1 SSO discharges of sewage resulting from a failure in the City's wastewater collection system.

First Responder: The City's Wastewater Maintenance Section staff person who is initially notified of a possible SSO and arrives first at the reported location of the possible SSO.

Private Lateral Sewage Discharge: Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

Public Waters: Any body of water such as the ocean, bay, lake, pond, river, stream, or creek where there is the potential for human contact as defined by the County Department of Environmental Health.

Sanitary Sewer Overflow: A sanitary sewer overflow (SSO) is any overflow, spill, release, discharge, or diversion of sewage from a wastewater collection system. SSOs include:

- Release of untreated or partially treated sewage that reach waters of the United States;

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- Release of untreated or partially treated sewage that do not reach waters of the United States; and
- Sewage backups into buildings and private property that are caused by blockages or flow conditions in a wastewater collection system, other than a building lateral. Sewage backups into buildings caused by a blockage or other malfunction of a building lateral that is privately owned is an SSO when sewage is discharged off a private property into streets, storm drains, or waters of the State.

Sewage: Any liquid waste and water borne solid waste resulting from residential, commercial, industrial, or institutional activities or uses.

Standby Person: A designated Wastewater Maintenance Section staff person who is on call to perform his or her assigned duties outside of his or her regularly assigned working shift.

Surface Waters: All permanent and intermittent drainage ways, lakes, and reservoirs, either public or private, which are not man-made for the treatment of municipal, agricultural, or industrial waste, and wholly or partially within the boundaries of the City of Pomona. SSOs to storm drains tributary to surface waters shall be reported as discharges to surface waters.

Untreated or Partially Treated Wastewater: Any volume of sewage discharged from the wastewater collection system upstream of a wastewater treatment plant.

Wastewater Collection System: Any system of pipes, pump stations, sewer lines, etc., used to collect and convey sewage to a treatment plant. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, high-lines, etc.) are considered to be part of the sanitary sewer system, and discharges of sewage to these facilities are not sanitary sewer overflows.

Waters of the United States: All waters of the United States as defined in the Code of Federal Regulations, Volume 40, Section 122.2 (40 CFR 122.2) such as navigable waters, rivers, streams, lakes, natural ponds, wetlands, etc., including tributaries to traditional navigable waters.

Chapter 2

SSO Response Procedures

SSOs are caused by a blockage or a restriction in the wastewater collection system, pipe failures, flows exceeding the capacity of the system, and other natural or man-made causes. In the event of an SSO, the City's wastewater staff must respond and be prepared to:

- Contain the SSO;
- Control the Overflow;
- Clean up the contaminated area; and
- Notify the appropriate authorities.

This section presents a strategy for the Wastewater Maintenance Section to mobilize labor, materials, tools, and equipment to contain, mitigate, and clean-up residuals from a sewer overflow and correct or repair any condition which may cause or contribute to an un-permitted sewage discharge. This plan is applicable to a wide range of potential system failures that could create a sanitary sewer overflow. Figure 2-1 summarizes the process presented in this chapter and offers a concise overview of the following steps required to quickly respond to an actual or possible SSO event.

2.1 Receiving Information about a Possible SSO

An SSO may be detected by City employees or the public. Suspicious circumstances, such as foul odors, backed up plumbing, unusual flooding, unusually low flows entering a pump station or treatment plant, and so on, may also indicate the possibility of an actual or impending SSO. This section describes how the City's Wastewater Maintenance Section staff is notified of possible SSOs.

2.1.1 Notifications of Possible SSOs

Notifications of possible SSOs may be received via telephone calls or the City's Comcate notification system currently in place. The Comcate system allows the public to notify the City of various issues via e-mail. The e-mails are received, tracked, and disseminated to the appropriate staff for resolution. Although City staff is required to respond to issues received via the Comcate system within a specific period of time, messages received regarding potential SSOs require immediate response, and therefore notification of a potential SSO via the Comcate system is not recommended or typical. Calls or complaints received via telephone for actual or possible SSOs are routed to the Wastewater Collection System Supervisor from either the City's Customer Services Section or the Pomona Police Dispatch Center. If the Supervisor is not available or non-responsive, then the designated back-up person is notified. Figure 2-2 shows how a possible SSO will be reported to the Wastewater Collection System Supervisor.

**Figure 2-1
Sanitary Sewer Overflow
Response Procedure**



Legend
SSO = Sanitary Sewer Overflow
WWCS = Wastewater Collection System

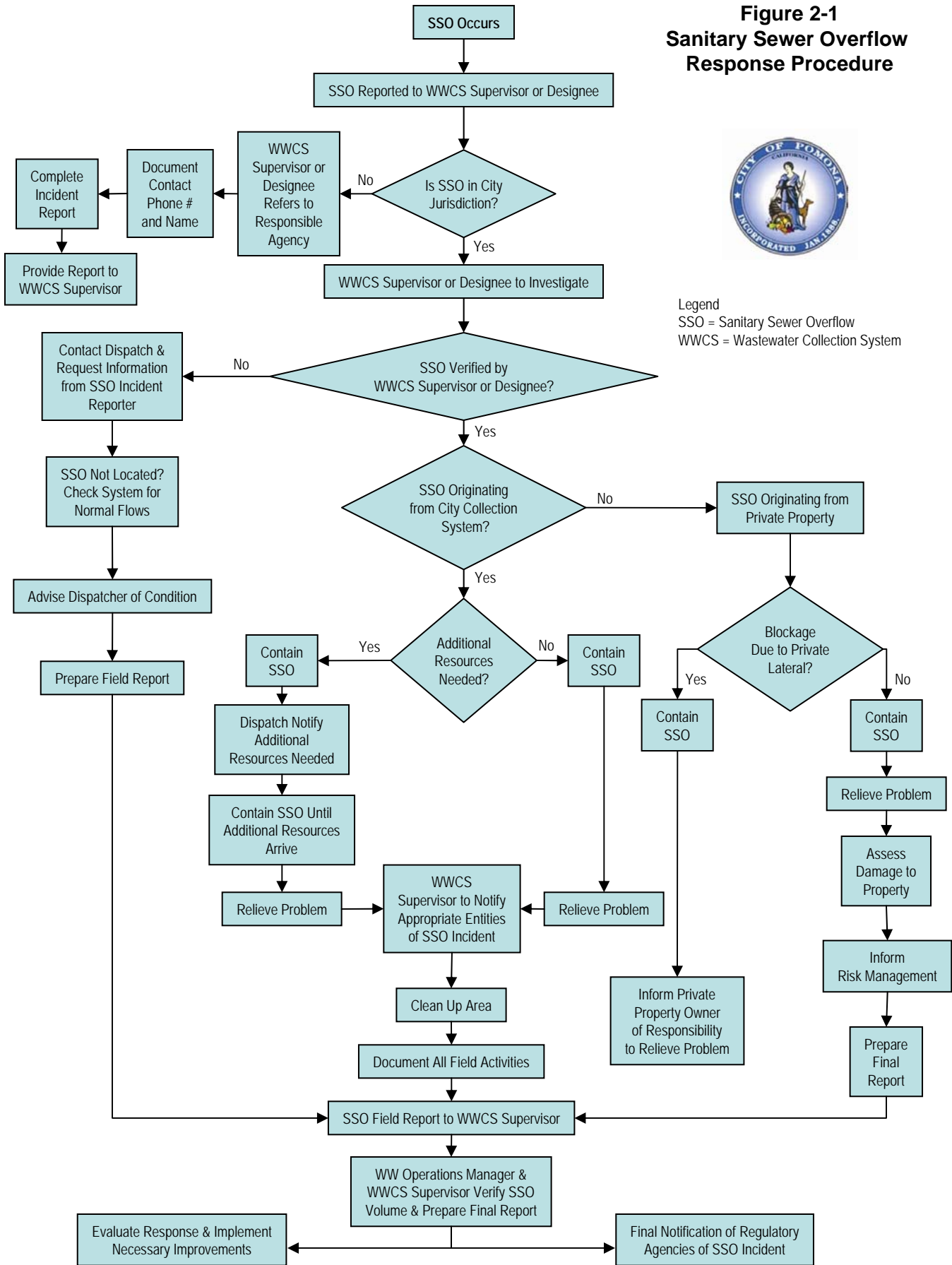
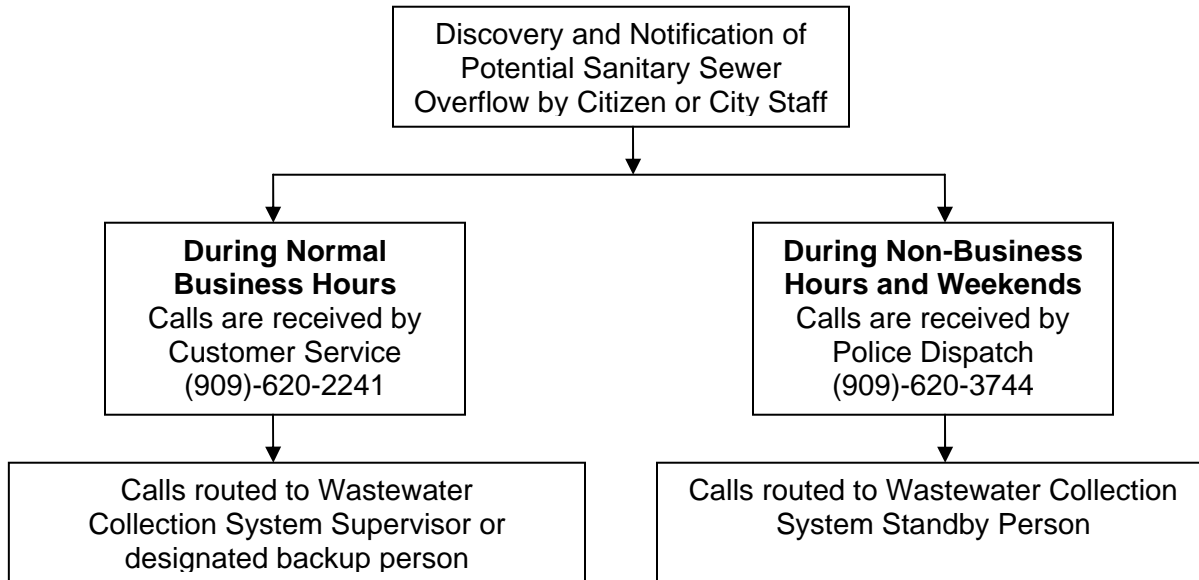


Figure 2-2
Process for Alerting Staff of a Possible Sanitary Sewer Overflow



As illustrated in Figure 2-2, notification of a potential SSO will be routed directly to the Wastewater Collection System Supervisor from City Hall's Customer Service Section, during normal business hours. During non-business hours, weekends, and designated City holidays, calls will be received by the City of Pomona Police Dispatch Center and forwarded to the Wastewater Collection System Standby person in the City's Wastewater Maintenance Section.

Upon receipt of a notification of a potential SSO, the Wastewater Collection System Supervisor or the designated back-up will obtain as much information as possible from the reporting entity. The relevant information that should be collected includes:

- Time and date the call/SSO report was received;
- Specific location (address, cross streets, etc.);
- Description of problem;
- Time the possible SSO was noticed by the caller;
- Caller's name and telephone number;
- Observations of the caller (e.g. odor, magnitude of flow, duration, back or front of property, etc.); and
- Other relevant information that will enable the responding City staff personnel and crews, if required, to quickly locate, assess, contain, and relieve the SSO.

The *Sanitary Sewer Overflow Field Report* form in Attachment A can be used by the Wastewater Collection System Supervisor or designated back-up person to capture the relevant

SSO Response Procedures

information needed to respond to a report of a possible SSO as well as be useful for initiating the work order assignment.

2.1.2 Wastewater Collection System Personnel Notifications of Possible SSOs

Possible and actual SSOs detected by wastewater collection system personnel in the course of their normal duties are reported immediately to the Wastewater Collection System Supervisor or designated back-up. Personnel on-site observing the SSO should begin efforts to contain and minimize the effects of the SSO as further described in sub-section 2.5 below.

2.1.3 Pump Station Alarm Notifications Possible SSOs

Although the City's four pump stations are operated and maintained by the LACSD under a contract between the City and LACSD created in 1986, the City is responsible to respond first to any possible or actual SSO reported at a pump station. Each pump station has telemetry to monitor certain events and activate alarms. Table 2-1 shows the alarms for each pump station that transmit signals directly to the City's Police Dispatch Center.

**Table 2-1
Pump Station Alarms**

Alarm	PS1	PS2	PS3	PS4
Pump Control Failure	X	X		
Power Failure	X	X	X	X
High Water Level in the Wetwell	X	X	X	
Low Water Level in the Wetwell	X	X		
High Water Level in the Drywell	X	X		X

The alarms listed in Table 2-1 generally exist and are typically incorporated in pump stations. However, as illustrated in Table 2-1, several of the alarms are not available at PS3 and PS4. Additionally, the pump stations are not connected to the LACSD Centers. The only telemetry connection is to the City of Pomona's Police Department. When the Police Dispatch Center receives any of the above indicated alarms, the Police Dispatch operator shall alert the Wastewater Collection System Supervisor or designated back-up person according to the process illustrated in Figure 2-2 for potential SSOs that are reported during non-business hours, weekends, and City holidays. In the event that the Wastewater Collection System Supervisor is not available, non-responsive or the Department Supervisor cannot resolve the problem, LACSD will be contacted and notified. However, this is undesirable since the LACSD staff would not likely arrive at the affected pump station in sufficient time, due to the long distance between LACSD's dispatch center and the City's pump stations, to prevent an SSO.

After receiving notification of an alarm activated at a pump station, the Wastewater Collection System Supervisor or the designated back-up person will proceed to the pump station to assess

the situation and resolve the problem. If the First Responder requires assistance, he will contact the appropriate personnel or contact the LACSD's alarm center for assistance.

2.2 First Responder Responsibilities

Based on the information provided during the notification of a possible SSO, the Wastewater Collection System Supervisor or the designated back-up person shall proceed to the SSO location to assess the cause and extent of the SSO. The City staff person to arrive first at the location is considered the First Responder. The First Responder will determine whether to direct a wastewater crew, other City personnel, and/or approved contractors to the SSO location if the SSO cannot be fully contained or recovered or if it has reached public waters. The information obtained during the initial notification of a possible SSO may warrant the First Responder, in his best professional judgment, to dispatch crews or other City personnel before proceeding to the reported SSO location.

It is the responsibility of the first City staff person who arrives at the site of a sewer overflow to protect the health and safety of the public by mitigating the impacts of the SSO to the extent possible. Areas where public contact with sewage is possible shall be isolated using barricades, signs, or other effective means. Upon determining the SSO originated in the City's jurisdiction, the First Responder will perform the following:

- Determine the cause of the SSO, e.g. sewer line blockage, or pipeline break, etc.;
- Identify and request, if necessary, additional personnel, materials, and equipment necessary to minimize, contain, or isolate the impact of the SSO;
- Control public access to affected area; and
- Implement efforts to stop the overflow.

If the First Responder determines the SSO is not within the City's jurisdiction, he or she should notify the responsible agency to respond to the overflow. If the SSO poses an imminent danger to the public, public health, property, or to public waterways of the United States, then the First Responder should take prudent emergency actions to mitigate the SSO until staff of the responsible party arrives.

If the First Responder cannot locate the SSO or the reported problem, he shall attempt to obtain additional information from the initial caller or Police Dispatch Operator to clarify reported data and to locate the problem. If the SSO or reported problem still cannot be located, the First Responder shall check the system for normal flows, advise dispatch of the non-condition, and prepare the final field report.

2.3 Dispatch of Crew(s) to SSO Location

Failure of any element within the wastewater collection system that threatens or causes an SSO triggers an immediate response to isolate and correct the problem. City Wastewater Collection System crews and equipment are stationed at the City's Water Yard, from where they are dispatched. The equipment is available 24-hours a day and staff are placed on "standby" on a

SSO Response Procedures

rotational schedule to respond to any site of a reported SSO. Also, additional City maintenance personnel from the Water Section are also placed on “standby” in case additional resources are necessary. Attachment B contains the names and contact information for the on-call Wastewater Collection System personnel. All departments that may be required to provide resources in the event of an SSO should ensure that standby lists are prepared and distributed to all affected departments to facilitate communications as necessary. Standby lists for each department should be updated on a routine basis.

All employees dispatched to an SSO location shall proceed immediately to the site. Overflows within the City’s jurisdiction that enter into areas outside the City’s authority will continue to be contained and the affected agency will be notified of the SSO to ensure proper cleaning and notifications are completed.

2.4 Requesting Additional Resources

If the First Responder determines that notification of additional staff beyond the “on-call” SSO response crews is required and/or City approved contractors are necessary to fully contain and recover the overflow, the Wastewater Collections System Supervisor or designated back-up will mobilize the additional resources necessary.

The City has access to additional resources from its own staff as well as outside on call contractors that can be mobilized in case of an emergency or major SSOs. The list of City approved contractors and equipment rental vendors are provided in Attachment C.

2.5 Overflow Containment, Correction, and Clean-up

This section describes specific actions to be performed by Wastewater Maintenance Section staff and additional crews responding during an SSO. The objectives of the following actions are to:

- Protect public health, the environment, and property from SSOs and restore the surrounding area back to its original condition;
- Contain the sewage discharged to the maximum extent possible and prevent the discharge of sewage into surface waters;
- Establish perimeters and control zones with cones, barricades, sign postings, caution tape, vehicles, and/or terrain;
- When appropriate, promptly notify regulatory agencies of preliminary SSO information and potential impacts; and
- Minimize the City’s exposure to any regulatory agency penalties and fines.

Under most circumstances, the City will oversee, manage, and perform the tasks necessary to properly and effectively correct, contain, and clean up SSOs. The City shall respond with its own staff, equipment, and/or contractors. These personnel have the skill and experience to respond rapidly and in the most appropriate manner. Of critical importance with respect to an

emergency response is to ensure that the temporary actions necessary to divert flows and fix the problem do not produce a problem elsewhere in the system. If the matter is not handled properly, subsequent sewer system back-ups may occur and create other SSOs.

The SSO Response Flowchart shown in Figure 2-1 above illustrates emergency response procedures including notification and request of additional resources as required in the event of a large SSO.

2.5.1 Initial Measures and Containment

The following are initial measures to contain the SSO and recover, where possible, sewage that has already spilled in order to minimize impact to the public or environment. The City crew responding to the incident shall:

- Initiate measures to contain the overflowing sewage and to recover as much spilled sewage as possible;
- Determine the immediate destination of the overflow (e.g. street curb gutter, storm drain, drainage channel, creek bed, body of water, etc.);
- Identify and request, if necessary, assistance or additional resources (materials and equipment) to contain or isolate the overflow;
- Take immediate steps to contain the overflow (e.g. block storm drain, recover sewage with a vacuum truck, dig or construct a containment pond, divert flow into a downstream manhole, etc.).

2.5.2 Additional Measures for Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or sewer line collapse, the responding City crew shall establish a portable by-pass pumping operation around the obstruction, continuously or periodically monitor the by-pass pumping operation, and perform emergency repairs to stop the overflow. Table 2-2 can be used as a guide to select the appropriate pump.

**Table 2-2
Pump Capacity Estimating Table**

Pump Size (inches)	Estimated Capacity (GPM)	Equivalent Gravity Sewer Flow (half full sewer)
2 X 2	200	6 inch diameter
3 X 3	450	8 inch diameter
4 X 4	600	10 inch diameter
6 X 6	1,000	12 inch diameter
8 X 8	1,600	15 inch diameter
10 X 10	2,800	18 inch diameter

SSO Response Procedures

2.5.3 Correction of SSO Cause

Once the SSO has been contained and the cause determined, efforts to correct the cause of the SSO should commence. These efforts may involve, but not be limited to, removing the pipe blockage by flushing or rodding, repairing a damaged pipeline or manhole, and manually operating pump station controls. Care must be taken to prevent additional SSOs from occurring as a result of the corrective action taken to resolve the identified problem.

2.5.4 Clean-up

All SSO sites must be thoroughly cleaned as soon as possible after an overflow. No readily identifiable residue (e.g., sewage solids, papers, plastics, etc.) is to remain. Clean-up of all SSOs will be handled according to the following procedures:

- The SSO site must be secured to prevent contact by members of the public until the site has been thoroughly cleaned;
- Where practical, the area shall be thoroughly flushed and cleaned of any sewage or wash-down water using high-pressure water hose or Vactor truck; wash-down water shall be contained and recovered; solids and debris shall be flushed, swept, raked, or picked-up by hand, and hauled away for proper disposal;
- Where appropriate (typically in areas with hard surfaces), areas that came in contact with the sewage shall be disinfected and deodorized; proper contact time for proper disinfection must be ensured;
- Where sewage has resulted in ponding, the pond must be pumped dry and the residue removed and disposed of properly; and
- If sewage has discharged into a body of water that may contain fish or other aquatic life, disinfection will not be performed and the appropriate agency will be contacted.

2.6 Traffic and Crowd Control

The purpose of traffic and crowd control is to limit public access to areas potentially impacted by un-permitted discharges of sewage. The following traffic and crowd control recommendations may be used as a guide for the various types of SSOs.

Small SSO (Up to 1,000 gallons)

- i. Set up cones to direct traffic away from spill area; and
- ii. Use City personnel to control traffic and pedestrians.

Medium SSO (1,000 to 10,000 gallons)

- i. Contact regulatory agencies as required;
- ii. Perform lane closures as necessary;
- iii. Place proper signage for any lane closures and contaminated area signs;

- iv. Close affected entrances or exits from public and private facilities; and
- v. Place caution tape and barricades to protect pedestrians from contaminated area.

Large SSO (greater than 10,000 gallons)

- i. Assess spill situation;
- ii. Contact regulatory agencies as required;
- iii. Inform City Police Department of any law enforcement assistance necessary for roadway closures and traffic control;
- iv. Delegate responsibility to County Health Department of informing public of hazards;
- v. Place signage to inform public of potential hazards to public health and safety; and
- vi. Block public access to hazard using barricades, cones, and caution tape.

2.7 Preliminary Assessment of Damage to Private and Public Property

Initial assessment of the SSO site is performed by the First Responder, who is either the Wastewater Collection System Supervisor or the designated back-up person. The First Responder will determine whether the SSO originated from the City's collection system or a private business or residence. Once the source of the SSO is determined, containment and cleanup procedures are executed, and a *Sanitary Sewer Overflow Field Report* (see Attachment A) will be completed.

2.7.1 Public Source SSO

If it is determined that the source of the SSO is from the City's wastewater collection system, containment and cleanup procedures are executed to prevent the SSO from reaching adjacent private properties, local water bodies, and the storm drain system. Once the SSO is contained and cleaned, proper documentation utilizing the appropriate forms will be completed.

If it is determined that the SSO has reached a private residence or business, the SSO is reported to the City's Risk Management personnel prior to Wastewater Collection System personnel leaving the site. A *Damage Report to Private Property* (see Attachment D) is completed and forwarded with the *Sanitary Sewer Overflow Field Report* to the City's Risk Management. Photographs and/or video footage shall be taken of the overflow and area impacted by the SSO. Photographs and/or video footage shall be filed with the *Sanitary Sewer Overflow Field Report*.

2.7.2 Private Source SSO

If it is determined that the source of the SSO is from a sewer lateral, the responding supervisor and crew will use discretion in assisting the property owner/occupant as reasonably as they can.

SSO Response Procedures

City staff is cautioned that the City and the Wastewater Maintenance Section may be liable for further damages inflicted to private property during such assistance. If City staff enters private property it needs to be with the expressed permission of the owner/occupant of the property. The City crew should not enter private property for the purpose of assessing damage. Staff is directed to take appropriate still photographs and video footage, if possible, of the surrounding and impacted area in order to thoroughly document the nature and extent of the impacts. Photographs and/or video footage shall be filed with the *Sanitary Sewer Overflow Field Report*.

In the event that flow from an SSO that originated from a sewer lateral extends into the public right of way, City staff will execute containment and cleanup procedures to prevent the SSO from reaching adjacent private properties, local water bodies, and the storm drain system. Once the SSO is contained and cleaned, proper documentation utilizing the appropriate forms will be completed. Staff is directed to take appropriate still photographs and video footage, if possible, of the surrounding and impacted area in order to thoroughly document the nature and extent of the impacts. Photographs and/or video footage should be filed with the *Sanitary Sewer Overflow Field Report*.

2.8 Notification Requirements

The volume, impact, and location of an SSO determine the level of notifications required to comply with City and regulatory requirements. Table 2-3 provides a summary of the officials and agencies who should be informed of an SSO as soon as practicable without impeding containment or other emergency response measures. Attachment E lists the specific names and numbers of the individuals holding these positions. The City is not required to send reports to the Los Angeles Regional Water Quality Control Board; this reporting is now achieved using the web-based on-line SSO reporting system, CIWQS, which is further described in Chapter 4. In the event that the CIWQS reporting system is not available, the information should be reported to the LARWQCB via fax at 213-576-6640.

2.9 Monitoring and Mitigation

The First Responder who confirmed the SSO must ensure that the provisions of this SSOERP and other directives are met. City staff shall conduct an assessment of the impacts following an SSO. Appropriate mitigation and monitoring measures shall be implemented following the assessment to monitor the site for potential future SSOs and to prevent SSOs from re-occurring.

SSO Response Procedures

**Table 2-3
SSO Notification Requirements**

Agency/Official	Reasons to Notify	When to Notify
Pomona Police Department, Emergency Services	Public Safety concerns, such as assistance with traffic control	Immediately
Governor's Office of Emergency Services	Category 1 SSO conditions	Within 24 hours of notification of SSO
	A sewage discharge to a drainage channel and/or surface water, or a discharge to a storm drain pipe that is not fully recovered	Within 2 hours of becoming aware of discharge
Los Angeles County Health Water Quality Section	A sewage discharge to a drainage channel and/or surface water, or a discharge to a storm drain pipe that is not fully recovered	Within 24 hours of notification of SSO
Los Angeles Regional Water Quality Control Board	Category 1, Category 2, or private lateral SSO	As soon as practicable
	A sewage discharge to a drainage channel and/or surface water, or a discharge to a storm drain pipe that is not fully recovered	Within 2 hours of becoming aware of discharge
Los Angeles County Sanitation Districts	A pump station alarm has sounded	After the issue has been resolved, OR to assist with the solution
Los Angeles County Public Works	An SSO impacts the County's facilities	As soon as practicable
Pomona Risk Management	SSO from City system enters private property or causes an SSO on private property	Prior to leaving SSO site
Environmental Compliance Officer	A sewage discharge to a drainage channel and/or surface water, or a discharge to a storm drain pipe that is not fully recovered	Within 24 hours of notification of SSO
City of Pomona Code Enforcement	A potential violation of City Codes is noted	As soon as practicable
Pomona Public Works Engineering Division	To begin a capital improvement solution to replace temporary repair	After SSO is stopped
Pomona Water/Wastewater Operations Manager	Unusual circumstances resulting from SSO	As soon as determined necessary
Pomona Utility Services Director	Unusual circumstances resulting from SSO in anticipation of media coverage or heightened scrutiny	As soon as determined necessary
Pomona Public Information Officer	Unusual circumstances resulting from SSO in anticipation of media coverage or heightened scrutiny	As soon as determined necessary
Pomona City Manager	Unusual circumstances resulting from SSO in anticipation of media coverage or heightened scrutiny	As soon as determined necessary

SSO Response Procedures

2.10 SSO Documentation

Documenting SSOs and their causes provide information for:

- Management for performance measurement and decision-making;
- Regulators to meet established reporting requirements;
- Planning future maintenance and repair activities;
- Engineering determinations regarding capacity, rehabilitation, or replacement; and
- Reference for historical performance or claims.

The First Responder shall ensure that the SSO is properly investigated and documented. Information compiled during the investigation of the SSO shall be recorded on the *Sanitary Sewer Overflow Report* as shown in Attachment F. Copies of supporting information shall be compiled. The minimum information required from the investigation is:

- Cause of SSO;
- Volume of SSO including volume released and volume recovered;
- Location of point of discharge, including Thomas Guide map page;
- Ultimate destination of the SSO;
- Impact and extent of impact;
- Estimated start time of SSO;
- Time City received notification of SSO;
- Arrival time of crew(s) and time to correct the SSO;
- End time of SSO;
- Water body impacted and results of bacteriological monitoring, if applicable;
- Actions taken to mitigate the SSO; and
- Notifications to regulators and others.

A variety of approaches exist for estimating SSO volumes. Attachment G provides guidance on estimating the volume of sewage that escaped from the wastewater collection system and the amount of sewage recovered.

Once the results of the SSO investigation are completely documented on the Sanitary Sewer Overflow Report, a copy of the form shall be provided to the Wastewater Collection System Supervisor. The Wastewater Collection System Supervisor shall follow up, in person or by telephone, with the person(s) initially reporting the SSO. The cause of the SSO and its resolution should be disclosed.

Chapter 3

Public Advisory of Sewage Contamination Procedures

This chapter describes the action the City must take to limit public access to surface waters and other areas potentially impacted by SSOs from the wastewater collection system.

The City has primary responsibility for determining when to post notices of polluted surface waters or ground surfaces that resulted from uncontrolled wastewater discharges from its facilities. The County Department of Public Health may also make a determination and direct the City to post notices. The postings do not necessarily prohibit the use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

The posting of notices shall be done as soon as practicable following the initial response to the overflow. 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. Examples of signs are included in Attachment H.

Staff shall regularly inspect the posted notices and replace any missing or damaged warning signs. Posted notices shall not be removed until it is determined that the threat to public health and safety is eliminated or at the direction of the County Department of Health.

Should additional notification of sewage contamination be deemed necessary, City staff shall, in cooperation with the City's public information officer, provide further notices through the use of pre-scripted notices made available to the printed or electronic news media for immediate publication or airing, or by other measures, such as door hangers. Examples of pre-scripted notices, which are included in Attachment I, should be modified to accurately reflect the conditions at the time of publication and/or airing. Information specific to the SSO occurrence may be included where text is underlined or in parenthesis.

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Chapter 4

SSO Reporting Requirements

City staff shall monitor and report sanitary sewer overflows (SSOs) regardless of size and recovery that originate from the City's wastewater collection system. The City has the option of reporting any known SSOs that occur from private laterals. This chapter details the reporting procedures necessary to comply with State Water Resources Control Board and City requirements.

4.1 SSO Identification, Tracking, and Logging

A work order must be created to track and monitor each SSO event. Using a completed *Sanitary Sewer Overflow Field Report* form (Attachment A) and a completed *Sanitary Sewer Overflow Report* form (Attachment F), the Wastewater Collection System Supervisor can create the work order and enter the necessary data from the forms. All forms, documentation, and monitoring results should be kept with the work order.

4.2 SSO Category Classification

SSOs are divided into three categories:

- **Category 1 Sanitary Sewer Overflow:** All discharges of sewage resulting from a failure in the City's wastewater collection system that:
 - Equals or exceeds 1,000 gallons; or
 - Results in a discharge to a drainage channel and/or surface water; or
 - Discharges to a storm drain and was not fully captured and returned to the wastewater collection system.
- **Category 2 Sanitary Sewer Overflow:** All non-Category 1 SSO discharges of sewage resulting from a failure in the City's wastewater collection system.
- **Private Lateral Sewage Discharge:** Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

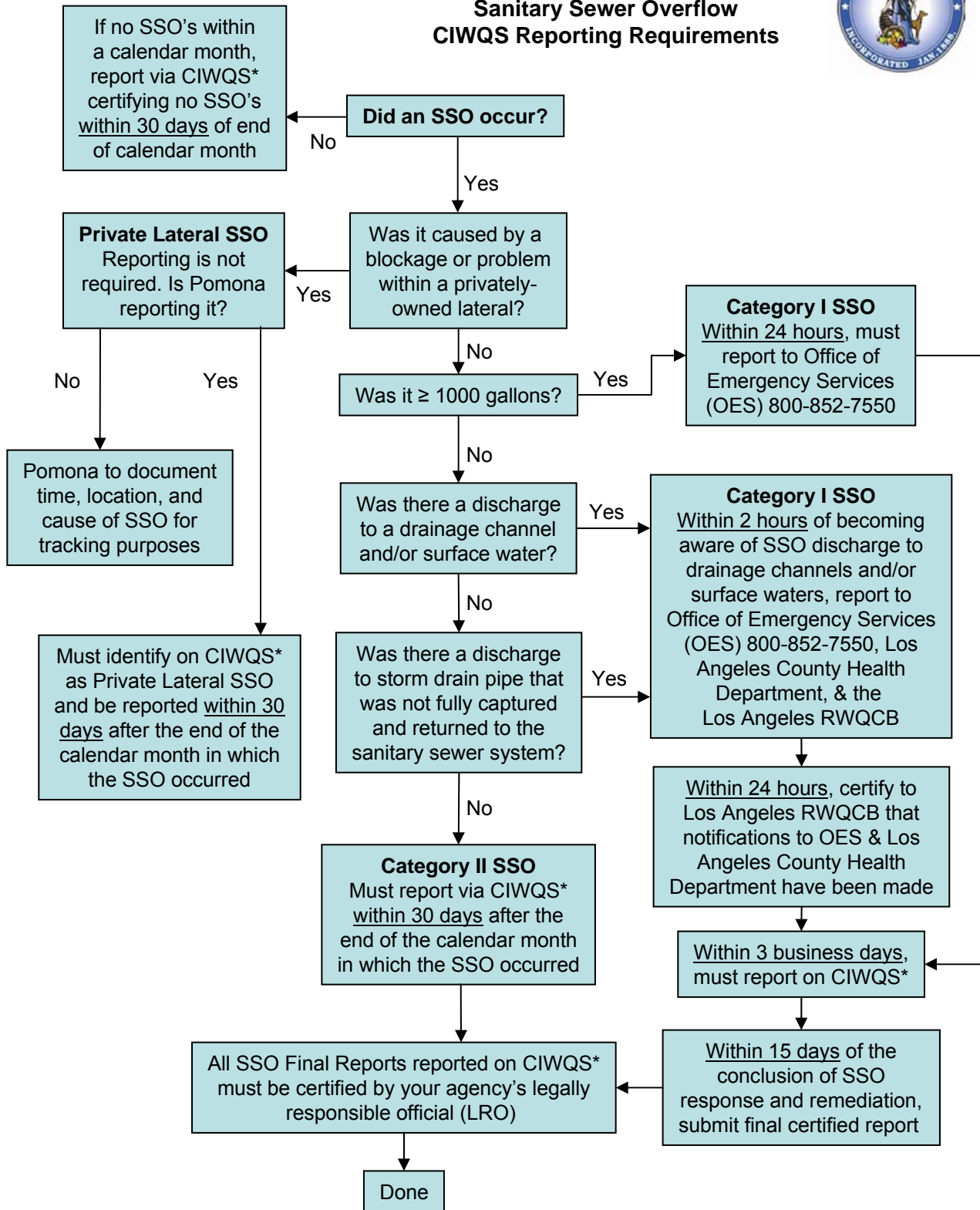
Figure 4-1 shows a flow chart that will guide City staff in determining the category classification of an SSO, and the reporting requirements that are necessary.

4.3 On-Line Reporting Requirements

As of January 2, 2007, the WDRs require that the City report SSOs using the California Integrated Water Quality System (CIWQS), an internet-based reporting system. This section describes the reporting procedures.



**Figure 4-1
Sanitary Sewer Overflow
CIWQS Reporting Requirements**



*California Integrated Water Quality System – If CIWQS is not available, you must FAX to Los Angeles Regional Water Quality Control Board: Fax # (213) 576-6640

4.3.1 Reporting Authority and Access

At a minimum, the City is required to have one (1) Legally Responsible Official (LRO) who is registered with the State of California to officially sign and certify SSO reports submitted via the CIWQS web-site. Currently, the Water/Wastewater Operations Manager is identified as the City's LRO. It is advisable that the City identify at least one additional LRO, such as the Wastewater Collection System Supervisor, to act as a back-up.

The City also must identify Data Submitters. These are individuals registered with the State to enter SSO data, create and edit SSO reports, and review data. Data Submitters cannot certify reports. Data Submitters are typically the First Responders to an SSO location, or the person who collects the SSO data for reporting. The City can identify and register as many Data Submitters as deemed necessary.

Each Agency is assigned a unique Waste Discharge Identification Number. The City of Pomona's number is WDID #4SSO10418. All LRO's and Data Submitters receive a unique logon and password. This information should be guarded and protected. If an authorized user suspects his or her logon and password has been lost, stolen, or otherwise compromised, that person shall contact the State Water Resources Control Board via the CIWQS help desk at 866-792-4977.

4.3.2 Mandatory Information to Report via CIWQS

Specific mandatory information must be included for each SSO report submitted via CIWQS, prior to finalizing and certifying an SSO report.

The following information is required for all Category 2 SSOs:

1. Location of SSO using Global Positioning System (GPS) coordinates;
2. Regional Water Board 4;
3. Los Angeles County;
4. Whether the SSO entered a drainage channel and/or surface water;
5. Whether the SSO was discharged into a storm drain pipe that was not fully captured and returned to the wastewater collection system;
6. Estimated SSO volume in gallons;
7. SSO source (e.g. manhole, cleanout, pipeline, etc.);
8. SSO cause (e.g. mainline blockage, roots, grease, etc.);
9. Time of SSO notification or discovery;
10. Estimated operator arrival time;
11. SSO destination; and
12. Estimated SSO end time.

SSO Reporting Requirements

The following information is required for all Category 1 SSOs:

1. All information listed for Category 2 SSOs;
2. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
3. Estimated SSO volume recovered;
4. Response and corrective action taken;
5. If bacteriological samples were taken, identify which regulatory agencies received sample results; if no samples were taken, then N/A must be selected;
6. The parameters that samples were analyzed for (if applicable);
7. Whether health warning signs were posted;
8. Beach(es) impacted, if none then N/A must be selected;
9. Whether there is an ongoing investigation;
10. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the SSO and a schedule of major milestones for those steps;
11. OES control number (if applicable);
12. Date OES was initially called (if applicable);
13. Time OES was initially called (if applicable);
14. Identification of whether County Health Department Officers were called;
15. Date County Health Department Officers were initially called (if applicable); and
16. Time County Health Department Officers were initially called (if applicable).

The following information is required for Private Lateral Sewage Discharges, if the City elects to report private lateral SSOs:

1. All information listed for Category 2 SSOs;
2. Identification of sewage discharge as a private lateral sewage discharge; and
3. Responsible party contact information, if known.

The CIWQS reporting requirements are not in lieu of other reporting requirements. The City must also perform Regional Board reporting requirements, the Governor's Office of Emergency Services reporting, and notifications to the County Health Department.

Once the data is properly entered into the CIWQS database, and the SSO investigation is complete, the SSO report must be certified by the LRO based on Table 4-1.

**Table 4-1
CIWQS Reporting Time Requirements**

SSO Type	Initial CIWQS Report	Certification Requirements
Category I SSO	Within 3 business days	Within 15 days of the conclusion of the SSO response and remediation
Category II SSO	Prior to Certification	Within 30 days after the end of the month in which the SSO occurred
Private Lateral SSO	Prior to Certification	Within 30 days after the end of the month in which the SSO occurred
No Monthly SSOs	N/A	Within 30 days after the end of the month in which no SSOs occurred

4.3.3 Monthly Reporting Requirement if no SSOs

For each month that no SSOs are identified and reported via CIWQS, the City's LRO must prepare and submit a statement in the CIWQS SSO Database, certifying that there were no SSOs for the designated month. This report must be submitted within 30 days after the end of each calendar month with no SSOs, as noted in Table 4-1 above.

4.3.4 Alternative Reporting Procedures when On-Line Reporting is Unavailable

In the event that the CIWQS SSO On-line Database is not available to submit required reports or certify reports, City staff must fax all required information to the Los Angeles Regional Water Quality Control Board office in accordance with the time schedules identified in Table 4-1. The City is also obligated to enter all required information into the On-line SSO Database as soon as practicable.

4.4 Record Keeping and Document Retention

The City must retain individual SSO records for a minimum of five (5) years from the date of the SSO occurrence. This period may be extended when requested by a Los Angeles Regional Water Quality Control Board Executive Officer. All records shall be made available for review upon State or Regional Board staff's request.

Specific records that must be retained include, but are not limited to:

- Certified reports as submitted on-line;
- Original recordings of continuous monitoring efforts;
- SSO call logs;
- Action(s) or planned action(s) to prevent future SSOs from recurring;

SSO Reporting Requirements

- Work orders, work completed, and maintenance records associated with responses and investigations of SSO related problems;
- A list and description of complaints from customers or others; and
- Documentation of performance and implementation measures.

To facilitate the City's ability to report regularly on SSOs, the Wastewater Collection System Supervisor maintains an Excel™ spreadsheet that contains information about each SSO. Attachment J shows the data and attributes collected about each SSO. The Wastewater Collection System Supervisor should input data as soon as practicable after an SSO event. This database can be queried for trends and used as a cross reference for the on-line SSO reporting requirements.

Chapter 5 Training

Appropriate staff will participate in regularly scheduled training sessions to assist response crews in awareness of their responsibilities and executing their duties. These training sessions will be organized based on the latest SSOERP as well as other reference materials. Training sessions shall also incorporate hands-on field demonstrations to insure the preparedness of all response personnel to anticipated SSO situations.

An overview of the Sewer System Management Plan (SSMP) and the SSOERP should be provided to City staff. This will serve as a mode of instructing staff on the SSMP, SSOs, and required documentation. Field demonstrations will be performed to test equipment, response time, training effectiveness, resources, and manpower capabilities.

Additionally, City staff will make the SSOERP available to any contractor who may provide service to the City to ensure that the contractors are properly informed of the response procedures.

Training and event participation will be documented and maintained. Currently, certification is not required. However, certification requirements may be imposed in the future if deemed necessary by the RWQCB.

(This page was intentionally left blank.)

Chapter 6

Updating this SSOERP

This SSOERP reflects the City's established procedures for responding to reports of possible and confirmed SSOs originating from its wastewater collection system. As policies change and response procedures are refined, the SSOERP will be reviewed and modified to reflect all necessary changes.

6.1 SSOERP Availability

The SSOERP will be reviewed annually to ensure that all information is updated. The amended SSOERP will be distributed to the appropriate staff, City Departments, RWQCB, and be made available to the public for review. Staff shall ensure that this SSOERP is readily available to sewer system maintenance personnel, and that said personnel are familiar with the plan and comply with it at all times.

6.2 Review and Update of the SSOERP

City staff shall maintain this SSOERP, and amend or update it as necessitated by the addition of new facilities or changes in the operation or maintenance of the sewer system that may materially affect the potential for SSOs. At a minimum, the plan will be reviewed annually and will include updating telephone numbers and forms in the attachments and a review of procedures. The annual review of the plan will also ensure all provisions of the plan are being met and implemented. City staff shall review and amend this SSOERP to reflect intelligence learned as a result of experience managing an SSO(s). SSOERP deficiencies and updates will be addressed and modified accordingly. The plan performance will be routinely evaluated, reviewed and updated.

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Attachment A
Sanitary Sewer Overflow Field Report Form

**CITY OF POMONA
SANITARY SEWER OVERFLOW FIELD REPORT**

<u>PART A:</u> INITIAL NOTIFICATION		Task Order #: _____
Date Reported: _____	Time Reported: _____	(00:00)
Reported by – Name: _____	Phone Number: _____	
Address or Agency: _____		
Location of Overflow: _____		
Cross Street: _____	Thomas Brothers Grid: _____	
Reason for call-out:	<input type="checkbox"/> Stoppage/Overflow	<input type="checkbox"/> Pump Station Alarm <input type="checkbox"/> Other: _____
Stoppage in:	<input type="checkbox"/> Mainline <input type="checkbox"/> Private Lateral	
Cause of Stoppage: _____		
Responsible Party:	<input type="checkbox"/> City	<input type="checkbox"/> Private <input type="checkbox"/> Other: _____

<u>PART B:</u> INITIAL RESPONSE	
Time Arrived at Site: _____	First Responder: _____
Crew Members: _____	
Date Overflow Started: _____	Date Overflow Stopped: _____
Time Overflow Started: _____	Time Overflow Stopped: _____
Est. Overflow Rate (gpm): _____	Est. Overflow Volume (gal): _____
Duration of Flow: _____	Overflow Volume Recovered: _____
Reach Storm Drain? <input type="checkbox"/> Yes <input type="checkbox"/> No	Final Destination of Overflow: _____
Reach Surface Water? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Name of Surface Water: _____
Pictures/Video Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Samples Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No
Location of Blockage: <input type="checkbox"/> Main <input type="checkbox"/> Manhole <input type="checkbox"/> Private Lateral <input type="checkbox"/> Other _____	
From MH: _____ To MH: _____	Overflow Manhole: MH _____
Signs Posted? <input type="checkbox"/> Yes <input type="checkbox"/> No	County Health Dept. Notified? <input type="checkbox"/> Yes <input type="checkbox"/> No
Site Barricaded? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Cause of Overflow: (Check All that Apply)	<input type="checkbox"/> Blockage <input type="checkbox"/> Grease <input type="checkbox"/> Vandalism <input type="checkbox"/> Roots <input type="checkbox"/> Line Break <input type="checkbox"/> Construction <input type="checkbox"/> Rocks <input type="checkbox"/> Flood/Rain <input type="checkbox"/> Private Property Cause <input type="checkbox"/> Debris <input type="checkbox"/> Infiltration <input type="checkbox"/> Other: _____
Containment Materials? _____	Responsible Party: _____
Cleanup Method: _____	

*Sketch Area and Overflow Description on Back of Sheet

SKETCH OF AREA: (Include manholes, intersections, location of blockage, etc.)

DESCRIPTION OF OVERFLOW RESPONSE EFFORTS:

Completed by: _____ Title: _____ Date: _____

Attachment B
Sanitary Sewer On-call Response Personnel

City of Pomona
Sanitary Sewer On-call Response Personnel



City Staff	Contact Name	Telephone Number	Pager Number
Wastewater Collection System Supervisor	Norbert Baldonado	(909) 620-2260	-
Wastewater Collection System Crew Chief	Vacant	-	-
Supervising Utility Engineer	Raul Garibay	(909) 620-2239	-
Wastewater Maintenance Technician III	John Lopez	(909) 620-2260	-
Wastewater Maintenance Technician III	Gabriel Chavez	(909) 620-2260	-
Equipment Operator	-	-	-
Contractors	-	-	-
City of Pomona Risk Management Office	-	(909) 620-2294	-
Water/Wastewater Collection System Operations Manager	Jim Taylor	(909) 620-2251	(909) 240-6122
Water Distribution Supervisor	-	-	-
Public Works:	-	-	-
Street	-	-	-
Street Lighting	-	-	-
Parks	-	-	-
Utility Service Director	Henry Pepper	(909) 620-2283	(909) 322-8212
City Manager	Linda Lowry	(909) 620-2051	-

Attachment C
Approved Contractors and Equipment Rental Vendors

Approved Contractors and Equipment Rental Vendors

Contractors:

Contractor Name	Address	Telephone	Contact Name	Services Provided

Equipment Vendors:

Vendor Name	Address	Telephone	Contact Name	Available Equipment

Attachment D
Damage Report for Private Property

Private Property Initial Damage Assessment Form

The information requested on this form is for the purpose of documenting the possible impacts and extent of damage caused by a sanitary sewer overflow at, or as close to, the time of the event. By using this form, the City, its employees, elected officials, contract staff, and volunteers do not admit liability or culpability for the damage being documented.

INSTRUCTIONS: City staff at the SSO location are instructed to write notes, take photographs, and, if possible, video record the visible area without entering the private property. Please complete as much of this form as possible. Keep a copy and submit this form to Risk Management.

SSO INFORMATION

Date of SSO event: _____ Task Order #: _____

Location of SSO Event: _____
(ADDRESS)

Cross Street: _____ Thomas Brothers Grid: _____

AFFECTED PROPERTY

Address of Private Property: _____

_____ Zip Code: _____

Owner/Occupant Name(s): _____

Owner/Occupant Telephone Number(s): _____

INITIAL DAMAGE ASSESSMENT

Brief Description of Damage: _____

Reported by (name and title): _____

Dated: _____

(attach sketches, photographs, and other items documenting the extent and impact of damage)

Attachment E
Sanitary Sewer Overflow Notification List

City of Pomona
Sanitary Sewer Overflow Notification List



Contact List	Contact Name	Telephone Number
Regional Water Quality Control Board (RWQCB)	-	(213) 576-6650
The Governor's Office of Emergency Services Warning Center (OES)	-	(800) 852-7550
Los Angeles County Department of Environmental Health - Water Quality Program	-	(626) 430-5372
City of Pomona Risk Management Office	-	(909) 620-2294
Pomona Police Department - Emergency Services	-	(909) 620-3741
Pomona Police Department - Dispatch during Non-Business Hours	-	(909) 620-3744
Pomona Fire Department - Battalion 15 Office	-	(909) 620-2087
City Hall Customer Service	-	(909) 620-2241
Wastewater Collection System Supervisor	Norbert Baldonado	(909) 620-2260
Wastewater Collection System Crew Chief	Vacant	-
Utility Operations	Eric Schoener	(909) 802-7420
Supervising Utility Engineer	Raul Garibay	(909) 620-2239
Equipment Operator	-	-
Los Angeles County Public Works	-	(800) 675-4357
Los Angeles County Sanitation Districts (LACSD)	-	(562) 699-7111 ext 2907
Los Angeles County Health Hazardous Materials Division	-	(323) -890-4000
National Response Center	-	(800) 424-8802
CHEMTREC	-	(800) 424-9300
City of Pomona Public Works Engineering Division	-	(909) 620-2261
City of Pomona Services -Environmental (NPDES) Storm Water Compliance	-	(909) 620-2224
City of Pomona Code Enforcement	-	-
Water/Wastewater Collection System Operations Manager	James Taylor	(909) 620-2251
Utility Service Director	Henry Pepper	(909) 620-2283
City Manager	Linda Lowry	(909) 620-2051
California Highway Patrol (CHP)	-	-
Caltrans	-	-

Attachment F
Sanitary Sewer Overflow Report Form

CITY OF POMONA SANITARY SEWER OVERFLOW REPORT



CIWQS Identifier: _____

Task Order # _____

This report is: Preliminary Final Revised

Reporting Details

Name & Title of Person Completing this Report: _____

Phone # _____ Date: _____ Time: _____ (00:00)
(24-hour clock)

Name of Person First Reporting SSO: _____

Phone # _____ Date: _____ Time: _____ (00:00)
(24-hour clock)

Location of Overflow

Street Address: _____ Nearest Cross Street: _____

Thomas Brothers Grid: _____ Latitude of SSO: _____ Longitude of SSO: _____

City: Pomona County: Los Angeles Zip: _____

Location of Potential Blockage or Problem Point: From MH#: _____ To MH#: _____

SSO Appearance Point: Building Force Main Manhole Sewer Pump Station
 Other: _____

Terrain at SSO Location: Flat Mixed Steep

Diameter of Sewer: _____ in Material of Sewer: _____ Estimated Age: _____ yrs

SSO Details

Estimated Overflow **START**: Date: _____ Time: _____ (00:00)
(24-hour clock)

Estimated **ARRIVAL** of Operator: Date: _____ Time: _____ (00:00)
(24-hour clock)

Estimated Overflow **STOP**: Date: _____ Time: _____ (00:00)
(24-hour clock)

Duration of Spill (in minutes) = _____ Minutes

Estimated Overflow Rate: _____ gpm Total Volume of SSO: _____ gal

SSO Volume Recovered: _____ gal SSO Volume Lost: _____ gal

SSO Cause: Debris Flow Exceeded Capacity FOG Rainfall Roots
 Operator Error Structural Problem Pump Station Failure Vandalism
 Other: _____

If wet weather caused the SSO, chose storm size:

1yr 2yr 5yr 10yr 50yr 100yr >100yr Unknown

SSO Destination Details

SSO Final Destination: Beach Building Paved Surface Unpaved Surface Storm Drain
Curb & Gutter Surface Water Other:_____

If SSO reached a storm drain, give street location (Specify N/S/E/W side):_____

Describe distance (feet) and path taken from SSO to storm drain inlet:_____

If SSO reached surface waters, describe Receiving Waters:_____

If applicable, name and/or describe Secondary Receiving Water:_____

Response

Response Activities (Check ALL that Apply): Contained All or Part of SSO Restored Flow
Returned All or Part of SSO to Sewer Cleaned Up CCTV
Other:_____

Responding City Personnel: Time Arrived: Time Departed:

_____	_____	_____
_____	_____	_____
_____	_____	_____

Equipment Used:_____

Other Responding Agency/Contractor:_____

SSO Clean-up Details

Materials Used for Containment:_____

Washwater Disposal Method:_____

Volume of Washwater Used: _____gal

Combined Volume of Recovered Washwater and Sewage-Contaminated Water: _____gal

Combined Volume of Lost Washwater and Sewage-Contaminated Water: _____gal

Miscellaneous (Attach photos, correspondence, or follow-up reports that provide detailed information.)

Remarks:_____

Prevention Plan

Steps, taken or planned, to reduce or eliminate re-occurrence of SSO: _____

Schedule of any MAJOR milestones or improvements: _____

Steps, taken or planned, to mitigate the impacts of the SSO: _____

Schedule of any MAJOR milestones or improvements: _____

Notification Contact List (Check all who were notified.)

Name/Agency	Phone #	Time	Date
<input type="checkbox"/> Regional Board (RWQCB)	(213) 576-6650	_____	_____
<input type="checkbox"/> Office of Emergency Services (OES)	1-800-852-7550	_____	_____
<input type="checkbox"/> County Health Department	(323) 881-4147	_____	_____
<input type="checkbox"/> Risk Management	(909) 620-2294	_____	_____
<input type="checkbox"/> Police Dept-Emergency Services	(909) 620-3741	_____	_____
<input type="checkbox"/> Pomona Fire Department	(909) 620-2087	_____	_____
<input type="checkbox"/> City Hall Customer Service	(909) 620-2241	_____	_____
<input type="checkbox"/> WWCS Supervisor	(909) 620-2260	_____	_____
<input type="checkbox"/> WWCS Crew Chief	_____	_____	_____
<input type="checkbox"/> Equipment Operator	_____	_____	_____
<input type="checkbox"/> Water/Wastewater Ops Manager	(909) 620-2251	_____	_____
<input type="checkbox"/> Utility Services Director	(909) 620-2283	_____	_____
<input type="checkbox"/> City Manager	(909) 620-2051	_____	_____
<input type="checkbox"/> Other _____	_____	_____	_____

MUST notify OES, County Health Department, and RWQCB within **2 HOURS** of becoming aware of an SSO reaching storm pipes, drainage channels, and/or surface waters

OES Control # _____

Report faxed to RWQCB? Yes No If yes, date and time of fax: _____

Public Use Closures

Were signs posted warning of contaminants? Yes No Dates Posted: _____

Location of Postings: _____

Were samples obtained of contaminated water? Yes No (Attach any and all results.)

Attachment G
Possible Methods for Estimating Spill Volume

Methods for Estimating Spill Volume

A variety of approaches exist for the estimation of the volume of a sanitary sewer overflow. This appendix documents four methods that are most often employed. Other methods are also possible. The person preparing the estimate shall use the method most appropriate to the SSO in question using his/her judgment. Every effort shall be made to make the best possible estimate of the volume.

Method 1 Eyeball Estimate

The volume of very small SSOs can be estimated using an “eyeball estimate.” To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the SSO is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to 100 gallons.

Method 2 Measured Volume

The volume of some small SSOs can be estimated using this method if it is not raining. In addition, the shape, dimensions, and depth of the spilled sewage are needed. The shape and dimensions are used to calculate the area of the spill and the depth is used to calculate the volume.

Step 1 Sketch the shape of the contained sewage

Step 2 Measure or pace off the dimensions

Step 3 Measure the depth in several locations

Step 4 Convert the dimensions, including depth to feet.

Step 5 Calculate the area using the following formulas:

Rectangle Area = length x width

Circle Area = diameter x diameter x 0.785

Triangle Area = base x height x 0.5

Step 6 Multiply the area times the depth

Step 7 Multiply the volume by 7.5 to convert it to gallons

Method 3 Duration and Flow Rate

Calculating the volume of SSOs where it is difficult or impossible to measure the area and depth requires a different approach. In this method separate estimates are made of the duration of the SSO and the flow rate. The methods of estimating duration and flow rate are:

Duration: The duration is the elapsed time from the start time to the end time, when the SSO stopped.

Start time is sometimes difficult to establish. Here are two approaches:

- For very large overflows, changes in flow on a downstream flow meter can be used to establish the start time. Typically the daily flow peaks are “cut off” or flattened by the loss of flow. This can be identified by comparing hourly flow data.
- Conditions at the SSO site change with time. Initially there will be limited deposits of grease and toilet paper. After a few days to a week, the grease forms a light colored residue. After a few weeks to a month the grease turns dark. In both cases the quantity of toilet paper and other materials of sewage origin increase in amount. These changes with time can be used to estimate the start time in the absence of other information.
- Sometimes it is simply not possible to estimate the start time.

End time is usually much easier to establish. Field crews on-site observe the “blow down” that occurs when the blockage has been removed. The “blow down” can also be observed in downstream flow meters.

Flow Rate: The flow rate is the average flow left in the sewer system during the time the SSO stopped. There are three ways to estimate the flow rate:

- **San Diego Manhole Flow Rate Reference Sheet:** This sheet, presented in Figure G-1, shows the sewage flowing from a manhole cover for a variety of flow rates. The observations of the field crew are used to select the approximate flow rate from the chart.
- **Flow meter:** Changes in flows in the downstream flow meters can be used to estimate the flow rate during the spill (better for large SSOs)
- **Estimate based on up-stream connections:** Once the location of the SSO is known, the number of upstream connections can be determined from system maps. Multiply the number of connections by 200 to 250 gallons per day per connection or 8 to 10 gallons per hour per connection, or other flow rates that are consistent with the City’s data for its connections.

Once duration and flow rate have been estimated, the volume of the SSO is the product of the duration in hours or days times the flow rate in gallons per hour or gallons per day.



City of San Diego
Metropolitan Wastewater Department

Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes

All estimates are calculated in gallons per minute (gpm)



Wastewater Collection Division
(619) 654-4160



All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

rec. 499

Attachment H Warning Sign Samples

WARNING

RAW

SEWAGE

City of Pomona

(909) 620-2241

DANGER!

**CONTAMINATED WATER
KEEP OUT**



**AGUA CONTAMINADA
ALEJESE**

PELIGRO!

City of Pomona

(909) 620-2241

Attachment I
Examples of Pre-Scripted Notices

SAMPLE PRE-SCRIPTED NEWS RELEASE – INITIAL NOTIFICATION

(City of Pomona, Wastewater Operations Division letterhead)

For Immediate Release

Date and Time

Cause of failure, such as mechanical breakdown or natural cause (lightning or local flooding) damage at sewage facility located near the intersection of street name and street name has caused sewage overflow into the surface water name in area name. A map showing the location of the sewage facility and areas impacted by the overflow is attached.

Although Wastewater Maintenance Section crews have begun to make temporary repairs and divert some of the flows to which plant and/or interim bypass pumping has begun, backups may occur in portions of the system. Consequently, residents (reference area or location on map) are urged to reduce water usage inside their homes as much as possible and to avoid coming into physical contact with standing waters in the street or using receiving surface water for any purpose until further notice.

Please note that the drinking water supply is not affected; however, the cooperation of residents to minimize water usage in order to reduce sewage flows is of the utmost importance.

CONTACT: Public Information Officer
Monique Valadez
909-620-2572

Wastewater Collection System Supervisor
Norbert Baldonado
909-620-2260

SAMPLE PRE-SCRIPTED NEWS RELEASE – REPAIR UPDATE

(City of Pomona, Wastewater Operations Division letterhead)

For Immediate Release

Date and Time

Cause of failure, such as mechanical breakdown or natural cause (lightning or local flooding) damage at sewage facility located near the intersection of street name and street name has caused sewage overflow into the surface water name in area name. Repair crews were dispatched to assess the extent of the damage and to initiate repairs. To date, the following actions have been taken:

[Description of work accomplished.]

It is anticipated that the repair work will be complete by day, date, and time. Additional advisories will be issued if the status of the repairs should change.

Residents are cautioned to refrain from visiting the area where the repair efforts are being conducted.

CONTACT: Public Information Officer
Monique Valadez
909-620-2572

Wastewater Collection System Supervisor
Norbert Baldonado
909-620-2260

SAMPLE PRE-SCRIPTED NEWS RELEASE – CLOSING STATEMENTS

(City of Pomona, Wastewater Operations Division letterhead)

For Immediate Release

Date and Time

Cause of failure, such as mechanical breakdown or natural cause (lightning or local flooding) damage at sewage facility located near the intersection of street name and street name has caused sewage overflow into the surface water name in area name. The leak caused the discharge of approximately number of thousand or million gallons of sewage into name of surface water, resulting in restricted public access to the _____.

A specially trained team of repair experts was mobilized to take immediate and effective action. The repairs were complete in time in hours and/or days and involved around-the-clock operations.

The City of Pomona Wastewater Operations Division worked in cooperation with the Los Angeles County Health, Water, and Sewage Department in monitoring the environmental effects of the sewage discharge on name of surface water. The media assisted in issuing advisories to keep the public informed of the status of remedial actions. As a result, the impacts of accidental sewage discharged were minimized. The water quality in name of surface water is continuing to be monitored to ensure there are no threats to public health and the environment.

CONTACT: Public Information Officer
Monique Valadez
909-620-2572

Wastewater Collection System Supervisor
Norbert Baldonado
909-620-2260

SAMPLE PRE-SCRIPTED NEWS RELEASE – WATER CONSERVATION

(City of Pomona, Wastewater Operations Division letterhead)

For Immediate Release

Date and Time

Cause of failure, such as mechanical breakdown or natural cause (lightning or local flooding) damage at sewage facility located near the intersection of street name and street name has caused sewage overflow into the surface water name in area name. The leak has caused portions of surface water name to become polluted and necessitates reducing the discharge of sewage to the sewer system.

In order to prevent backups in the sewer system and sewage spills, residents are urged to reduce household water use. Residents should take the following actions:

1. Limit clothes washing
2. Limit showers and baths
3. Limit toilet flushing

It is necessary to restrict water use only for the period required to fix the leak. City of Pomona Wastewater Operations Division crews have already begun to make repairs. Advisories will be issued when the repairs are completed so normal water use may resume.

The break does not affect the water supply. The water is safe to drink, but please limit water use to reduce sewage flow as much as possible.

CONTACT: Public Information Officer
Monique Valadez
909-620-2572

Wastewater Collection System Supervisor
Norbert Baldonado
909-620-2260

Attachment J
Sample SSO Database Tracking Spreadsheet

SSO TRACKING DATABASE
Recommended Headings

Task Order Number	CIWQS SSO Database ID	Date SSO is First Reported to City	Time SSO is First Reported to City	Reported By:		Reported to CIWQS On-line database		Reported to RWQCB		Person Completing Report	
				Name	Phone #	Date	Time	Date	Time	Name	Phone #

SSO TRACKING DATABASE
Recommended Headings

Responsible Party	SSO Estimated Start		SSO Estimated End		Did any Sewage Reach Storm Drain?	Did SSO Reach Surface Waters other than a Storm Drain?	Containment Info.	Wastewater Disposal Method	Estimated Overflow Rate	SSO Volume Lost	How was Volume Calculated?
	Date	Time	Date	Time							

SSO TRACKING DATABASE
Recommended Headings

Photo Documentation	Recovered SSO Volume	Volume of Recovered Washwater & Sewage	Volume of Lost Washwater & Sewage	Location				SSO Structure ID	Number of Overflows w/in 1000 ft of this Location	Dates of Overflows w/in 1000 ft of this Location	Location of Potential Bolckage or Problem Point
				Street	City	County	Zip				

SSO TRACKING DATABASE
Recommended Headings

Description of Component from which Spill Occurred	Overflow Cause - Detailed Description	Measurable Precipitation 72 Hours Prior to Overflow	Steps, Taken or Planned, to Reduce, or Eliminate, Reoccurrence of SSO	Schedule of Major Milestones	Steps Taken or Planned to Mitigate the Impacts of the SSO	Schedule of Major Milestones	Any Additional Correspondence and Follow-up Reports as Necessary to Supplement the SSO Report Form and Provide Detailed Info

SSO TRACKING DATABASE
Recommended Headings

Name or Description of Initial Receiving Water	Name or Description of Secondary Receiving Water	Describe final destination of sewage	Was the Local Health Services Agency Notified?	If the SSO was > 1000 gal, was OES Notified?	Were Signs Posted to Warn of Contamination?	Location of Posting	Dates that Warning Signs were Posted	Were Samples Obtained of Contaminated Water?	Remarks

Appendix E
City of Pomona Fats, Oils, and Grease
Control Program Characterization Study

CITY OF POMONA FATS, OILS, AND GREASE CHARACTERIZATION STUDY

May 2008

Prepared For:



**The City of Pomona
Utility Services Department
148 North Huntington Street
Pomona, California 91768**

Prepared By:



**9275 Sky Park Court, Suite 200
San Diego, California 92123
858.874.1810**

PBS&J Project No.: 049125300

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Figures

Figure 2-1 City of Pomona Food Service Establishments and High Frequency Maintenance Locations	Inserted between pages 4 and 5
Figure 2-2 City of Pomona Sanitary Sewer Overflow Locations..	Inserted between pages 6 and 7

Attachments

- Attachment A – City of Pomona Restaurant Master List
- Attachment B – City of Pomona Wastewater Emergency Calls

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Section 1

Introduction

The City of Pomona (City) is committed to complying with the mandates set forth under the General Waste Discharge Requirements for Sanitary Sewer Systems Order No. 2006-0003 (WDRs). The WDRs require that the City develop a specific Sewer System Management Plan (SSMP) to include the provisions necessary to provide proper and efficient management, operation, and maintenance of the wastewater collection system. To comply with one of the eleven (11) mandatory elements of the SSMP, the City prepared a FOG Control Program to effectively reduce the quantity of fats, oils, and grease (FOG) and other debris discharged to the wastewater collection system that may cause sewerage collection system blockages or Sanitary Sewer Overflows (SSOs).

Proper disposal and handling of waste containing excessive FOG quantities is important since it can accumulate in the wastewater collection system and eventually block collection pipes and sewer lines, resulting in backups and overflows on streets, properties and even in private residences. Sewer overflows are unsanitary and negatively impact the environment. They are costly to agencies and the rate payers since the expense of cleaning up and repairs associated with improper disposal of FOG can lead to increased sewer rates.

1.1 Purpose of FOG Control Program

The City recognizes the importance of protecting the health and safety of the public and environment by preventing SSOs from reaching surface waters and waters of the United States. In an effort toward compliance with the WDR requirements and developing strategies and procedures to achieve proper and efficient management, operation, and maintenance of the wastewater collection system the City developed a FOG Control Program.

Wastewater discharges containing high concentrations of FOG from food service establishments (FSEs) are the primary cause of blockages and overflows in the City's wastewater collection system. Overflows of wastewater into the storm water collection system that ultimately reach our natural bodies of water could be greatly reduced by controlling the discharge of FOG into the wastewater collection system. SSOs are readily preventable by good management practices and proper maintenance at FSEs.

The City's current preventive maintenance program includes a cleaning cycle for the areas that have been identified by City staff as high frequency maintenance sites. The City's high frequency maintenance sites include pipe segments with high FOG and root concentrations. The pipe segments within the wastewater system that have been identified as having an excessive amount of grease accumulation are routinely cleaned on a monthly basis. Maintenance of high frequency maintenance sites are tracked and scheduled manually by the Wastewater Collection System Supervisor.

The purpose of developing and implementing a FOG Control Program is to facilitate the maximum beneficial public use of the City's wastewater collection system while preventing

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blockages of sewer lines and pump stations, reducing the adverse affects on sewage treatment operations resulting from discharges of FOG into the system, and specifying appropriate FOG discharge requirements for FSEs discharging into the City's wastewater collection system.

The FOG Control Program developed by the City serves to establish the general prohibitions, restrictions, and requirements for FSEs that handle and discharge wastes containing FOG. It also provides information on various methods for effectively controlling and limiting the quantity of FOG discharged into the City's wastewater collection system. In addition to requiring compliance with the City Code and policies, the FOG Control Program serves as an additional enforcement mechanism to require accountability by the FSE for site specific maintenance and management of the facility. In addition, an effective FOG Control Program can minimize revenue losses associated with enforcement actions and the impacts of restricting public activities, such as roadway closures to respond to a FOG related SSO or closures of public access facilities.

1.2 FOG Characterization Study Overview

This study discusses the results of a FOG Characterization Study performed based on information provided by the City. Chapter 3 includes recommended ordinances for the City to consider and adopt to establish this authority for implementing and enforcing the FOG Control Program, a discussion on staffing the FOG program, and options to establish FOG user rates and permit fees.

Section 2

FOG Characterization Study

To develop an effective and comprehensive FOG Control Program and the appropriate control mechanisms for program enforcement, it is necessary to identify the sources and nature of FOG. As well, the location of high frequency maintenance sites and their relationship to FOG discharges must also be determined.

The City has identified that its primary source of FOG is generated from established restaurants located throughout the City. Large quantities of FOG is generated at these FSEs during food preparation from both FOG used to assist in the cooking of the food (i.e., frying oil) and from the food itself (i.e., hamburger meat). The quantity of FOG generated varies by site based on the type of food being prepared, the cleaning and maintenance practices employed, and seating capacity. The City has also identified several high frequency maintenance sites within the collection system, many of which are to prevent FOG related SSOs.

The following sections define FOG, identify the sources, and summarize the results of a study of the City's FOG sources, SSO causes and general wastewater collection system observations.

2.1 Overview

The primary goal of a Characterization Study is to identify the source and nature of FOG within the City's wastewater collection system. Since the City has determined that the primary source of FOG within the wastewater collection system is generated from FSEs, the study served to compile and categorize information pertaining to the City's wastewater collection system as it relates to FOG. By identifying and locating the sources of FOG in the wastewater collection system, FOG build-up in the system can be controlled and reduced, thereby increasing the system operating efficiency and reducing the number of sewer line blockages and overflows. The objectives of the characterization study may be summarized as:

- Compile and categorize information;
- Identify existing FOG sources;
- Identify the high frequency maintenance sites due to FOG;
- Identify areas potentially susceptible to excessive FOG accumulation; and
- Identify areas within the collection system at which SSOs have occurred due to excessive FOG.

FOG Characterization Study

2.2 FOG Defined

Residual FOG is primarily a by-product from food preparation in residential buildings, and more commonly, FSEs. Typically, FOG enters a facility's plumbing system from ware washing, floor cleaning, and equipment sanitation. Wastewater collection systems are neither designed nor equipped to handle the FOG that can accumulate on the interior of the sewer collection system pipes from improper discharges. These accumulations restrict flow in pipes and can eventually result in SSOs. The unintentional overflow of untreated sewage creates a health risk to the public, damages property, and pollutes our environment.

FOG comes in two basic forms with each being handled and processed in a different manner. One form of FOG is known in the industry as 'Yellow Grease'. Generally, yellow grease can be defined as the inedible and unadulterated FOG that is removed from food service kitchen operations. In most cases, yellow grease is placed in an enclosed container marked 'inedible' typically located outside of the food service establishment. Sources of yellow grease generated in food service kitchens are from bulk deep-frying operations and water/oil separator units usually associated with specific food preparation areas. The second form of FOG generated in the food service industry is the material recovered from grease traps, and is often designated in the FOG treatment industry as 'Brown Grease'. Brown grease is the general term used to describe the floatable FOG, settled solids and associated wastewater retained by grease traps. Unlike yellow grease, the majority of brown grease removed from grease traps have been contaminated by coming in contact with such agents as detergents and cleaning solutions used in food service kitchens. The major source of brown grease generated in food service kitchens is from the cleaning of equipment and utensils used in the preparation and serving of food.

2.3 FOG Sources

To locate the likely sources of FOG, PBS&J mapped each FSE using a Restaurant Master List provided by the City and last updated in 2004, which included the names and addresses of approximately 220 existing FSEs within the City. Included in Attachment A is a copy of the Restaurant Master List provided by the City.

The list of high frequency maintenance sites was provided by the City's Wastewater Maintenance Section. High frequency maintenance sites, which are routinely cleaned on a monthly basis, include areas with high FOG and root concentrations, areas where sewer pipelines have minimal slope, and locations that have been identified to have repetitive grease accumulation. PBS&J reviewed historical records pertaining to wastewater related emergency calls to determine potential causes of SSOs and identify additional locations of potential problem sites due to excessive FOG concentrations and/or accumulations.

2.4 Characterization Study Results

Mapping the information allows the City to visually identify areas with existing FOG concentrations and historical SSOs as well as identify areas susceptible to potential SSOs. Additionally, it helps to determine the potential impact of each FSE based on its proximity and relative location to high frequency maintenance sites or other potential FOG contributors. This information serves to help the City determine where its resources should be focused to

systematically and effectively implement its FOG Control Program to reduce overflows and operation problems in a cost effective manner.

Figure 2-1 (see insert), titled Food Service Establishments and High Frequency Maintenance Locations, illustrates the approximate location of each FSE for which the City has a record. Also shown on Figure 2-1 are the locations of the high frequency maintenance sites to show the spatial relationship between the FSEs and the high frequency maintenance sites. The table located in upper right corner describes the purpose for the high frequency maintenance site cleaning. Of the total 21 high frequency maintenance locations, sixteen (16) sites, or 76%, are due to excessive quantities of FOG.

As shown on Figure 2-1, large concentrations of FSEs are located along or adjacent to primary City streets including Holt Avenue, Garey Avenue, Arrow Highway, Temple Avenue, and Mission Boulevard. There are additional FSEs located throughout the City as well. Several of the high-frequency maintenance locations that are due to excessive grease are located in areas with a high concentration of FSEs and/or are downstream of FSEs.

Since the Restaurant Master List was last updated in 2004, it is probable that there are new businesses that have since received business licenses and other businesses that may no longer be in business or have had their name changed. The City should consider reviewing and updating the list and should confirm whether the FSEs are equipped with an approved type of grease control device.

Wastewater Emergency Calls

Historical records of the City’s Wastewater Emergency Calls were reviewed to determine the types of calls received and responded to by the Wastewater Maintenance crews. This list includes information from January 1999 through April 2007. Table 2-1 summarizes the emergency calls, a complete list of which is included in Attachment B. Table 2-1 includes a summary of the calls received as they relate to SSOs.

**Table 2-1
Summary of Wastewater Emergency Calls**

SSO Emergency Calls	No. of Emergency Calls
Reportable SSOs	11
Non-Reportable SSOs	41
Others	512
Total	564

The emergency calls, included in the “Others” category, consist of calls that are in response to issues other than SSOs. The calls are generally related to the City’s wastewater collection system, residential laterals, and a few miscellaneous types of problems. Table 2-2 includes a summary of the calls received by the Wastewater Maintenance Section that are not due to SSOs.

Table 2-2
Non SSO Related Wastewater Emergency Calls

Non SSO Related Emergency Calls	No. of Emergency Calls
City Wastewater Collection System Related	352
Residential Lateral Related	133
Miscellaneous	27
Total	512

The locations of the SSOs were superimposed onto the information included in Figure 2-1. Figure 2-2 (see insert), titled City of Pomona SSOs, illustrates the locations of the reportable and non-reportable SSOs that have occurred in the City per the City's Wastewater Emergency Calls list relative to the locations of FSEs and the high frequency maintenance locations.

According to the City's Wastewater Emergency Calls list, the eleven (11) Reportable SSOs shown on Figure 2-1 occurred between June 1999 and September 2004. Though there have not been recent reportable SSOs, a few of the SSOs that have occurred were located in the vicinity and downstream of areas with a high concentration of FSEs. Additionally, the SSOs occurred at what are currently designated high frequency maintenance locations.

Non-reportable SSOs have occurred from June 1999 through April 2007. According to the City's Wastewater Emergency Calls list there have been a total of forty-one (41) non reportable type of SSOs. The Non-Reportable SSOs shown on Figure 2-1 occurred along the City's wastewater collection system and appear to have been primarily in residential areas. However, several of the SSOs occurred in the vicinity and downstream of areas with a high concentration of FSEs. Additionally, the SSOs occurred at locations currently designated high frequency maintenance locations.

Although the City's proactive maintenance procedures have been successful in minimizing the number of SSOs the City will benefit from implementing a FOG Control Program. A FOG Control Program will serve to preemptively reduce FOG related SSOs by preventing the disposal of FOG into the City's wastewater collection system as well as reduce the occurrence of high frequency maintenance cleanings.

- Legend**
- Food Service Establishment
 - High Frequency Maintenance Locations
 - Manhole
 - Sewer Pipe
 - Pomona City Boundary
 - +—+—+— Railroad
 - Local Park or Recreational Area
 - Educational Institution
 - Race Track
 - Golf Course
 - Cemetery

HIGH FREQUENCY MAINTENANCE LOCATION	ADDRESS	DESCRIPTION
1	4600 W Valley Blvd	Sand & Silt
2	1495 W Mission Blvd	Grease
3	Phillips x Garey	Grease
4	Phillips x Main	Grease
5	Hidden Valley x Rockcliff Pl	Slump in line
6	1770 Orange Grove	Roots and Rags
7	1868 Orange Grove	Roots and Grease
8	San Juan x E Aliso	Roots
9	Ganeshia Pl	Sand & Silt
10	Monterey x Reservoir	Grease
11	Holt x Clark	Grease & Surcharge Line
12	1009 E Holt	Grease & Surcharge Line
13	Holt x Claremont	Grease & Slump
14	1919 club drive	Grease
15	1719 club drive	Grease & Grit
16	Home Terrace x Glen	Grease & Grit
17	1336 Glen Ave	Grease & Grit
18	1650 Gillette Rd	Grease & Grit
19	1461 East End	Grease
20	Holt x Gibbs	Grease
21	Phillips x East End	Grease

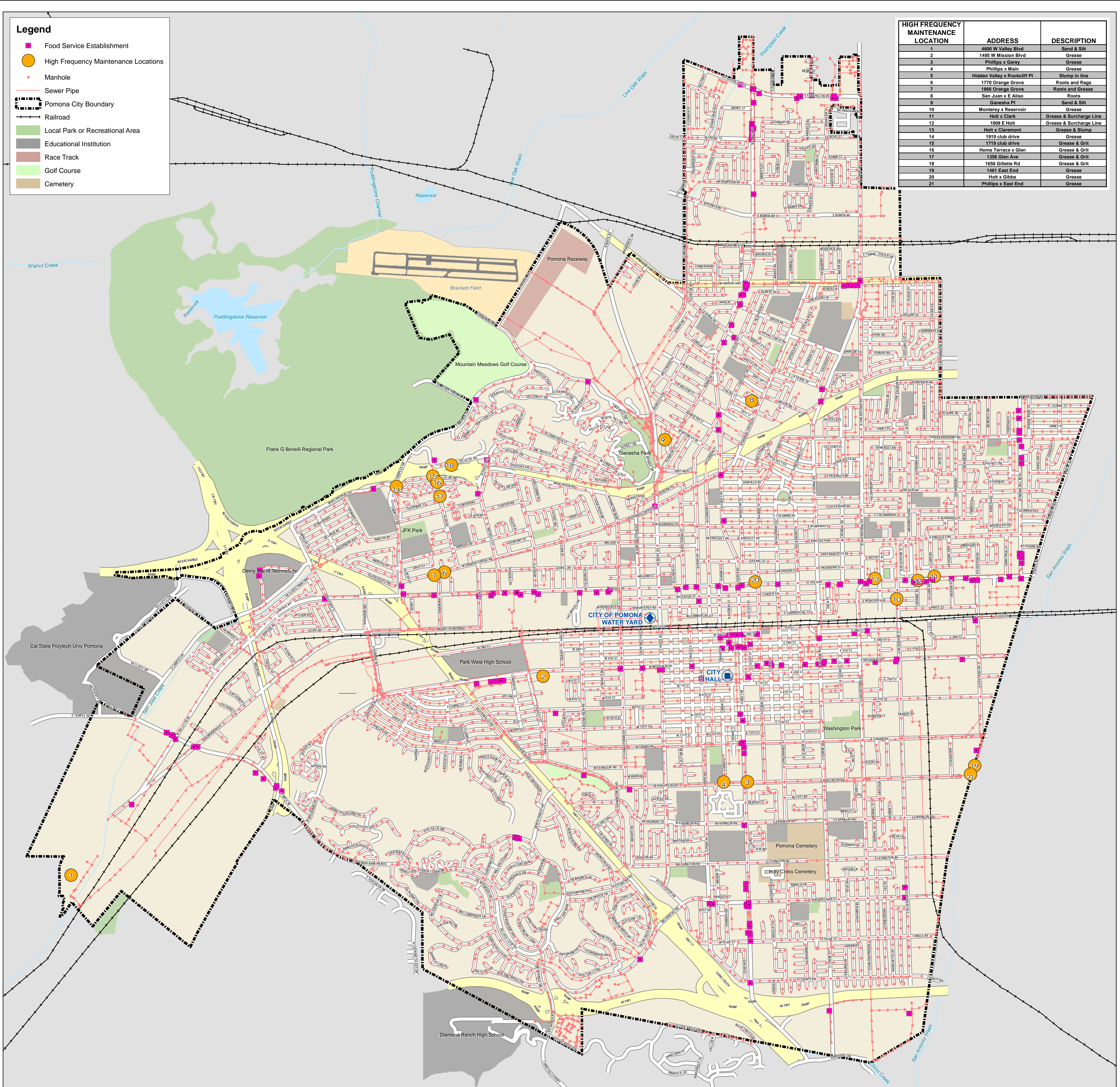


FIGURE 2-1
City of Pomona Food Service Establishments and High Frequency Maintenance Locations



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- Legend**
- Non-reported Sanitary Sewer Overflow
 - Reported Sanitary Sewer Overflow
 - Food Service Establishment
 - High Frequency Maintenance Locations
 - Manhole
 - Sewer Pipe
 - Pomona City Boundary
 - Railroad
 - Local Park or Recreational Area
 - Educational Institution
 - Race Track
 - Golf Course
 - Cemetery

HIGH FREQUENCY MAINTENANCE LOCATION	ADDRESS	DESCRIPTION
1	4600 W Valley Blvd	Sand & Silt
2	1495 W Mission Blvd	Grease
3	Phillips x Garey	Grease
4	Phillips x Main	Grease
5	Hidden Valley x Rockcliff Pl	Slump in line
6	1770 Orange Grove	Roots and Rags
7	1866 Orange Grove	Roots and Grease
8	San Juan x E Aliso	Roots
9	Ganesh Park	Sand & Silt
10	Monterey x Reservoir	Grease
11	Holt x Clark	Grease & Surcharge Line
12	1009 E Holt	Grease & Surcharge Line
13	Holt x Claremont	Grease & Slump
14	1919 club drive	Grease
15	1719 club drive	Grease & Grit
16	Home Terrace x Glen	Grease & Grit
17	1356 Glen Ave	Grease & Grit
18	1650 Gillette Rd	Grease & Grit
19	1461 East End	Grease
20	Holt x Gibbs	Grease
21	Phillips x East End	Grease

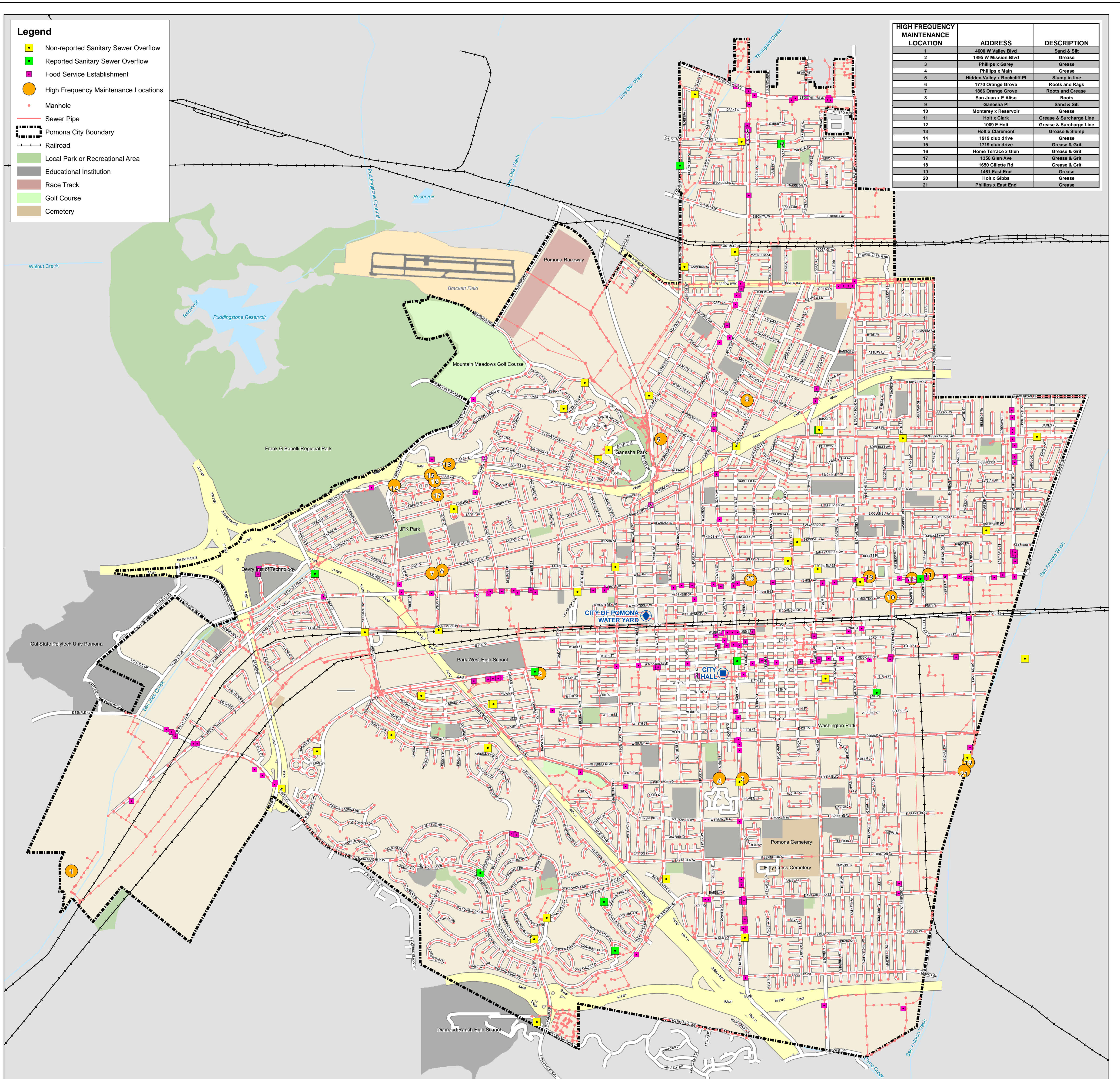


FIGURE 2-2
City of Pomona Sanitary Sewer Overflow Locations



Section 3

FOG Control Program Recommendations

A FOG Control Program was developed as a preemptive measure to reduce FOG related SSOs. The FOG Control Program is intended to supplement, and be consistent with, existing operations and maintenance procedures. The comprehensive program will facilitate identification and coordination of necessary facilities and personnel in an organized and efficient manner to implement a FOG Control Program. It is recommended that City staff review the document closely and provide comments where clarification is required and improvements to the document can be introduced. All appropriate comments and other improvements will be incorporated into the final FOG Control Program.

Additionally, since a FOG Control Program must be tailored to accommodate the specific needs of the City, as the FOG Control Program evolves, the City should evaluate the program and its various components to determine any revisions necessary to further reduce the quantity of FOG being discharged into the sewer system. This section provides draft ordinances for the City to adopt for its FOG Control Program, recommendation on staffing, and a description of the initial efforts to implement a FOG Control Program.

3.1 Legal Authority

The Pomona City Code codifies the requirements for the installation, sizing, and maintenance for grease interceptors in Sections 62-471 through 62-477. However, to implement and enforce its FOG Control Program, the City must codify, within its code, the authority to implement and enforce its FOG Control Program. Below are recommended ordinances for the City to consider and adopt to establish this authority.

Waste Disposal – Permit Required

Facilities engaged in preparing food for consumption by the public desiring to discharge wastewater into a public sewer shall obtain a permit to discharge from the City Utility Services Director known as a Food Service Establishment Wastewater Discharge Permit.

Food Service Establishment Waste Discharge Permit

The Food Service Establishment Waste Discharge Permit may require pretreatment of wastewater prior to discharge, restriction of peak flow discharges, discharge of certain wastewater only to specified sewers of the City, relocation of point of discharge, prohibition of discharge to certain wastewater components, restrictions of discharge to certain hours of the day, payment of additional charges to defray increase costs of the City created by the wastewater discharge and such other conditions as may be required to effectuate the purpose of this ordinance. No person shall discharge industrial wastewater in excess of the quantity or quality limitations set by the Permit of Industrial Wastewater Discharge Permit and City ordinance.

FOG Control Program Recommendations

Permit Application

Persons seeking a Food Service Establishment Waste Discharge Permit shall complete and file with the City Utility Services Director, an application in the form prescribed by the City Utility Services Director, and accompanied by the applicable fees. The applicant may be required to submit, in units and terms appropriate for evaluation, the following information:

- Name and address of applicant;
- Volume of wastewater to be discharged;
- Time of daily food preparation operations;
- Description of food preparation, type, number of meals served, cleanup procedures, dining room capacity, number of employees and size of kitchen; and/or
- Any other information as may be deemed by the City Utility Services Director to be necessary to evaluate the permit application. The City Utility Services Director will evaluate the data furnished by the applicant and may require additional information. After evaluation and acceptance of the data furnished, an on-site inspection of the waste discharge system, treatment systems, or other system relating to the waste discharge may be required. The City Utility Services Director may then issue a Food Service Establishment Waste Discharge Permit subject to terms and conditions provided.

Duration of Permit

A Food Service Establishment Waste Discharge Permit shall be issued for a specified time period, not to exceed one (1) year. A permit may be issued for a period less than one (1) year or may be stated to expire on a specific date. If the FSE is not notified by the City thirty (30) days prior to the expiration of the permit, the permit shall be extended one (1) additional year. The terms and conditions of the permit may be subject to modifications and changed by the City during the life of the permit as limitations or requirements are deemed necessary by the City Utility Services Director. The FSE owner shall be informed of any proposed changes in his permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

Transfer of Permit

Food Service Establishment Waste Discharge Permits shall be issued only for a specific use or a specific operation. Any sale, lease, transfer or assignment of the premises or operation for which the permit was issued shall require a new permit to be issued. Any new or changed conditions of operation shall require a new permit to be issued.

FOG Control Program Recommendations

Revocation of Waste Discharge Permit

The City Utility Services Director may revoke the permit of any FSE who is found to be in violation of this ordinance or who:

- Fails to comply with the conditions of the Food Service Establishment Waste Discharge Permit;
- Fails to install required grease pretreatment devices as required by the Food Service Establishment Waste Discharge Permit;
- Fails to comply with the reporting and/or pretreatment requirements or pretreatment device maintenance as required by the Food Service Establishment Waste Discharge Permit;
- Fails to comply with a Notice of Violation or a Compliance Schedule Agreement issued to require compliance with a Food Service Establishment Waste Discharge Permit or other provision of the City's codes;
- Knowingly provides a false Food Service Establishment Waste Discharge Permit application or makes false representations, or submits false documents, reports or logs to the City Utility Services Director or the Director's designee;
- Refuses to allow inspections during normal business hours or after hours if emergency conditions exist (overflow or suspected overflow);
- Interferes with the City Utility Services Director or the Director's designee during the FSE inspection or in sampling a FSEs discharge or in inspecting and sampling an overflow event; and/or
- Causes or contributes to sewer blockages or sewer overflows within the public sewer, or fails to address the conditions leading to more than one (1) overflow event from a private system within a twelve (12) month period.

Maintenance Reports

The City Utility Services Director or Director's designee shall require the FSE to keep records of grease pretreatment device cleaning, maintenance and grease removal and to report on such maintenance to the City permit administration. The City Utility Services Director may require the FSE to provide results of periodic measurements of its discharge which is to include chemical analysis of oil and grease content. FSE owners or designees shall allow the City or its representative ready access at all reasonable times to all parts of the premises for purposes of sampling and inspections.

FOG Control Program Recommendations

Penalty for Violation and Civil Liability

a) Injunction

Whenever a discharge of wastewater in any manner in violation of this ordinance or of any order issued by the City Utility Services Director as authorized by this ordinance is hereby declared a public nuisance and shall be corrected or abated as directed by the City Utility Services Director. Any person creating such a public nuisance is guilty of a misdemeanor.

b) Falsifying of Information

Any person who knowingly makes any false statements, representation, record, report, plan or other document filed with the City Utility Services Director or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this ordinance, shall be guilty of a misdemeanor.

c) Termination of Service

The City may revoke any Food Service Establishment Waste Discharge Permit issued or terminate or cause to be terminated any wastewater service to any premise if a violation of any provision of this ordinance is found to exist or if a discharge of wastewater causes or threatens to cause a condition of contamination, pollution or nuisance. This provision is in addition to other statutes or rules authorizing termination of service for delinquency in payment.

When deemed necessary by the City Utility Services Director for the preservation of public health or safety or for the protection of public or private property, he/she may suspend sewer service to any person or persons using the wastewater collection system in a manner or way to endanger the public health or safety, or public or private property. In suspending service he/she may serve all pertinent connections to the public sewer. If such endangerment shall be imminent, the City Utility Services Director may act immediately to suspend sewer service without notice or warning to said person or persons.

Notice and Appeal Procedures

Unless otherwise provided herein, any notice required to be given by the City Utility Services Director under this ordinance shall be in writing and served in person or by registered or certified mail. If served by mail, the notice shall be sent to the last address known to the City Utility Services Director. Where the address is unknown, service may be made upon the owner of record of the property involved.

Notice shall be deemed to have been given at the time of deposit, postage prepaid, in a facility regularly serviced by the United States Postal Service.

Any person found to be violating any provision of this ordinance shall be served by the City Utility Services Director with written notice stating the nature of the violation. Within ten

FOG Control Program Recommendations

(10) days after the date of the notice, unless a longer time is necessary due to the nature of the violation, a plan for the satisfactory correction thereof shall be submitted to the City Utility Services Director. If the violation is not corrected by timely compliance, or a satisfactory correction plan submitted within the specified time, the City Utility Services Director may order any person to show cause before the City Utility Services Director why enforcement action should not be taken. A written notice shall be served on the person specifying the time and place of a hearing, the reason why the action is to be taken, and the proposed enforcement action. The City Utility Services Director may propose any enforcement action reasonably necessary to abate the violation. Based upon the evidence presented at the hearing, the City Utility Services Director shall determine the appropriate enforcement action which should be taken, if any.

3.2 Staffing

Administration, implementation, and enforcement of a FOG Control Program may require adding additional staff to specifically manage and implement the various elements of the FOG Control Program. It is recommended that the City identify the department and the staff that will be responsible for implementing and enforcing the FOG Control Program, evaluating its effectiveness, and coordinating necessary improvements to the program over time.

The following provides information regarding areas in which additional staff may be necessary.

3.2.1 Initial Implementation

The City should consider performing an inspection of each of the FSEs to document information specific to each facility. The results of the initial inspection will establish a basis from which the City can begin tracking and monitoring the condition of the critical elements necessary for controlling the FOG discharged into the wastewater collection system. The inspection of the facility may include interviews with FSE staff, a general review and evaluation of the facility, examination of grease removal equipment, an external check for storm water pollution sources, and maintenance records related to the specific grease removal device. It will be necessary to document inspection and enforcement information, dates that inspections were performed, violations identified, and follow up actions required and implemented for each FSE. Based on the results of the initial inspection, the City can determine if the FSE is in compliance with the conditions of the Waste Discharge Permit or if additional provisions will be required to bring the FSE into compliance with the FOG Control Program and City established policies. If it is determined that a FSE is in violation, a notice of violation, conditional permit or permit revocation may be issued based on the severity of the violation.

3.2.2 Permitting Process and Procedure

Permits are a common regulatory control method since they include a summary of the conditions and requirements for the FSE. They also provide a concise, uniform, and legal framework for operating the FOG Control Program. The FOG Control Program requires FSEs that generate waste containing FOG obtain a Food Service Establishment Waste Discharge Permit, meet the requirements for installation of approved FOG removal devices, and comply

FOG Control Program Recommendations

with City Codes. Currently all permits are administered by the City's Public Works Department. Since the FOG Control Program will be a newly established program, the City is considering establishing the FOG Control Program within the Utility Services Department, which will be responsible for administering the permitting process to control and regulate the Food Service Establishment Waste Discharge Permits.

3.2.3 Construction Plan Reviews

The City currently performs the review of plans for new and remodeled FSEs and establishes the minimum requirements that each FSE must comply with and meet prior to receiving the necessary permits. Implementation of the FOG Control Program will require that a review process be developed for new and/or remodeled FSEs to determine compliance with the provisions included in the FOG Program and any newly adopted FOG related ordinances. Plan submittal review may include, but not be limited to, review for compliance with the provisions included in the FOG Control Program, compliance with the City's codes, appropriate sizing of FOG control devices, and compliance with the Food Service Establishment Waste Discharge Permit. Additionally, inspection of each FSE should be performed to verify compliance with the conditions of the Food Service Establishment Waste Discharge Permit. The City should consider the level of staffing that will be required to perform the necessary level of review and inspections.

3.2.4 Enforcement and Monitoring of the FOG Program

The discharge of FOG to the wastewater collection system from FSEs can be controlled through effective enforcement of the FOG Control Program. This will require that the City identify staff, add staff, or contract for services to:

- Perform inspections of FSEs to ensure that BMPs are properly implemented and that grease traps/interceptors, when applicable as a pretreatment method to reduce FOG from the wastewater prior to discharging into the collection system, are properly installed and maintained;
- Monitor compliance through routine inspection of FSEs, and monitor compliance with Waste Discharge Permit requirements and maintenance requirements for grease interceptors;
- Monitor, evaluate, and screen inspection results to identify violations and issue appropriate notices of violation;
- Implement consistent and timely responses to all types of violations to ensure long-term compliance;
- Maintain appropriate documentation and records of FSEs, inspections performed, violations issues, and resolution of issues with FSEs; and

FOG Control Program Recommendations

- Oversee and implement efforts to educate the public and FSEs on effective ways to reduce and eliminate FOG from entering the wastewater collection system.

PBS&J will work closely with City staff to identify the job descriptions and duties of personnel needed to implement the final adopted FOG Control Program.

3.3 Funding a FOG Program

The City of Pomona completed its last Sewer Utility Cost-of-Service Study in August 2006. This study established a bi-monthly fixed charge on a per user basis and a uniform commodity charge. The *Final Report, Water and Sewer Utility Cost of Service Rate Study*, dated August 29, 2006 and prepared by Foresight Consulting Services, states:

The basic cost allocations for the sewer utility are summarized in the following table by functional category. Notice that the biochemical oxygen demand (BOD) and suspended solids (TSS) functional categories have zeros all the way down their columns. This is because the City does not provide treatment services, only collection services, and therefore no portion of the revenue requirements was allocated to treatment functions (i.e. BOD and TSS).

This is an accurate statement. However, the consultant's analysis did not take into account that FSEs produce a higher concentration of FOG. Many collection system agencies, such as the City of Pomona, are looking to recover their FOG related expenses which include program administration, as well as operational and capital expenses associated with the impacts on the wastewater collection system, through a system of FOG fees and rates. It is a common policy for government-owned utilities to recover costs **directly** from the customer causing the cost to be incurred. A FOG program normally has two rate components including FOG Permit Fees and FOG User Rates.

An annual FOG permit fee is based on the estimated cost of annual program administration including FSE inspections. FOG permit fees can be developed in several different ways. The first alternative is to establish a "one size fits all" permit fee which is consistent with the rate methodology used to establish the City's bi-monthly sewer service charge.

The second alternative is to establish a standard fee schedule based on the water meter or connection size. This is similar to the rate methodology used to determine the City's bi-monthly water service charge. The conceptual basis for this is that an FSE with a 5/8" water meter such as a small deli will have less FOG effects than a larger restaurant with a 1" meter.

A third alternative is to develop customized charges based on site-specific costs such as labor and equipment usage as discussed below. This could include a cost differential based on the number of miles from the City's utility operations yard, the extent of the inspection, the frequency of the inspection, and so on.

The costs usually recovered through a FOG permit fee program include:

FOG Control Program Recommendations

- **Labor costs.** Typically, estimated hourly labor costs are forecast based on expected salaries for program administration and inspection. Total labor costs are based on estimated hourly salaries in conjunction with expected hours of labor by class.
- **Equipment costs.** Equipment costs can be developed based on accounting data, including purchase cost, depreciation and maintenance records for vehicles and equipment used. The average cost of renting similar equipment is sometimes used for these estimates. An example of appropriate equipment cost recovery is based on an amount per mile for service trucks used for inspections.
- **Indirect costs.** Indirect costs should also be factored into the development of appropriate FOG permit fees. These costs are not directly attributed to one specific cost center and generally include, but are not limited to, such overhead items as supervisory salaries, administrative supplies, and employee fringe benefits. Typically, an indirect cost multiplier, obtained by relating the indirect costs as a percentage of direct costs, is used to establish a “fully loaded” cost and then is applied to labor and equipment.

3.3.1 FOG User Rates

The City performs cleaning of sewer mains as part of a preventative maintenance program to avoid SSOs. In addition to regular sewer main cleaning, the City sewer crews must perform what is termed “extra-ordinary” cleaning on parts of the collection system because of fats, oils, and grease discharged by FSEs. The annual cost for the FOG cleaning program should be recovered from FSEs not from the average resident or commercial customer of the City’s collection system.

To determine a FOG User Rate the City of Pomona must complete two (2) tasks. First, an inventory of all FSE’s must be performed and the annual water usage for their accounts must be determined on an individual basis. For instance when the City of La Habra Heights originally put together its program, field inspections produced the names and address of 141 FSEs. The City researched and obtained the water account numbers for each of the FSEs that had an individual water meter. Using account numbers, the FSEs were sorted into bins of average monthly consumption. This analysis determined that the 141 FSEs had an annual consumption of 123,440 HCF.

The second task is to determine the annual cost for the FOG cleaning program. When the City of La Habra Heights performed this task they determined that the cost associated with the FOG cleaning program for FY2006 was approximately \$123,580. When divided by the total flow, the cost for the additional cleaning program was determined to be \$1.00 per hundred cubic feet (HCF). ($\$123,580/123,440$ HCF). This \$1.00 per HCF was added to the regular volume charge to recover the costs associated with the FOG program from FSEs.

The methodology used to calculate FOG rates is very similar to the methodology used to calculate sewer user charges for wastewater treatment. The FSEs are categorized according to their waste strength. Table 3-1 defines each user group according to BOD and TSS waste loads:

FOG Control Program Recommendations

**Table 3-1
User Group Waste Strength**

User Group	BOD Load (mg/l)	SS (mg/l)	Combined	%
FOG Rate	400	400	800	0
Penalty I	1000	800	1800	2.25
Penalty II	2200	1500	3700	4.63

All FSEs that are following best management practices are charged at the FOG rate and the full cost of the FOG program is recovered by this fee (e.g. \$1.00 per HCF as determined by the City of La Habra Heights). Best Management practices assumes the FSE has a grease trap and/or a grease interceptor and maintains it and thus is discharging less fats, oils, and grease to the wastewater collection system than is determined by EPA/State Water Resources Control Board standards for a restaurant (1000 mg/l BOD/800 mg/l TSS). An FSE is charged the Penalty I rate if they are not properly maintaining its grease trap. The penalty rate can be either for a certain period of time, perhaps for one year, or until the FSE comes back into compliance with its permit. Penalty II rates are reserved for chronic offenders or an FSE that causes a back-up or SSO. Once again the timing is discretionary.

Due to the strengths involved, as shown on Table 3-1, the Penalty I Rate is 2.25 times the FOG rate, and the Penalty II is 4.63 times the FOG rate. The City would receive additional revenue should it charge the Penalty I or II rates.

Additionally, fines and penalties are recommended to be incorporated into the City's FOG Ordinance to insure compliance by the FSEs.

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Attachment A
City of Pomona Restaurant Master List

City of Pomona Restaurant Master List

Business Name	Business Address	City	Description	Business Phone	Grease Trap Permit	Permit on File	Notes
Aladdin Jr.	3161 N. Garey Ave.	Pomona, CA 91767	Restaurant	(909) 593-3887		No	
Albertos Mexican Food	2068 N. Garey Ave.	Pomona, CA 91767	Fast Food	(909) 392-3337		No	
Angelo's Burgers #3	902 W. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(909) 865-1408		No	
Arby's Roast Beef Restaurant	2250 N. Garey Ave.	Pomona, CA 91767	Fast Food Restaurant	(909) 596-1644		No	
Bamboo Express	794 E. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(909) 865-1589		No	
Bell Burger	1495 W. Holt Ave.	Pomona, CA 91768	Hamburger Restaurant	(909) 620-9888		-	
Birrieria Jalisco	941 E. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 629-6262		No	
Birrieria Jalisco #2	990 E. Holt Ave.	Pomona, CA 91767	Restaurant-Mexican Food	(909) 397-9015		-	
La Pie dad#2	418 E. Mission Blvd.	Pomona, CA 91766	Restaurant		NO	-	
Brasserie Astuce	510 E. Foothill Blvd.	Pomona, CA 91767	Restaurant	(909) 621-4954		No	
Bravo Burgers	1215 N. White Ave.	Pomona, CA 91768	Fast Food Restaurant	(909) 622-0855		No	
Buen Taco	1526 W. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(909) 622-2483		No	
Burger King # 2309	517 E. Foothill Blvd.	Pomona, CA 91767	Fast Food Restaurant	(909) 624-2666		No	
Burger King # 4987	2101 S. Garey Ave.	Pomona, CA 91766	Fast Food Restaurant	(909) 628-6658		-	
Burger King # 6042	2085 W. Holt Ave.	Pomona, CA 91768	Fast Food Restaurant	(909) 620-7206		No	
Burger King # 8564	1911 Indian Hill Blvd.	Pomona, CA 91767	Fast Food Restaurant	(626)792-5577	Yes	Yes	
C & C Concessions Inc	1101 W. McKinley Ave.	Pomona, CA 91768	Food Concession at Fair	(909) 620-8248		No	
Café 171	171 W. Second St.	Pomona, CA 91766	Restaurant	(909) 868-9556		-	
Cantina Express	3530 Temple Ave. A & B	Pomona, CA 91768	Mexican Fast Food	(909) 468-0147			
Captain's Seafood	994 E. Holt Ave.	Pomona, CA 91767	Seafood Restaurant	(909) 629-3474		No	
Carl's Jr Restaurant #387	140 E. Foothill Blvd.	Pomona, CA 91767	Fast Food Retail	(909) 392-7343		No	
Carl's Jr Restaurant #588	3395 Pomona Blvd.	Pomona, CA 91768	Fast Food Restaurant	(909) 598-9865	Yes	Yes	
Carl's Jr. Carl Karcher #80	1755 Indian Hill Blvd.	Pomona, CA 91767	Drive-In Restaurant	(909) 626-2122		No	
Carrow's #927	401 E. Foothill Blvd.	Pomona, CA 91767	Restaurant	(909) 624-8470		No	
Casa Cortez Restaurant	937 W. Holt Ave. B	Pomona, CA 91768	Restaurant	(909) 622-4355		-	
Casa Jimenez	3272 N. Garey Ave.	Pomona, CA 91767	Restaurant	(909) 596-1154		No	
Casa Jimenez Grill	6 Village Loop Rd. A&B	Pomona, CA 91766	Restaurant	(909) 622-7787		No	
Cassie's	855 W. Holt Ave.	Pomona, CA 91768	Restaurant & Bar	(909) 620-1367			File was out
Chao's Café	280 S. Locust St.	Pomona, CA 91766	Cafeteria	(909) 623-1733		-	
China Express	475 W. Holt Ave.	Pomona, CA 91768	Chinese Fast Food	(909) 629-7926		No	
China Kitchen	8 Village Loop Rd. E	Pomona, CA 91766	Chinese Restaurant	(909) 623-6788		-	
China Wok	674 Fairplex Dr.	Pomona, CA 91768	Chinese Fast Food Restaurant	(909) 469-2001			File not available
China Wok Express	730 E. Arrow Highway	Pomona, CA 91767	Restaurant	(909) 399-9973		No	
Chung King Restaurant	280 W. Third St.	Pomona, CA 91766	Restaurant	(909) 622-5057		-	
Church's Chicken	500 E. Holt Ave	Pomona, CA 91768	Fast Food Restaurant	()	Yes	Yes	
Church's Chicken #466	1105 W. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(909) 622-4477		No	
Coppacabana	1600 Fairplex Dr.	Pomona, CA 91768	Restaurant With Alcohol Sales	(626) 357-5051		-	
Dahms, Robert	235 W. Second St.	Pomona, CA 91766	Restaurant, Entertainment	(909) 629-4349		-	
Dahms, Robert	261 S. Thomas St.	Pomona, CA 91766	Restaurant/Lounge	(909) 629-4349		-	
Del Taco, Inc. #893	1495 N. Garey Ave.	Pomona, CA 91767	Restaurant Quick Service	(909) 622-0711		No	
Delfin Seafood Restaurant	1395 W. Holt Ave.	Pomona, CA 91768	Restaurant	(909) 623-7362		No	
Denny's Restaurant	1504 Gillette Rd.	Pomona, CA 91768	Full Service Restaurant	(909) 623-5814		No	
Denny's Restaurant #7581	3012 Temple Ave.	Pomona, CA 91768	Family Restaurant	(909) 629-5997	Yes	Yes	
Domino's Pizza	1285 S. Garey Ave. I	Pomona, CA 91766	Pizza Sales & Delivery	(714) 622-0229		No	
Donahoos Golden Chicken	1074 N. Garey Ave.	Pomona, CA 91767	Fast Food-Chicken To Go	(909) 622-3213		No	
El 7 Mares Family Restaurant	1542 W. Holt Ave.	Pomona, CA 91768	Seafood & Mexican Restaurant	(909) 629-5417		No	

City of Pomona Restaurant Master List

Business Name	Business Address	City	Description	Business Phone	Grease Trap Permit	Permit on File	Notes
El Amigazo	1175 E. Holt Ave.	Pomona, CA 91767	Restaurant	(909) 623-0434		No	
El Buen Busto	360 N. Park Ave.	Pomona, CA 91768	Restaurant	(909) 629-4640		No	
El Cabrito	2055 S. Reservoir St. F	Pomona, CA 91766	Restaurant, No Alcohol Sales	(909) 464-8190		No	
El Merenderito	1040 E. Holt Ave.	Pomona, CA 91767	Mexican Restaurant	(909) 620-4978			File not available
El Penasco	1084 W. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 620-4321		No	
El Pollo Loco Inc. #5397	123 E. Holt Ave.	Pomona, CA 91767	Fast Food Restaurant	(949) 399-2119		No	
El Pollo Loco/Foster's Freeze	72 Rio Rancho Rd.	Pomona, CA 91766	Fast Food Restaurant	(909) 623-6678	Yes	Yes	
El Taco Nazo	296 W. Second St.	Pomona, CA 91766	Restaurant	(909) 620-4510		-	
El Taco Nazo	320 E. Foothill Blvd.	Pomona, CA 91767	Mexican Restaurant	(909) 593-9926		-	
El Tapatio Restaurant & Nite Club	1338 S. Garey Ave.	Pomona, CA 91766	Restaurant With Alcohol Sales	(909) 623-3848		No	
Pupuseria	1308 S. Garey Ave.	Pomona, CA 91766	Restaurant		NO	-	
El Zarape Mexican Food	1600 E. Holt Ave.	Pomona, CA 91767	Mexican Food @ Indoor Swapmeet	(909) 865-1413		No	
Family Fish Fry Restaurant	580 E. La Verne Ave. A	Pomona, CA 91767	Restaurant	(909) 623-6430		-	
Fancy's Donuts	3503 Temple Ave. B	Pomona, CA 91768	Donut/Coffee Shop	(909) 598-9092	Yes	Yes	
School(PUSD)	150 E. Third St.	Pomona, CA 91766	Food Vending		NO	-	
Food Factory	3220 Temple Ave.	Pomona, CA 91768	Food Delivery	(909) 468-0444		No	
Food Systems Inc.	901 Corporate Center Dr.	Pomona, CA 91768	Cafeteria @ DeVry College	(714) 994-2331		No	
Friar Tuck's Bar & Grille	540 E. Foothill Blvd.	Pomona, CA 91767	Restaurant	(909) 625-7265		-	
Sabor Mexicano	180 E. Sixth St.	Pomona, CA 91766	Restaurant		NO	-	
School(PUSD)	1460 E. Holt Ave. 146	Pomona, CA 91767	Ice Cream/Soda/Coffee/Hot Dogs		NO	-	
Golden Ox	405 W. Holt Ave.	Pomona, CA 91768	Fast Food Restaurant	(909) 623-4384		No	
Golden Ox Burger	770 E. Arrow Highway	Pomona, CA 91767	Restaurant/Fast Food/Burgers	(909) 445-1112	Yes	Yes	
Golden Ox Burger #3	1195 E. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(909) 623-2013		No	
Graziano's Pizza Restaurant	2 Village Loop Rd.	Pomona, CA 91766	Pizza Restaurant	(909) 623-5060	Yes	Yes	
Gus Jr. Restaurant, LLC	660 Indian Hill Blvd.	Pomona, CA 91767	Fast Food Restaurant-Dine In	(909) 621-6632	Yes	Yes	
Gusasalmex Restaurant	150 W. Holt Ave.	Pomona, CA 91768	Food Service (Restaurant)	(909) 623-1107		No	
Guy's Hot Dog's	2707 S. Towne Ave.	Pomona, CA 91766	Hot Dog on Site @ Home Depot	(626) 305-9116		No	
Louisiana Fry Chicken	642 E. Holt Ave.	Pomona, CA 91767	Restaurant		NO	-	
Hamburger House	3109 N. Garey Ave.	Pomona, CA 91767	Fast Food Restaurant	(909) 596-9630		No	
Happy Wok	3160 N. Garey Ave	Pomona, CA 91768	Fast Food Restaurant	()	Yes	Yes	
Hilltop Restaurant & Catering	3101 Temple Ave.	Pomona, CA 91768	Restaurant	(909) 594-3575	Yes	Yes	
Home Kitchen Café	309 E. Foothill Blvd.	Pomona, CA 91767	Coffee Shop-Food and Beverage	(909) 392-4855	Yes	Yes	
Home of Quality Burger	111 S. East End Ave.	Pomona, CA 91766	Restaurant	(909) 865-2855		No	
Household Pomona	931 Corporate Center Dr.	Pomona, CA 91768	Food Service Management	(909) 397-3612		No	
In N Out Burger #33	2505 S. Garey Ave.	Pomona, CA 91766	Fast Food-Drive Thru	(626) 813-8200		No	
In N Out Burger Inc. #8	1851 Indian Hill Blvd.	Pomona, CA 91767	Restaurant/Drive-In	(626) 813-8200		No	
J B Burgers #5	504 E. Foothill Blvd.	Pomona, CA 91767	Restaurant	(909) 621-7493		-	
Jack In The Box #164	100 E. Holt Ave.	Pomona, CA 91767	Restaurant	(909)620-5896		No	
Jack In The Box #197	101 W. Foothill Blvd.	Pomona, CA 91767	Fast Food Restaurant	(909) 596-0029		No	
Jack In The Box #3227	1670 W. Mission Blvd.	Pomona, CA 91766	Retail Restaurant	(619) 571-2561		No	
Jack In The Box #3320	2098 S. Garey Ave.	Pomona, CA 91766	Restaurant	(909) 313-0459	Yes	Yes	
Jack In The Box #3380	2021 N. Towne Ave.	Pomona, CA 91767	Restaurant	(619) 571-2561		No	
Jack In The Box #3547	2775 S. Reservoir St.	Pomona, CA 91766	Fast Food Restaurant	(858) 571-2121		No	
Jack In The Box #3587	1335 N. Dudley St.	Pomona, CA 91768	Restaurant	() -	Yes	Yes	

City of Pomona Restaurant Master List

Business Name	Business Address	City	Description	Business Phone	Grease Trap Permit	Permit on File	Notes
Jalisco Restaurant	2256 S. Garey Ave.	Pomona, CA 91766	Restaurant	(909) 464-1958		-	
Joey's Bar-B-Q	117 W. Second St.	Pomona, CA 91766	Barbecue Restaurant	(909) 865-0699		No	
Johnny's Famous Hamburgers	2302 N. Garey Ave.	Pomona, CA 91767	Fast Food-Drive Thru	(909) 593-2696		No	
JoJo's Pizza Kitchen	3560 Temple Ave. A&B	Pomona, CA 91768	Pizza Restaurant	(909) 444-9113		No	
Juan Pollo #44	2233 N. Garey Ave.	Pomona, CA 91767	Fast Food/Rotisserie Chicken	(909) 392-9794		No	
Juan Pollo Restaurant	300 S. Garey Ave.	Pomona, CA 91766	Fast Food Restaurant	(909) 469-4779		No	
Juanita's Mexican Food	1735 Indian Hill Blvd.	Pomona, CA 91767	Fast Food	(909) 624-1272		No	
K & F Burger	560 E. Holt Ave.	Pomona, CA 91767	Fast Food Restaurant	(909) 623-1313		No	
Kasino Restaurant and Bar	1604 W. Mission Blvd.	Pomona, CA 91766	Restaurant and Bar	(909) 620-4051		No	
Kentucky Fried Chicken	2294 N. Garey Ave.	Pomona, CA 91767	Fast Foods	(909) 593-2569	Yes		
Kentucky Fried Chicken	375 E. Mission Blvd.	Pomona, CA 91766	Restaurant/Food-To-Go	(909) 623-2549		No	
China Wok	2266 S. Garey Ave.	Pomona, CA 91766	Chinese Food Restaurant		NO	-	
Kwon's Restaurant	1625 W. Holt Ave.	Pomona, CA 91768	Restaurant	(909) 629-6888		No	
La Cabana	305 E. Holt Ave.	Pomona, CA 91767	Restaurant	(909) 623-0586		-	
La Pizza Loca Inc. #34	937 W. Holt Ave.	Pomona, CA 91768	Fast Food/Pizza	(562) 862-4470		No	
Lily's Mexican Food	2128 N. Garey Ave.	Pomona, CA 91767	Fast Food Restaurant		NO	-	
Linda's Tacos	2128 N. Garey Ave.	Pomona, CA 91767	Fast Food Restaurant	(909) 593-5674		-	
Little Cesars #5764	3084 Temple Ave.	Pomona, CA 91768	Pizza Restaurant/Take Out	(313) 983-6000		No	
Los Jarritos	246 S. Towne Ave.	Pomona, CA 91766	Restaurant	(909) 623-3888		No	
Los Jarritos II	3191 N. Garey Ave.	Pomona, CA 91767	Restaurant	(909) 593-7012		No	
Los Portales Mexican Restaurant	1190 E. Mission Blvd.	Pomona, CA 91766	Mexican Restaurant	(909) 620-7988		No	
Nice Bunz	1460 E. Holt Ave. 154	Pomona, CA 91767	Chinese Fast Food Restaurant		NO	-	
Subway	291 E. Second St.	Pomona, CA 91766	Restaurant		NO	-	
Golden Wok	1725 N. Garey Ave.	Pomona, CA 91767	Fast Food/Donuts		NO	-	
Mando Restaurant	1430 W. Ninth St.	Pomona, CA 91766	Restaurant	(909) 623-8341		No	
Manna Donuts #101	2111 S. Garey Ave.	Pomona, CA 91766	Donut & Snack Shop + Cigarette	(909) 364-0230		-	
Maria's Tacos	2407 Valley Blvd. A4	Pomona, CA 91768	Mexican Food To Go Restaurant	(909) 598-8797		No	
Mariscos Acapulco Restaurant	131 E. La Verne Ave. A	Pomona, CA 91767	Restaurant w/PD Conditions	(909) 596-4141		-	
Mariscos Linda Restaurant	995 W. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 622-6844		No	
Mc Donald's of Pomona-Garey	2200 N. Garey Ave.	Pomona, CA 91767	Restaurant	(909) 596-5423	Yes	Yes	
Mc Donald's Restaurant	2145 Murchison Ave.	Pomona, CA 91768	Restaurant	(909) 620-6669	Yes	Yes	
Mc Donald's-Rio Ranchio Road	30 Rio Rancho Road	Pomona, CA 91766	Restaurant	(909) 621-1270	Yes	Yes	
Merendero Mexican Foods Inc.	301 S. Garey Ave.	Pomona, CA 91766	Restaurant	(714) 596-1195		No	
Mexico Lindo Restaurant	1060 S. Garey Ave.	Pomona, CA 91766	Restaurant	(909) 629-6042		No	
Mission Family Restaurant	888 W. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 629-6412		No	
Mix Bowl Café	1520 Indian Hill Blvd.	Pomona, CA 91767	Restaurant	(909) 447-4401		No	
Mom's Donuts & Ice Cream	2055 S. Reservior St. B&C	Pomona, CA 91766	Retail-Donuts, Coffee, Ice Cream	(909) 590-2681		-	
Mom's Grill	669 Indian Hill Blvd.	Pomona, CA 91767	Restaurant	(909) 629-7883		-	
Mr. Pizza	742 E. Holt Ave.	Pomona, CA 91767	Pizza-Fast Food Restaurant	(909) 622-5317		-	
NBC Express	1685 Indian Hill Blvd.	Pomona, CA 91767	Chinese Fast Food	(909) 626-9616		No	
New York Delight	310 S. Thomas St.	Pomona, CA 91766	Restaurant/Bakery	(866) 693-3548		No	
Nu China Express	753 E. Holt Ave.	Pomona, CA 91767	Restaurant Fast Food Chinese	(909) 621-7483		No	
Omanas Tacos	1050 W. Holt Ave.	Pomona, CA 91768	Fast Food Sale	(909) 865-3665		-	
Osaka Sushi	3425 Pomona Blvd. I	Pomona, CA 91768	Japanese Restaurant	(909) 595-1135		-	
Palm Lake Coffe Shop	1300 W. Phillips Blvd.	Pomona, CA 91766	Restaurant	(909) 629-2921		No	
Panda Kitchen	8 Village Loop Rd.	Pomona, CA 91766	Chinese Fast Food Restaurant	(909) 623-6788		-	

City of Pomona Restaurant Master List

Business Name	Business Address	City	Description	Business Phone	Grease Trap Permit	Permit on File	Notes
Papa John's Pizza	101 E. Foothill Blvd. 35	Pomona, CA 91767	Pizza Restaurant & Takeout	(909) 392-7272		No	
Paraiso Del Mar	1925 W. Holt Ave.	Pomona, CA 91768	Seafood Restaurant	(909) 469-0406		-	
Paris Sandwich	728 E. Mission Blvd.	Pomona, CA 91766	Sandwiches & Tortas	(909) 623-3453		No	
Pho 54 Restaurant	1280 E. Holt Ave.	Pomona, CA 91767	Beef Noodle Soup Restaurant	(909) 397-0108		Yes	
Pho Ha Vietnamese Restaurant	695 Indian Hill Blvd.	Pomona, CA 91767	Vietnamese Restaurant	(909) 622-7578		No	
Pizza Al Gusto	2407 Valley Blvd. A6	Pomona, CA 91768	Pizza Restaurant	(909) 839-1952		-	
Pizza for Less	3131 N. Garey Ave.	Pomona, CA 91767	Pizza Palor	(909) 596-6666		-	
Pizza Hut Delivery #705623	2301 N. Garey Ave.	Pomona, CA 91767	Pizza Delivery & Carry Out	(909) 593-2000		No	
Pizza Hut Delivery #705633	2218 S. Garey Ave.	Pomona, CA 91766	Pizza Delivery & Carry Out	(714) 465-9200		No	
Pizza Man	2880 N. Garey Ave. C	Pomona, CA 91767	Pizza Restaurant-Food Srvc	(909) 392-4400		No	
Pizza Pirates	2255 S Garey Ave. 116	Pomona, CA 91766	Pizza Restaurant	(909) 590-1700		No	
Pomona Valley Mining Co.	1777 Gillette Rd.	Pomona, CA 91768	Restaurant & Cocktail Lounge	(909) 623-3515			No file exists
Popeyes Chicken	705 E. Holt Ave.	Pomona, CA 91767	Chicken Take Out	(909) 622-6250		No	
School(PUSD)	1515 E. Holt Ave.	Pomona, CA 91767	Restaurant		NO	-	
Pulgas Pandas	2204 S. Garey Ave.	Pomona, Ca 91766	Restaurant	(909) 591-8891		-	
Red Hill Pizza	135 E. Second St.	Pomona, CA 91766	Restaurant	(909) 623-8893		-	
Rice Noodles Soup	3900 Valley Blvd A	Pomona, CA 91768	Restaurant	(909) 444-9308		-	
Rodeo Restaurant	700 E. Arrow Hwy	Pomona, CA 91768	Restaurant	()	Yes	Yes	
Ruby's Snack Bar	1600 E. Holt Ave. H18J33	Pomona, CA 91767	Snack Bar	() -		No	
Ruen Pair Thai Café	945 E. Holt Ave. F	Pomona, CA 91767	Thai Restaurant	(909) 397-5706		-	
Sahara Café	12 Village Loop Rd. A	Pomona, CA 91766	Restaurant, No Alcohol Sales	(909) 397-5100		No	
Samos	1701 S. Garey Ave.	Pomona, CA 91766	Restaurant	(909) 623-8382		No	
Sanamluang Café	1648 Indian Hill Blvd. C	Pomona, CA 91767	Restaurant	(909) 621-0904		No	
Schambers, Scott Snack Shop	400 Civic Center Plaza	Pomona, CA 91766	Snack Shop	(909) 622-6104		-	
Score Board America's	3220 Temple Ave.	Pomona, CA 91768	Restaurant	(909) 468-0444		No	
Shangrila Chinese Cuisine	3520 Temple Ave.	Pomona, CA 91768	Chinese Restaurant	(909) 595-8867		-	
Sizzler International Inc.	2282 N. Garey Ave.	Pomona, CA 91767	Restaurant	(909) 593-1439		No	
Sofia's Mexican Food Inc.	1100 E. Holt Ave.	Pomona, CA 91767	Tortilla Manufacturer & Restaurant	(626) 444-9727		-	
Subway	1798 N. Garey Ave.	Pomona, CA 91768	Sandwich Shop	()	Yes	Yes	
Subway	291 E. Second St.	Pomona, CA 91766	Restaurant	(909) 622-3408		No	
Subway	3530 Temple Ave. C	Pomona, CA 91768	Fast Food	(909) 598-9474		No	
Subway	68 Rio Rancho	Pomona, CA 91768	Sandwich Shop	()	Yes	Yes	
Subway	1636 W. Misssion Blvd	Pomona, CA 91768	Sandwich Shop	()	Yes	Yes	
Subway #22477	101 E. Foothill Blvd. 37	Pomona, CA 91767	Fast Food Sandwich Shop	(909) 593-1250		No	
Subway #26399	2112 S. Garey Ave. E	Pomona, CA 91766	Sandwich Shop	(909) 627-0502		No	
Sunrize Donut & Burger	2517 N. Towne Ave.	Pomona, CA 91767	Restaurant	(909) 625-3152		No	
Super China Buffet	221 W. Holt Ave.	Pomona, CA 91768	Buffet Restaurant	(909) 868-5268	Yes		
T M Chinese Fast Food	2031 S. Garey Ave. D4&D5	Pomona, CA 91766	Restaurant	(909) 517-1570			File not available
Taco Bell #188	405 E. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(949) 858-9191		No	
Taco Bell #24	2204 N. Garey Ave.	Pomona, CA 91767	Mexican Fast Food	(949) 858-9191		No	
Taco Bell #3149	690 Indian Hill Blvd.	Pomona, CA 91767	Fast Food Restaurant	(310) 203-8404		No	
Tacos El Cunado	580 E. La Verne Ave. A	Pomona, CA 91767	Restaurant	() -		-	
Tacos Jalisco	595 W. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 629-8014		No	
Tacos La Jicama	1076 W. Phillips Blvd.	Pomona, CA 91766	Taco Restaurant	(909) 620-7040		No	
Tacos Mariscos Casa Perez	987 S. Garey Ave	Pomona, CA 91766	Restaurant With Alcohol Sales	(909) 620-1318		-	

City of Pomona Restaurant Master List

Business Name	Business Address	City	Description	Business Phone	Grease Trap Permit	Permit on File	Notes
Tacos Mexico Lopez	1300 E. Holt Ave.	Pomona, CA 91767	Restaurant	(909) 623-7467		-	
Tacos Mexico Naranjo #1	2298 S. Garey Ave.	Pomona, CA 91766	Restaurant	(909) 591-5395		No	
Tacos La Poblanita	877 E. Mission Blvd.	Pomona, CA 91766	Restaurant		NO	-	
Tacos Y Mariscos Jalisco	1610 W. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 868-7281		No	
Taqueria El Patio	864 W. Holt Ave.	Pomona, CA 91768	Restaurant, No Alcohol Sales	(909) 622-9580		No	
Taqueria El Rinconcito	1600 E. Holt Ave. H1	Pomona, CA 91767	Food Bar	(909) 865-2399		No	
Taqueria El Triunfo	1565 W. Holt Ave. 9	Pomona, CA 91768	Restaurant-Fast Food	(909) 620-6632		No	
Taqueria Guadalupana	820 E. Mission Blvd.	Pomona, CA 91766	Mexican Restaurant	(909) 629-3131		No	
Taqueria Santa Cruz	1285 S. Garey Ave. E	Pomona, CA 91766	Restaurant	(909) 622-5339		No	
Taranto's Italian Mexican Deli	1622 W. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 865-8666		-	
TCBY Yogurt	291 E. Second St.	Pomona, CA 91766	Restaurant	(909) 622-3408		-	
Tea Break Corporation	3560 Temple Ave. C-D19	Pomona, CA 91768	Fast Food Restaurant	(909) 468-3008		-	
Thai Orchid Garden Restaurant	315 E. Foothill Blvd.	Pomona, CA 91767	Thai Restaurant	(909) 593-8165		No	
The Chateau	1700 W. Holt Ave.	Pomona, CA 91768	Catering-Sales/Rentals/Service	(909) 553-6308		No	
The Hookup	1047 E. Second St.	Pomona, CA 91766	Restaurant & Bar (General Alcohol)	() -		No	
Macho Pollo	1245 E. Holt Ave.	Pomona, CA 91767	Fast Food Restaurant		NO	-	
Tom's #12	282 E. Mission Blvd.	Pomona, CA 91766	Restaurant	(909) 622-1107	Yes	Yes	
Tom's #18	1190 E. Philadelphia St.	Pomona, CA 91766	Fast Food Restaurant	(909) 627-0878		No	
Tony's Restaurant	986 E. Second St.	Pomona, CA 91766	Restaurant	(909) 623-4695		No	
Tortas Guadalajara	825 E. Mission Blvd.	Pomona, CA 91766	Mexican Food	(909) 865-1615		No	
Tortas Mexico	1296 E. Holt Ave.	Pomona, CA 91767	Fast Food-Mexican Food	(909) 623-7367		-	
Tropical Mexico	1371 S. East End Ave.	Pomona, CA 91766	Restaurant	(909) 623-7573		No	
Pho Hoe Pasteur	1087 E. Holt Ave. A	Pomona, CA 91767	Vietnamese & Chinese Food Rest		NO	-	
Valentino's Pizzeria	644 E. Arrow Highway	Pomona, CA 91767	Pizza	(909) 625-3187		No	
Viet Trieu Restaurant	1087 E. Holt Ave. A	Pomona, CA 91767	Restaurant	(909) 620-9091		-	
Villa Toros	636 E. Holt Ave.	Pomona, CA 91767	Restaurant (Mexican Food)	(909) 865-3540		No	
Villa Toros Restaurant	1420 W. Holt Ave.	Pomona, CA 91768	Restaurant	(909) 865-3911		No	
Weinerschnitzel	1382 W. Holt Ave.	Pomona, CA 91768	Fast Food Restaurant	(909) 622-7287		No	
Wendy's	101 E. Foothill Blvd. Bldg 1	Pomona, CA 91767	Restaurant (Fast Food)	(909) 392-9997		No	
Wendy's	3077 Temple Ave.	Pomona, CA 91768	Fast Food Restaurant	(909) 598-5681		No	
Wendy's Snowcones	1600 E. Holt Ave.	Pomona, CA 91767	Snowcone Sales	(909) 356-5538		No	
Cardenas Market	2001 S. Garey Ave.	Pomona, CA 91766	Vendor-Churros, Snowcones		NO	-	
Wienerschnitzel	1568 Indian Hill Blvd.	Pomona, CA 91767	Fast Food	(909) 399-5808		No	
Wienerschnitzel #26	175 W. Foothill Blvd.	Pomona, CA 91767	Fast Food Restaurant	(909) 596-7606		No	
Wienerschnitzel #46	520 E. Mission Blvd.	Pomona, CA 91766	Fast Food Restaurant	(909) 629-1240		No	
Mirage Restaurant	3171 N. Garey Ave.	Pomona, CA 91767	Restaurant		NO	-	
Xochimilco Mexican Restaurant	612 N. Indian Hill Blvd.	Pomona, CA 91767	Restaurant With Alcohol Sales	(909) 626-6910			No file Available
Yoshinoya Beef Bowl #174	2102 S. Garey Ave.	Pomona, CA 91766	Restaurant	(909) 591-3183	Yes	Yes	

Attachment B
City of Pomona Wastewater Emergency Calls

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
1/18/1999	7:00 AM		X		856 Karesh	Stoppage, Overflow	City Main Line (Grease)	
2/14/1999	4:30 AM		X		532 E Kingsley	Stoppage, Overflow	City Main Line (Grease)	
2/22/1999	9:45 PM		X		Falcon @ Fuego	Stoppage, Overflow	City Main Line (Grease)	
6/3/1999	2:50 PM		X		Hamilton @ Laurel	Stoppage, Overflow	City Mmain Line (Unknown)	
6/6/1999	1:00 PM		X		68 Quiet Hill	Stoppage, Overflow	City Main Line (Roots)	
6/7/1999	1:10 PM		X		Artesia, W/ of Orange Grove	Stoppage, Overflow	City Main Line (Rags)	
6/22/1999	9:00 AM	X			San Bernardino @ Washington	Stoppage, Overflow	City Main Line (Roots)	
6/27/1999	10:05 AM	X			524 E. Pasadena	Stoppage, Overflow	City Main Line (Grease)	
8/22/1999	9:15 AM	X			Sixth St. @ Mission Blvd.	Stoppage, Overflow	City Main Line (Grease)	
8/22/1999	8:51 AM	X			Brea Canyon @ Westmont	Stoppage, Overflow	City Main Line (Roots)	
9/19/1999	8:05 AM	X			2996 Fullton Rd.	Stoppage, Overflow	City Main Line (Roots)	
9/28/1999	3:30 PM		X		855 E. Seventh St.	Stoppage, Overflow	City Main Line (Grease)	
10/4/1999	12:10 PM		X		1655 California Pl.	Stoppage, Overflow	City Main Line (Roots)	
10/18/1999	4:45 PM		X		1729 Westwood	Stoppage, Overflow	City Main Line (Roots)	
11/1/1999	11:22 PM		X		1671 Meserve	Stoppage, Overflow	City Main Line (Grease)	
11/28/1999	8:30 AM	X			Canyon Wy @ Mckinnley Ave.	Stoppage, Overflow	City Main Line (Roots)	
12/30/1999	8:30 AM	X			235 W. Grove	Stoppage Overflow	City Main Line (Grease)	
1/16/2000	1:55 PM		X	Water Standby	185 E. Kingsley	Sewage on Street	Residential Lateral	Norbert
1/23/2000	9:45 AM	X		Police Dispatch	1737 Waters	Stoppage, Sewer Backup	Residential Lateral	David
1/28/2000	8:04 AM	X		Customer Service	2655 Pine St.	Stoppage, Overflow	City Mainline	Norbert
1/28/2000	1:19 PM		X	Customer Service	313 E. McKinley	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/31/2000	3:00 PM		X	Customer Service	384 E. Pearl	Stoppage, Overflow	City Mainline	Norbert
2/11/2000	11:20 AM	X		Production	Sewer Lift Station # 1 & 2	Alarm	CITY	Norbert
2/17/2000	9:00AM	X		Customer Service	2524 Leebe	Flooding	Residential Plumbing	Robert
2/18/2000	10:00 AM	X		Engineering	1300 Brewester	Stoppage, Sewer Backup	City Mainline	Robert
2/22/2000	5:50 AM	X		Police Dispatch	Sewer Lift Station #4	High Wet Well & Power Failure Alarm		Robert
2/20/2000	8:20 PM		X	Police Dispatch	Sewer Lift Station #4	High Wet Well & Power Failure Alarm		David
2/25/2000	1:30 PM		X	Customer Service	515 E. Pasadena	Stoppage, Sewer Backup	Residential Lateral	Robert
2/28/2000	7:00 PM		X	Police Dispatch	Sewer Lift Station # 2	Pump & Vent Fail Alarm		David
2/28/2000	9:00 PM		X	Police Dispatch	Sewer Lift Station # 2	Pump & Vent Fail Alarm		Johnny
3/15/2000	10:35 AM	X		Public Works	466 Madison Ave.	Lateral Damage, Roots	Resident	David
3/21/2000	7:30 PM		X	Police Dispatch	840 La Mesa	Stoppage, Overflow	City Mainline	Robert
3/25/2000	10:00 AM	X		Police Dispatch	Sewer Lift Station # 2	High Wet Well Alarm		Robert
3/26/2000	8:00 p. m.		X	Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		Robert
3/28/2000	9:05 a. m.	X		Ofelia Cabrera	1045 E. Kingsley	Stoppage, Sewer Backup	City Mainline	Norbert
3/31/2000	6:45 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm		Johnny
4/7/2000	7:30 AM	X		Police Dispatch	315 N Cambridge Claremont	Stoppage, Sewer Backup	City Mainline	Norbert
4/10/2000	8:18 AM	X		Customer Service	557 E. Alvarado	Stoppage, Sewer Backup	Residential Lateral	Norbert
4/16/2000	11:20 AM	X		Police Dispatch	2186 Spencer	Stoppage, Sewer Backup	Residential Lateral	David

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
4/21/2000	8:00 AM	X		Customer Service	1844 W. Philips	Stoppage, Sewer Backup	Residential Lateral	Robert
4/22/2000	11:00 AM	X		Police Dispatch	562 E. Ralph	Stoppage, Sewer Backup	Residential Lateral	Robert
4/23/2000	10:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Panel Failure, Alarm		Robert
4/24/2000	5:20 PM		X	Police Dispatch	Sewer Lift Station # 3	Assist County Personnel		Johnny
4/25/2000	10:15 PM		X	Police Dispatch	Sewer Lift Station # 1 & 2	Alarm		Johnny
5/6/2000	8:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Signal Differential Alarm		Norbert
5/7/2000	8:35 AM	X		Police Dispatch	Sewer Lift station # 1	Signal Differential Alarm		Norbert
5/7/2000	9:45 AM	X		Police Dispatch	Sewer Lift Station # 1	Signal Differential Alarm		Norbert
5/12/2000	10:25 AM	X		Water 51, JR	1429 Eastend	Stoppage, Overflow	City Mainline	Johnny
5/15/2000	5:00PM		X	Jim Taylor	2448 Kimball	Stoppage, Sewer Backup	Residential Lateral	Robert
5/21/2000	10:00 AM	X		Water Standby	2448 Kimball	Stoppage, Sewer Backup	Residential Lateral	Robert
5/27/2000	9:30 AM	X		Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		Johnny
6/6/2000	9:00 PM		X	Police Dispatch	Sewer Lift Station # 3	High Wet Well Alarm		David
6/11/2000	7:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm		David
6/13/2000	1:00 AM	X		Scheduled	Sewer Lift Station # 3	Shut Down Station		Robert
6/14/2000	1:30 AM	X		P.W. Engineering	Sewer Lift Station # 3	Shut Down Station		Norbert
6/15/2000	1:30 AM	X		P.W. Engineering	Sewer Lift Station # 3	Shut Down Station		Norbert
6/28/2000	11:20 AM	X		Joe Lara	Mount Vernon @ 71 Fwy	Stoppage, Overflow	City Mainline	Norbert
7/1/2000	9:56 AM	X		Police Dispatch	Sewer Lift Station # 1 & 3	High Wet Well Alarm		Norbert
7/8/2000	4:05 PM		X	Police Dispatch	Third & San Antonio	Customer Service	Resident	David
7/16/2000	1:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Robert
7/21/2000	1:45 AM	X		Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Johnny
7/22/2000	1:00 PM		X	Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Johnny
7/24/2000	1:45 PM		X	Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Johnny
7/27/2000	1:48 PM		X	Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Norbert
8/2/2000	1:50 AM	X		Police Dispatch	Sewer Lift Station # 3	Failure Alarm		David
8/5/2000	2:15 AM	X		Police Dispatch	Sewer Lift Station # 3	Pump Fail Alarm		David
8/6/2000	5:50 PM		X	Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		David
8/6/2000	2:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Station Fail Alarm		David
8/12/2000	5:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Robert
8/11/2000	7:45 PM		X	Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Robert
8/11/2000	9:00 PM		X	Police Dispatch	895 S. Parcels	Stoppage, Sewer Backup	Residential Lateral	Robert
8/11/2000	11:45 PM		X	Police Dispatch	Sewer Lift Station # 4	Failing To Respond Alarm		Robert
8/17/2000	2:45 AM	X		Police Dispatch	Sewer Lift Station # 3	Failing To Respond Alarm		Johnny
8/18/2000	1:45 AM	X		Police Dispatch	Sewer Lift Station # 4	Failing To Respond Alarm		Johnny
9/8/2000	4:00 PM		X	Customer Service	1068 Arroyo Park Drive	Stoppage, Sewer Backup	Residential Lateral	Robert
9/9/2000	10:00 PM		X	Police Dispatch	Holt @ Palomares	Stoppage, Sewer Backup	Residential Lateral	Robert
9/21/2000	6:15 PM		X	Police Dispatch	Sewer Lift Station # 3	High Wet Well Alarm		Norbert
9/27/2000	2:00 AM	X		Police Dispatch	Sewer Lift Station # 4	Failure to Check In Alarm		David
9/30/2000	4:00 PM		X	Police Dispatch	48 Rolling Hills	Water On Street Surface	City Water Department	David
9/29/2000	7:30 AM	X		Water 56 Ahmed	Drake & Covecrest Way	Stoppage, Overflow	Apartment Complex	Johnny
10/1/2000	12:50 AM	X		Police Dispatch	Sewer Lift Station # 1, 2, & 3	Power Failure Alarm		David
10/1/2000	3:00 AM	X		Police Dispatch	Sewer Lift Station # 1, 2, & 3	High Wet Well Alarm		David

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
10/3/2000	11:20 AM	X		P.W. Cindy	Loose Manhole Cover	140 W. Orange Grove		Norbert
10/6/2000	11:20 AM	X		Customer Service	2655 Pine St.	Stoppage, Overflow	City Mainline	Norbert
10/14/2000	3:10 PM		X	Police Dispatch	Sewer Lift Station # 3	Power Failure Alarm		Johnny
10/14/2000	11:55 AM	X		Police Dispatch	380 Claremont	Stoppage, Sewer Backup	City Mainline	Johnny
10/22/2000	6:07 PM		X	Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		Norbert
10/27/2000	4:30 PM		X	Melanie Otero	3355 Mural Dr.	Stoppage, Sewer Backup	Residential Lateral	Johnny
10/29/2000	11:30 AM	X		Police Dispatch	South View @ Grier	Stoppage, Overflow	City Main Line	David
11/3/2000	3:30 PM		X	Police Dispatch	8 Sunny Slope	Stoppage, Sewer backup	City Water Department	Robert
11/8/2000	7:00 PM		X	Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		Johnny
11/16/2000	4:51 PM		X	P.W. Ray	Mount Vernon @ 71 Fwy	Stoppage, Overflow	City Mainline	Norbert
11/19/2000	9:50 AM	X		Police Dispatch	Sewer Lift Station # 1	Equipment Failure		Norbert
						High Wet Well Alarm		
11/19/2000	2:40 PM		X	Police Dispatch	Sewer Lift Station # 1	Lock Up		Norbert
11/19/2000	7:40 PM		X	Police Dispatch	342 Las Brisas	Stoppage, Overflow	City Mainline	Norbert
11/20/2000	11:00 PM		X	Police Dispatch	Sewer Lift Station # 1	High Wet Well,		David
						General Pump Failure		
11/27/2000	5:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Equipment Failure Alarm		Robert
12/14/2000	6:39 PM		X	Police Dispatch	1040 Densmore	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/17/2000	11:35 AM	X		Police Dispatch	1644 S. Waters	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/17/2000	1:15 PM		X	Police Dispatch	1637 S. Waters	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/18/2000	6:40 AM	X		Police Dispatch	Sewer Lift Station # 4	High Wet Well, Power Fail.		Norbert
12/21/2000	6:00 PM		X	Police Dispatch	222 E. Foothill Blvd.	Stoppage, Sewer Backup	Private Septic	Robert
1/4/2001	7:30 AM	X		Robert Koczko	Mission, E. of Garey	Stoppage, Overflow	City Mainline	Johnny
1/20/2001	10:03 AM	X		Police Dispatch	Sewer Lift Station # 2	CPU Alarm		Norbert
1/26/2001	1:00PM		X	Police Dispatch	Sewer Lift Station # 4	Failure to Check In Alarm		Robert
1/26/2001	11:00 AM	X		Police Dispatch	761 Corporate Center Dr.	Strong Sewer Odor	City Mainline	Robert
2/13/2001	5:00PM		X	Police Dispatch	2416 Lennox	Stoppage, Sewer Backup	Residential Lateral	Robert
2/21/2001	5:30 PM		X	R.M. Pam	600 Williams	Broken Residential Lateral	Residential Lateral	Robert
2/24/2001	5:30 PM		X	Police Dispatch	441 W. Tenth Street	Stoppage, Overflow	City Main line	Robert
2/28/2001	8:30 PM		X	Police Dispatch	60 Quiet Hills	Sewer Odor, Backup	City Main line	Johnny
3/4/2001	12:30 PM		X	Police Dispatch	1729 W. Orange Grove	Sewer Odor	City Main line	Johnny
3/4/2001	12:30 PM		X	Water Stand-by	19 North Slope Ln.	Check Sewer Main	City Main line	Johnny
3/5/2001	4:05 PM		X	Customer Service	904 1/2 Monterey	Stoppage, Sewer Backup	City Main line	Norbert
3/6/2001	7:30 PM		X	Police Dispatch	972 N. Eleanor	Stoppage, Backup	Residential Lateral	Norbert
3/6/2001	7:30 AM	X			19 North Slope Ln.	Stoppage, Overflow	City Main line	Wastewater Staff
3/9/2001	8:15 AM	X		Police Dispatch	938 E. Jefferson	Stoppage, Sewer Backup	Residential Lateral	Norbert
3/11/2001	9:45 AM	X		Police Dispatch	1928 Mountain	Stoppage, Sewer Backup	Residential Lateral	Norbert
3/14/2001	1:30 AM	X		Police Dispatch	150 W. Foothill	Stoppage, Sewer Backup	Residential Lateral	Johnny
3/20/2001	6:30 PM		X	Police Dispatch	29 Rainbow Ridge	Water on street surface	broken sprinkler	Johnny
3/21/2001	11:45 AM	X		Rita Garcia	904 E. Monterey	Stoppage, Backup	City main line	Johnny
3/25/2001	12:30 PM		X	Police Dispatch	450 W. Foothill	Stoppage, Backup	City main line	Robert
3/26/2001	11:00 AM	X		Customer Service	940 North Hill Road	Stoppage, Backup	City main line	Johnny
3/30/2001	3:15 PM		X	Pomona	1225 Hillcrest	Broken Main line	City Main line	
3/31/2001	6:00 AM	X		Scheduled	1225 Hillcrest	Broken Main line	City Main line	Johnny

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
4/6/2001	7:05 PM		X	Police Dispatch	983 Laurel	Stoppage Sewer Backup	Residential Lateral	Norbert
5/5/2001	11:45 AM	X		Police Dispatch	Garey @ Phillips	Stoppage, Overflow	City Main line	Gabriel
5/7/2001	5:30 PM		X	Customer Service	1106 E. Ninth	Stoppage, Sewer Backup	City Main line	Robert
5/19/2001	8:00 AM	X		Police Dispatch	1474 Hacienda	Stoppage, Sewer backup	Residential Lateral	Gabriel
5/24/2001	5:15 PM		X	Customer Service	742 Lincoln Ave.	Stoppage, Sewer Backup	Residential Lateral	Johnny
5/25/2001	4:45 PM		X	Customer Service	2969 Battram	Sewer Odor	None Detected	Gabriel
5/29/2001	8:10 PM		X	Water Standby	345 Roosevelt	Water On Alley Surface	Not Sewer Related	Norbert
6/1/2001	8:30 PM		X	Police Dispatch	611 E. Holt Ave	Stoppage Sewer Backup	Property Lateral	Norbert
6/3/2001	9:15 AM	X		Police Dispatch	Sewer Lift Station # 3	High Water Alarm		Norbert
6/3/2001	2:20 PM		X	Police Dispatch	Sewer Lift station # 3	High Water Alarm		Gabriel
6/5/2001	5:45 PM		X	Police Dispatch	601 Ridgeway	Stoppage, Overflow	City Mainline	Robert
6/9/2001	11:00 AM	X		Police Dispatch	Sewer Lift Station # 3	High Water Alarm		Robert
6/24/2001	6:25 AM	X		Police Dispatch	2269 Farrington	Stoppage, Sewer Backup	Residential Lateral	Johnny
6/19/2001	6:15 PM		X	Police Dispatch	Sewer Lift Station # 2	Pump Fail Alarm		Johnny
7/2/2001	1:30 PM		X	Customer Service	944 E. Lexington	Stoppage, Sewer Backup	City Main line	Johnny
7/3/2001	4:00 PM		X	Customer Service	170 E. Phillips	Stoppage, Sewer Backup	City Main line	Johnny
7/5/2001	5:45 PM		X	Customer Service	1209 Nashville	Stoppage, Overflow	City Main line	Robert
7/6/2001	3:30 PM		X	Water Standby	City Yard	Vactor Lights Left On	Wastewater Personnel	Robert
7/8/2001	1:00 PM		X	Police Dispatch	441 W. Tenth Street	Stoppage, Sewer Backup	Residential Lateral	Robert
7/11/2001	6:30 PM		X	Police Dispatch	579 Weber	Stoppage, Sewer Backup	Residential Lateral	Gabriel
7/13/2001	8:00 AM	X			City Yard, Fleet Dept.	Flat Tire on Standby Truck		Gabriel
7/21/2001	1:00 PM		X	Police Dispatch	643 James Pl.	Stoppage , Sewer Backup	City Main line	Johnny
8/4/2001	11:25 AM	X		Police Dispatch	Clark Ave. & Holt Ave	Stoppage, Overflow	City Main line	Norbert
8/12/2001	1:00 AM	X		Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		Gabriel
8/12/2001	2:30 AM	X		Police Dispatch	Sewer Lift Station # 1	High Wet Well Alarm		Gabriel
8/14/2001	4:45 PM		X	Customer Service	1902 Ninth St.	Mainline Inspection		Johnny
8/14/2001	6:50 PM		X	Yvette Mullenau	1902 Ninth St.	Sewer Smell	Odor not detected	Johnny
8/24/2001	8:30 AM	X		Ray Mtz. ST. Dept.	Seventh & White Ave	Stoppage, Overflow	Water Line Break	Robert
8/30/2001	12:50 AM	X		Police Dispatch	Sewer Lift Station # 4	Failure to Check In Alarm		Norbert
9/9/2001	2:00 AM	X		Police Dispatch	Sewer Lift Station # 2			Gabriel
9/27/2001	7:45 PM		X	Police Dispatch	343 Fuego	Stoppage, Sewer Backup	Residential Lateral	Robert
9/28/2001	7:00 PM		X	Water Stand-by	879 Hillcrest Drive	Possible Broken Sewer	Residential	Gabriel
10/1/2001	5:45 PM		X	Police Dispatch	Sewer Lift Station # 2			Gabriel
10/5/2001	1:45 PM		X	Police Dispatch	2325 Angela St. Apt. #2	Broken Water line	Residential	Gabriel
10/19/2001	7:45 PM		X	Police Dispatch	Sewer Lift Station # 2	Failure To Respond		Robert
10/19/2001	12:30 PM		X	Customer Service	934 W. Holt Ave	Sewer Dept. Rep.		Robert
11/2/2001	8:30 AM	X		Customer Service	1028 Muir	Stoppage, Sewer Backup	Residential Lateral	Gabriel
11/15/2001	6:00 PM		X	Customer Service	298 Albert	Stoppage Sewer Backup	Residential Lateral	Johnny
11/16/2001	5:40 AM	X		Police Dispatch	Clark Ave @ Holt Ave	Water On Street Surface	City Pump Facility	Norbert
11/16/2001	1:50 PM		X	Customer Service	1759 Denison	Sewer Odor		Norbert
11/18/2001	4:00 PM		X	Police Dispatch	1812 Yorba	Stoppage, Sewer Backup	Residential Lateral	Norbert
11/19/2001	12:05 AM	X		Police Dispatch	Sewer Lift Station # 4	Failure to Check In Alarm		Norbert
11/24/2001	5:45 PM		X	Police Dispatch	1243 S. San Antonio	Stoppage, Sewer Backup	City of Ontario	Robert
11/30/2001	5:30 PM		X	Police Dispatch	Hillcrest Drive @ Hillcrest Pl.	Stoppage Sewer Backup	City Sewer Main line	Gabriel

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
12/5/2001	4:20 PM		X	Jim Butler	Club Dr. @ Home Terrace	Stoppage, Sewer Backup	City Sewer Main line	Johnny
12/14/2001	2:25 PM		X	Customer Service	38 Sage Canyon	Stoppage, Sewer Backup	Clogged Storm Drain	Norbert
12/14/2001	10:40 AM	X		Customer Service	660 James Pl.	Stoppage, Sewer Backup	City Sewer Main line	Norbert
12/20/2001	9:15 AM	X			944 E. Ninth St.	Stoppage, Sewer Backup	City Sewer main Line	Johnny
12/21/2001	3:00 PM		X		303 Short St.	Stoppage, Sewer Backup	City Sewer Main Line	Gabriel
12/24/2001	11:55 AM	X		Police Dispatch	Caswell Btwn 3rd & 4th	Manhole Lid Off		Gabriel
12/28/2001	7:30 AM	X		Police Dispatch	1198 N. Huntington	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/28/2001	4:00 PM		X	Police Dispatch	1709 La Mancha	Cell Phone, Storm Drain		Gabriel
12/30/2001	12:30 PM		X	Police Dispatch	690 Eighth St.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
1/2/2002	12:00 PM		X	Police Dispatch	2413 Love Joy	Stoppage, Sewer Backup	Residential Lateral	Johnny
1/11/2002	10:00 AM	X		Police Dispatch	356 Cameron	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/12/2002	10:45 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Failure to Check In		Norbert
1/12/2002	1:30 PM		X	Police Dispatch	Vamana @ Grove	Stoppage, Overflow	City Sewer Main Line	Gabriel
1/15/2002	1:20 PM		X	Melanie Otero	601 E. Arrow Highway	Stoppage, Overflow, PVT P	City Sewer Main Line	Norbert
1/17/2002	8:25 PM		X	Police Dispatch	McKinley @ Fairplex	Stoppage, Sewer Backup	Not Sewer Related	Johnny
1/26/2002	11:30 AM	X		Police Dispatch	800 Hillcrest Drive	Stoppage, Overflow	City Sewer Main Line	Gabriel
1/26/2002	3:30 PM		X	Police Dispatch	Shirley @ James Pl	Stoppage, Overflow	City Sewer Main Line	Gabriel
1/28/2002	11:20 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Check In		Robert
1/31/2002	1:30 AM	X		Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Check In		Robert
1/31/2002	6:45 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, PLC Fail		Robert
2/1/2002	11:30 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Respond		Robert
2/3/2002	9:30 PM		X	Police Dispatch	1781 Bainbridge	Exploding Sewer	Not Sewer Related	Robert
2/3/2002	2:00 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Respond		Robert
2/22/2002	12:45 PM		X	Customer Service	1758 Yorba	Stoppage, Sewer Backup	Residential Lateral	Gabriel
2/18/2002	1:25 AM	X		Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Respond		Johnny
2/12/2002	12:35 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, Low Water		Johnny
2/10/2002	6:30 PM		X	Police Dispatch	Ann Arbor @ County Road	Stoppage, Overflow	SLS # 1, CSML	Robert
2/27/2002	1:35 AM	X		Police Dispatch	Sewer Lift Station #2	Alarm, High Water		Norbert
2/27/2002	6:15 PM		X	Police Dispatch	Franklin @ Towne Ave	Evidence In Catch Basin	Police Gang Unit	Norbert
2/28/2002	10:15 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Respond		Johnny
3/23/2002	8:50 AM	X		Police Dispatch	Sorrento @ Via Moreno	Stoppage, Overflow	City Sewer Main Line	Gabriel
3/24/2002	12:30 PM		X	Police Dispatch	1030 E. Ninth St.	Stoppage, Overflow PVT P	City Sewer Main Line	Gabriel
3/29/2002	5:50 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, General Equip. Fail		Robert
4/6/2002	2:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, Pump 2 Fail		Norbert
4/6/2002	5:55 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 & 3 Fail		Norbert
4/8/2002	1:40 AM	X		Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Check In		Norbert
4/9/2002	8:25 PM		X	Water Standby	2200 N Orange Grove	Stoppage	City Sewer Main Line	Johnny
4/15/2002	1:00 AM	X		Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Check IN		Johnny
4/16/2002	2:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm VFD Fail		Gabriel
4/19/2002	1:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, Pump Fail		Gabriel
4/19/2002	8:45 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, High Wet Well		Gabriel
4/19/2002	1:30 PM		X	Customer Service	1186 E. Kingsley	Stoppage, Sewer Backup	Residential Lateral	Gabriel
4/19/2002	11:15 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm		Gabriel
4/20/2002	11:45 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, Pump Fail		Gabriel

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
4/22/2002	12: AM	X		Police Dispatch	Sewer Lift Station # 4	Alarm		Gabriel
4/22/2002	4:45 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, Pump Fail		Gabriel
4/22/2002	11:45 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, VFD Fail		Gabriel
4/25/2002	2:00 AM	X		Police Dispatch	1200 W. Second St.	Overflow, Reclaimed	City, Reclaim Reservoir	Robert
4/27/2002	4:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, General Equip. Fail		Robert
4/28/2002	8:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm Bypass		Robert
5/3/2002	4:25 PM		X	Janet Carter	150 W. Foothill	Stoppage, Sewer Backup		Johnny
5/6/2002	7:15 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Water		Johnny
5/18/2002	1:00 PM		X	Water Standby	71 Village Loop	Pool Water	Residential Pool	Gabriel
5/26/2002	9:30 AM	X		Police Dispatch	1665 Meserve	Stoppage, Sewer Overflow	City Sewer Main	Robert
6/23/2002	12:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm		Robert
6/21/2002	1:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm		Robert
7/1/2002	7:15 PM		X	Police Dispatch	918 County Rd.	Stoppage, Sewer Backup	Residential Lateral	Robert
7/7/2002	8:15 PM		X	Water Standby	709 San Bernardino	Water Issue		Robert
7/10/2002	9:30 PM		X	Water Standby	148 N. Huntington	Vehicle Lights On		Gabriel
7/12/2002	10:00 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Failure To Check In		Gabriel
7/14/2002	12:50 PM		X	Police Dispatch	741 Loma Vista	Stoppage, Sewer Backup	Residential Lateral	Gabriel
7/14/2002	1:10 PM		X	Police Dispatch	640 E. McKinley	Sewage In Alley	Illegal Dumping (RV)	Gabriel
7/20/2002	4:00 PM		X	Water Standby	1647 Larkin Way	Stoppage	Residential Lateral	Robert
7/22/2002	6:14 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Failure To Check In		Norbert
7/27/2002	3:30 PM		X	Police Dispatch	915 W. Lexington	Odor Complaint		Robert
7/28/2002	7:00 PM		X	Police Dispatch	1761 E Mission	Stoppage, Overflow PVT P	Residential Lateral	Robert
8/4/2002	11:30 AM	X		Water Standby	2491 Lennox	Stoppage, Sewer Backup	Residential Lateral	Robert
8/19/2002	4:50 PM		X	Customer Service	1831 Club Dr.	Stoppage, Sewer Backup	Residential Lateral	John
8/20/2002	5:03 PM		X	Customer Service	787 E Phillips	Stoppage, Sewer Backup	Residential Lateral	John
9/1/2002	6:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm , High Wet Well		Gabriel
9/2/2002	6:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Gabriel
9/2/2002	8:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm High Wet Well		Gabriel
9/7/2002	4:00 PM		X	Police Dispatch	Sewer Lift station #2	Alarm, High Wet Well, Gas		Gabriel
9/16/2002	2:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Robert
9/16/2002	6:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Robert
9/18/2002	6:40 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Gas		Norbert
9/29/2002	4:00 PM		X	Police Dispatch	60 FWY @ Phillips Ranch Rd	Stoppage, Sewer Overflow	City Sewer Mainline	John
10/13/2002	5:00 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Robert
10/14/2002	3:05 AM	X		Police Dispatch	Sewer lift Station # 1	Alarm, High Wet Well		Robert
10/14/2002	12:30 PM		X	WTR 21	Sewer Lift Station # 1	Station Down, NO ALARM	City	WW Crews
10/18/2002	11:35 AM	X		Customer Service	777 W. Center	Stoppage, Sewer Backup	Residential Lateral	Norbert
10/20/2002	11:30 AM	X		Police Dispatch	1110 Wisconsin	Stoppage, Sewer Backup	Apt. Bldg. Plumbing	Norbert
10/24/2002	10:20 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, Failure to Check In		Gabriel
10/25/2002	5:45 PM		X	Police Dispatch	Sewer Lift Station # 4	High Wet Well	LACSD Alarm Test	Gabriel
10/30/2002	6:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Failure To Check In		Robert
11/5/2002	4:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Zone 9		Robert
11/9/2002	5:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Power Fail		Robert
11/13/2002	1:30 PM		X	Police Dispatch	Sewer Lift Station # 2, # 3	Alarm		John

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
12/6/2002	2:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet well		Robert
12/8/2002	5:30 PM		X	Police Dispatch	148 N. Huntington	Vactor lights left on	Wastewater Crew	Robert
12/13/2002	4:45 PM		X	Police Dispatch	2214 Concord	Stoppage, Sewer Backup	Possible City Tree Roots	Norbert
12/14/2002	9:00 AM	X		Police Dispatch	1795 Shirley	Stoppage Sewer Overflow	City Sewer Mainline	John
12/21/2002	10:15 AM	X		Police Dispatch	2242 Kellogg Park Dr.	Stoppage, Sewer Backup	Residential Lateral	John
12/23/2002	4:30 PM		X	Police Dispatch	1790 Larkspur	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/28/2002	11:20 AM	X		Police Dispatch	607 Pasadena	Stoppage, Sewer Backup	Residential Lateral	Gabriel
1/4/2003	10:00 PM		X	Police Dispatch	23 Calle Del Mar	Odor Complaint		Robert
1/5/2003	11:30 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Power Failure		Robert
1/6/2003	4:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Power Failure		Robert
1/6/2003	8:25 PM		X	Police Dispatch	Sewer Lift Station # 1, # 4	Gas and High Wetwell		Norbert
1/6/2003	11:40 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Norbert
1/10/2003	1:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Norbert
1/10/2003	7:00 AM	X		Police Dispatch	1795 N. Orangegrove	Stoppage Sewer Backup	City Sewer Mainline	Norbert
1/10/2003	4:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Failure to Checkin		Norbert
1/12/2003	4:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Failure to Checkin		Norbert
1/13/2003	4:40 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Failure to Checkin		John
1/19/2003	8:30 AM	X		Police Dispatch	Village Loop @ Gunsmoke	Stoppage, Sewer Overflow	City Sewer Mainline	John
1/19/2003	2:45 PM		X	Police Dispatch	2488 Lennox	Stoppage, Sewer Backup	Residential Lateral	John
1/20/2003	7:30 AM	X		Police Dispatch	Westmont @ Grier	Odor Complaint		John
1/20/2003	10:00 AM	X		Police Dispatch	250 E. Kingsley	Stoppage, Sewer Overflow	Residential Lateral	Gabriel
1/27/2003	2:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Fail		Gabriel
1/28/2003	1:40 AM	X		Police Dispatch	Sewer Lift Station # 1 & 2	Alarm, High Wetwell, # 2, Pump Fail		Norbert
1/31/2003	8:20 PM		X	Police Dispatch	429 W. Orange Grove	Stoppage, Sewer Backup	Contractor Responsible	Norbert
2/5/2003	5:30 PM		X	Customer Service	1480 S. Park Ave.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
2/9/2003	3:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Fail		Gabriel
2/11/2003	12:00 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wetwell		John
2/14/2003	3:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Fail		John
2/18/2003	7:00 AM	X		Police Dispatch	2357 Gambier St.	Odor Complaint		John
2/18/2003	4:40 PM		X	Police Dispatch	187 E. Eleventh St.	Sewage Spill	Motorist, RV, (Cited)	John
2/21/2003	9:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Power Failure		Gabriel
2/25/2003	6:30 PM		X	Police Dispatch	723 E. Alvarado	Stoppage, Sewer Backup	Residential Lateral	Norbert
2/25/2003	10:31 PM		X	Police Dispatch	661 E. Kingsley	Stoppage, Sewer Backup	Residential Lateral	Norbert
3/1/2003	1:20 PM		X	Police Dispatch	Lexington @ Waters	Sink Hole, Trench Failure	Contractor Responsible	Norbert
3/8/2003	1:15 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Vent Fail		Gabriel
3/15/2003	5:50 AM	X		Police Dispatch	Sewer Lift Staion # 3	Alarm, Vent Fail		Norbert
3/20/2003	8:45 PM		X	Police Dispatch	Sewer Lift Staion # 2	Alam, Failure to Check In		John
3/21/2003	2:30 PM		X	Customer Services	1023 Groff	Stoppage, Backup	Residential Lateral	John
3/30/2003	4:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Gas Alarm		Gabriel
3/30/2003	6:45 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Gas Alarm		Gabriel
4/5/2003	6:00 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Combustible Alarm		Norbert
4/6/2003	2:00 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Fail		Norbert
4/6/2003	3:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Fail		Norbert
5/2/2003	8:50 PM		X	Police Dispatch	Sewer Lift Statation # 2	Alarm, Power Failure		Norbert

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
5/7/2003	5:20 PM		X	Customer Service	945 S. White Ave.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
5/23/2003	4:30 PM		X	Police Dispatch	2224 Belinda Ave.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
5/25/2003	11:30 AM	X		Police Dispatch	204 E. Pasadena	Stoppage, Sewer Lateral	Residential Lateral	Gabriel
5/27/2003	4:50 PM		X	Police Dispatch	Bonita @ Garey Ave.	Water on Street	Not Sewer Related	Gabriel
5/28/2003	4:40 PM		X	Customer Service	333 Madison	Stoppage, Sewer Backup	Residential Lateral	Gabriel
5/30/2003	1:50 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Gas		Gabriel
5/31/2003	12:50 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure to Check In		Gabriel
6/1/2003	11:45 AM	X		Police Dispatch	227 Aliso	Stoppage, Sewer Backup	Residential Lateral	Gabriel
6/7/2003	1:15 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Gas		Norbert
6/10/2003	5:45 PM		X	Customer Service	2 Knollview Dr	Stoppage, Sewer Overflow	City Sewer Main Lline	Gabriel
6/16/2003	4:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Fail		John
6/19/2003	4:10 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Failure to Check In		John
6/22/2003	4:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Failure to Check In		John
6/25/2003	4:15 AM	X		Police Dispatch	Sewer Lift Station #2	Alarm, Failure To Check In		John
6/29/2003	4:30 a.m	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Failure to Check In		John
7/5/2003	5:00 PM			Police Dispatch	Sewer Lift Station # 2	Alarm, Failure To Check In		Gabriel
7/18/2003	9:00 AM	X		Customer Service	Sewer Lift Station # 1	Station Off, Sewer Overflow		Norbert
7/21/2003	8:30 AM	X		Police Dispatch	Colingwood	Stoppage, Sewer Overflow	None Found	John
8/1/2003	12:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wetwell		Gabriel
8/1/2003	1:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wetwell		Gabriel
8/2/2003	8:30 PM		X	Police Dispatch	314 Park Ave.	Sewer Overflow	None Found, Odor	Gabriel
8/8/2003	7:40 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Failure to Check In		Gabriel
8/13/2003	3:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Fail		Gabriel
8/16/2003	2:10 AM	X		Police Dispatch	Sewer Lift Station # 4	Alarms, Gas, High Wetwell		Gabriel
8/16/2003	2:00 PM		X	Water Standby	1117 Oakknoll	Stoppage Sewer Backup	Residential Lateral	Gabriel
8/20/2003	5:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wetwell		John
8/20/2003	8:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Failure to Check In		John
8/22/2003	3:30 AM			Police Dispatch	Sewer Lift Station # 3	Alarm, Combustible Alarm		Gabriel
8/24/2003	9:18 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Gas/Wetwell		Norbert
8/24/2003	1:00 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Low Battery		Gabriel
8/27/2003	9:55 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Gas/Wetwell		Norbert
8/26/2003	6:13 PM		X	Police Dispatch	250 E Kingsley	Stoppage, Sewer Overflow	Residential Lateral	Norbert
8/29/2003	7:18 AM	X		Police Dispatch	239 E. Holt Ave.	Stoppage, Sewer Backup	City Sewer Main Line	Norbert
9/6/2003	9:45 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wetwell		Gabriel
9/13/2003	4:50 PM		X	Janet Carter	1021 Cambrin	Stoppage, Sewer Backup	Residential Lateral	John
9/19/2003	1:45 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		Norbert
9/20/2003	1:15 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		John
9/22/2003	9:00 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
9/22/2003	10:15 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
9/22/2003	11:15 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
9/25/2003	3:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Failure		John
9/27/2003	5:30 AM	X		Police Dispatch	Sewer Lift Station # 1,2,3	1) Alarm, High Wet Well, 2) Pump Fail, 3) Gas Alarm		John
9/30/2003	6:00 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Gabriel

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
10/4/2003	7:30 PM		X	Police Dispatch	Old Pomona Rd. @ Village Loop	Sink Hole, Trench Failure	None located	Gabriel
10/19/2003	9:50 PM		X	Police Dispatch	989 W. Ninth St.	Stoppage, Sewer Backup		John
10/23/2003	10:45 AM	X		Police Dispatch	Garey Ave @ County Road	Not Sewer Related		Gabriel
10/25/2003	12:30 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		Gabriel
11/4/2003	2:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Failure		John
11/18/2003	11:45 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure To Check In		Norbert
11/19/2003	1:15 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Failure To Check In		Norbert
11/28/2003	8:30 AM	X		Water Standby	741 Loma Vista	Stoppage, Sewer Backup	Residential Lateral	John
12/5/2003	12:10 AM	X		Police Dispatch	767 San Bernardino	Water on Street	Water Dept. (Leak)	Gabriel
12/7/2003	4:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Gabriel
12/12/2003	2:00 PM		X	Customer Service	2210 Marquette	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/15/2003	4:15 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Fail		Norbert
12/25/2003	11:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarms, Gas, Vent Failure		Gabriel
12/26/2003	1130 AM	X		Customer Service	1026 San Antonio	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/26/2003	1:45 PM		X	Customer Service	205 Sherwood	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/28/2003	1:30 PM		X	Police Dispatch	1260 E. Kingsley	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/30/2003	12:25 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Norbert
1/2/2004	5:15 PM		X	Police Dispatch	1221 N. Canyon Way	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/3/2004	11:30 AM	X		Police Dispatch	710 Tonner Dr.	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/4/2004	9:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Fail		Norbert
1/11/2004	12:15 PM		X	Police Dispatch	1401 W. Ninth Street	Stoppage, Sewer Backup	Residential Lateral	Gabriel
1/17/2004	12:15 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		John
2/14/2004	1:00 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Hight Wet Well		Norbert
2/15/2004	1:30 PM		X	Police Dispatch	1301 N Huntington	Stoppage, Sewer Backup	Residential Lateral	Norbert
2/16/2004	10:15 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Norbert
2/16/2004	1:15 PM		X	Police Dispatch	689 E Columbia	Broken Lateral	Residential Lateral	Norbert
2/20/2004	10:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		John
2/21/2004	10:05 AM	X		Police Dispatch	Saticoy St. @ Bangor	Sewer Spill	Motorist R.V.	John
2/25/2004	4:45 PM		X	Customer Service	1228 Murchison	Stoppage , Sewer Backup	Residential Lateral	Gabriel
2/28/2004	7:00 AM	X		Water Stand By	Auto Center Drive, cul-de-sac	Stoppage, Sewer Overflow	City Main Line	Gabriel
3/72004	1:00 AM	X		Police Dispatch	305 Arrow Hwy	Stoppage, Sewer Overflow	Residential Lateral	John
3/22/2004	1:50 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		John
3/20/2004	12:45 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
3/29/2004	1:55 PM		X	Buisness Services	1354 GroveSide Place	Stoppage, Sewer Overflow	Residential Septic Tank	
4/4/2004	2:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		John
4/16/2004	3:24 PM		X	Police Dispatch	Sewr Lift Station # 2	Alarm, Pump 1 Failure		Norbert
4/21/2004	6:00 PM		X	Water Standby	Arrow Hwy @ Towne Ave	Stoppage, Sewer Overflow	Residential Lateral	John
4/27/2004	2:30 AM	X		Police Dispatch	Sewr Lift Station # 2	Alarm, Power Failure		Gabriel
4/302004	9:45 AM	X		Admin. Grace	930 Hillcrest Dr.	Stoppage, Sewer Overflow	Residential Lateral	John
4/30/2004	9:50 AM	X		Customer Service	930 Ashfield	Stoppage, Sewer Backup		Norbert
4/30/2004	12:30 PM		X	Customer Service	204 Highgate	Stoppage, Sewer Backup	Residential Lateral	Gabriel
5/14/2004	2:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Fail		Gabriel
5/14/2004	9:00 AM	X		Customer Service	Sewer Lift Station # 2	Alarm, High Wet Well		Gabriel

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
5/17/2004	12:15 AM	X		Police Dispatch	Sewr Lift Station # 3	Alarm, Vent Fail		Gabriel
6/3/2004	6:00 PM		X	Police Dispatch	2491 Neptune	Stoppage, Sewer Overflow	City Main Line	John
6/7/2004	5:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 3 Fail		John
8/19/2004	5:30 PM		X	Customer Service	450 Archwood Ct.	Stoppage, Sewer Overflow	Residential Lateral	Norbert
8/20/2004	1:15 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		Norbert
8/30/2004	6:45 PM		X	Police Dispatch	Sewer Lift Station 1,2,3,4	Power Failure		Gabriel
9/11/2004	5:51 PM		X	Police Dispatch	1515 W. Mission Blvd	Stoppage, Sewer Overflow		Norbert
9/17/2004	10:30 AM	X		Customer Service	1280 E. Ninth St.	Stoppage, Sewer Backup	Residential Lateral	Gabriel.
9/25/2004	4:50 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		John
10/1/2004	3:30 PM		X	Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 3 Failure		Gabriel
10/9/2004	1:00 AM	X		Police Dispatch	Sewer Lift Satation # 3	Alarm, Vent Failure		John
10/20/2004	2:10 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Power Failure		Norbert
10/26/2004	9:00 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Generator Failure		John
10/28/2004	12:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Generator Failure		John
10/30/2004	1:05 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		John
11/7/2004	7:20 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Pump & VFD Failure		Gabriel
11/11/2004	2:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1, Failure		John
11/12/2004	2:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
11/24/2004	12:20 PM		X	Customer Service	# 10 Edgebrook	Stoppage, Sewer Overflow	None Found	Gabriel
12/9/2004	4:10 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Fail		John
12/15/2004	9:05 PM		X	Police Dispatch	2509 Kimball Ave.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/18/2004	12:30 PM		X	Police Dispatch	2509 Kimball Ave.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/21/2004	5:00 PM		X	Customer Service	1896 Wright St.	Stoppage Ser Backup	Residential Lateral	Norbert
12/24/2005	12:00 PM		X	Police Dispatch	1624 W Orange Grove	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/25/2004	11:00 AM	X		Police Dispatch	Sewer Lift Staion # 4	Alarm, High Wet Well		John
12/26/2004	7:07 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Norbert
12/26/2004	3:50 PM		X	Police Dispatch	365 W Arrow Hwy	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/29/2004	1:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Johnny
12/31/2004	8:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Johnny
1/2/2005	1:35 AM	X		Police Dispatch	742 E. Kingsley	Stoppage, Sewer Backup	Residential Lateral	Johnny
1/4/2005	5:00 PM		X	Police Dispatch	45 Rising Hill	Explosion in Manhole	No Evidence/Damage Found	Gabriel
1/5/2005	6:00 PM		X	Police Dispatch	557 W Orange Grove	Manhole Structure Failure	Contractor/City	Gabriel
1/6/2005	5:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Gabriel
1/8/2005	7:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Gabriel
1/10/2005	6:25 AM	X		Police Dispatch	2957 Sterling	Stoppage, Sewer Backup	Residential Lateral	Gabriel
1/16/2005	9:30 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Johnny
1/16/2005	12:30 PM		X	Police Dispatch	274 W. Phillips	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/17/2005	8:50 AM	X		Police Dispatch	274 W. Phillips	Stoppage, Sewer Backup	Residential Lateral	Johnny
1/21/2005	3:45 PM		X	Customer Service	1329 W. Mission Blvd.	Stoppage, Sewer Backup	Residential Lateral	Johnny
1/29/2005	7:00 PM		X	Police Dispatch	1215 S. Hamilton	Stoppage, Sewer Backup	Residential Lateral	Gabriel
2/4/2005	3:30 PM		X	Police Dispatch	Orange Grove	Stoppage, Sewer Backup	Contractor/City	Norbert
2/19/2005	5:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Gabriel
3/1/2005	12:10 AM	X		Police Dispatch	Sewer Lift Station # 2 & 4	Alarm, Failure To Check In		Johnny
3/12/2005	8:30 PM		X	Police Dispatch	Buena Vista & Grand Ave.	Sewer Trench Failure	City	Gabriel

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
3/18/2005	9:45 AM	X		Customer Service	2315 S. Reservoir	Water Leak	City, Water Standby	Norbert
3/22/2005	10:30 PM		X	Police Dispatch	1094 E.Grand Ave.	Water Leak	City, Water Standby	Johnny
3/23/2005	2:30 PM		X	Water 14	Olive & Garey Ave.	Stoppage, Sewer Overflow	City Main Line	Johnny
3/27/2005	9:20 AM	X		Police Dispatch	1800 Blk of N. Orange Grove	Stoppage, Sewer Overflow	None Located	Johnny
4/1/2005	3:40 PM		X	Customer Service	143 Alvarado	Stoppage, Sewer Backup	Residential Lateral	Gabriel
4/15/2005	12:50 PM		X	Customer Service	Vejar Elementary School	Broken Sewer	Private Property, School	Norbert
4/15/2005	12:50 PM		X	Customer Service	2431 Lyndale	Stoppage , Sewer Backup	Residential Lateral	Norbert
4/17/2005	9:00AM	X		Water Standby	265 Eastend	Missing Manhole Cover	City	Norbert
4/30/2005	2:15 PM		X	Police Dispatch	1319 Hamilton Blvd.	Foul Odor	Residential Lateral	Gabriel
5/9/2005	10:15 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Equipment Failure		Gabriel
5/22/2005	2:10 PM		X	Police Dispatch	1703 Westwood Ln.	Water Leak	City, Water Standby	Norbert
5/27/2005	9:30 AM	X		Customer Service	1626 Viola Pl.	Stoppage Sewer Backup	Residential Lateral	Gabriel
6/18/2005	3:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Norbert
6/18/2005	5:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Open Station for LACSD		Johnny
6/24/2005	12:15 PM		X	Customer Service	1741 Buchanan	Stoppage, Sewer Backup	Residential Lateral	Gabriel
6/24/2005	1:50 PM		X	Customer Service	1344 Reservoir	Stoppage, Sewer Backup	Residential Lateral	Gabriel
7/2/2005	12:50 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		Norbert
7/6/2005	3:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Johnny
7/7/2005	2:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm,Pump 1 Failure		Johnny
7/13/2005	6:15 PM		X	Utility Services	2202 Encino Place	Stoppage, Sewer Overflow	False Alarm, Parks/Streets	Gabriel
8/8/2005	2:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
8/17/2005	5:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
8/18/2005	4:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
8/27/2005	3:50 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
8/27/2005	5:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
8/27/2005	2:00 PM		X	Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
8/31/2005	4:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
9/2/2005	11:30 AM	X		Police Dispatch	1221 Canyon Way	Stoppage, Sewer Overflow	Residential Lateral	Norbert
9/2/2005	2:08 PM		X	Police Dispatch	Inter. Ford & Garey Ave	Loose Manhole Cover	County Sanitation District	Norbert
9/4/2005	2:55 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Norbert
9/5/2005	2:15 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Norbert
9/8/2005	1:05 AM	X		Police Dispatch	698 E. Alvarado	Stoppage, Sewer Backup	Residential Lateral	Johnny
9/9/2005	9:00 AM	X		Police Dispatch	1249 & 1285 Laurel	Stoppage, Sewer Backup	Residential Lateral	Johnny
9/10/2005	10:00 AM	X		Norbert	1230 Hillcrest Drive	Follow-up Main Line Check		Johnny
9/11/2005	10:00 AM	X		Norbert	1230 Hillcrest Drive	Follow-up Main Line Check		Johnny
9/14/2005	3:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
9/14/2005	10:00 PM		X	Police Dispatch	770 Rex Ct.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
9/16/2005	4:00AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Gabriel
9/16/2005	12:00 PM		X	Customer Service	1678 Blueridge	Stoppage, Sewer Backup		Gabriel
9/17/2005	10:00 AM	X		Norbert	1230 Hillcrest Drive	Follow-up Main Line Check		Gabriel
9/18/2005	10:30 AM	X		Norbert	1230 Hillcrest Drive	Stoppage, Sewer Overflow	City Main Line	Gabriel
9/20/2005	1:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Power Failure		Gabriel
9/30/2005	3:00 AM			Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Johnny

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
10/13/2005	8:56 PM		X	Police Dispatch	738 E. Holt Ave.	Stoppage, Sewer Overflow	City Main Line, Caused overflow into 7/11 convenience store	Norbert
11/19/2005	1:15 PM		X	Police Dispatch	Sewer Lift Station # 3 & # 4	Alarm, Power Failure		Gabriel
12/8/2005	3:40 PM		X	Customer Service	218 Sherwood Pl	Sewer Backup	Broken City Main	Norbert
12/9/2005	8:00 AM	X		Scheduled Work	218 Sherwood Pl	Sewer Main Repair	Broken City Main	Gabriel
12/9/2005	5:10 PM		X	Customer Service	3054 Dawnview	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/10/2005	7:00 AM	X		Scheduled Work	218 Sherwood Pl	Sewer Main Repair	Broken City Main	Norbert
12/13/2005	9:45 PM		X	Water Standby	989 W. Ninth St.	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/15/2005	6:30 PM		X	Water Standby	864 N Towne Ave.	Stoppage, Sewer Backup	Residential Lateral	Norbert
12/27/2005	10:30 PM		X	Police Dispatch	295 Monroe	Stoppage, Sewer Backup	Residential Lateral	Gabriel
1/1/2006	4:45 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1,Failure		Gabriel
1/2/2006	10:35 AM	X		Water Standby	987 E. Holt Ave	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/2/2006	1:30 PM		X	Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Norbert
1/6/2006	2:35 PM		X	Police Dispatch	2124 N. Orange Grove ave.	Stoppage, Sewer Backup	Residential Lateral	Norbert
1/7/2006	9:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Norbert
1/16/2006	10:45 AM	X		Police Dispatch	510 E. Third St.	Stoppage, Sewer Backup	Residential Lateral	Johnny
1/16/2006	6:00 PM		X	Water Standby	Pomona Blvd.	Vacuum Water for Dist.		Johnny
1/21/2006	5:30 PM		X	Police Dispatch	359 Preciado	Stoppage, Sewer Backup	Residential Lateral	Johnny
1/24/2006	6:25 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Norbert
1/29/2006	7:50 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, Vent Failure		Norbert
1/31/2006	6:20 AM	X		Police Dispatch	Sewer Lift Satation # 2	Alarm, High Wet Well		Johnny
2/3/2006	8:25 AM	X		Customer Service	805 E. Ninth St	Stoppage, Sewer Backup	Residential Lateral	Johnny
2/4/2006	2:00 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1, Failure		Johnny
2/4/2006	9:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1, Failure		Johnny
2/8/2006	12:40 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Gabriel
2/11/2006	12:45 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Pump Failure		Gabriel
2/27/2006	7:00 AM	X		Police Dispatch	1991 Phillips Blvd.	Stoppage, Sewer Backup	Public Works, Storm Drain	Gabriel
2/28/2006	11:00 AM	X		Police Dispatch	Caswell @ Lincoln	Lost Keys to Manhole	Public Works, Storm Drain	Gabriel
3/3/2006	2:00 PM		X	Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Failure		Gabriel
3/5/2006	2:30 PM		X	Police Dispatch	Sewer Lift Station # 2	Alarm, Pump Failure		Gabriel
3/12/2006	3:00 AM			Police Dispatch	Sewer Lift Station # 2	Alarm, High Wet Well		Norbert
3/14/2006	4:30 AM	X		Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Johnny
3/17/2006	8:30 AM	X		Police Dispatch	200 Thomas St.	Water Leak @ Manhole	None located at site	Johnny
3/17/2006	11:15 AM	X		Police Dispatch	1350 Groveside St.	Illegal dumping into MH		Johnny
3/18/2006	4:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Johnny
3/22/2006	1:30 AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Pump 1 Failure		Johnny
3/23/2006	4:29 PM		X	Customer Service	725 E Grand Ave	Stoppage, Sewer Backup	Residential Lateral	Gabriel
4/14/2006	3:30 PM		X	Customer Service	350 N. Reservoir St	Stoppage, Sewer Backup	Residential Lateral	Gabriel
4/30/2006	10:30 AM	X		Police Dispatch	1717 Phillips Drive	Stoppage, Sewer Overflow	City Main Line	Gabriel
5/15/2006	8:05 PM		X	Police Dispatch	2965 N. San Antonio	Overflow	County Sanitation District	John
5/17/2006	8:20 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Power Failure		John
5/20/2006	12:15 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		John
6/2/2006	7:00 PM		X	Police Dispatch	Inter. Rolling Hills/Quail Creek Rd	Stoppage, Sewer Overflow	City Main Line	Norbert

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
6/10/2006	1:00 PM		X	Police Dispatch	1230 Hillcrest Dr.	Stoppage, Sewer Overflow	City Main Line	John
6/12/2006	5:00 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, Gas Alarm		Gabriel
6/19/2006	7:30 PM		X	Police Dispatch	Monterey Ave E. of Garey Ave	Manhole Cover Missing		Norbert
6/28/2006	6:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Pump 1 Failure		John
7/6/2006	7:00 PM		X	Scheduled Work	Sewer Lift Station # 1	Check Station Status		Gabriel
7/7/2006	9:00 AM	X		Scheduled Work	Sewer Lift Station # 2	Check Station Status		Gabriel
7/7/2006	3:15 PM		X	LACSD	2338 S. San Antonio	Debris Cleanup Near MH		Gabriel
7/22/2006	2:30 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Power Failure		Gabriel
7/22/2006	5:55 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Pump 2 Failure		John
7/22/2006	8:50 PM		X	Police Dispatch	Sewer Lift Station # 3	Alarm, Pump 1,2,3 Failure		John
7/29/2006	12:45 PM		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well, Gas		Gabriel
8/2/2006	5:47 PM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
8/4/2006	1:15 PM		X	Customer Service	463 W. Monterey Ave	Stoppage, Sewer Backup	Residential Lateral	Gabriel
8/8/2006	10:15 PM		X	Police Dispatch	Inter. Mission Blvd/Temple Ave	Stoppage, Sewer Overflow	City Main Line	Norbert
8/9/2006	2:30: AM	X		Police Dispatch	Sewer Lift Station # 2	Alarm, Power Failure		Norbert
8/25/2006	6:25 AM		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		John
8/30/2006	5:30 AM	X		Police Dispatch	Sewer Lift Station # 3	Alarm, High Wet Well		Gabriel
9/12/2006	5:45		X	Police Dispatch	Sewer Lift Station # 1	Alarm, High Wet Well		Norbert
9/25/2006	8:08		X	Police Dispatch	Sewer Lift Station # 3	Alarm, PLC Failure		John
9/30/2006	3:15	X		Police Dispatch	Sewer Lift Station # 3	Alarm, High Wet Well		John
10/16/2006	6:15		X	Police Dispatch	615 Hobson Ct.	Stoppage, Sewer Backup	Residential Lateral	Gabriel
10/23/2006	4:00	X		Police Dispatch	Sewer Lift Stations # 1,2,3,4	Alarm, Power Failure		Gabriel
11/9/2006	3:10		X	Customer Service	384 Artesia	Stoppage, Sewer Backup	Residential Lateral	Gabriel
11/11/2006	7:00		X	Police Dispatch	# 7 Navajo Trail	Stoppage, Sewer Backup	Residential Lateral	Gabriel
12/21/2006	4:35		X	Norbert B.	1627 Jess St.	Stoppage, Sewer Backup	Residential Lateral	John
12/22/2006	9:45	X		Assist. City MGR	1628 Jess St.	Stoppage, Sewer Backup	Residential Lateral	John
12/23/2006	12:45		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		John
12/29/2006	3:50		X	Police Dispatch	1135 E. Olive St	Water Leak @ Meter Box		John
1/13/2007	5:30		X	Police Dispatch	Sewer Lift Station # 4	Alarm, High Wet Well		John
1/15/2007	1:58		X	Police Dispatch	1997 W. Phillips Dr.	Stoppage, Sewer Overflow	City Main Line	John
1/23/2007	5:00		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Failure To Check In		John
1/30/2007	4:35		X	Pomona	Sewer Lift Station # 3	Alarm, Power Failure		Gabriel
2/8/2007	10:11		X	Police Dispatch	564 E Alvarado	Odor Complaint		Norbert
3/14/2007	10:15		X	Police Dispatch	1780 Phillips Blvd	Missing Manhole Lid	(Storm Drain)	Gabriel
3/21/2007	4:50	X		Police Dispatch	Sewer Lift Satation # 3	Alarm, Pump Fail		Norbert
3/24/2007	2:30		X	Steve Paz	Inter. Grand Ave/Buena Vista	Sink Hole	City	Norbert
3/31/2007	1:30		X	Police Dispatch	861 N. Towne Ave	Sewer lateral leak	City/Contractor	Gabriel
4/1/2007	7:30	X		Follow Up Call	861 N. Towne Ave	Sewer lateral leak	City/Contractor	Gabriel
4/17/2007	9:15	X		Customer Service	1739 San Bernardino Ave	Stoppage, Sewer Overflow	City Main Line	John
5/7/2007	5:30		X	Police Dispatch	Sewer Lift Station # 4	Alarm, Power Failure		Gabriel
5/11/2007	3:00		X	Customer Service	381 W. Arrow Hwy	Stoppage, Sewer Backup	Residential Lateral	Gabriel
5/25/2007	7:30	X		Police Dispatch	Sewer Lift Station # 4	Alarm, Gas Alarm		Norbert

City of Pomona Wastewater Emergency Calls

Date	Time	AM	PM	Notified By	Address	Reason	Responsibility	Responder
5/27/2007	7:30		X	Police Dispatch	1725 Waters St	Water overflowing from Manhole	Water Service leak contacted PD, requested Distribution standby be called out	Norbert
5/30/2007	6:00		X	LACSD	Sewer Lift Station # 4	Water Sample (Witness)		Gabriel
5/31/2007	8:30		X	Norbert B.	Sewer Lift Station # 4	Check Force Main (Leak)		Gabriel
6/3/2007	8:00		X	Norbert B.	Sewer Lift Station # 4	Check Force Main (Leak)		Gabriel
6/15/2007	6:15		X	Police Dispatch	Sewer Lift Station # 3	Alarm, PLC Failure		Norbert
6/16/2007	4:20		X	Police Dispatch	Sewer Lift Station # 3	Alarm, PLC Failure		Norbert
6/16/2007	8:40		X	Long Beach Main	Sewer Lift Station # 3	Alarm, PLC Failure		Norbert

Reportable Spills
 Non-Reportable Spills

Appendix F
City of Pomona Fats, Oils, and Grease
Control Program

CITY OF POMONA FATS, OILS, AND GREASE CONTROL PROGRAM

May 2008

Prepared For:



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PBS&J Project No.: 049125300

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Chapter 1

Introduction

SSOs have recently become a major concern to wastewater agencies across the State of California. There are several factors that contribute to the periodic failures of wastewater collections systems that may potentially result in the occurrence of an SSO. SSOs can be attributed to many causes, including high concentrations of fats, oils, and grease (FOG), roots, poor conditions of the wastewater collection system lines, wet weather flows, or a combination of the causes. It has been estimated that more SSOs are caused by FOG than by any other factor, prompting state and local regulating agencies to focus on FOG Control Program development as a key element of Wastewater Discharge Requirements (WDRs).

This FOG Control Program establishes the formal procedures City staff implements to effectively reduce the direct or indirect discharge of all wastewater or waste containing FOG into the City's wastewater collection system. Chapter 1 provides an overview of a FOG Control Program, the purpose and goals of the program, the regulatory authority requiring this program, an overview of this document's organization, and definitions of terms contained in this document.

1.1 FOG Program Overview

To manage and control, in a cost effective manner, the discharge of FOG into the City's wastewater collection system to the maximum extent practicable, a FOG Control Program must include comprehensive policies and procedures to address all aspects of potential FOG contribution to the wastewater collection system.

A FOG Control Program documents the processes and procedures an agency implements to ensure that SSOs caused by the discharge of FOG are minimized and potentially eliminated. The FOG Control Program also includes informing residents and business owners on how to properly dispose of FOG. Proper disposal of FOG is important since it can accumulate in the sewer system and eventually block collection pipes and sewer lines, resulting in backups and overflows on streets, properties and even in private residences. Sewer overflows are unsanitary and negatively impact the environment. They are costly to agencies and the rate payers since the expense of cleaning up and repairs associated with improper disposal of FOG can lead to increased sewer rates.

1.2 Purpose and Goals

The purpose of developing a FOG Control Program is to facilitate the maximum beneficial public use of the City's wastewater collection system while preventing blockages of sewer lines and pump stations, reducing the adverse affects on sewage treatment operations resulting from discharges of FOG into the system, and specifying appropriate FOG discharge requirements for Food Service Establishments (FSEs) discharging into the City's sewer system.

Introduction

The primary goal of a FOG Control Program is to reduce SSOs and blockages and protect public health and the environment by minimizing public exposure to unsanitary conditions. A FOG Control Program includes control mechanisms that will establish regulations and policies for the disposal of FOG from FSEs. By controlling the FOG discharge into the wastewater collection system, FOG buildup in the system can be lessened, thereby increasing the system operating efficiency and reducing the number of sewer line blockages and overflows. In addition, an effective FOG Control Program can minimize revenue losses associated with maintenance activities to remove FOG from the collection system, reactionary enforcement actions and the impacts of restricting public activities, such as roadway closures to respond to a FOG related SSO or closures of public access facilities.

1.3 Elements of the FOG Control Program

The FOG Control Program is intended to provide the City with a comprehensive document that includes components necessary to reduce the quantity of FOG discharged into the City's wastewater collection system to achieve the goal of minimizing SSOs due to excessive FOG. Implementation of a long-term FOG Control Program includes various elements of controls for all new and existing FSEs. Elements of the FOG Control Program include the following:

- Kitchen Best Management Practices
- Grease Trap Installation, Operation and Maintenance Requirements
- Grease Interceptor Installation, Operation and Maintenance Requirements
- Notification Requirements
- Record Keeping and Reporting Requirements
- Permits and Enforcement
- Drawing Submittals
- Public Education

Implementation of control mechanisms require preparation of and/or revisions to FOG Ordinances and FOG related permits, which serve to define general prohibitions and restrictions on discharges, facility requirements, administrative requirements, procedures for recovering costs associated with FOG discharges and blockages, and enforcement tools for implementing the program.

1.4 Organization of this Document

This document provides the guidelines necessary for the City to implement a comprehensive FOG Control Program. It illustrates the participation required on behalf of City staff and the FSEs to allow for effectively managing and controlling the discharge of FOG into the City's wastewater collection system.

In addition to providing a summary of the elements of a FOG Control Program, Chapter 1 also contains information regarding the regulatory requirements and common acronyms and definitions used within the document.

Chapter 2 contains information of several basic elements of a FOG Control Program for which FSEs will be required and responsible to establish, implement and maintain.

Chapter 3 includes various recommended BMPs designed to effectively reduce the quantity of FOG discharged from FSEs into the City's wastewater collection system. Also included is information to effectively implement the recommended BMPs.

Chapter 4 includes information regarding the requirement for pretreatment of wastewater flows generated at FSEs prior to discharging into the City's wastewater collection system. Pretreatment includes installation of grease traps, grease interceptors or a City approved site specific pretreatment program in existing and new FSEs. It also includes maintenance and inspection requirements.

Chapter 5 addresses Food Service Establishment Waste Discharge Permit requirements by new and existing FSEs as well as the conditions for which waivers, variances, and mitigation fees will be granted.

Chapter 6 includes information regarding the inspection and various enforcement procedures that may be applied for compliance with the FOG Control Program.

Chapter 7 addresses the requirements for the submittal of development plans for new and remodeled facilities.

1.5 Regulatory Requirements

The EPA, in its general pretreatment regulations (40 CFR Part 403) and the City, in its municipal code (Sec 62-471), prohibit any user, including FSEs, from discharging solid or viscous pollutants, such as FOG wastes, in amounts which will cause obstructions (blockages) to the flow in the wastewater system and interfere with the operation of the wastewater system.

The following regulatory requirements establish the impetus for the City to develop a FOG Control Program, implement the elements, and thoroughly follow procedures to ultimately minimize the potential of SSOs due to the discharge of excessive FOG into the City's wastewater collection system.

California Water Code Section 13271, California Code of Regulations: Section 13271 of the California Water Code, Title 23 of the California Code of Regulations, prohibits the discharge of sewage and hazardous material into the waters of the State and requires the proper notification of authorized agencies in the event of an SSO. Entities which do not properly follow the requirements of this section may be found guilty of a misdemeanor and punished by fine, imprisonment, or both.

Introduction

California Waste Discharge Requirements: On May 2, 2006, the State Water Resources Control Board adopted the Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Order No. 2006-0003. The WDRs are applicable to all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate wastewater collection systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to publicly owned treatment facilities in the state of California. Specifically, the WDRs require compliance with the provisions contained in Division 7 of the California Water Code as well as the additional provisions included with the WDRs which require the City to evaluate its service area to identify and assess FOG related problems. If it is determined that a FOG source control program is necessary, the City must prepare and implement a FOG Control Program. This FOG Control Program fulfills the requirement and documents the City's efforts to comply with the WDRs.

Clean Water Act, Section 1251 of Chapter 33 of the United States Code: In 1972, the federal Congress enacted the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA). The CWA prohibits the discharge of pollutants, including sewage, into public waters of the United States. The federal government has the authority to enforce compliance with the CWA via specific permits, such as National Pollutant Discharge Elimination System (NPDES) permits, as well as court action such as administrative orders and consent decrees. The City of Pomona is not currently subject to an NPDES permit or any legal action initiated by the federal government.

1.6 Acronyms and Definitions

The following is a summary of acronyms and definitions typically used in a FOG Control Program. Also included are acronyms specific to the City of Pomona and its wastewater collection system.

BMP

This is the acronym for Best Management Practices that includes schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the introduction of FOG to the wastewater collection facilities.

City Inspector

This is a City staff member, contractor, or other individual retained by the City who performs inspections of FSEs and related facilities to determine compliance with City codes, ordinances, and permit conditions.

CSA

This is the acronym for Compliance Schedule Agreement, which is an agreement executed between the City and an FSE found to be in noncompliance. The agreement specifies requirements for the FSE to follow to rectify the noncompliance issues.

COD

This is the acronym for Chemical Oxygen Demand and shall mean a measure of the oxygen required to oxidize all compounds, both organic and inorganic in wastewater.

DEH

This is the acronym for the Los Angeles County Department of Environmental Health. This County Department is responsible for permitting and inspecting FSEs.

FOG

This is the acronym for Fats, Oils, and Grease including any substance such as a vegetable or animal product that is used in, or is a by product of, the cooking or food preparation process, and that turns or may turn viscous or solidifies with a change in temperature or other conditions.

FSE

This is the acronym for Food Service Establishment. A Food Service Establishment is a place where food is prepared and served for consumption by the public. This includes commercial and non-commercial establishments. Bars that do not serve food and markets that sell exclusively pre-packaged food and/or unprocessed fruit or vegetables are typically not included.

Grease

This is a liquid or solid material composed primarily of fats and oils from animal or vegetable sources.

Grease Interceptor

This is a device, typically located underground and outside of a food service establishment, designed to collect and contain food wastes and FOG material from the waste stream while allowing the remaining wastewater to be discharged to the wastewater collection system.

Grease Hauler

This is a person who collects the contents of a grease interceptor or trap, and transports it to an approved recycling or disposal facility.

Grease Trap

This is a device, typically located under sinks inside food service establishments, designed to collect and contain food wastes and grease from the waste stream while allowing the remaining wastewater to be discharged to the wastewater collection system.

High Frequency Maintenance Sites

These are areas in the sewer lines that have experienced SSOs or that must be cleaned or maintained frequently to avoid blockages of the sewer system.

LFPE

This is an acronym for a Limited Food Preparation Establishment. LFPEs primarily provide beverage services and limited reheating of ready-to-eat food products.

NOV

This is the acronym for Notice of Violation, which is a notice to the FSE owner or operator, provided by the City or its inspector, which identifies a violation of the Food Service Establishment Waste Discharge Permit, a request to schedule an inspection, or a request to provide information.

Introduction

Sewage

This is any liquid waste or water borne solid waste resulting from residential, commercial, industrial, or institutional activities or uses.

SSO

This is the acronym for Sanitary Sewer Overflow. It is the term for any overflow, spill, release, discharge, or diversion of sewage from a wastewater collection system.

Surface Waters

These are all permanent and intermittent drainage ways, lakes, and reservoirs, either public or private, which are not man-made for the treatment of municipal, agricultural, or industrial waste, and which are wholly or partially within the boundaries of the City of Pomona. SSOs to storm drains tributary to surface waters shall be reported as discharges to surface waters.

Tri-TAC

This is the acronym for the Technical Advisory Committee representing three California associations including League of California Cities, California Association of Sanitation Agencies, and California Water Environment Association.

TSS

This is the acronym for Total Suspended Solids, which are solid materials, including organic and inorganic, that are suspended in liquid.

Waste Hauler or Liquid Waste Hauler

This is any person carrying on or engaging in vehicular transport of waste as part of, or incidental to, any business for that purpose.

Wastewater

This is any volume of untreated or partially treated sewage discharged from the wastewater collection system upstream of a wastewater treatment plant.

Wastewater Collection System

This is any system of pipes, pump stations, sewer lines, etc., used to collect and convey sewage to a treatment plant. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, high-lines, etc.) are considered to be part of the wastewater collection system, and discharges of sewage to these facilities are not SSOs.

Waters of the United States

These are all waters of the United States as defined in the Code of Federal Regulations, Volume 40, Section 122.2 (40 CFR 122.2) such as navigable waters, rivers streams, lakes, natural ponds, wetlands, etc., including tributaries to traditional navigable waters.

Chapter 2

Food Service Establishment Responsibilities

According to the California Fats, Oils, and Grease Work Group, which is in an affiliation with Tri-TAC, it has been estimated that more SSOs are caused by excessive FOG than by any other factor. Therefore, active participation by the FSEs is imperative for the success of a FOG Control Program. This chapter includes a description of several basic elements that are part of a FOG Control Program for which each FSE is responsible.

FSEs shall be responsible for ensuring that, at a minimum, the following basic elements of a FOG Control Program are established and maintained.

- Kitchen Best Management Practices
- Grease Traps
- Grease Interceptors
- Notification
- Record Keeping and Reporting
- Compliance Schedule Agreement
- Food Service Establishment Waste Discharge Permit

The following sections describe these basic FSE responsibilities in more detail.

2.1 Kitchen Best Management Practices (BMPs)

BMPs are practices, procedures, and maintenance activities performed by FSE staff to reduce the FOG in the wastewater discharged to the City's wastewater collection system. Reducing the quantity of FOG discharged to the wastewater collection system reduces the potential for SSOs due to excessive FOG. Each FSE shall implement the BMPs as they pertain to handling and disposing wastes containing FOG. Kitchen BMPs are described in greater detail in Chapter 3.

2.2 Grease Traps

Grease traps are small grease control devices with manual grease removal, typically installed inside and above ground, generally cleaned and maintained by the FSE staff. A grease trap operates by gravity separation and uses a flow control device and baffles to allow the separation of floating FOG and settled solids. For the grease trap to perform correctly, the floating FOG and settled solids must be removed regularly, requiring frequent cleaning. The City of Pomona Municipal Code contains requirements for the installation and maintenance of a grease traps. The criteria for requiring the installation of a grease interceptor at new and existing FSEs is included in Chapter 4.

Food Service Establishment Responsibilities

2.3 Grease Interceptors

A grease interceptor is designed to use gravity to separate FOG from wastewater as the wastewater move through the chamber. To perform according to design specifications, the chamber required periodic cleaning and maintenance, including removal of accumulated FOG and solids, which must be disposed in a proper manner at regular intervals. The Pomona City Code contains requirements for the installation and maintenance of a grease interceptor by FSEs that may be a source of food fats and greases. The criteria for requiring the installation of a grease interceptor at new and existing FSEs is included in Chapter 4.

2.4 Notification

Occasionally, FOG-related SSOs occur and FSEs change ownership, expand, modify their fare, or close. These are key events that affect the City's monitoring and enforcement procedures for controlling FOG. As a result, each FSE shall be responsible for implementing the following notification procedures when necessary.

1) Notification of Spill and/or SSO

- a) In the event an FSE is unable to comply with the City Code and/or the FOG Control Program, due to a breakdown of equipment, accidents, or human error or the FSE has reasonable belief that its discharge will violate the conditions of the Food Service Establishment Waste Discharge Permit and/or the FOG Control Program, the FSE or its representative shall immediately notify:

During Business Hours:

City Customer Service
(909) 620-2241

During Non - Business Hours:

Police Dispatch
(909) 920-3744

- b) If the material discharged has the potential to cause or results in sewer blockage or an SSO, the FSE shall immediately notify:

During Business Hours:

City Customer Service
(909) 620-2241

During Non - Business Hours:

Police Dispatch
(909) 920-3744

Food Service Establishment Responsibilities

- c) Confirmation of this notification shall be made in writing to the City's Wastewater Collection System Supervisor no later than five (5) workdays from the date of the incident at the following address:

City of Pomona
Utility Services Department
Wastewater Collection System Supervisor
148 North Huntington Street
Pomona, CA 91768

The written notification shall state the date of the incident, the reasons for the discharge or spill, what steps were taken to immediately correct the problem and what steps are being taken to prevent a recurrence.

- d) Such notification shall not relieve the FSE of any expense, loss, damage or other liability that may be incurred as a result of damage or otherwise arising out of a violation of the City codes or other applicable law.

2) Notification Regarding Change in Operations

The FSE shall notify the City's Wastewater Collection System Supervisor in writing at least 60 days prior to any facility expansion and/or remodeling or process modifications that may result in new or substantially increased FOG discharges or a change in the nature of the discharge. The FSE shall submit any information requested by the Wastewater Collection System Supervisor for evaluation of the effect of such expansion and/or remodeling or process modifications on the FSE's FOG discharge to the wastewater collection system. Additionally, the FSE shall notify the City's Wastewater Collection System Supervisor as soon as practicable, in the event of a change in ownership, sale, or cessation of operation. All notifications shall be sent to:

City of Pomona
Utility Services Department
Wastewater Collection System Supervisor
148 North Huntington Street
Pomona, CA 91768

The written notification shall state:

- FSE name;
- Name and title of the FSE's contact person or person most knowledgeable concerning the facility expansion and/or remodeling or process modifications;
- Address and telephone number of the FSE;
- Date of the proposed facility expansion and/or remodeling or process modifications; and
- Reasons for the proposed facility expansion and/or remodeling or process modifications

Food Service Establishment Responsibilities

2.5 Record Keeping and Reporting Requirements

Each FSE shall be responsible for maintaining accurate and up-to-date records documenting cleaning and inspection of grease control devices. It is required that inspection and cleaning records be maintained on the premises for a minimum of two (2) years and made available to the City Inspector or designee for review upon inspection of the facility. It is considered a violation of the City code if the FSE fails to maintain and keep accurate and up-to-date records of all cleaning and maintenance of grease removal devices, removal of FOG wastes, and inspections performed by the City Inspector or designee.

Inspection records should, at a minimum, document the:

- Date of inspection
- Name of company and person that performed the inspection
- Estimated volume of FOG present at the time of inspection
- Signature of the manager or designee of the FSE.

Cleaning records should, at a minimum, document the:

- Date of maintenance
- Name of company and person that performed maintenance
- Estimated volume of FOG removed
- FOG disposal location
- Signature of the manager or authorized designee of the FSE for verification.

A manifest from the permitted waste hauler is an acceptable record, if it contains all of the above information. An example of a Grease Trap/Interceptor Maintenance Log is contained in Attachment A.

If there are multiple establishments discharging to an obstructed pipeline it will be assumed that those establishments not implementing BMPs contributed to the SSO.

2.6 Compliance Schedule Agreement

FSEs may be required to enter into a compliance schedule agreement (CSA) with the City. Criteria to require FSEs to enter into a CSA may include, but are not limited to: the conditions in the wastewater collection line that provides service to the FSE; the degree of conformance to BMPs by the FSE; and the compliance history of the FSE at the location of issue or other locations (has the FSE caused or contributed to wastewater system blockages at other establishments). Information included in a CSA may include, but not be limited to: specific BMPs used by the establishment (e.g. procedures to prevent discharges of waste FOG, waste FOG handling, storage, and disposal procedures); a description of the FSE operation; a description of the location and size of any grease interceptors and grease traps present; a

description of how the grease interceptor or grease trap will be maintained (cleaned), including frequency of cleaning; and a description of how the FSE will comply with reporting requirements. Additional information regarding Compliance Schedule Agreements is provided in Chapter 6.

2.7 Food Service Establishment Waste Discharge Permit

All FSEs requiring wastewater collection service are required to obtain an annual Food Service Establishment Waste Discharge Permit from the City when applying for or renewing its annual business license. The permit is legally binding and sets forth the terms, conditions, and criteria of the FOG Control Program. It is prepared and maintained under the authority of the City, and its provisions may be periodically modified. The Pomona City Code contains requirements for a Food Service Establishment Waste Discharge Permit for FSEs requiring connection to the City's wastewater collection system. Compliance with the permit conditions is required before issuing or renewing the permit. The City may elect to include specific conditions of approval prior to the issuance of a certificate of occupancy for any new construction or occupancy unless an FSE has complied with the ordinance. Additional information regarding permitting is included in Chapter 5.

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Chapter 3

Best Management Practices

A fundamental component of the FOG Control Program is implementation of BMPs. This chapter contains several recommended operating procedures and guidelines designed to effectively reduce the amount of FOG discharged to the City's wastewater collection system and protect the public health and environment from the hazards presented by FOG-related SSOs.

3.1 Purpose of BMPs

BMPs are designed to assist facilities to comply with environmental regulations, prevent pollution, and serve to assist an FSE with development of procedures and/or practices, specific to the facility, that reduce the amount of FOG in their wastewater discharge.

Description and Applicability

BMPs are practices that focus on good housekeeping measures and operations management techniques and include a series of activities that effectively manage and control disposal of waste FOG generated from the operation of an FSE. FSEs shall use BMPs to control FOG in the discharge and to prevent obstructions to the flow in sewer mains.

Food Service Establishments (FSEs)

Benefit to FSEs includes the reduction of FOG and solids accumulation in grease traps and grease interceptors, thereby reducing the maintenance needs and costs of these control devices, and thus reducing the potential for the FSE to cause a blockage resulting in an SSO. BMPs assist the FSEs to reduce costs associated with pumping frequencies, plumbing maintenance costs and compliance with environmental and regulatory standards. Due to the variety of FSEs that generate FOG, the BMPs implemented at each site are tailored to best accommodate the requirements of each FSE.

3.2 Best Management Practices

There are various simple and effective practices that an FSE can implement to prevent and reduce the quantity of FOG discharged into the wastewater collection system. At a minimum, all FSEs are required to implement enforceable BMPs. Acceptable BMPs are established as a City policy and are included in Attachment B. The following BMPs are provided to assist FSEs with the development of site specific procedures and/or practices to reduce the amount of FOG in their wastewater discharge.

- **Trash Disposal:** Dispose of food waste and fatty scraps into the trash or garbage bin. Do not discard into sink. Use plastic trash bags to prevent leaks and odors. Double-bag waste that has the potential to leak in trash bins. Ensure trash bins are covered when not in use and notify trash hauler if bin leaks.

Best Management Practices

- **Pre-Wash:** Before washing pots, pans, dishware, floor mats, and/or work areas, dry wipe or scrape food scraps and dispose of them in the trash.
- **Use of Drain Screens:** Install removable screens on all drainage pipes in food preparation areas. Keep screens in sinks and floor drains clean and in good repair. Dispose of collected solids in trash: not down the drain.
- **Yellow Grease Disposal:** Dispose of grease and oil from cooking equipment (pots, pans, and fryers) by pouring waste oil and yellow grease into covered containers (drums or barrels) for storage and recycling. Provide secondary containment to capture any liquid grease or oil that may spill from the primary container. Use a licensed waste hauler or recycling facility to dispose of liquid grease and oil before the container is full. Keep a written log with manifests and invoices of waste oil pick ups to show the City's authorized inspector who inspects the site.
- **Mat Cleaning:** Clean and wash floor mats in a utility mop sink. Empty mop water into a sink or drain connected to a grease interceptor, if present. DO NOT empty mop or wash water into storm drains.
- **Hood Cleaning:** Clean hoods and filters as frequently as necessary to maintain good operating condition and only clean them in sinks that flow to grease control devices. Use a licensed waste hauler to dispose of wastewater collected from cleaning hoods and filters.
- **Spill Prevention:** Place absorbent materials, such as paper towels or pads, under fryer baskets and in other areas where grease may drip or spill during cooking and frying or during the transfer of grease to storage or disposal containers.
- **Spill Kits:** Maintain a spill kit, accessible for use by employees, which includes absorbent pads, kitty litter or an equivalent absorbing material, and paper towels. Require the use of the spill kit to clean up spilled fats, oils, and grease.
- **Super Hot Water:** DO NOT pump water hotter than 140°F through a grease control device.
- **Employee Training:** Post signs to show kitchen best management practices in food preparation, dishwashing, and maintenance areas.

Additionally, to ensure that the building drains and sanitary service lines are properly maintained to avoid FOG and debris accumulation that may result in or contribute to SSOs, it is recommended that FSEs have their building drains and service lines professionally cleaned at least once per year.

3.3 Implementation of BMPs

The success of a BMP program requires proper implementation and continual re-enforcement of the adopted BMPs.

Employee Training and Awareness

The effectiveness of BMPs is largely dependent upon the training of employees on the proper BMP implementation methods of BMPs for FOG waste handling and disposal.

To promote effective and proper employee implementation, each FSE should at a minimum:

- Train employees on the BMPs adopted for their establishment. Maintain and routinely update a training log and keep on site; (See Attachment C for an example.)
- Provide constant reinforcement on proper disposal of FOG with employees; and
- Post “No Grease” and BMP signs near sinks and dishwashers. Signs should be written in the language(s) that is commonly spoken by employees.

Posting signs at key locations serves to remind employees of the adopted BMPs and reinforce the importance of proper and continual implementation. Routine training ensures that all new employees are properly trained and that existing employees receive updated information. Training of employees should include information on the potential environmental and facility impacts of grease in the wastewater collection system. An example of an Employee BMP Training Log is included in Attachment C to document routine training at the FSE.

Inspections

Routinely scheduled inspections by the City Inspector or designee to inspect FSEs for proper implementation of BMPs serves to re-enforce the importance of limiting FOG discharge into the City’s wastewater collection system and reduce the potential of SSOs due to excessive FOG. Maintaining an accurate and up-to-date training log on site ensures that employees are trained on the proper FOG handling and disposing methods and that the adopted BMPs are implemented. Since the BMPs may vary by establishment, inspection of only the BMPs applicable to the facility will be performed. A BMP Inspection Compliance Check List is included in Attachment D.

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Chapter 4

FOG Control Devices

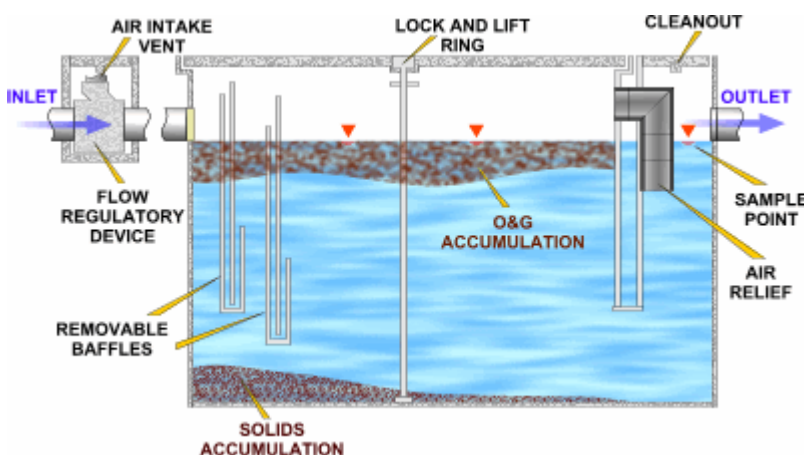
Pretreatment of wastewater flows generated at FSEs reduces excessive amounts of FOG from the wastewater prior to being discharged into the City's wastewater collection system. A pretreatment program requires FOG producing FSEs to install the appropriate type and size of pretreatment device. Though it would be ideal to require all FSEs to install grease interceptors or comparable FOG control devices, considerations should be made for existing FSEs. Alternative oil and grease removal technologies shall be subject to written approval by the City's Utility Services Director or the Director's designee. The device approved for the collection, filtration, and storage of FOG must be regularly and appropriately maintained.

This chapter describes acceptable pretreatment devices, including grease traps and grease interceptors. Grease traps, grease interceptors, or other approved grease control devices deemed necessary by the City Utility Services Director shall be installed solely at the FSE's expense. Proper operation, maintenance, and repair of grease interceptors, grease traps, or other approved pretreatment devices shall be performed solely at the FSE's expense.

4.1 Grease Traps

Grease traps are small devices installed inside a facility and connected directly to the outgoing drains of sinks. Grease traps are designed to separate and retain grease from the wastewater generated by the FSE. Figure 4-1 illustrates the common components of a grease trap.

Figure 4-1
Typical Grease Trap



FOG Control Devices

Typically, grease traps are installed in kitchens under the floor or near the sink, and are much smaller than grease interceptors. Since grease traps hold small quantities of captured FOG, such traps must be cleaned frequently.

For grease traps to be effective, the units must be properly sized, constructed, and installed in a location to provide easy access for cleaning and an adequate retention time for settling and accumulation of the FOG.

Installation Requirements

An FSE may use or may be required to install grease traps, in lieu of installation of a grease interceptor when:

- Installation of an interceptor can not physically be accomplished;
- There is not adequate slope for gravity flow between a proposed grease interceptor and the private collection lines or the public sewer; and
- No alternative pretreatment device can be installed.

Sizing and installation of grease traps shall be per the manufacturer's recommendations and conform to the latest edition of the California Plumbing Code. A Grease Trap and Interceptor Installation Checklist is included in Attachment E.

Maintenance Requirements

Businesses shall be responsible for performing adequate testing and monitoring to ensure that the grease traps are functioning properly. Minimum grease trap operation and maintenance requirements include the following:

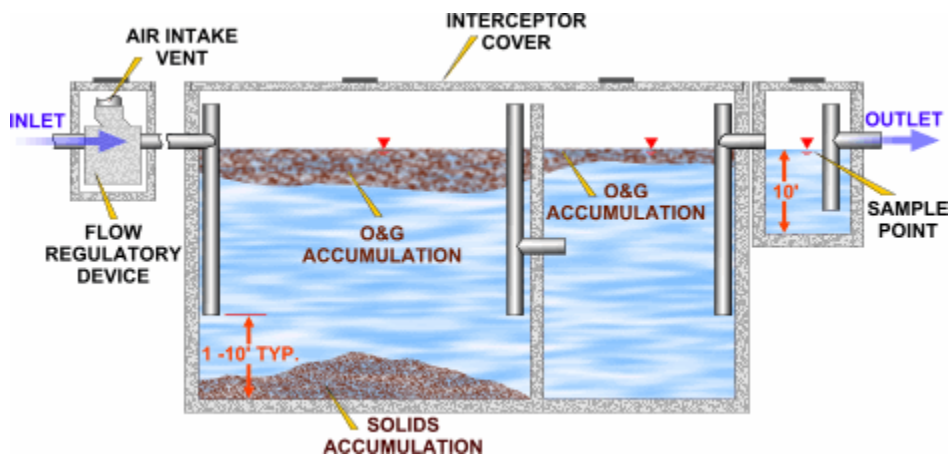
- Grease traps shall generally be operated and maintained in accordance with the manufacturer's specifications.
- Grease traps shall be maintained in efficient operation conditions by removing accumulated grease on an as needed basis, or the frequency specified by the manufacturer, but not less than on a weekly basis.
- Grease traps shall be inspected periodically, but in no event less than once a month, to check for leaking seams and pipes, and for effective operation of the baffles and flow-regulating device. Grease traps and their baffles shall be maintained free of all caked-on FOG and waste. Removable baffles shall be removed and cleaned during the maintenance process.
- Dishwashers and food waste disposal units shall not be connected to or discharged into any grease trap.
- All FSEs that are required to install and maintain a grease trap shall maintain a maintenance record that documents the cleaning activities for the grease traps. Records should include the name of employee who performed the cleaning, date/time of cleaning, amount of grease removed, and the disposal location for the grease and shall be kept on site for a minimum of two (2) years.

All maintenance records shall be made available to the City’s Inspector at the time of inspection and/or the City Inspector’s request.

4.2 Grease Interceptors

The installation and maintenance of a grease interceptor is an important measure for ensuring that the FSE does not contribute to potential problems of the wastewater collection system. Grease interceptors are located outside, underground and include a multi-compartment tank that serves to reduce the quantity of FOG in the wastewater before discharging into the wastewater collection system. Grease interceptors typically include two compartments that function to physically separate, remove, and retain FOG and solids from wastewater discharged from the FSE. Due to the differences in specific gravity, the FOG rises to the top and is retained by a baffle installed in the effluent chamber. The separated FOG and solids are retained while the liquid flows to the wastewater collection system. The detention capacity of the unit decreases as grease and solids accumulate; therefore, regular pumping, cleaning, and maintenance of grease interceptors are essential to ensure proper operation. Figure 4-2 illustrates the common components of a grease interceptor.

**Figure 4-2
Typical Grease Interceptor**



For the units to be effective, they must be properly sized, constructed, and installed in a location that provides easy access for inspection and cleaning. Grease interceptors are pretreatment facilities that are subject to plan submission and operations requirements of the City’s Municipal Code.

Installation Requirements

Individual grease interceptors are required for FSEs whether or not such facilities are located in a separate building or structure or occupy space in a building or structure that is occupied by other businesses. If the volume or nature of food service provided by the establishment

FOG Control Devices

involves significant food preparation, operation of a garbage grinder, and automatic dishwasher, a discharge of FOG waste is highly likely and a grease interceptor is required. Exceptions to the requirement for a grease interceptor are pursuant to the permit conditions set forth in Chapter 5.

Each new grease interceptor or grease trap that is installed to replace or upgrade existing grease traps or grease interceptors will be required to meet all criteria stated in the current California Plumbing Code.

For properties with multiple FSEs on a single parcel, each FSE is required to install and maintain a separate grease interceptor. A single grease interceptor can be used to service multiple FSEs only upon approval by the City Utility Services Director. A Grease Trap and Interceptor Installation Checklist is included in Attachment E.

Maintenance Requirements

Each FSE shall be responsible for adequate maintenance, testing, and monitoring of the grease interceptors is performed to ensure that the grease interceptors are functioning properly. At a minimum, maintenance procedures for grease interceptors should include:

- Observe proper grease interceptor cleaning and maintenance procedures to ensure that the device is operating properly. Regular and proper service maximizes interceptor efficiency, prevents spills and minimizes odor.
- Train all employees to regularly check the depth of solids and thickness of retained FOG. Generally, an interceptor loses its effectiveness and does not separate FOG properly when excessive amounts of FOG and/or solids accumulate. The interceptor requires servicing when the combined thickness of solids at the bottom and FOG material on the surface exceeds 25% of total depth in the interceptor. The frequency of servicing is determined by the accumulation rate of FOG and solids.
- Inspect grease interceptor after cleaning to ensure that service was performed correctly.
- All FSEs that are required to install and maintain a grease interceptor shall maintain a maintenance record that documents the cleaning activities for the grease interceptor. Records should include the name of employee who performed the cleaning, date/time of cleaning, amount of grease removed, and the disposal location for the grease and shall be kept for a minimum of two (2) years.

Cleaning

Cleaning must be performed by a licensed waste hauler with an approved license from an authorizing agency. Both vaults of a grease interceptor shall be left completely empty upon completion of the pumping operation. The grease mat, liquids, sludge, and scrapings from the interior walls must be completely removed. Under no circumstances, may the waste hauler reintroduce the removed water or materials into the City's wastewater collection system. All water and materials removed from the grease interceptor must be disposed of at qualified disposal stations.

Since the FSE is the generator of the grease waste, it is liable for the condition of its pretreatment devices, and shall be responsible for payment of all cleaning service fees. It is recommended that the FSE owner or designee be present during the cleaning and maintenance activities to ensure that the grease interceptor is being completely and properly cleaned and maintained. A maintenance log serves as a record of the cleaning frequency and can assist the FSE manager in reducing costs by efficiently scheduling service.

A grease interceptor shall be considered out of compliance if any of the following conditions exist:

- The grease layer on top exceeds 6-inches in depth as measured by an approved dipping method; or
- The solids layer on the bottom exceeds 8-inches in depth as measured by an approved dipping method; or
- The total volume of captured grease and solid material displaces more than 20% of the capacity of the interceptor as calculated using an approved dipping method; or
- The removal efficiency, as determined by sampling and analysis of chemical oxygen demand (COD) or total suspended solids (TSS), is less than eighty percent (80%).

When a City Inspector finds a grease interceptor out of compliance, the inspector will give the FSE owner/operator of the FSE written notice to clean the interceptor within fourteen (14) calendar days, unless otherwise noted, or be subject to other enforcement actions, including fines.

Inspections

The City Utility Services Director or the Director's designee may inspect and sample wastewater discharges of any FSE to determine whether conditions of the Food Service Establishment Waste Discharge Permit are being met. Reasonable access to the FSE shall be made available when inspection and/or sampling of the wastewater is required. The FSE shall make the following available for the purpose of inspections:

- Access to grease control devices
- Manifests, receipts, and invoices of grease device maintenance
- Documents identifying the waste hauler
- Document identifying the disposal site locations

4.3 Alternative FOG Pretreatment Program

Any existing FSE may submit an application to the City's Utility Services Director or the Director's designee for approval of an Alternative FOG Pretreatment Program and/or device in lieu of installation of an interceptor. If the Alternative FOG Pretreatment Program and/or device is approved by the City Utility Services Director, the FSE will be required to implement this program and/or device and will be granted a variance from the requirement to install, operate

FOG Control Devices

and maintain a grease interceptor, for as long as the FSE demonstrates to the satisfaction of the City Utility Services Director or the Director's designee that the FSE meets the conditions of the Food Service Establishment Waste Discharge Permit. The terms and conditions for approval of an Alternative FOG Pretreatment Program and/or device and a variance from the requirement to install a grease interceptor shall be specified in the Food Service Establishment Waste Discharge Permit. Additional information pertaining to permits and variances is provided in Chapter 5.

Chapter 5

Food Service Establishment

Waste Discharge Permit Requirements

The City objective is to implement and enforce actions against users of the wastewater collection system that violate the prohibition of discharging FOG into the wastewater collection system. The City will initiate enforcement actions for noncompliance, but it is possible for other regulatory agencies, including the EPA or the State, to initiate their own enforcement actions if, in their opinion, the City has not taken adequate enforcement. This section describes the general criteria of a Food Service Establishment Waste Discharge Permit.

5.1 Permit Requirements

All FSEs are required to obtain and renew a Food Service Establishment Waste Discharge Permit annually to discharge wastewater into the City's sewer system. Requirements of the Permit will vary among FSEs, but, in general, each permit will require the FSE to meet the requirements for installation of FOG removal devices, comply with applicable City policies, and pay all required fees as set by the permit fee schedule. Fees for obtaining the required permit(s) will be assessed and reflect the specific permit requirements. Permit requirements include installation of specific FOG removal equipment, required maintenance frequency, and implementation of FOG handling BMPs. As well, the permits contain specific conditions applicable to the particular operation or location. An example of a Food Service Establishment Waste Discharge Permit is included in Attachment F.

5.2 New FSEs

Individual grease traps and grease interceptors shall be required for all new FSEs. During the plan review/building permit process, there is a full opportunity to plan for the new installation with the cost component being part of the facility's initial capital investment. Each new grease interceptor or grease trap that is installed to replace or upgrade existing grease traps or grease interceptors will be required to meet all criteria stated in the City's municipal codes and the most current version of the California Plumbing Code (CPC).

5.3 Existing FSEs

FSEs planning or undergoing major remodeling, as described in Section 5.6, have opportunities similar to new FSEs to design and install grease traps and appropriate grease interceptors, and therefore, will be required to comply with the same conditions as new FSEs. Existing FSEs that discharge to sewer lines known to be a source of SSOs or sewer lines where frequent cleaning is required may be required to install a complete grease interceptor system. Site specific requirements vary according to the location of the sewer lines identified as "high frequency maintenance sites". Since there is the potential for new high frequency maintenance sites to develop, a site specific preventative approach in dealing with the FSE must be developed based

Food Service Establishment Waste Discharge Permit Requirements

on the quantity of FOG generated from any FSE, as indicated by the nature and magnitude of the operation with the apparent immediate benefit of preventing blockages and sewer spills.

A Variance or Waiver may be granted if the owner of the FSE or designee meets the conditions noted in Section 5.6 and with the approval by the City's Utility Services Director or the Director's designee.

5.4 FSE Site Modifications

In addition to new construction and the remodel and/or expansion of an existing structure, changes in the operation of the FSE may also prompt the requirement for the installation of pretreatment devices. The following is a list of changes that could initiate an increase in FOG discharges and require owners of FSEs to install pretreatment devices:

- Menu expansion
- Seating capacity expansion
- Menu changes
- Changes in facility management and the use of BMPs

The owner or operator of the FSE shall notify the City's Utility Services Director or Director's designee when any of those events are planned in order to determine the overall impacts which may trigger modifications to the existing permit.

5.5 Additional Considerations

It is important for an FSE to weigh costs and benefits and consider operational characteristics when evaluating grease interceptor design and capacity needs. While the initial capital investment may be less with a smaller-capacity grease interceptor, an establishment risks paying more in pumping and maintenance fees and possible fines should the interceptor prove to be inefficient in meeting FOG requirements.

5.6 Conditions for a Waiver or Variance and Mitigation Fee

A waiver or variance may be granted when either of the following conditions is met:

- Conditional waivers to install grease interceptors may be granted to FSEs that are able to demonstrate that their FOG discharge is insignificant and has no impact to the wastewater collection system.
- A conditional variance to allow alternative pretreatment technology in lieu of a grease interceptor, but equivalent in performance and effectiveness, may also be granted to FSEs demonstrating that the installation of a grease interceptor is determined by the City Utility Services Director or the Director's designee to be not feasible.

Food Service Establishment Waste Discharge Permit Requirements

A waiver from installing a grease interceptor will not be granted if either:

- An FSE applies for a discretionary building permit; or
- A major remodeling of an FSE is done and involves any one or more combination of the following:
 - Plumbing modifications in the food processing area that require removal of any portion of the floor slab;
 - A 30% or greater increase in net public seating area;
 - A 30% or greater increase in kitchen size area; or
 - Any change in size or type of food preparation equipment.

Where conditions for a variance cannot be met, a waiver from grease interceptor requirements may be granted with the charge of a Grease Disposal Mitigation Fee. The fee will be used to recover the additional cost of maintenance and cleaning associated with the elevated FOG discharge associated with the FSE's inability to install the required grease interceptor or equivalent FOG control devices. The Grease Disposal Mitigation Fee should be established such that FSEs do not get an economic advantage for opting to pay the mitigation fee rather than installing the grease interceptor. Therefore, at a minimum, the fee should be equivalent to the cost of installing a new grease interceptor and associated costs for cleaning and maintenance. This section will not be interpreted to allow a new FSE, or existing FSEs undergoing remodeling or change in operations, to operate without an approved grease interceptor unless the City Utility Services Director has determined that it is not possible to install a grease interceptor.

Notwithstanding any waiver of a grease interceptor, FSEs determined by the City Utility Services Director or the Director's designee to have contributed to a sewer blockage, SSOs or any sewer system interferences resulting from the discharge of wastewater, may be ordered by the City Utility Services Director or the Director's designee to immediately install and maintain a grease interceptor and any other requirements.

5.7 Exemption from FOG Discharge Permit

A limited food preparation establishment (LFPE) is not considered an FSE and is exempt from obtaining a Food Service Establishment Waste Discharge Permit. Exempted establishments shall be engaged only in reheating, hot holding or assembly of ready to eat food products and, as a result, there is not wastewater discharge containing significant amounts of FOG. A limited food preparation establishment does not include any operation that changes the form, flavor or consistency of food.

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Chapter 6

Inspection and Enforcement

It is the expectation of the City that efforts to keep FOG from entering into the wastewater system can be achieved with public education and through the common interest in preventing health hazards and damage to homes and businesses.

The City has a range of enforcement responses that can be applied for compliance with the FOG Control Program and respective ordinances. Enforcement actions are implemented when the owner of an FSE has refused, failed or violated compliance requirements and include an escalating response strategy to violations. Monetary fines are federally required enforcement responses and are usually one of the last enforcement actions the City will use when encountering noncompliance. However, fines may be used in conjunction with established ordinances or permitting processes and procedures.

6.1 Inspections

To determine whether an FSE is in compliance with the conditions of the Food Service Establishment Waste Discharge Permit, FOG Control Program, and City ordinances, the City Utility Services Director or authorized designee will inspect each FSE. The inspections will be scheduled at least two (2) working days in advanced. However, if deemed necessary, the City Utility Services Director or authorized designee may perform an unscheduled inspection of any FSE. Reasonable access to all parts of the FSE shall be made available when inspection and/or sampling of the wastewater is required. The FSE shall make available, for the purpose of inspection, the following:

- Access to grease control devices
- Manifests, receipts, and invoices of grease device maintenance
- Documents identifying the waste hauler carrier
- Documents identifying the disposal site locations
- Records of employee training of best management practices

Table 6-1 includes information regarding the frequency of inspections for permit compliance and the required frequency of inspections.

Inspection and Enforcement

**Table 6-1
Permit and Inspection Frequencies**

	No FOG Discharge	FOG Discharge & FOG Control Device	FOG Discharge & No FOG Control Device
Permit Renewal	12 Months	12 Months	12 Months
BMP Inspections	N/A	6 Months	3 Months
Grease Trap or Interceptor Inspection	N/A	6 Months	3 Months

Based on the results of the inspection, the status of the FSE's existing Waiver, Variance or Food Service Establishment Food Service Establishment Waste Discharge Permit may be renewed, extended or revoked. If violations are encountered, the City Utility Services Director or Director's designee may schedule an additional inspection of the FSE to determine whether the corrective actions noted as violations have been implemented and if additional improvements are required.

6.2 Enforcement

All users of the City's wastewater collection system and facilities are required to comply with the FOG Control Program and City Code and are subject to all penalties noted in the FOG Control Program and/or City Code if it is determined that a violation of the program and/or City Code has occurred. A user shall mean any person who contributes, causes the contribution of, or permits the contribution of wastewater into the City's wastewater collection system.

Violations may include, but are not limited to:

- Failure to install an approved grease control device;
- Making of false statement, representation, record, report, plan or other document that is filed with the City;
- Tampering with or knowingly renders inoperable any grease control device;
- Fails to clean, properly operate, maintain or remove FOG from a grease control device within the required time for such cleaning, maintenance or grease removal;
- Fails to keep up-to-date and accurate records of all training, cleaning, maintenance, and FOG removal and upon request to any City Utility Services Director, or his or her designee, any representative of a local sanitation agency that has jurisdiction over the wastewater collection system that services the FSE, or any City authorized inspector or designee;
- Refuses a City Utility Services Director, or his or her designee, a representative of a local wastewater collection agency that has jurisdiction over the wastewater collection system that services the FSE, or any authorized inspector, reasonable access to the FSE for the purpose of inspecting, monitoring, or reviewing the grease control devices, and/or inspect the grease control devices;

- Disposes of, or knowingly allows or directs FOG to be disposed of, in an unlawful manner;
- Fails to pay the Grease Disposal Mitigation Fee;
- Fails to comply with the provisions of the FOG Control Program; and
- Fails to comply with the provisions of the FOG related codes or any permit issued by the City.

Procedures the City may take to enforce the FOG Control Program and related City codes include:

- Issuing verbal or written notices of violation;
- Identifying requirements to enter into a compliance schedule agreement (CSA);
- Suspending or revoking of the Food Service Establishment Waste Discharge Permit;
- Establishing (assessing) costs and charges to reimburse the City to clean and/or repair the wastewater collection system or other affected sewer facilities;
- Suspending or terminating the sewer and water service to the FSE; and/or
- Pursuing civil penalties and/or criminal penalties.

6.3 Notice of Violation (NOV)

The Notice of Violation is the first level of enforcement and is issued to the owner(s) of an FSE by the City Utility Services Director or Director's designee. The criteria for issuing a NOV are:

- Failure to install grease removal equipment as required;
- Failure to repair grease removal equipment;
- Failure to properly maintain grease removal equipment;
- Failure to provide grease removal equipment maintenance records; and
- Failure to provide access for inspection.

NOVs may include verbal notice or may be sent within two weeks following the inspection by Registered Mail, and they require that corrective action be taken by a specified date. If the NOV is served by mail, the NOV shall be sent to the last address known to the City Utility Services Director. Failure to comply with a NOV will result in either a second NOV or required attendance at a conference with the City Utility Services Director. The City's fee for an NOV is \$200 and is subject to change as a ministerial matter.

The NOV will identify the specific requirements that were violated, the fact alleged to constitute the violations, and it may include any corrective action(s) proposed to be required. Within ten (10) days of the receipt date of this notice, a written explanation of or response to the violation

Inspection and Enforcement

and a plan for the satisfactory correction and prevention thereof must be submitted by the owner or operator of the FSE.

The corrective actions contained in a NOV should include:

- Implementing specific BMPs to control FOG wastes, including submittal of a CSA;
- Increasing the inspection and/or cleaning frequency of a grease trap or grease interceptor;
- Provide adequate maintenance and/or access to the grease trap or grease interceptor; and
- Other items deemed appropriate by the City Utility Services Director or the Director's designee.

An informal administrative conference with the City Utility Services Director may be requested and an appeal process is available subsequent to the informal conference. The criteria for requesting an informal conference with the City Utility Services Director are:

- Failure to comply with the requirements of an NOV;
- Receipt of a second NOV for the same compliance issue; or
- Receipt of more than two NOVs within a twelve month period.

The informal conference provides a setting where the City can present and clarify the compliance issues. Additionally, the City and the FSE owner, or designee, can clarify the issue(s) and negotiate a satisfactory compliance schedule. The FSE owner may be charged of fee of \$500 for the conference.

6.4 Compliance Schedule Agreement (CSA)

Upon determination by the City Utility Services Director that an FSE or owner of a property is in noncompliance with its Wastewater Discharge Permit or any other provision, or needs to construct and/or acquire and install a FOG control device, the Utility Services Director may require the permittee, owner or operator to enter into a CSA.

A CSA must include:

- A description of the FSE operation;
- A description of the location and size of any grease interceptor(s) and grease trap(s) present;
- A description of the FOG BMPs used by the FSE;
- A description of the procedures to prevent discharges of waste FOG;
- A description of waste FOG handling, storage, and disposal procedures;

- A description of how the grease interceptor or grease trap will be maintained (cleaned) including frequency of cleaning;
- A description of how the FSE will comply with quarterly reporting requirements;
- A CSA expiration date; and
- A certification statement that is signed by the owner or manager of the FSE.

The City will provide the FSE with written notice of its acceptance of the FSE's site specific FOG control program. The Utility Services Director may require modifications to the FSE's FOG control program, if the plan submitted by the FSE is determined to be inadequate. Failure to implement any element of an accepted plan is a violation and subject to enforcement.

6.5 Suspension or Revocation of Permit

A Food Service Establishment Waste Discharge Permit may be suspended and/or revoked for the following reasons:

- Failure to comply with the conditions of the Food Service Establishment Waste Discharge Permit;
- Failure to install required grease pretreatment devices as required by the Food Service Establishment Waste Discharge Permit;
- Failure to comply with the reporting and/or pretreatment requirements or pretreatment device maintenance as required by the Food Service Establishment Waste Discharge Permit;
- Failure to comply with a Notice of Violation or a Compliance Schedule Agreement issued to require compliance with a Food Service Establishment Waste Discharge Permit or other provision of the City's municipal codes;
- Knowingly providing a false Food Service Establishment Waste Discharge Permit application or making false representations, or submitting false documents, reports or logs to the City Utility Services Director or the Director's designee;
- Refusal to allow inspections during normal business hours or after hours if emergency conditions exist (overflow or suspected overflow);
- Interference with a City Utility Services Director or the Director's designee during the FSE inspection or in sampling an FSE's discharge or in inspecting and sampling an overflow event; and/or
- Causing or contributing to sewer blockages or sewer overflows within the public sewer, or failing to address the conditions leading to more than one (1) overflow event from a private system within a twelve (12) month period.

Inspection and Enforcement

6.6 Cost Recovery (Clean Up Costs)

Enforcement activities often commence with investigations of blockages and overflows of the wastewater system. Such investigations may include closed circuit television inspection of sewer lateral lines and privately owned service lines. These inspections are used to determine contributing factors causing the blockage or overflow, such as defective infrastructure, accumulated roots and/or debris, and to seek visual evidence of FOG waste accumulation between the site of the stoppage or overflow and upstream FSEs.

FSEs found to have contributed to a sewer blockage, SSO, obstruction, interference, damage, or any other impairment to the City's sewer facilities, to the operation of those facilities or cause any sewer system interferences resulting from the discharge of wastewater or waste containing FOG, may be ordered to install and maintain a grease interceptor, and may be subject to a more restrictive plan to abate future problems. Furthermore, sewer lateral failures and SSOs caused by FSEs alone or collectively, are the responsibility of the private property owner or FSE(s) and shall be liable for all costs required to clean or repair the facilities together with expenses incurred by the City to resume normal operations.

If the City must act immediately to clear a sewer blockage or contain and clean up an SSO caused by blockage of a private or public sewer lateral or system serving an FSE, or acts at the request of the property owner or operator of the FSE, the City's costs for such abatement shall be entirely borne by the property owner or operator of the FSE, and may constitute a debt to the City.

6.7 Suspension or Termination of Sewer and Water Service

In the event that a violation of the City's municipal code or Food Service Establishment Waste Discharge Permit conditions causes or contributes to a sewer system overflow event or an overflow event emanating from a sewer lateral or private system and such event is creating or contributing to an immediate or impending threat to the public's health or safety of the environment, then the City's Utility Services Director or the Director's designee may discontinue the water service to the FSE or to the property, and such service discontinuance shall remain in effect until the private sewer lateral impairment is repaired or until the matter is heard and water service is ordered continued by the City's Utility Services Director or the Director's designee.

6.8 Civil Penalties

All users of the City's wastewater collection system and facilities are subject the General Penalty included in the City's Code as well as additional provisions to further enforcement actions of federal, state and local regulatory agencies. In the event the City is the subject of fines or penalties or legal actions as a result of actions of the FSE or other parties in violation of the FOG Control Program, the Food Service Establishment Waste Discharge Permit or the City's municipal code, the City shall be entitled to recover from the responsible party all costs and expenses to which it has been subjected.

6.9 Criminal Penalties

Except as otherwise provided by law or City ordinance, any person who violates any provision of the FOG Control Program, the Food Service Establishment Waste Discharge Permit, or the City's Code may be convicted of a misdemeanor, which upon conviction may be punishable by a fine of not more than \$1000 or punishment by imprisonment in the City or county jail for not more than six (6) months, or by both the fine and imprisonment.

6.10 Administrative Hearing Procedures

Any FSE, permit applicant, or permittee adversely affected by a decision made by the City Utility Services Director or the Director's designee may appeal the decision and file a written request for hearing before the City Manager or the Manager's designee if such filing is done within 10 working days of the decision and accompanied by an appeal fee.

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Chapter 7

Drawing Submittals

The City requires that project-specific plans be submitted on all projects that:

- Propose a new structure or substantially significant alterations to an existing structure;
- Require a grading permit;
- Significantly alters the site drainage; or
- Alters the traffic approach or volume to the site.

The plans are intended to address all development requirements of the City's Code and includes all adopted conditions of approval for the project for which development plans were submitted. Developments Plans may include:

- Street, Storm Drain, and Sewer Improvement Plans;
- Architectural Site Plans;
- Mechanical and Plumbing Plans;
- All on-site Drainage and Grading Improvements;
- Parking Lot Lighting, Paving, Curbing and Striping Plans; and
- Landscape and Irrigation Plans.

Upon the request by the City Utility Services Director or the Director's designee, a proposed or existing FSE may be required to submit facility site plans, mechanical and plumbing plans, and other details to show the sewer locations and connections for its facility or premises. The submittal shall be in a form and content acceptable to the City for review of an existing or proposed grease interceptor, grease trap, monitoring facilities, metering facilities, and operating procedures.

The review of the plans and procedures shall in no way relieve an owner or operator of an FSE of the responsibility of modifying the facilities or procedures in the future, as necessary to meet the requirements of the City's FOG Control Program, City Code or any requirements of other regulatory agencies. The City may require drawings to be prepared by a California Registered Civil, Mechanical, or Electrical Engineer.

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Chapter 8

Public Outreach

Educating the public on the negative impacts of putting FOG into the wastewater collection system is an effective way to engage the public in reducing FOG related SSOs. A variety of means exist to educate the public regarding the impacts of disposing FOG down drains. The following list identifies several forms of media to educate and inform the public about FOG and methods to reduce its introduction into the wastewater collection system:

- Bi-annual inserts in water and/or sewer bills;
- Direct mailers;
- Door hangers;
- FOG postcards distributed to all residents within 1,000 foot radius of each residential FOG related SSO;
- Brochures distributed at City locations and kiosks;
- Posters and flyers displayed prominently in public areas, such as on buses, libraries, recreational centers, and so on;
- Announcements placed on the City's web site;
- Advertisements placed in the City's news magazine and recreation guide, *Pomona Pastimes*;
- Public service announcements (PSAs) on the City's cable television channel; and
- Specific events to educate the public on reducing FOG such as at an earth day fair, open house events, and other appropriate venues.

All messages that are communicated to the public should be prepared in English, and, where appropriate, in Spanish and any other dominant language spoken by the target audience. Translation services may be required and anticipated during any educational campaign. Staff from the Utilities Services Department should work closely with the City's Public Information Officer to develop appropriate messages and with which media the messages should be disseminated. Education activities should occur regularly throughout the year, but the City may consider enhancing education campaigns near holidays, such as Thanksgiving, when many residents increase their cooking activities.

For example, some cities and agencies have set up liquid cooking oil collection stations to collect up to 30 gallons of used cooking oil generated by residential cooking, and in particular from turkey fryers. By advertising the location and times of the collection sites, citizens will be cognizant of the City's efforts to reduce FOG and inclined to dispose of their cooking waste properly. Ultimately the used cooking oil is recycled or disposed of by a certified waste hauler.

Examples of educational campaigns can be found in Attachment G, which contains a sample flyer advertising that the drain is not a dump for FOG, and a door hanger, presented in both

Public Outreach

English and Spanish, that can be left with residents. Additionally, the following text is an example of a message for a postcard to be mailed to residents soon after a FOG related SSO has occurred:

Dear Resident,

You are receiving this message because your neighborhood has recently experienced a sanitary sewer spill related to a build-up of fats, oils, and grease in the sewer pipes. Cooking grease coats pipelines much like fatty foods clog human arteries. The grease clings to the insides of the pipe, eventually causing blockage and potential sewer spills. By following a few simple steps, you can help prevent costly sewer spills in the future.

- Pour your cooking oil (this includes salad oil, frying oil and bacon fat) into an old milk carton, frozen juice container, or other non-recyclable package, and disposed of it in the garbage.
- Wipe dishes and pots that are coated with greasy leftovers (butter, peanut butter, etc.) with a disposable towel prior to washing or placing in the dishwasher.
- Place food scraps and fat trimmings from meat in a trashcan.

If you have questions, please contact us at 909-620-2241.

Sincerely,
Utility Maintenance Department Staff

To be most effective, it is recommended that this postcard be mailed within ten (10) calendar days of the SSO to encourage residents from continuing to dispose of FOG down the drain.

Educating the public to reduce FOG is an important task that should have a specific amount of time dedicated to its success. Investment up front in educating the public, will reduce the money spent on responding to and mitigating FOG related SSOs because they will be effectively reduced.

Attachment A
Grease Trap/Interceptor Maintenance Log

Attachment B Best Management Practices



CITY OF POMONA

KITCHEN BEST MANAGEMENT PRACTICES (BMPs)

Food service establishments shall teach their employees the following kitchen best management practices and conduct training at least twice per year. A written log of employee training must be maintained on site for a minimum of two (2) years. The City's policies require that training records be made available to the City Inspector for review at the time the facility is being inspected.

- ✓ **Trash Disposal:** Dispose of food waste and fatty scraps into the trash or garbage bin. Do not discard into sink. Use plastic trash bags to prevent leaks and odors. Double-bag waste that has the potential to leak in trash bins. Ensure trash bins are covered when not in use and notify trash hauler if bin leaks.
- ✓ **Pre-Wash:** Before washing pots, pans, dishware, floor mats, and/or work areas, dry wipe or scrape food scraps and dispose of them in the trash.
- ✓ **Use of Drain Screens:** Install removable screens on all drainage pipes in food preparation areas. Keep screens in sinks and floor drains clean and in good repair. Dispose of collected solids in trash: not down the drain.
- ✓ **Yellow Grease Disposal:** Dispose of grease and oil from cooking equipment (pots, pans, and fryers) by pouring waste oil and yellow grease into covered containers (drums or barrels) for storage and recycling. Provide secondary containment to capture any liquid grease or oil that may spill from the primary container. Use a licensed waste hauler or recycling facility to dispose of liquid grease and oil before the container is full. Keep a written log with manifests and invoices of waste oil pick ups to show the City's authorized inspector who inspects the site.
- ✓ **Mat Cleaning:** Clean and wash floor mats in a utility mop sink. Empty mop water into a sink or drain connected to a grease interceptor, if present. DO NOT empty mop or wash water into storm drains.
- ✓ **Hood Cleaning:** Clean hoods and filters as frequently as necessary to maintain good operating condition and only clean them in sinks that flow to grease control devices. Use a licensed waste hauler to dispose of wastewater collected from cleaning hoods and filters.
- ✓ **Spill Prevention:** Place absorbent materials, such as paper towels or pads, under fryer baskets and in other areas where grease may drip or spill during cooking and frying or during the transfer of grease to storage or disposal containers.
- ✓ **Spill Kits:** Maintain a spill kit, accessible for use by employees, which includes absorbent pads, kitty litter or an equivalent absorbing material, and paper towels. Require the use of the spill kit to clean up spilled fats, oils, and grease.
- ✓ **Super Hot Water:** DO NOT pump water hotter than 140°F through a grease control device.
- ✓ **Employee Training:** Post signs to show kitchen best management practices in food preparation, dishwashing, and maintenance areas.

In addition, Food Service Establishment shall ensure that any and all grease control devices that are utilized, such as grease traps or interceptors, are cleaned as frequently as needed to keep them free of food residue and hardened fats, oils, and grease.

Attachment C
BMP Training Log

Attachment D
BMP Compliance Inspection Checklist

BMP COMPLIANCE INSPECTION CHECKLIST



- CITY USE -

Inspector: _____ Signature: _____

Establishment: _____ Address: _____

Contact Name: _____ Phone Number: _____

Inspection Date: _____ Time Started: _____ Time Completed: _____

INSPECTION CHECKLIST

#	Item Description	Field Data (where appropriate)	Compliance Status
1	The establishment has implemented a training program to ensure that the BMPs are followed.		
2	"NO GREASE" signs are posted in appropriate locations.		
3	The establishment recycles waste cooking oil and can provide records of this.		
4	Water temperature at all sinks, especially the pre-rinse sinks before the mechanical dishwasher or those in the three-sink system, are less than 140° F. (Measure and record temperature.)		
5	The establishment "dry wipes" pots, pans, and dishware prior to rinsing and washing.		
6	Food waste is disposed of by recycling or solid waste removal and is not discharged to the grease traps or interceptors.		
7	Grease trap(s) is cleaned regularly. (Note and record the frequency of cleaning.)		
8	Grease trap cleaning frequency is documented on a maintenance log. (Obtain a copy of the log.)		
9	Grease interceptor does not contain greater than 1/3 the depth in grease accumulation. (Estimate and record amount of grease in interceptor.)		
10	Grease interceptor does not contain greater than 1/4 the depth in sediment accumulation. (Estimate and record amount of sediment in interceptor.)		

11	Grease interceptor is cleaned and maintained regularly. (Note and record frequency of cleaning.)		
12	Grease interceptor cleaning and maintenance frequency is documented on a maintenance log. (Obtain a copy of the log.)		
13	Outdoor grease and oil storage containers are covered and do not show signs of overflowing.		
14	Grease and oil storage containers are protected from discharge to storm drains.		
15	Absorbent pads or other materials, which are not free-flowing materials such as cat litter, are used to clean up any spills or leakages that could reach the storm drain.		
16	Storm drain catch basins show no signs of grease or oil.		
17	The roof shows no signs of grease and oil from the exhaust system.		
18	Exhaust system filters are cleaned regularly and the cleaning is documented. (Note and record frequency of cleaning.)		

NOTES: _____

Attachment E
Grease Trap and Interceptor Installation Checklist

GREASE TRAP & INTERCEPTOR INSTALLATION CHECKLIST



- CITY USE -

Inspector: _____ Signature: _____

Establishment: _____ Address: _____

Contact Name: _____ Phone Number: _____

Inspection Date: _____ Time Started: _____ Time Completed: _____

INSTALLATION CHECKLIST

#	Item Description	Field Data (where appropriate)	Compliance Status
1	Each grease trap serves no more than four single-compartment sinks of the same depth. Grease trap is sized based upon the number of fixtures discharging to it.		
2	Grease traps have a water seal of not less than two inches in depth or the diameter of its outlet, whichever is greater.		
3	No food waste disposal unit or dishwasher is connected to or discharges into any grease trap.		
4	Waste from toilets and urinals does not discharge to the grease interceptor.		
5	Waste in excess of 140° F is not discharged to any grease trap. (Dishwasher with a minimum temperature of 160° F is not discharged to any grease trap.)		
6	The vertical distance between the fixture outlets and grease trap weirs is as short as practical.		
7	Grease interceptor is as close as practical to the fixtures served.		
8	Each fixture connected to a grease trap is provided with an approved type of flow control or restricting device installed in a readily accessible and visible location. Devices shall be designed so that the flow through the device or devices at no time exceeds the rated capacity of the grease trap or interceptor.		
9	Each fixture discharging into a grease trap or interceptor is individually trapped and vented in an approved manner.		

10	Each grease trap and interceptor is properly vented to allow air circulation throughout the entire drain system.		
11	No water jacketed grease trap or interceptor is installed.		
12	Grease interceptor is easily accessible for inspection and cleaning and access does not require the use of ladders or the removal of bulky equipment.		
13	There is a minimum of one access point into each compartment of the interceptor and no access points are greater than 10 feet apart. Each access opening is leak-resistant and cannot slide, rotate, or flip.		
14	Location of grease interceptor is shown on approved building plans. Drawings of interceptor are complete and show all dimensions, capacities, reinforcing, and structural design calculations.		
15	Grease interceptor is not installed in any part of a building where food is handled. Location shall meet the approval of the City Utility Service Director or Director's designee.		
16	Grease interceptor serves a single business establishment.		
17	Grease interceptor has a minimum of two compartments and 3-inch diameter fittings designed for grease retention. The compartments shall be separated by partitions or baffles that extend at least 6 inches above the water level. The inlet compartment shall be 2/3 of the total interceptor capacity and shall have a minimum liquid volume as determined during the sizing of the interceptor. The length of the inlet compartment shall be longer than the inside width of the interceptor.		
18	The inlet and outlet fittings shall be a baffle tee (or similar flow device) that extends at least 4 inches above the water level to within 12 inches of the bottom of the interceptor. The outlet tee out of a sample box shall extend at least 6 inches below the water surface. Flow between the separate compartments is through a baffle tee or bend that extends down to within 12 inches of the bottom of the interceptor.		
19	The liquid depth shall be greater than or equal to 2' 6" and less than 6' 0".		

20	There shall be a minimum of 9 inches of open vent space above the water level to the top of the interceptor. The airspace has a minimum capacity equal to 12-1/2% of the grease interceptor's liquid volume.		
21	The grease interceptor has at least one square foot of surface area for every 45 gallons of liquid capacity.		
22	All waste enters the interceptor through the inlet pipe.		
23	Grease interceptor cover is gastight and has a minimum opening of 20 inches in diameter.		
24	Grease interceptors located in areas of pedestrian or vehicle travel are adequately designed to support the imposed loads. Review of structural calculations may be required to verify adequacy.		
25	Redwood baffles are not installed in grease interceptor.		
26	A sample box is provided on the outlet side of the grease interceptor. This is recommended and may be required by the UPC so that the City Utility Service Director, or Director's designee, can periodically sample the effluent quality.		
27	Grease interceptor is permanently and legibly marked with the manufacturer's name of trademark, model number, UPC certification mark and registration (if product is listed by the International Association of Plumbing and Mechanical Officials), and any other markings required by law.		

NOTES: _____

Attachment F
Food Service Establishment
Waste Discharge Permit Application

CITY OF POMONA FOOD SERVICE ESTABLISHMENT WASTE DISCHARGE PERMIT APPLICATION



GENERAL INFORMATION

Business Name: _____

Business Address: _____

Contact: _____ Title or Position: _____

Phone: _____ Fax: _____ Email: _____

After Hours Contact: _____ Phone: _____

TYPE OF ESTABLISHMENT

Fast Food: Yes No Restaurant: Yes No Coffee House: Yes No

Food Processing: Yes No Other (specify): _____

PERMIT INFORMATION

(This application, once completed and approved by the City, will be your permit.)

The terms of this permit cover your existing facility for a period of one (1) year. If the business changes in any of the ways listed below during the permit period, a renewal will be required.

First Permit: Yes No New Construction: Yes No

Change of Ownership: Yes No **If Yes**, describe: _____

Expansion: Yes No **If Yes**, provide details of expansion: _____

Building Remodel: Yes No **If Yes**, provide details of remodel: _____

Other Changes: _____

FACILITY OPERATIONS

Hours: Weekdays: _____ Drive Thru: _____ Delivery: _____

Weekends: _____ Drive Thru: _____ Delivery: _____

Seating Capacity: Indoor: _____ Outdoor: _____

Type of Dishes/Utensils: Washable: Yes No Disposable: Yes No

Total Number of Kitchen Employees: _____

**CITY OF POMONA
FOOD SERVICE ESTABLISHMENT
WASTE DISCHARGE PERMIT APPLICATION**

MEAL INFORMATION

Type of Cuisine: (Attach a copy of your menu)

Type of Products Cooked, Heated or Fried: Meat Poultry Seafood Fruits/Vegetables

Method of Cooking/Heating: _____

Method of Frying: _____

GREASE HANDLING AND DISPOSAL

Garbage Dumpster:

1. Yes No
2. Shared Private

Grease Control Devices:

1. Grease Interceptor Yes No
2. Grease Trap Yes No
3. Maintenance/Cleaning Schedule: _____

Waste Oil Recycling Container/s:

1. Total Number of Container/s: _____
2. Number of Containers Indoors: _____ Outdoors: _____
3. Provisions Made to Catch Spills around/under Container(s) Yes No
4. Waste Oil Collection Records and Invoices Kept Onsite Yes No
5. Schedule/Frequency of Waste Oil Disposal: _____

KITCHEN BEST MANAGEMENT PRACTICES

Terms of this permit require compliance with kitchen best management practices (BMPs). See Page 4 of this application for a list of kitchen BMPs. The City will provide program materials to assist in employee training and program compliance. Program materials include a copy of the FOG Control Program, BMP signs, and required report forms (employee training log and waste oil collection log). Employee training materials will be available in English, Spanish and Mandarin.

GENERAL PERMIT

By submission of this application, the applicant agrees to wastewater discharge requirements under a Waste Discharge Permit. The FOG Control Program prohibits certain activities and requires that others take place.

The wastewater discharger agrees to the following Permit Conditions:

1. To implement the FOG Control Program and kitchen BMPs as set forth in the City's FOG Ordinance and program information.
2. To allow the City's authorized program representative to inspect food preparation areas and grease handling equipment and facilities.

**CITY OF POMONA
FOOD SERVICE ESTABLISHMENT
WASTE DISCHARGE PERMIT APPLICATION**

3. To keep two (2) logs to demonstrate compliance with the FOG Control Program to the City inspector: (a) employee training log, and (b) waste oil collection log.
4. To pay reasonable costs for the City to respond to a sanitary sewer overflow caused or contributed to by obstructions in your private sewer line.
5. Other Requirements (to be completed by City): _____

TO BE COMPLETED AND SIGNED BY APPLICANT

The applicant: (a) attests that the submitted information is true, accurate, and complete; (b) agrees to comply with the City's FOG Control Program; and (c) understands that the City may notify the applicant of program changes from time to time.

Signature-Facility Authorized Representative

Printed Name-Authorized Representative

Representative Title

Date

Send your completed and signed Waste Discharge Application to the City of Pomona with a check or money order for \$250 to cover the application/permit fee. Mail to: City of Pomona, Attn: Utility Services Director, 505 South Garey Ave., Pomona, CA 91766. Once approved by the City, your application will become your permit and it will be in effect for one (1) year, subject to renewal. If you have any questions, please call 909-620-2051.

TO BE COMPLETED AND SIGNED BY THE CITY OF POMONA

\$250 Fee Received

The applicant has received a copy of the City's FOG Control Ordinance and program information/training kit: Yes No

The City's authorized representative has verified the applicant's compliance with the City's FOG Control Ordinance: Yes No

Permit Approval Date: _____ Permit Renewal Date: _____

Based on program compliance, the permittee qualifies for the following rate incentives:

Reduced sewer usage rate for compliance with kitchen BMPs

Further reduced sewer usage rate for compliance with kitchen BMPs **and** use of a properly sized and maintained grease interceptor

Signature-Authorized City Representative

Printed Name-Authorized Representative

Representative Title

Date

CITY OF POMONA FOOD SERVICE ESTABLISHMENT WASTE DISCHARGE PERMIT APPLICATION



KITCHEN BEST MANAGEMENT PRACTICES (BMPs)

Food service establishments shall teach their employees the following kitchen best management practices and conduct training at least twice per year. A written log of employee training must be maintained on site for a minimum of two (2) years. The City's policies require that training records be made available to the City Inspector for review at the time the facility is being inspected.

- ✓ **Trash Disposal:** Dispose of food waste and fatty scraps into the trash or garbage bin. Do not discard into sink. Use plastic trash bags to prevent leaks and odors. Double-bag waste that has the potential to leak in trash bins. Ensure trash bins are covered when not in use and notify trash hauler if bin leaks.
- ✓ **Pre-Wash:** Before washing pots, pans, dishware, floor mats, and/or work areas, dry wipe or scrape food scraps and dispose of them in the trash.
- ✓ **Use of Drain Screens:** Install removable screens on all drainage pipes in food preparation areas. Keep screens in sinks and floor drains clean and in good repair. Dispose of collected solids in trash: not down the drain.
- ✓ **Yellow Grease Disposal:** Dispose of grease and oil from cooking equipment (pots, pans, and fryers) by pouring waste oil and yellow grease into covered containers (drums or barrels) for storage and recycling. Provide secondary containment to capture any liquid grease or oil that may spill from the primary container. Use a licensed waste hauler or recycling facility to dispose of liquid grease and oil before the container is full. Keep a written log with manifests and invoices of waste oil pick ups to show the City's authorized inspector who inspects the site.
- ✓ **Mat Cleaning:** Clean and wash floor mats in a utility mop sink. Empty mop water into a sink or drain connected to a grease interceptor, if present. DO NOT empty mop or wash water into storm drains.
- ✓ **Hood Cleaning:** Clean hoods and filters as frequently as necessary to maintain good operating condition and only clean them in sinks that flow to grease control devices. Use a licensed waste hauler to dispose of wastewater collected from cleaning hoods and filters.
- ✓ **Spill Prevention:** Place absorbent materials, such as paper towels or pads, under fryer baskets and in other areas where grease may drip or spill during cooking and frying or during the transfer of grease to storage or disposal containers.
- ✓ **Spill Kits:** Maintain a spill kit, accessible for use by employees, which includes absorbent pads, kitty litter or an equivalent absorbing material, and paper towels. Require the use of the spill kit to clean up spilled fats, oils, and grease.
- ✓ **Super Hot Water:** DO NOT pump water hotter than 140°F through a grease control device.
- ✓ **Employee Training:** Post signs to show kitchen best management practices in food preparation, dishwashing, and maintenance areas.

In addition, Food Service Establishment shall ensure that any and all grease control devices that are utilized, such as grease traps or interceptors, are cleaned as frequently as needed to keep them free of food residue and hardened fats, oils, and grease.

Attachment G

Public Outreach



The drain is not a dump



Put fats, oils and grease where they belong.

Mix them in your trash with absorbent waste like paper, coffee grounds, or kitty litter.




Utility Services Department
148 North Huntington Street, Pomona, California 91768
(909) 620-2241

A PUBLIC SERVICE ANNOUNCEMENT FOR POMONA RESIDENTS
From Your Utility Services Department



Help us Protect our Environment!
Grease, oil, and fat should go from

the Pan... 

...to the Can. 

Never pour grease, cooking oil, or
fat down the sink.

They can clog drains and cause
sewer pipes to back up.

Cool down your cooking oil,
grease, and fat - pour them into a
container with a secure lid.

Trash the can – not your pipes!

Wipe out pots and pans with a paper towel
before doing dishes – you will use less soap
and decrease clogs.

**Dispose of food scraps in the trash – not
down garbage disposals, drains, or toilets.**


UN ANUNCIO PUBLICO DE SERVICIO PARA LOS RESIDENTES DE POMONA
Departa de su Departamento de Servicios de Utilidad



Ayudenos a proteger nuestro medio ambiente!

La grasa y aceites van de

el Sarten... 

...a la Basura. 

Nunca vacie por el fregadero la
grasa y aceites para cocinar.

**Pueden obstruir el drenaje y causar el
cano de desague que se estanque.**

**Enfrie su aceite y grasa para cocinar y
vacielos a una lata con tapa segura.**

Tire la lata y no sus tuberias a la basura!

Limpie las cacerolas y los sartenes con una toalla
de papel antes de lavar los platos – asi usando
menos jabon y disminuir la posibilidad de que se
tape la tuberia.

**Tire pedasos de comida en la basura –no
en el fregadero, drenaje, o tasa de bano.**

Appendix G
City of Pomona Sewer Design Policy and Standard
Drawings

CITY OF POMONA SEWER DESIGN POLICY AND STANDARD DRAWINGS



**The City of Pomona
Utility Services Department
Pomona, California**

September 2008

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- Attachment A – City of Pomona Approved Materials List for Municipal Sewers
- Attachment B – California Department of Health Services Guidance Memo No. 2003-02:
Guidance Criteria for the Separation of Water Mains and Non-Potable Pipelines

Introduction

These Sewer Design Guidelines are for planning and design of wastewater collection facilities within the City of Pomona. This guide summarizes and outlines relevant City policies, applicable codes, engineering and operational practices, and procedures that have been developed to establish a cost-effective, reliable, and safe wastewater collection system. In conjunction with this design guide are all applicable current standard drawings, specifications, and industry requirements for the planning and design of wastewater infrastructures.

This guide is not a substitute for professional experience, nor is it meant to relieve the design engineer from his/her responsibility to use good engineering judgment. The engineer shall be responsible for providing a design that follows industry standards and allows crews to safely repair and maintain the facilities, provides good service, achieves useful life spans, and will not create a public nuisance or hazard. Under most conditions, this guide should serve as a minimum standard. However, it is not meant to preclude alternative designs when the standards cannot be met, or when special or emergency conditions warrant, as long as proper City authorization is obtained.

This guideline includes minimum design standards for sewer mains, sewer manholes, sewer laterals, and general guidelines for common sewer rehabilitation options.

This guideline does not include non-standard design considerations for wastewater facilities including pump or lift stations, force mains, inverted siphons, internal sealing of existing sewers, treatment plants, outfall sewers, energy dissipaters, regulating devices, and/or flow measurement devices.

These Sewer Design Guidelines for the City of Pomona have been approved and adopted.

Henry Pepper
Utility Services Director

Date

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Chapter 1

Sewer Mains

1.1 Horizontal Alignment

The street centerline is the preferred horizontal alignment for a proposed sewer collection system. The alignment should minimize costs and conflicts with other substructures. The minimum distance from a sewer main centerline or manhole shall be ten (10) feet from the edge of a street pavement or face of curb, and 15 feet from buildings. Maintaining these distances will minimize access constraints during construction and future repair activities, and reduce the possibility of root intrusion. In exceptional cases where the sewer must be located less than these minimum distances, a request for design deviation must be submitted and approved by the Water/Wastewater Operations Manager. If a deviation is allowed, design elements to mitigate the reduced distances will be required, and may include, but be limited to, pipe upgrades, pipe sleeves, deep foundations on adjacent structures, root barrier wraps or coatings, and underground root barrier walls.

1.1.1 Straight Alignments Required

Sewer mains shall be designed and constructed in straight alignments between manholes. Straight sewers are easier to inspect, less vulnerable to damage from cleaning equipment, and easier to approximate its location in the field by inferring a straight line between manholes. Manholes may be located off of the centerline of residential streets and around curves, if all portions of the sewer main and manholes are a minimum of ten (10) feet from the edge of pavement or face of curb.

1.1.2 Curves

Practical and economical situations may warrant the construction of horizontal curves in sewer mains between manholes. These situations may include, but are not limited to, avoiding existing substructures, reducing excessive manholes in curved and hillside streets, or avoiding short manhole to manhole runs where high velocity flow may overtop the manhole trough and shelf.

Whenever possible the sewer horizontal curve should be concentric with the street horizontal curve. The minimum radius of curvature attainable is governed by the proposed material constraints, the type of joint specified or permitted, the pipe segment lengths, the maximum bevel permitted, and the maximum separation of the abutting pipe ends permitted on the convex side of the curved sewer.

1.1.3 Proximity to Medians

If the sewer will serve the property on one side of a street only, it may be located on that side of the street if no potential conflict with other utilities exists. If there will be or could be a raised median, the sewer line should be located on the south or west side of the street and a minimum of five (5) feet from the median curb, but it should be a minimum horizontal distance of ten (10)

Sewer Mains

feet from any trees or shrubs that are three (3) feet or higher at maturity. In such cases, the sewer shall be located in the center of the number one traffic lane or directly between the number one and number two lanes, under the lane striping. Sewer lines shall not be located below a public sidewalk.

1.1.4 Minimum Separation

The minimum distance between the outside edges of proposed sewer mains and parallel existing or proposed potable and non-potable water mains shall be at least ten (10) feet. Deviations, if allowed, shall be approved by the Water/Wastewater Operations Manager. Review and written approval shall be required from the Department of Environmental Health for separation deviations between water, reclaimed water, and sewer pipelines.

1.1.5 Stationing

Proposed sewer centerlines shall be tied by dimensions and stations to the street centerline and other similar features with appropriate field book references. All begin curves, end curves, and point of intersections of the horizontal curves shall be tied to these same references.

1.2 Vertical Alignment and Depth

The vertical alignment of sewer mains shall accommodate gravity flows from buildings, substructures, basement elevations, and other sources of wastewater generation, low ground elevations, and general terrain of the area being served. Generally, the shallowest vertical alignment will be the most economical. The minimum depth of sewer main inverts shall be seven (7) feet of cover over top of pipe except for at terminal reaches, which will be a minimum of six (6) feet.

New sewers shall be designed with minimum depths to provide a sewer lateral depth of at least five (5) feet at the property line measured from the top of curb. Mains with a depth of 15 feet or greater (distance between invert and finished grade) shall require design approval from the Water/Wastewater Operations Manager.

Lateral depth requirements shall be considered in sewer replacement projects. No lateral connections will be allowed on mains that exceed 20 feet in depth. In those cases where mains are permitted to exceed 20 feet in depth, and lateral connections are necessary, a parallel collector sewer shall be required at standard depths. The design and installation of house lateral connections shall conform to the City of Pomona Standard Drawing S-5. Any deviation from the standard detail will require approval by the Water/Wastewater Operations Manager.

At a minimum, the profiles for sewer mains shall show elevations at the invert of manholes, invert at beginning and end of vertical curves, and at the top of manholes. At utility crossings, top and bottom elevations of the outside of pipes shall be shown as well as the top of ground surface.

1.3 Change in Direction

Sewer mains with a 15-inch diameter and smaller shall not have a change of horizontal direction greater than 90 degrees. Changes in direction shall occur in a manhole.

Sewer mains with an 18-inch diameter and larger shall not have a change of horizontal direction greater than 45 degrees. Changes in direction shall occur in a manhole, vault, or junction structure. Special attention should be given to assure laminar flow and avoid build-up of flow or debris on the manhole shelf.

1.4 Size

The size of a sewer main is defined as the inside diameter of the pipe. Sewer mains shall be a minimum of eight (8) inches in diameter in residential and multi-residential areas, and a minimum of ten (10) inches in diameter in commercial, industrial, and high-rise building areas. Sewer mains located in areas that include a combination of residential and/or commercial, industrial, or high rise buildings shall be a minimum of ten (10) inches in diameter.

1.5 Material

A variety of options are available for eliminating or minimizing possible problems arising from corrosive environments. Selection of appropriate materials for a given service is the most important consideration. It is also possible, in some cases, to modify the environment to which the materials will be exposed. The use of coatings or linings can also be effective in controlling corrosion of materials exposed to corrosive environments.

All proposed public sewer facility installations shall be constructed with materials currently listed in the latest edition of the City of Pomona Approved Materials List for Municipal Sewers (see Attachment A). Sewer mains within 50 feet of a domestic water supply (such as a spring or well) shall be constructed of polyurethane lined ductile iron with restraining joints. All sewers serving commercial or industrial facilities shall be polyurethane lined ductile iron pipe.

1.6 Capacity

For a new development and/or redevelopment, the planning study shall address the capacity of all sewer collection and trunk sewer systems that will be impacted downstream of the new development and/or redevelopment, and shall demonstrate that sewer capacity is available in those systems to accommodate the new development and/or redevelopment. Authorization and approval to impact any downstream sewer system in excess of design criteria maximum capacity must be obtained from the City Water/Wastewater Operations Manager. If such downstream sewer system has already been identified as critical or sub-critical in a monitoring report, the City Water/Wastewater Operations Manager may require additional field monitoring of such downstream sewer systems to determine if adequate capacity is available.

For an existing development and/or redevelopment, the planning study shall address the existing capacity within the existing sewer collection system, and identify all existing facilities for which capacity will be exceeded by projected sewage flows.

Sewer Mains

In the absence of flow data or other reliable information, the Unit Generation Rates included in Table 1-1 may be utilized. Appropriate peaking ratios should be applied to determine flows, where specified by the City Water/Wastewater Operations Manager.

**Table 1-1
Unit Generation Rates**

Land Use	Unit Generation Rate
Residential	70 gallons per day per capita
Light Industrial & Institutional	0.04 gallons per day/square feet
Other Non-Residential	0.08 gallons per day/square feet

Design calculations shall include calculations of average day, maximum day, and peak hour flows. The submission of design calculations will be required and engineers should be prepared to substantiate pipe sizes, layout, population estimates, land uses or other design assumptions used to determine design flow.

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_n/D not to exceed 0.50, where d_n 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_n/D not to exceed 0.75).

1.6.1 Drainage Basin

For all new development and redevelopment projects, the planning study shall address the sewage generating potential of the entire drainage basin in which the new development or redevelopment project is located. It shall also include current topographic maps of the entire drainage basin and any and all adjacent new developments or redevelopment projects for which a planning study has not yet been submitted and/or approved. The maps shall demonstrate that no adjacent development will be precluded from obtaining sewer service, including potential and existing pumped lands outside of the drainage basin and any lands outside of the incorporated boundaries of the City of Pomona with potential to be served, where no current master sewerage plan exists. The planning study shall also show all desired sewer system alignments, superimposed upon planned street alignments.

1.7 Velocity and Slope

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 $1\frac{1}{2}$ 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. Water/Wastewater Operations Manager approval must be obtained to use

design velocities outside of the minimum and maximum range stated above, except in the extreme upper reaches of the system with few connections.

1.8 Bedding

Normal bedding is full rock encasement. All sewers, including laterals with normal cover, shall be adequately bedded according to City of Pomona Standard Drawing S-10. The induced trench method of construction in which the trench is excavated in compacted fill and refilled with loose compressible materials shall not be allowed.

1.9 Easements and Encroachments

Public sewer mains outside of the public right-of-way shall have permanent easements of adequate width for access to maintain, repair, replace, and rehabilitate the facilities. All appurtenances and isolated reaches of sewer main shall have permanent access easements for rehabilitation and maintenance vehicles and necessary equipment. The minimum easement width shall be 15 feet. Sewers 24 inches or larger in diameter or over 12 feet in depth may require wider easements.

1.10 Utility Crossings

Sewer mains shall cross substructures and utilities as close to perpendicular as possible. Sewer mains shall pass under potable, storm, and recycled water lines with a minimum of one (1) foot clear distance between the outside of each pipeline, or as required by the Department of Health Services (DHS). Any deviations shall be approved by the DHS and/or the City Water/Wastewater Operations Manager as appropriate. In project locations where the minimum sewer and water separation cannot be achieved, a minimum six (6) foot concrete slurry encasement of the sewer main shall be constructed at the crossing. See Attachment C – Guidance Memo No. 2003-02: Guidance Criteria for the Separation of Water Mains and Non-Potable Pipelines, issued on April 14, 2003 from the California Department of Health Services.

1.11 Prohibited Locations

Construction of sewer mains shall be prohibited in the following locations, unless approval of specific written deviations is obtained from the Water/Wastewater Operations Manager and situations are mitigated with engineered solutions:

- a. Within wetlands
- b. Parallel to major highways and freeways (perpendicular crossings shall be allowed)
- c. Under structures
- d. Within ten (10) feet of trees or shrubs that mature naturally to a height of over three (3) feet
- e. Within medians
- f. Under sidewalks
- g. Parallel to railroad alignments unless a separate easement with access is acquired
- h. Inaccessible areas
- i. Within 15 feet of buildings
- j. Near the outlet of any storm drain
- k. Within ten (10) feet of a water main

1.12 Approval Requirement for Prohibited Locations

Special approval is required for construction of sewer pipelines in prohibited locations. Special details depicting horizontal and vertical relationship between the proposed sewer facility and existing pipelines, other utilities, and appurtenances are required. Existing utilities involved are to be potholed to verify vertical and horizontal location. A letter requesting special approval is to be submitted to the Utility Services Department. The request for special approval is to include a discussion of why special consideration to construct a sewer main in a prohibited location is warranted. The submittal for special approval shall include the written request, pothole information, and special details.

Chapter 2

Sewer Manholes

2.1 Location

Manholes shall be required at the following locations:

- a. Change of grade of sewer pipe
- b. Changes in pipe size
- c. Change of flow direction
- d. At the beginning point and ending point of vertical curves if the curve is longer than 200 feet, or 25 feet downstream from the end of a vertical curve if the curve is less than 200 feet
- e. At the intersection of mains
- f. At the terminus of dead-end sewers
- g. At the discharge of a private pump station force main, where the designer shall provide a dedicated manhole prior to discharge to the public system
- h. Upstream of where industrial waste flows discharge into the sanitary sewer, for the purpose of sampling and measurement of flow of the industrial wastes
- i. Per maximum spacing requirements

All sewer manholes outside the paved right-of-way shall have adequate access for vehicles, equipment, and crews to maintain or inspect the manhole and the associated pipelines.

All manholes located outside of the public right-of-way shall be equipped with approved locking covers with concrete collars to discourage vandalism.

All manholes located within inaccessible and unpaved areas shall required lock devices. Manhole rims shall be installed at a minimum of one (1) foot to a maximum of two (2) feet above the finished ground surface.

All manhole covers shall conform to the City of Pomona Standard Drawing S-4.

Manholes shall not be placed in the following locations:

- a. Inaccessible areas
- b. Gutters and other depressions or areas subject to inundation
- c. In sidewalks, crosswalks, or pedestrian ramps
- d. In driveways
- e. In freeway ramps or lanes
- f. Closer than ten (10) feet to edge of pavement or face of curb when under pavement

Sewer Manholes

- g. Between railroad tracks (manholes within a railroad right-of-way shall be located a minimum of 15 feet from track bed and in accordance with the requirements of the jurisdictional railroad authority)
- h. Within 15 feet of any structures, including subterranean or overhead structures
- i. Within any area subject to flooding or inundation during a 100-year storm event

2.2 Spacing

The maximum distance between manholes for sewer mains with diameters between eight (8) inches and 15 inches shall be 400 feet. The maximum distance between manholes for sewer mains with diameter greater than or equal to 18 inches shall be 600 feet.

2.3 Depth

For sewer mains that exceed 25 feet in depth, vaults shall be provided with a minimum of two (2) access manholes for each vault. Calculations shall be provided to show that the vault structures are designed to accommodate the design depths. A separate structural permit is required.

The Plans shall show invert elevations within the manhole of both the inlet and outlet pipes and the rim elevation of each manhole. Manhole rungs or permanent ladders are not allowed.

The design and installation of drop manholes shall conform to the City of Pomona Standard Drawing S-3. Any deviation from the standard detail will require approval by the Water/Wastewater Operations Manager.

2.4 Size

The minimum manhole diameter shall be four (4) feet per City of Pomona Standard Drawing S-1 for all mains less than or equal to 15 inches in diameter. The minimum manhole diameter shall be five (5) feet per City of Pomona Standard Drawing S-2 for all mains larger than or equal to 18 inches in diameter. For sewer mains greater than 36 inches in diameter, special design and structural details for the manholes or vaults shall be shown on the plans. Vaults shall require a minimum of two (2) access manholes. A separate structural permit is required.

2.5 Shelf

Manhole bases that accommodate a change in direction of flow shall be designed with sufficient freeboard on the "outboard shelf" to keep the entire flow cross-section within the manhole channel without spillage onto the "outboard shelf". Minimum trough depth shall be per City's standard drawings. The area of the shelf in manholes shall be of approximately equal area on either side of the main channel, except in manholes with changes in direction of sewer flow. The shelf elevations shall be shown on the plans and shall be of equal height on both sides of the channel.

2.6 Maximum Invert Drop across Manhole

The maximum difference in invert elevation across a manhole shall be 0.60 feet for straight-through flow, and 1.00 feet for side inlet flow.

2.7 Minimum Invert Drop across Manhole

The minimum difference in invert elevation for straight-through manholes shall be 0.10 feet. For manholes that cause a change in flow direction, the minimum difference in invert elevations shall be 0.20 feet.

2.8 Drop Manhole

Outside drop assemblies shall be provided for pipes 12 inches in diameter and smaller when entering a manhole at a distance of more than 24 inches above invert of the manhole. Larger pipes should be introduced into the manhole at the manhole invert. Inside drop assemblies will be considered only in special cases involving connections to existing manholes. Special approval for all drop assemblies is required from the City Water/Wastewater Operations Manager. The design and installation of drop manholes shall conform to the City of Pomona Standard Drawing S-3, and deviation from the Standard Detail will require approval by the City Water/Wastewater Operations Manager.

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Chapter 3

Laterals

Service lateral connections allow buildings and facilities to discharge appropriate wastewater flows into the public wastewater collection system. Although installation, maintenance, and repair of the service laterals and connections are the responsibility of the property owner served, service laterals must adhere to the following criteria.

3.1 Location

New sewer laterals shall not be located under driveways or ornate hardscape improvements unless no other alternative exists. If the lateral already exists, or sufficient area is not available to locate the lateral outside of driveways due to cul-de-sacs, trees, etc., the horizontal alignment coordinates and vertical depth of inverts shall be included on the improvement plans.

Laterals shall not be located within five (5) feet of water meters or within ten (10) feet of trees or shrubs that are three (3) feet or higher at maturity. Sewer laterals shall be a minimum of five (5) feet apart (center to center), and at least five (5) feet downhill from the water service.

For large buildings, the project is entitled to two (2) lateral connections to the public system. Additional private laterals are allowed provided it can be shown that the entire project flow cannot be served by two laterals that are sized per the Uniform Plumbing Code. Where the sewer main is located in an easement with no drivable access or in an alley or street, new laterals shall not be connected unless there are no available alternate sewer facilities.

Common sewer laterals serving two (2) or more lots are not allowed unless the lots are under the governance of a maintenance association and a copy of the recorded covenants, conditions, and restrictions (CC&R) is provided to the City's plan reviewer.

Sewer laterals within the public right-of-way shall be perpendicular to the sewer main.

Sewer laterals shall not cross lot lines unless there are no other reasonable options. A private easement shall be dedicated to the lot benefiting from the lateral. A properly executed and recorded easement shall be completed prior to, and submitted with, the initial submittal for engineering plan check.

3.2 Backwater Devices

Sewer laterals shall be equipped with an approved backwater device at all locations where dictated by the currently adopted edition of the Uniform Plumbing Code to prevent public sewage from overflowing into structures if the sewer main should fail. Backwater devices shall be installed at all locations where the finished floor of an adjacent property is less than two (2) feet above the nearest upstream manhole's rim elevation. Backwater devices shall be installed outside of the public right-of-way and shall be maintained by the property owner. Deviations, if allowed, shall be approved by the City Water/Wastewater Operations Manager. See Pomona Standard Drawings S-8 and S-9 as applicable.

Laterals

3.3 Lateral Connections

Sewer lateral connections shall be made in accordance to Table 3-1 below:

**Table 3-1
Sewer Lateral Connections**

Size/Type of Lateral	Size of Main	Connection Made At
8" diameter or smaller	15" diameter or smaller	Main or Manhole
	18" diameter or larger	Manhole
10" diameter or larger	Any Size	Manhole
Pressure Lateral	Any Size	Manhole

NOTE: at no time shall the main be smaller than the lateral

Sewer lateral connections in non-paved easements shall not be allowed where the connection can be made into a sewer main in a public right-of-way or paved easement. All laterals which connect to a public sewer main in an easement, rather than the public right-of-way, shall be labeled as "Private" on the improvement plans.

3.4 Slope

The standard minimum slope for a sewer lateral is two (2) percent. The slope shall not exceed one (1) horizontal to one (1) vertical (100 percent). Laterals, which must exceed 100 percent slope within the public right-of-way, shall be considered deep-cut laterals. Deep-cut laterals shall only be permitted with the approval of the Water/Wastewater Operations Manager.

3.5 Depth

Sewer laterals shall be a minimum depth of five (5) at the property line and measured at the top of curb. Single, shallow laterals may be allowed between three (3) feet and five (5) feet in depth with special approval from the Water/Wastewater Operations Manager. When special circumstances dictate that the cover over a lateral must be less than three (3) feet, the lateral should be fully encased in concrete, loading and deflection calculations must be submitted, and approval by the Water/Wastewater Operations Manager shall be required. Polyvinyl chloride (PVC) shall not be used with concrete encasement. Use only extra strength vitrified clay pipe or ductile iron pipe with concrete encasement.

Lateral connections to deep sewers (greater than 15 feet) shall be avoided wherever possible. No lateral connections will be allowed on mains which exceed 20 feet in depth.

3.6 Cleanouts

All sewer laterals shall have a cleanout adjacent to the property line, within the public right-of-way, for cleaning in the direction of the sewer main. The cleanout shall be installed in accordance with City of Pomona Standard Drawing S-6. If there is a sidewalk located at the property line, the cleanout shall be located within the sidewalk. Where a future building will be

located along a new main, the depth of the main shall be coordinated with other utilities so that there will be no conflicts with the future sewer lateral.

3.7 Connections to Sewer Mains and Trunk Sewers

Lateral connections to new sewer lines must be constructed using a wye fitting. Lateral connections to existing sewer mains may only be made through a wye fitting or saddle type connection. Holes for saddle type connections must be core drilled. Cutting, chipping, or breaking out an opening for a lateral connection and sealing the opening with a concrete lug shall not be allowed.

Sewer lateral connections to trunk sewers 18 inches in diameter and larger shall not be allowed except in certain cases where all of the following criteria are met:

- a. A sewer main of 15-inch diameter or less is not accessible within 500 feet
- b. An odorless connection is provided such that the lateral at the connection is matched as closely as possible with the invert of the trunk sewer; this type of connection requires approval of the Water/Wastewater Operations Manager
- c. Within 20 feet of the connection, the invert of the lateral is above the peak flow for the trunk sewer at the location of the connection
- d. The Water/Wastewater Operations Manager grants approval prior to the connection being made

The connection shall be recorded on a public improvement drawing which shall show both plan and profile of the connections, and be labeled as private. In cases where more than one sewer lateral connection to a trunk sewer is proposed in the same area, a smaller diameter collector sewer must be constructed to convey the flow of the laterals to the trunk sewer.

3.8 Size of Connection

Connections of sewer laterals into existing sewer mains shall be at least two (2) inches less than the diameter of the sewer mains into which they discharge. However, 6-inch and 8-inch diameter laterals may connect into a sewer main of the same size. If such a connection is permitted, a hydraulic analysis shall be required to ensure sufficient capacity in the main and the connection shall be made through a wye fitting. The wye branch of the sewer main is to be inclined upward at a maximum angle of 45 degrees from the horizontal and connected to the lateral through a 1/8 bend.

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Chapter 4

Sewer Rehabilitation

Renewal of sewer pipelines and manholes is a viable alternative to replacing aging and deteriorated infrastructure. This section describes the inspection and assessment process and provides some acceptable renewal options.

4.1 Sewer Inspection and Assessment

Inspection and assessment is used to evaluate existing system conditions and identify potential defects that could contribute to overflows. Such conditions include root intrusion at misaligned joints or cracks, and inflow and infiltration entering into the system through cracks in pipes, manholes, or via illegal storm drain connections. Acceptable inspection methods include, but are not limited to, external and internal visual observations, closed circuit television (CCTV) inspections, and line lamping.

The collected inspection data is then evaluated by a knowledgeable engineer using objective criteria to rank the defects and prioritize needed improvements. The results of a sewer assessment are then used to determine the funding required to repair, rehabilitate, and/or replace an aging collection system and to prioritize how the funds should be allocated.

4.2 Sewer Pipeline Rehabilitation Options

General approach to selecting appropriate rehabilitation alternatives are summarized below in Table 4-1. The rehabilitation selection method based on the guidelines provided below is not a substitute for the experience and knowledge of the staff and engineers performing the assessment. The unique situation and condition of each segment must be considered when finalizing recommendations. As such, not every recommendation will rigidly adhere to the methods and rules below.

**Table 4-1
Sewer Pipeline Improvement Alternatives**

Description of Defect	Recommended Method
Roots, broken or cracked pipe, misaligned or open joint, and/or grade break at 1 or 2 locations along a pipe segment.	Point repair (if total pipeline length is > 300 feet); Replacement (if total pipeline length is < 300 feet)
Roots only, more than 2 locations	Lining, Chemical Herbicide or Repetitive Cleaning
Multiple cracks only – minor to medium	Lining
Roots most joints with multiple cracks, no offsets	Lining
Roots at most joints with major offsets, breaks, major cracks or major grade breaks and all other conditions not noted.	Replacement
Severe defects requiring replacement in difficult to access locations or areas of high traffic congestion	Pipe bursting, bore and jack, directional drilling or micro tunneling

Sewer Rehabilitation

All surface improvements shall be restored to the same condition or to a better condition than that which existed before the repair, replacement, or rehabilitation activities occurred. The following descriptions summarize a variety of rehabilitation and repair methods.

4.2.1 Point Repairs

Where defects are noted from internal and video inspections at one to two locations between manholes, point repairs should be recommended. However, for short pipe segments less than 300 feet with two (2) defects, point repairs may affect the integrity of the remaining pipe and full pipe replacement is usually recommended. Point repairs are cost effective alternatives to full pipe replacement if the remaining portions of the pipe are in good condition as noted from the internal or video inspections and replacement of the entire pipe segment appears unwarranted.

4.2.2 Pipe Lining

Pipeline lining offers a trenchless method to rehabilitate deteriorating sewer mains. Because no open trenching is required during the lining application, there is minimal disruption to residents and business owners during construction. Lining of sewer mains is recommended for pipes with rooting problems and/or cracks with no major offset joints. Generally, pipes smaller than eight (8) inches in diameter should be candidates for replacement.

Where breaks, major offsets, or bends are noted in the video inspections, lining is not recommended because the lining material cannot be applied properly where these conditions occur. In choosing an appropriate repair method, there are cases where it may be cost effective to consider combining point repairs with lining.

Several methods of lining can be used to rehabilitate a pipeline. Cured-in-Place Pipe (CIPP) lining involves inverting a resin-impregnated fabric tube into a clean, existing pipeline, then curing it in place with hot water or steam. Fold-and-form lining requires pulling a fabric tube, saturated with a resin and folded into a U-shape, into a clean, existing pipe, then expanding the tube to the shape of the pipe with pressurized water before curing with heated water or steam. Both of these methods require the flow to be plugged or diverted during the installation process.

Spiral wound pipe is another lining method that inserts a continuous strip of reinforced plastic, usually six (6) or eight (8) inches wide, into an existing pipe, which interlocks to form a watertight seal. Spiral wound pipe can typically be installed in a live sewer without plugging or diverted the flow. Pipes smaller than eight (8) inches in diameter shall not be candidates for spiral wound rehabilitation.

All of these lining methods can provide a system with independent structural integrity that does not rely on the host pipe for strength.

4.2.3 Pipe Bursting or Reaming

Pipe bursting or pipe reaming offers a solution to replacing defective pipe that has access at its end points but not between, such as pipe that crosses a freeway or major intersection. Pipes that are good pipe bursting candidates generally have no bends or curves and have adequate slope with very minor or no sags. Access pits are required at the ends of the pipe segment being burst. If any service connections must be reinstated, access pits are required at these

locations as well. The size of the pipe can generally be increased to the next standard pipe diameter above the existing diameter, and possibly to the next standard pipe size depending on the existing soil conditions and adjacent utilities. The material used for the replacement pipe includes high density poly-ethylene (HDPE) pipe or joint-fused PVC pipe. This method may be more costly than traditional dig and replace, but it is generally faster and less disruptive to the environment and community, thereby resulting in intangible benefits.

4.2.4 Pipeline and Manhole Replacement

Replacements of pipe segments are recommended where multiple occurrences of breaks, cracks, misaligned joints, grade breaks and roots are identified in the video inspections. In addition, where pipe replacement is recommended, replacement of both manholes at each end of the pipe is also recommended. For maintenance purposes, pipelines with a 6-inch or less diameter are recommended for replacement with 8-inch diameter pipe. Actual replacement must be evaluated on a case by case basis after considering several factors such as pipe condition, slope, cleansing velocity, capacity, and available maintenance equipment and methods.

4.3 Manhole Rehabilitation

Rehabilitation of a manhole may be required for one or more of the elements associated with a manhole which includes:

- a. Frame
- b. Cover
- c. Riser
- d. Cone
- e. Wall
- f. Steps
- g. Bench
- h. Trough
- i. Base
- j. Pipe Connections

4.3.1 Rehabilitation or Replacement Criteria

Rehabilitation or replacement of the manhole shall be determined based on the following criteria:

- a. structural integrity and condition
- b. location
- c. pipe size and hydraulic condition
- d. invert depth
- e. environmental sensitivity
- f. construction accessibility
- g. cost of the proposed improvements

The type and extent of the rehabilitation required will be determined based on the severity of the existing condition and accessibility of the manhole. Rehabilitation may include improvements to

Sewer Rehabilitation

one or several of the elements to restore the manhole to an acceptable condition, or it may require improvements to all elements. Requirements for each manhole shall be evaluated independently and only the necessary improvements will be detailed.

4.3.2 Accessibility

All manhole replacements or rehabilitations will be evaluated for accessibility. Manholes located on private property will require approval from the property owner. All required environmental clearances will be obtained from the City prior to commencement of work.

4.3.3 Repair Methods

Repair methods may include patching, grouting, sealing for infiltration, lining and replacement of various manhole elements or even the entire manhole. Selecting the appropriate lining method depends on the existing condition of the manhole. Rehabilitation methods including spray-on applications (e.g., corrosion resistant vinylesters and polyesters, and epoxy and polyurethane products), trowel-on applications (e.g., cementitious applications), T-lock liners (e.g., polyurethylene sheets), and rehabilitation liners (e.g., epoxy impregnated fiberglass liners).

4.3.4 Plans and Specifications

Plans and specifications illustrating the location of each manhole, site constraints and necessary traffic control plans will be provided to the City for review and approval. The plans and specifications shall include typical details, details to restore the surrounding area to its existing condition or better, and manhole site-specific notes, if necessary.

Chapter 5

Design Plans and Profiles

Plans will be required for all new, rehabilitated, or extended sanitary sewers and shall include both a vicinity map and a general layout map of the area showing the location of existing facilities and of the proposed improvements. Plans should be accurate, legible and properly detailed. Dimensions should be either from right-of-way centerline or property lines. Additionally, all plans should also have a suitable title plate with the following information: name and address of owner; scale; north point; date; drawing number; and the name, address, telephone number, R.C.E. number with expiration date, and signature of the Registered Civil Engineer.

5.1 Engineering Drawings (Plans)

Plans for sewer lines should contain at least the following information:

- a. Adjacent streets, property lines, tax lot numbers, utility easements and references thereto.
- b. Location of sewer mains and appurtenances. Each manhole shall be numbered and stationed to facilitate checking the plans with the profiles.
- c. Location of water courses, wells, stream and railroad crossings, water mains, gas mains, culverts and underground power, CATV, or other utilities wherever possible.
- d. Limits of hard surface paving with dimension reference.
- e. Plans should be drafted to scale at 1" = 40' (preferred), or 1" = 20' (maximum). Not to exceed 24" x 36."
- f. Use of the Regional "standard symbols" is recommended for use on the plan view section.
- g. City approval block and notes such as: "easement required" and "county permit required."
- h. As-built plans submitted by the engineer of work shall include a 1" = 100' photo mylar transfer of the project including the sewer service.

5.2 Engineering Drawings (Profiles)

Profiles for the individual sewer lines should contain at least the following information:

- a. Location of manholes and other appurtenances with each manhole numbered and stationed.

Design Plans and Profiles

- b. Profile of existing and proposed ground surface and sewer invert.
- c. Size, pipe class, slope, length of sewer, and pipe bedding class between consecutive manholes.
- d. Elevation of original ground and finished grade shall be shown graphically and sewer inverts specified at each manhole. Datum utilized for all elevations shall be City datum (USC&GS, 1959). Project control benchmarks shall be identified on the drawings.
- e. Limits of street improvements will be shown and a typical section of the subject street.
- f. Profiles should be drafted to scale at 1" = 4' or 1" = 8' (if in steep terrain). Alternate scales will be considered for plans at other than 1" = 40'.

5.3 Sewer Appurtenances

Appropriate City of Pomona and Regional Standards shall be included in all plans for construction of sanitary sewer lines.

5.4 Separate Drawings

Separate plans shall be submitted for public sewers installed in combination with private sewers or site plumbing. "Site plumbing" drawings are not acceptable. Public sanitary sewer plans may be combined with other public improvement plans, provided that the plans must be legible and properly detailed.

Appropriate labeling of the services as "Public" or "Private" will be done on both the plan view and profile view.

5.5 Specifications and Special Provisions

Engineering consultants are encouraged to develop specifications and special provisions for each project. Specifications and special provisions shall incorporate the Standard Specifications for Public Works Construction, "Greenbook," the latest Edition with the Regional Supplement Amendments prepared by the California Chapters of American Public Works Association and Associated General Contractors of America. Special specifications pertaining to materials and workmanship, if developed, shall be submitted to the City for review and approval, together with check prints of the project.

In general, the sewer specifications should cover pipe material, excavation, laying of sewer pipe, jointing, backfilling, testing, etc. Strict supervision will be provided by the City during construction to assure compliance with the specifications.

5.6 Inspection and Testing

The contractor shall be responsible for providing the CCTV report and inspection documentation for submittal to the City Water/Wastewater Operations Manager at least thirty (30) working days in advance of the anticipated date that final construction acceptance.

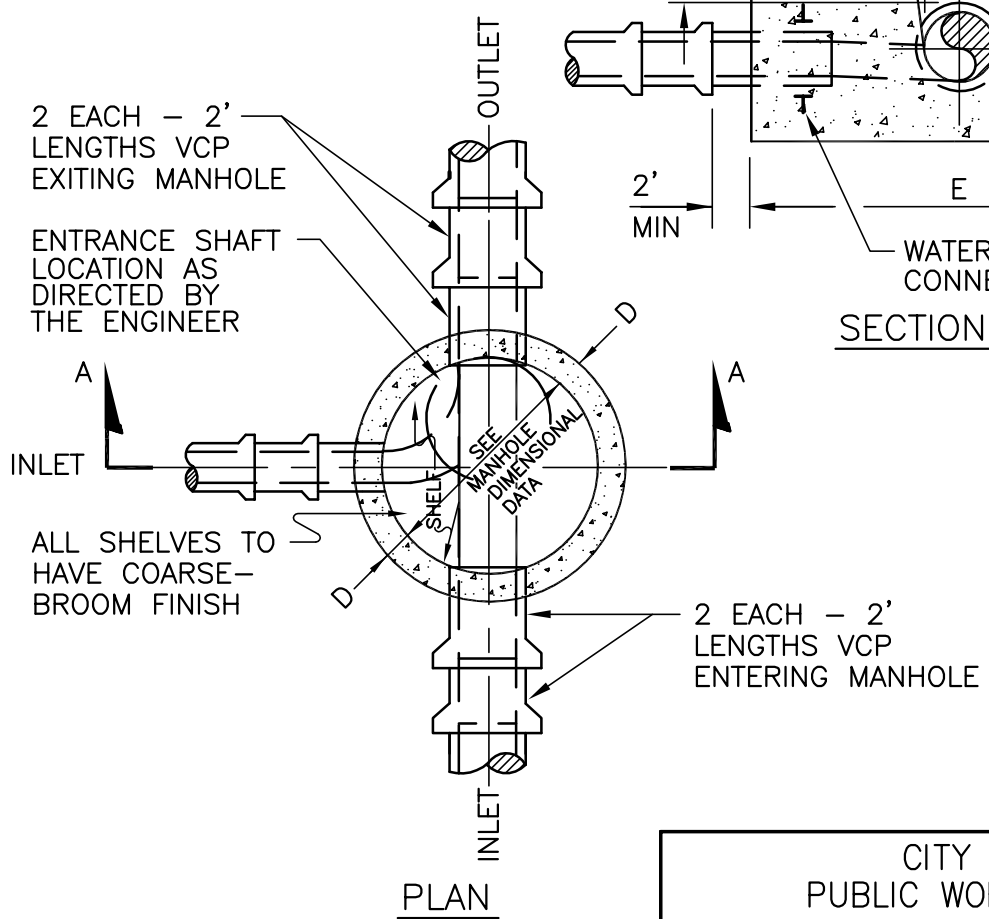
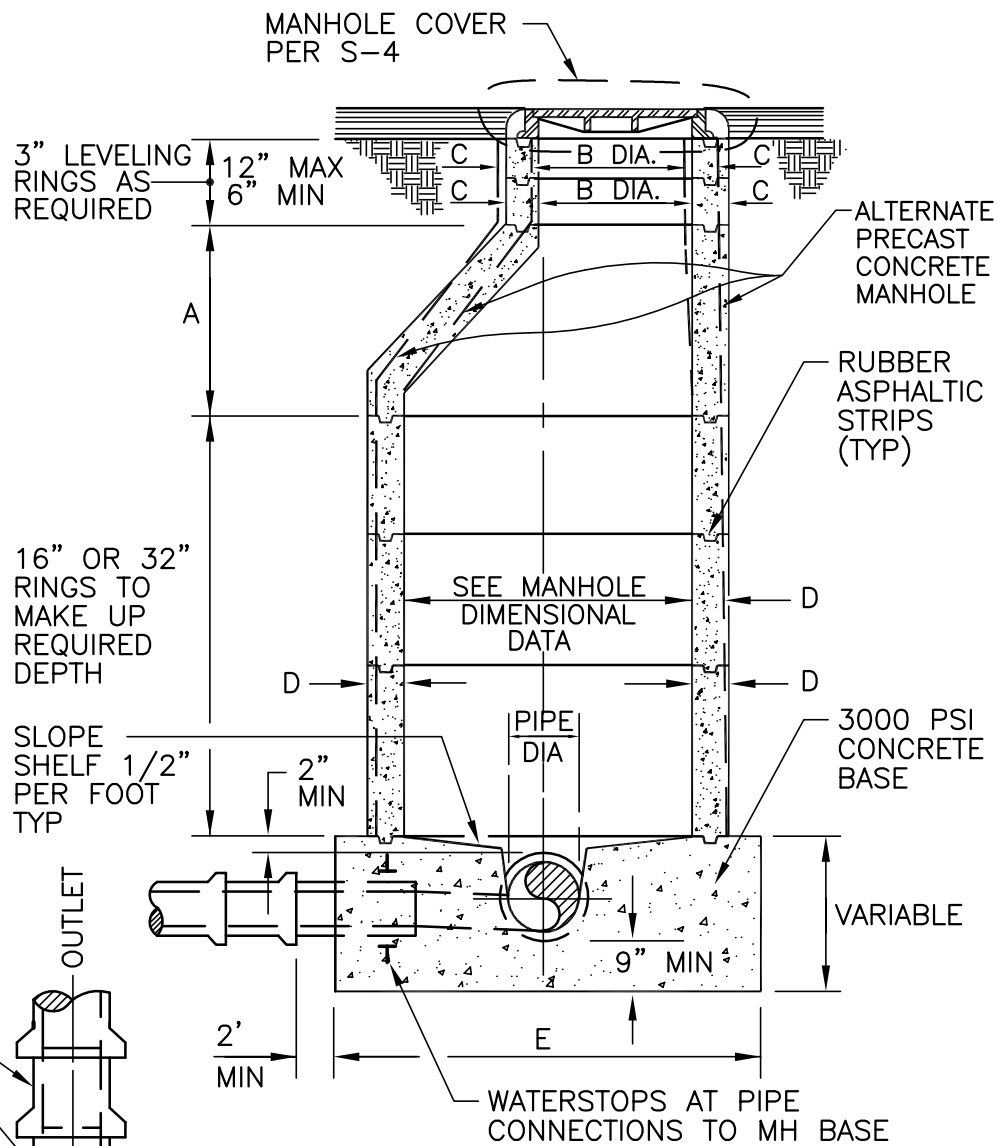
Chapter 6

Standard Drawings

The wastewater collection system standard details on the following pages are approved for use by the City of Pomona. The details are:

Detail #	Title	Number of Pages
S-1	Manhole 4' X 3' (15" Diameter and Smaller)	2
S-2	Manhole 5' X 3' (18" Diameter and Larger)	2
S-3	Drop Manhole (For 8" or 10" Pipe)	1
S-4	36" Manhole Frame and Two Concentric Covers (Heavy Duty)	1
S-5	House Connection (Sanitary Sewer Lateral)	2
S-6	Sewer Main Cleanout	1
S-7	Sewer Main Cleanout Access	1
S-8	4" Backwater Device (for Laterals 2-Feet or Deeper)	1
S-9	Backwater Device Shallow Installation (Less than 24" Deep)	1
S-10	Pipe Bedding and Trench Backfill	3

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NOTE
 INVERT ELEVATIONS AS SHOWN ON PLAN AND PROFILE.

CITY OF POMONA PUBLIC WORKS DEPARTMENT		
MANHOLE 4' X 3' (15" DIA AND SMALLER)		
DRAWN BY:	S-1	1 OF 2
CHECKED BY:		
APPROVED BY:		

REVISIONS	DATE	INITIAL	

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 WILL CONFORM TO THE CITY'S STANDARD DETAILS FOR PIPE BEDDING AND TRENCH BACKFILL.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

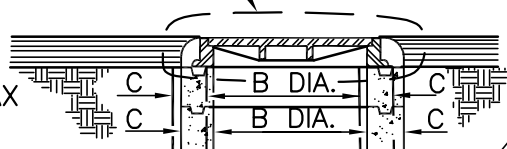
MANHOLE 4' X 3'
(15" DIA AND SMALLER)

				DRAWN BY:	S-1	2 OF 2
				CHECKED BY:		
△	REVISIONS	DATE	INITIAL	APPROVED BY:		

MANHOLE COVER
PER S-4

3" LEVELING
RINGS AS
REQUIRED

12" MAX
6" MIN



ALTERNATE
PRECAST
CONCRETE
MANHOLE

RUBBER
ASPHALTIC
STRIPS
(TYP)

16" OR 32"
RINGS TO
MAKE UP
REQUIRED
DEPTH

SEE MANHOLE
DIMENSIONAL
DATA

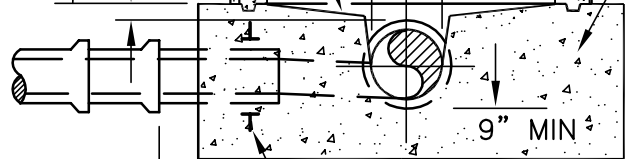
SLOPE
SHELF 1/2"
PER FOOT
TYP

2" MIN

PIPE
DIA

3000 PSI
CONCRETE
BASE

VARIABLE



WATERSTOPS AT PIPE
CONNECTIONS TO MH BASE

SECTION A-A

NOTE

INVERT ELEVATIONS AS
SHOWN ON PLAN AND
PROFILE.

2 EACH - 2'
LENGTHS VCP
EXITING MANHOLE

ENTRANCE SHAFT
LOCATION AS
DIRECTED BY
THE ENGINEER

OUTLET

A



INLET

PLAN

ALL SHELVES TO
HAVE COARSE-
BROOM FINISH

2 EACH - 2'
LENGTHS VCP
ENTERING MANHOLE

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

MANHOLE 5' X 3'
(18" DIA AND LARGER)

DRAWN BY:
CHECKED BY:
APPROVED BY:

S-2

1
OF
2

REVISIONS	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"

* 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 WILL CONFORM TO THE CITY'S STANDARD DETAILS FOR PIPE BEDDING AND TRENCH BACKFILL.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

MANHOLE 5' X 3'
(18" DIA AND LARGER)

DRAWN BY:

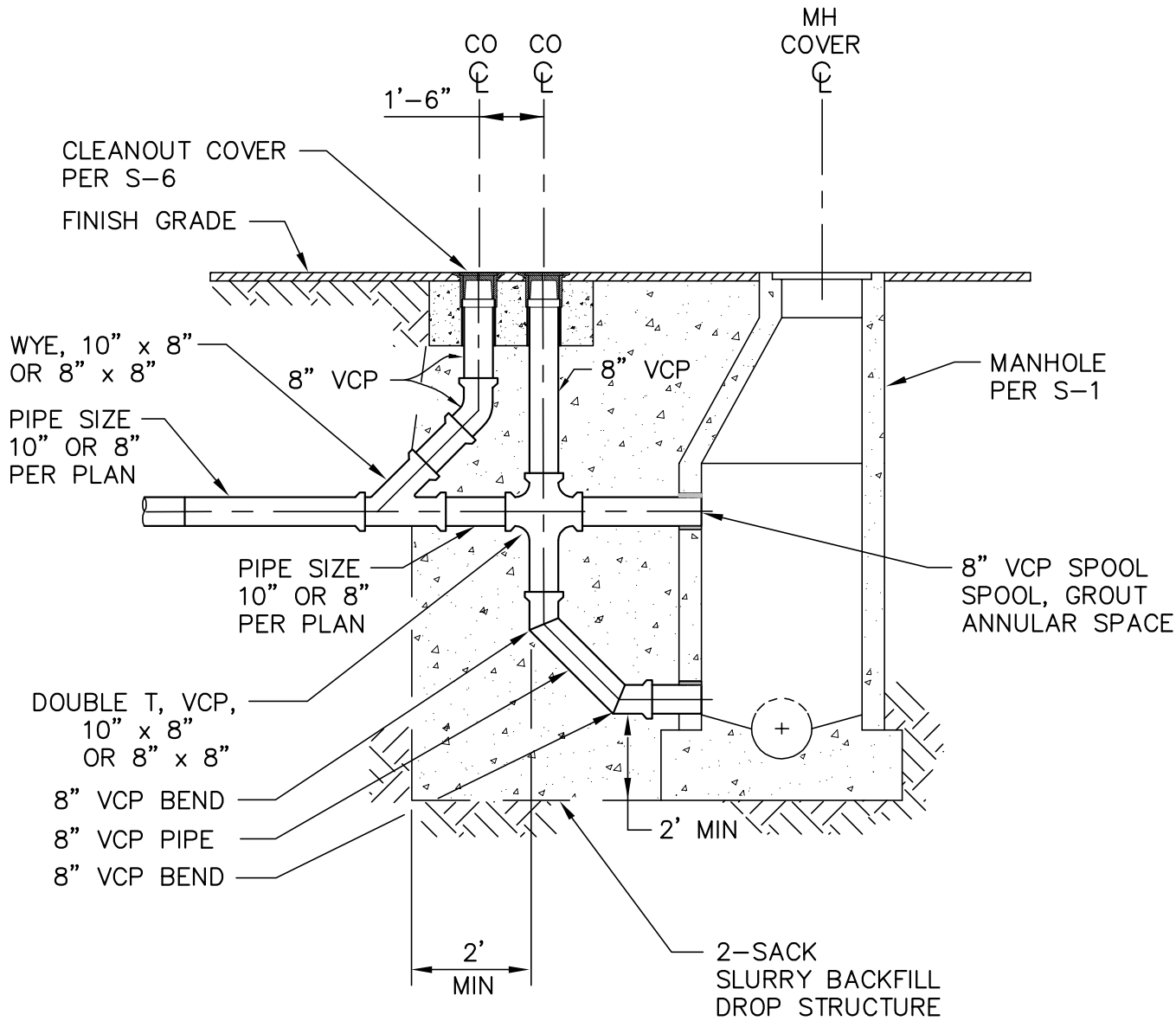
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S-2

2
OF
2

REVISIONS	DATE	INITIAL
△		



NOTES:

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

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

DROP MANHOLE
(FOR 8" OR 10" PIPE)

DRAWN BY:

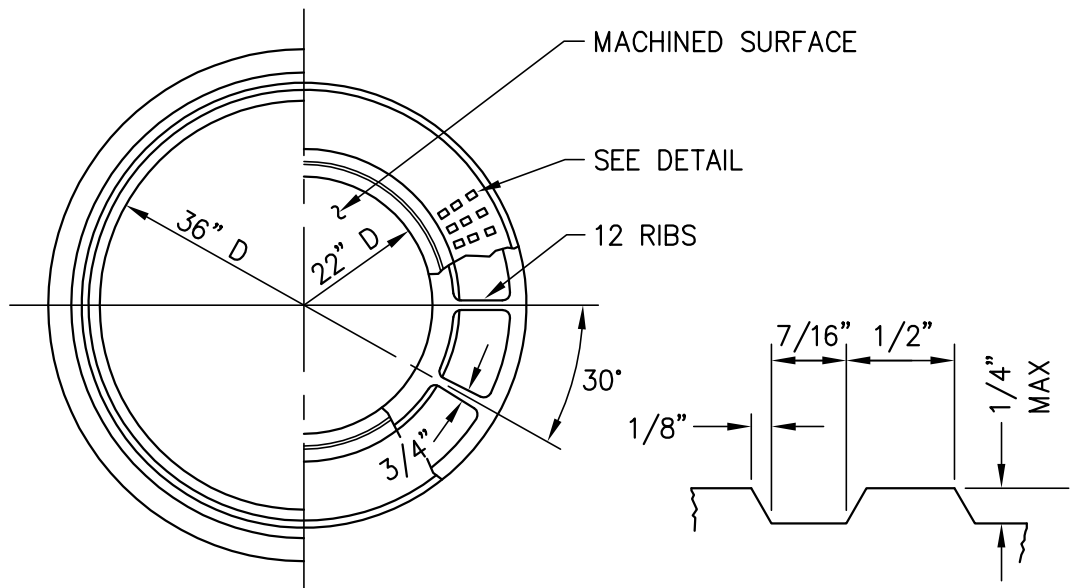
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APPROVED BY:

S-3

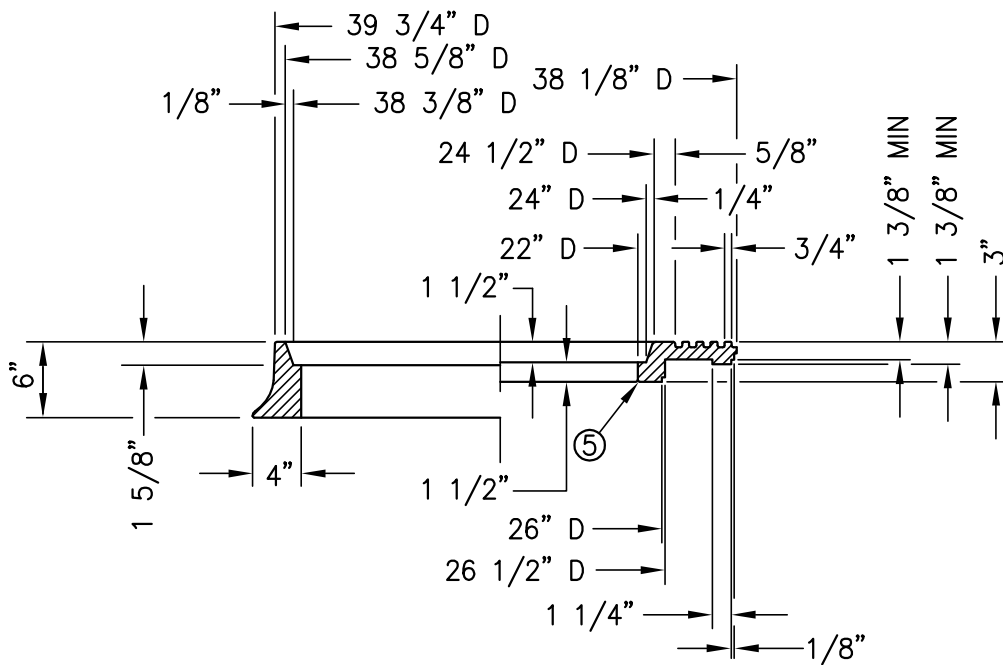
1
OF
1

REVISIONS	DATE	INITIAL



HALF PLAN FRAME AND COVER

DETAIL



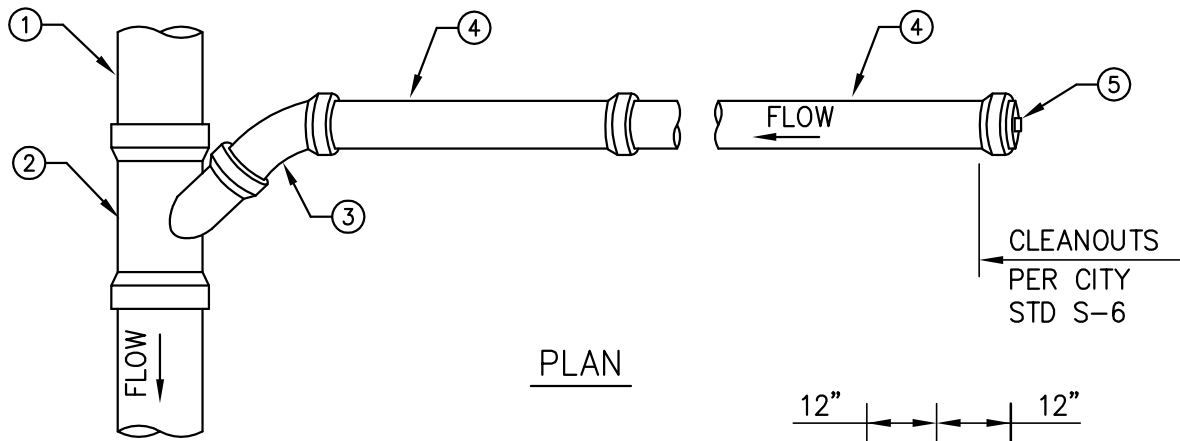
HALF SECTION FRAME AND COVER

NOTES:

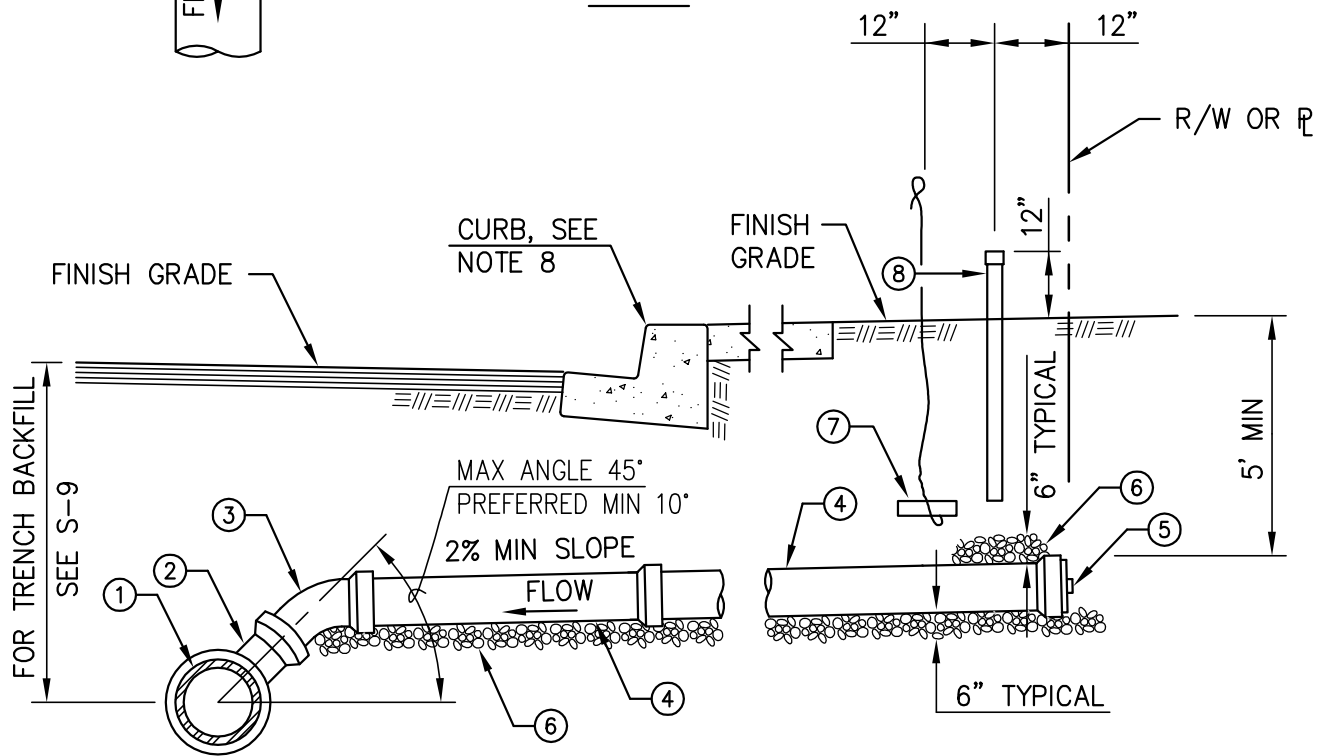
- ① FRAME AND COVER SHALL BE CAST IRON. CAST IRON SHALL CONFORM TO ASTM 48, CLASS 35B.
- ② WEIGHTS: FRAME 314 - 363 LBS
OUTER COVER 285 - 330 LBS
INNER COVER 147 - 171 LBS
- ③ MACHINE ALL MATCHING SURFACES AND SEATS OF FRAME AND COVER TO PREVENT ROCKING
- ④ IMPORTED FRAME AND COVERS SHALL HAVE THE COUNTRY OF ORIGIN MARKED IN COMPLIANCE WITH FEDERAL REGULATIONS.
- ⑤ 1/4" CHAMFER.

CITY OF POMONA PUBLIC WORKS DEPARTMENT	
36" MANHOLE FRAME AND TWO CONCENTRIC COVERS (HEAVY DUTY)	
DRAWN BY:	S-4
CHECKED BY:	
APPROVED BY:	
1 OF 1	

REVISIONS	DATE	INITIAL



PLAN



ELEVATION

FOR SEWER LATERAL NOTES SEE PAGE 2

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
④	PIPE LATERAL, SEE NOTE 3 & 5 ON PAGE 2	⑧	4" PVC PIPE WITH GLUED CAP

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

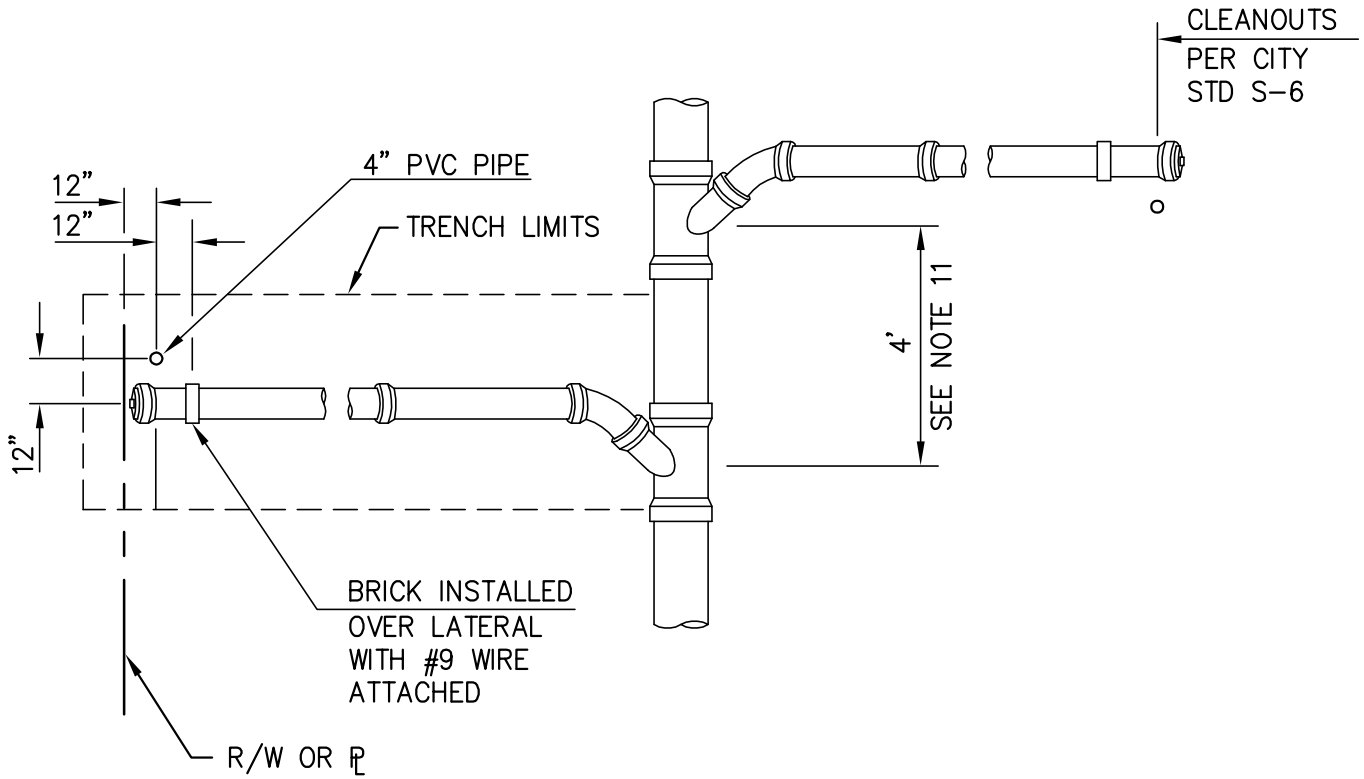
HOUSE CONNECTION
(SANITARY SEWER LATERAL)

DRAWN BY:
CHECKED BY:
APPROVED BY:

S-5

1
OF
2

REVISIONS	DATE	INITIAL



SANITARY SEWER LATERAL DETAIL
SEE NOTE 10 BELOW

NOTES:

1. REFER TO PROJECT SPECIFICATIONS WHERE APPLICABLE.
2. IN NO CASE SHALL LATERAL CONNECT DIRECTLY ON 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%.
6. VERTICAL PIPE SHALL BE BRACED WHILE BACKFILLING TRENCH.
7. INSTALL WARNING/IDENTIFICATION TAPE AS SHOWN ON PAGE 1.
8. STAMP OR CHISEL A 2" HIGH "S" IN CURB FACE OVER LATERAL TO IDENTIFY SANITARY SEWER LATERAL LOCATION.
9. MATERIALS SHALL BE SELECTED FROM THE CITY'S APPROVED MATERIALS LIST.
10. FOR SANITARY SEWER LATERAL INSTALLATIONS, SEE PAGE 1.
11. FOR SEWERS SPECIFIED AS VCP PIPE, A MINIMUM 3' SECTION OF PIPE IS REQUIRED BETWEEN FITTINGS.
12. SEWER CLEANOUT, SEE S-6

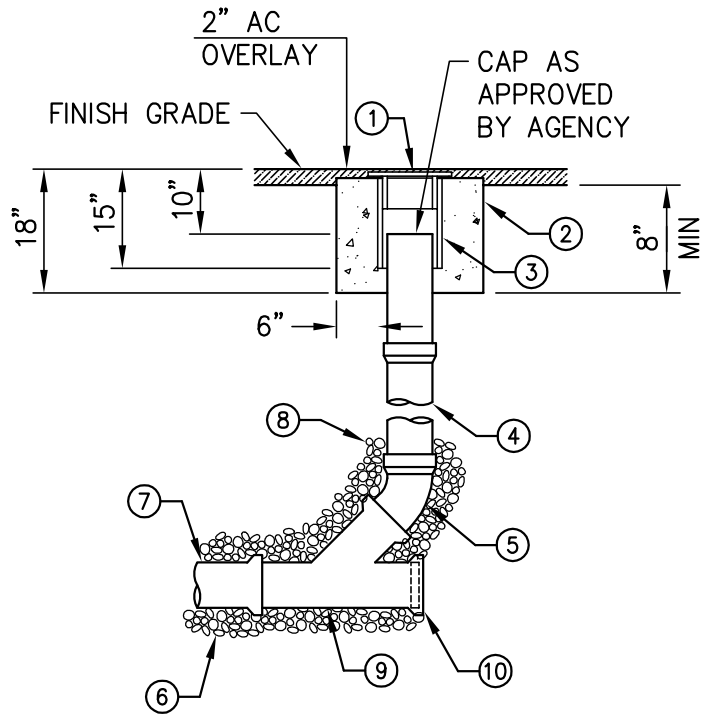
CITY OF POMONA
PUBLIC WORKS DEPARTMENT

HOUSE CONNECTION
(SANITARY SEWER LATERAL)

REVISIONS	DATE	INITIAL

DRAWN BY:
CHECKED BY:
APPROVED BY:

S-5



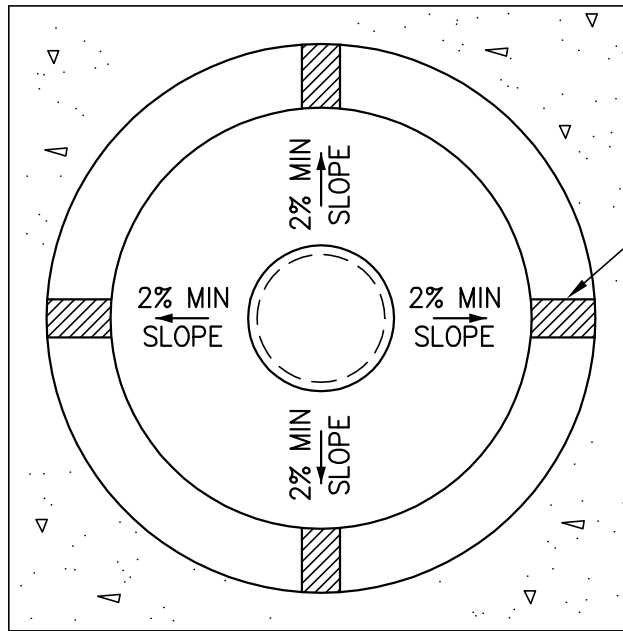
NOTES:

1. REFER TO CITY'S STANDARD SPECIFICATIONS WHERE APPLICABLE
2. CLEANOUTS TO BE INSTALLED AT THE END OF MAINS WHERE INDICATED ON THE PLANS.
3. CLEANOUT PIPE TO BE SAME SIZE AND MATERIAL AS SEWER MAIN UP TO 8".
4. BACKFILL TO TOP OF 45° BEND WITH 3/4" CRUSHED ROCK.
5. MATERIALS SHALL BE SELECTED FROM THE CITY'S APPROVED MATERIALS LIST.
6. ITEM NO. 10 TO BE OMITTED IF CONNECTED TO A NEW OR EXISTING LATERAL.

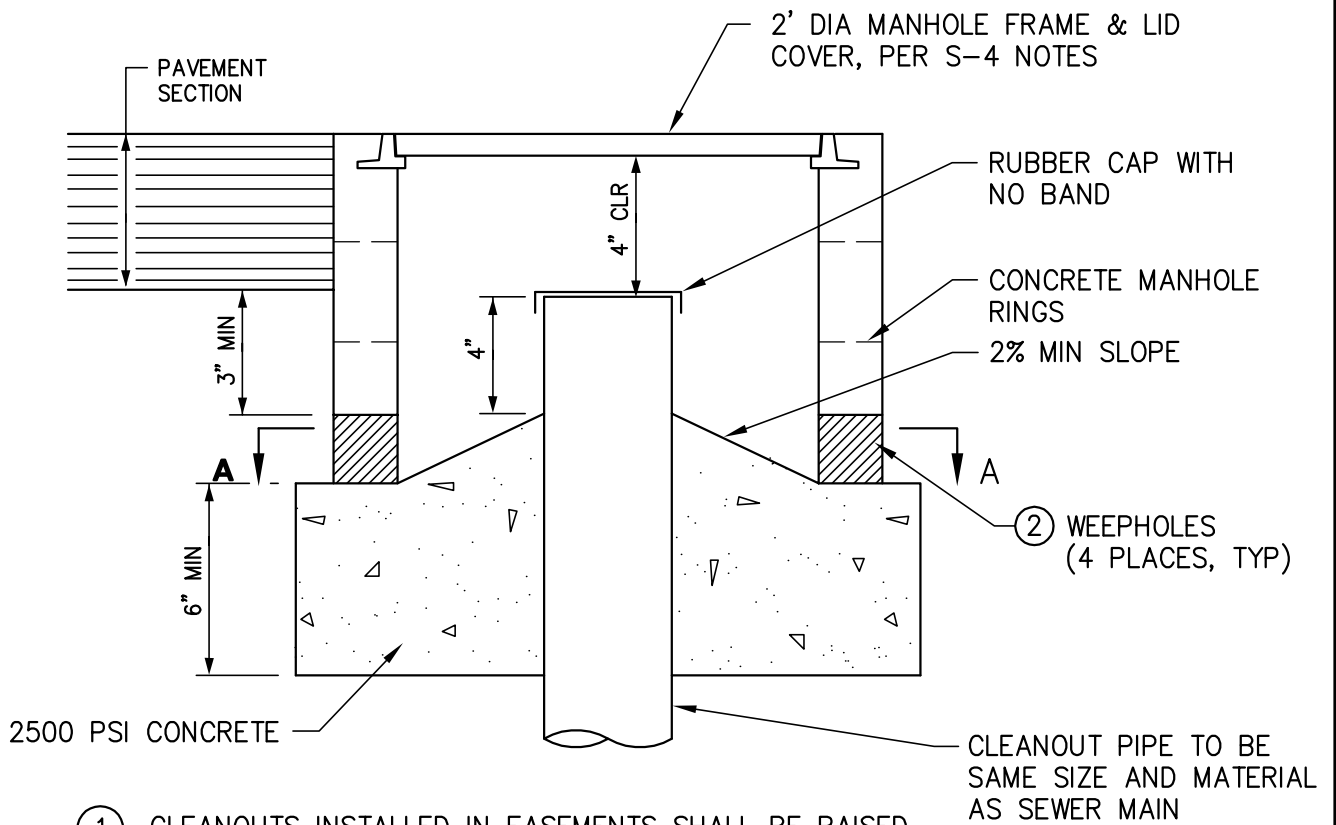
ITEM NO.	SIZE AND DESCRIPTION	ITEM NO.	SIZE AND DESCRIPTION
①	12" CAST IRON CLEANOUT BOX COVER, LID TO BE LABELED "SEWER"	⑦	SEWER LATERAL
②	CONCRETE RING	⑧	3/4" CRUSHED ROCK, SEE NOTE 4
③	12" PVC, C-900 X 15" LONG (CLEANOUT BOX)	⑨	STANDARD WYE BRANCH
④	VCP PIPE AT REQUIRED LENGTH AND DIA	⑩	INSTALL PLUG OR CAP
⑤	45° ELBOW	CITY OF POMONA PUBLIC WORKS DEPARTMENT	
⑥	3/4" CRUSHED ROCK PIPE BEDDING		
SEWER LATERAL CLEANOUT			
		DRAWN BY:	
		CHECKED BY:	
		APPROVED BY:	
△	REVISIONS	DATE	INITIAL

S-6

1
OF
1



SECTION A-A



① CLEANOUTS INSTALLED IN EASEMENTS SHALL BE RAISED MINIMUM 12" ABOVE FINISH GRADE.

② WEEPHOLES SHALL NOT BE COVERED WITH AC OR CONCRETE LAYER OF PAVEMENT SECTION.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

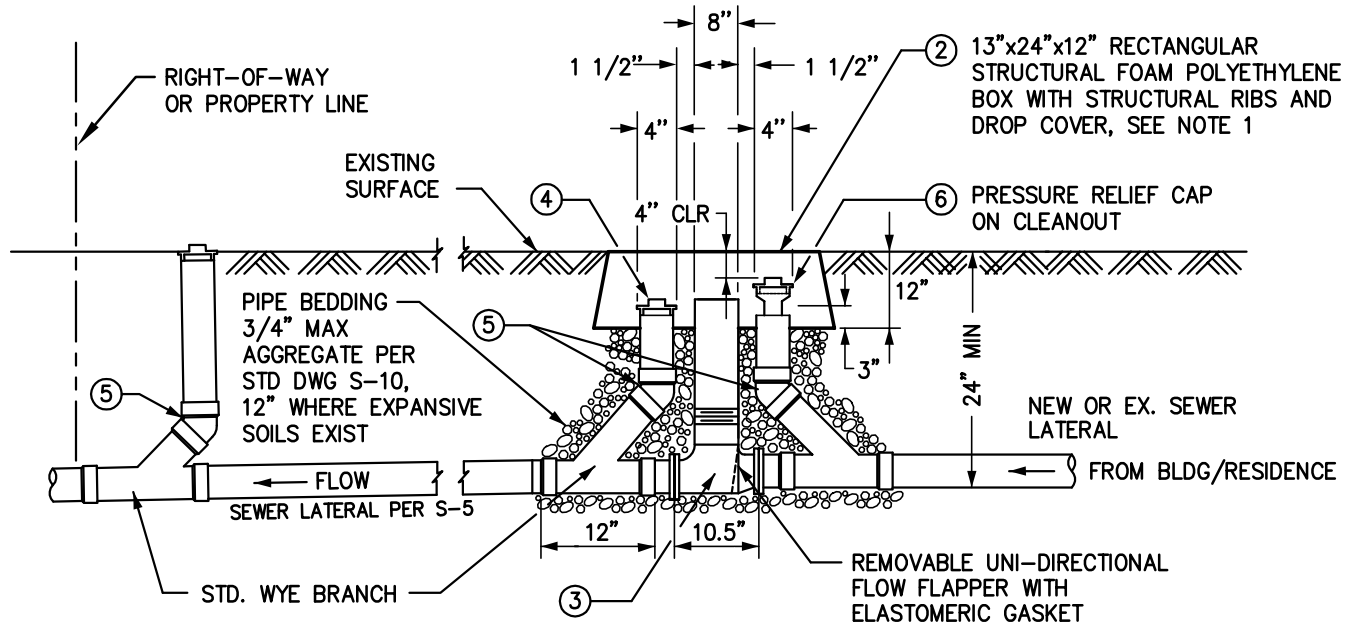
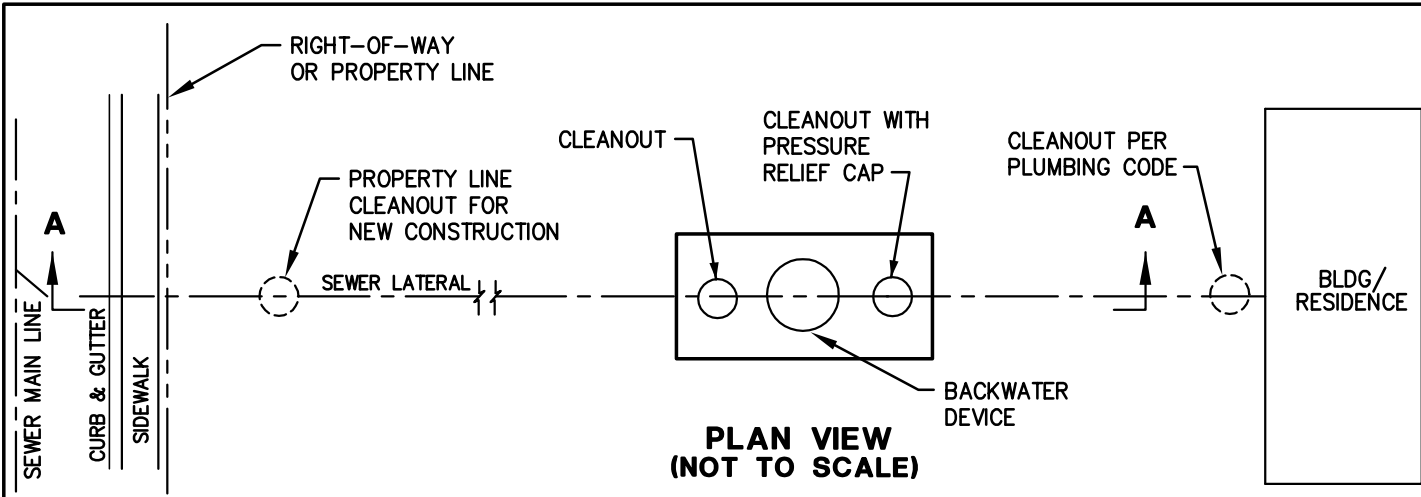
SEWER MAIN CLEANOUT ACCESS

DRAWN BY:
CHECKED BY:
APPROVED BY:

S-7

1
OF
1

REVISIONS	DATE	INITIAL

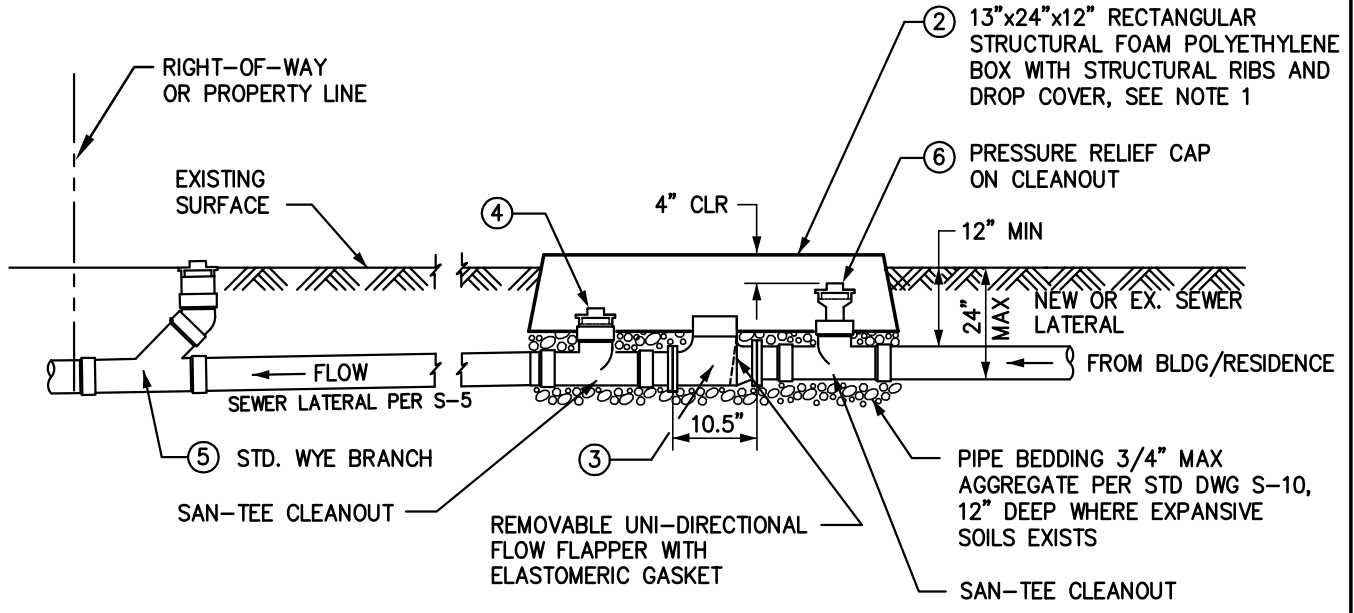
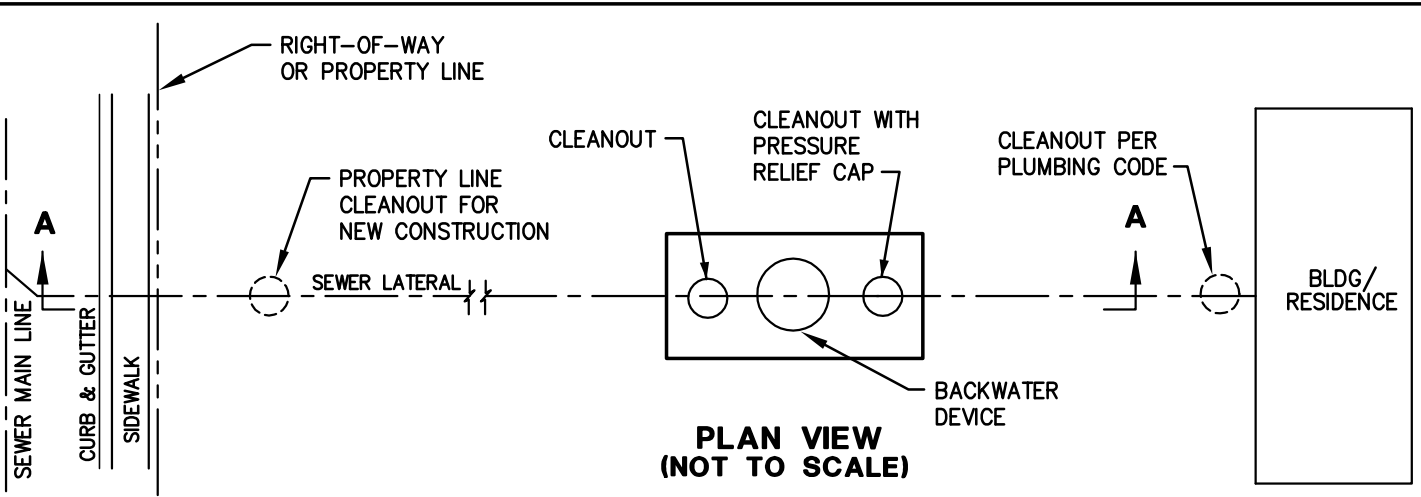


NOTES:

- ① WHEN BACKWATER DEVICE IS INSTALLED IN THE DRIVEWAY, ALLEY OR STREET, TRAFFIC RATED BOX AND LID IS REQUIRED.
- ② INSTALL VALVE BOX SO THAT IT IS FLUSH WITH EXISTING PAVEMENT OR SIDEWALK SURFACE AND 1" ABOVE GRADE WHEN INSTALLED IN LANDSCAPE AREA.
- ③ BACKWATER DEVICE AND ATTACHED PARTS SHALL BE PER UNIFORM PLUMBING CODE (U.P.C.) AND APPROVED BY WASTEWATER OPERATIONS DEPT.
- ④ CLEANOUT PLUG (ABS) THREADED.
- ⑤ STANDARD 45° BEND.
- ⑥ CLEANOUT WITH AN APPROVED PRESSURE RELIEF CAP.
- ⑦ ALL PIPING SHALL BE SPECIFIED AS VCP PIPE.

CITY OF POMONA PUBLIC WORKS DEPARTMENT			
4" BACKWATER DEVICE (FOR LATERALS 2' OR DEEPER)			
		S-8	1 OF 1
		DRAWN BY:	
		CHECKED BY:	
		APPROVED BY:	

	REVISIONS	DATE	INITIAL	
△				



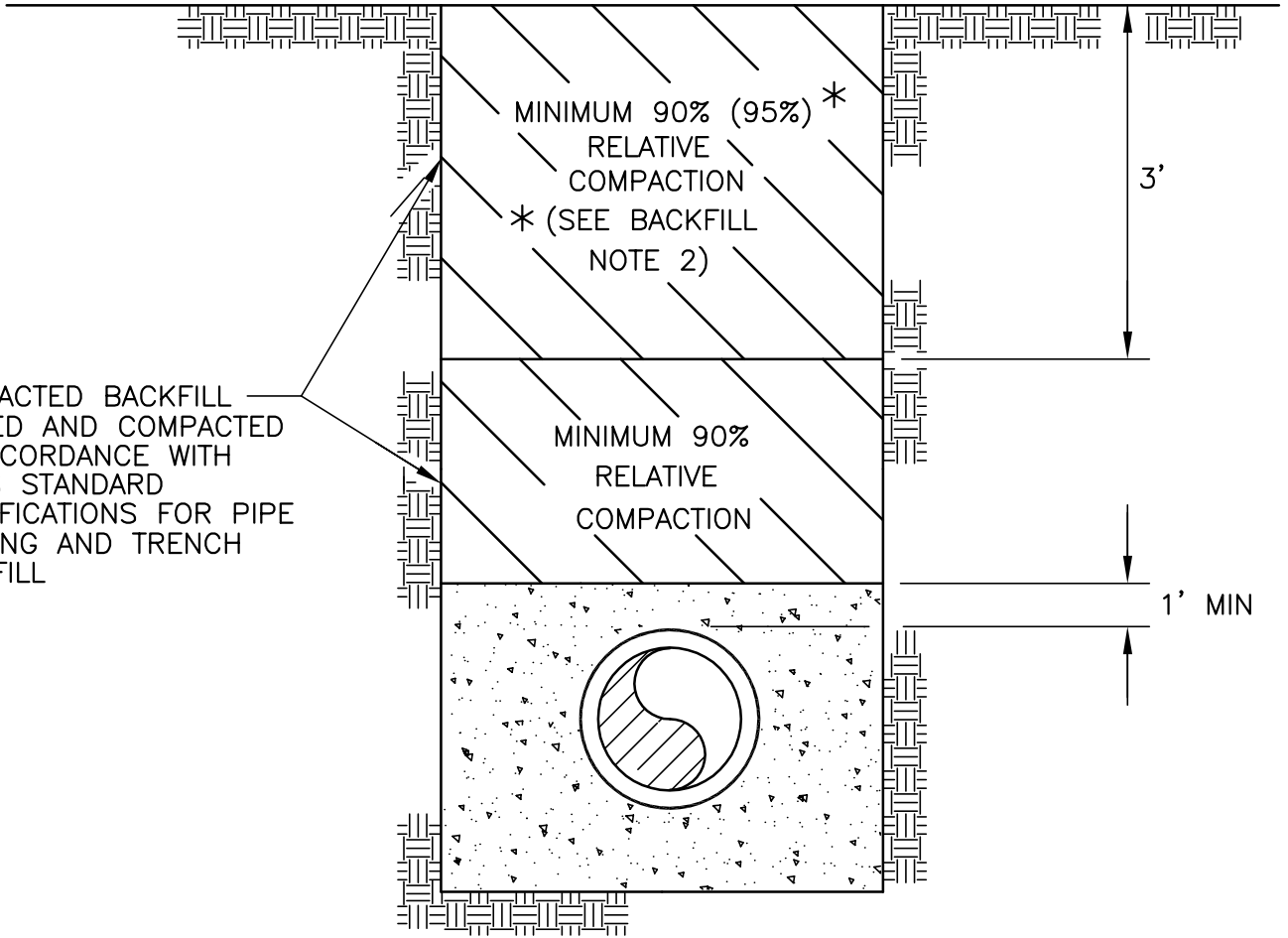
**SECTION A-A
(NOT TO SCALE)**

NOTES:

- ① WHEN BACKWATER DEVICE IS INSTALLED IN THE DRIVEWAY, ALLEY OR STREET, TRAFFIC RATED BOX AND LID IS REQUIRED.
- ② INSTALL VALVE BOX SO THAT IT IS FLUSH WITH EXISTING PAVEMENT OR SIDEWALK SURFACE AND 1" ABOVE GRADE WHEN INSTALLED IN LANDSCAPE AREA.
- ③ BACKWATER DEVICE AND ATTACHED PARTS SHALL BE PER UNIFORM PLUMBING CODE (U.P.C.) AND APPROVED BY BLDG DEPT.
- ④ CLEANOUT PLUG (ABS) THREADED.
- ⑤ SAN-TEES ARE ALLOWED WHERE ID IS LESS THAN 24" DEEP.
- ⑥ CLEANOUT WITH AN APPROVED PRESSURE RELIEF CAP. CAP SHALL NOT PROJECT INTO THE SEWER LATERAL CROSS SECTIONAL AREA.
- ⑦ ALL PIPING SHALL BE SPECIFIED AS VCP PIPE.

CITY OF POMONA PUBLIC WORKS DEPARTMENT			
4" BACKWATER DEVICE – SHALLOW (FOR LATERALS LESS THAN 24" DEEP)			
		S-9	1 OF 1
		DRAWN BY:	
		CHECKED BY:	
		APPROVED BY:	

REVISIONS	DATE	INITIAL	



BACKFILL DETAIL
NO SCALE

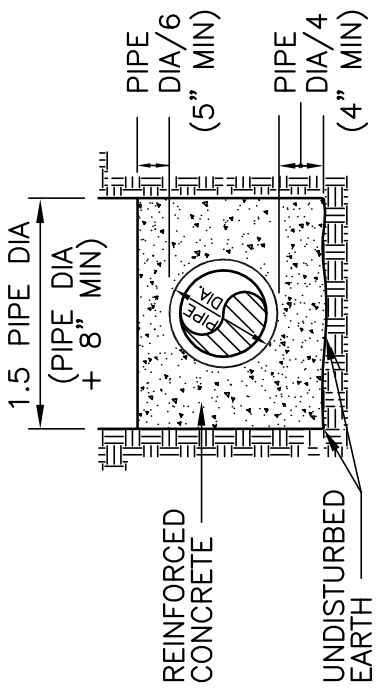
CITY OF POMONA
PUBLIC WORKS DEPARTMENT

PIPE BEDDING AND
TRENCH BACKFILL

REVISIONS	DATE	INITIAL

DRAWN BY:
CHECKED BY:
APPROVED BY:

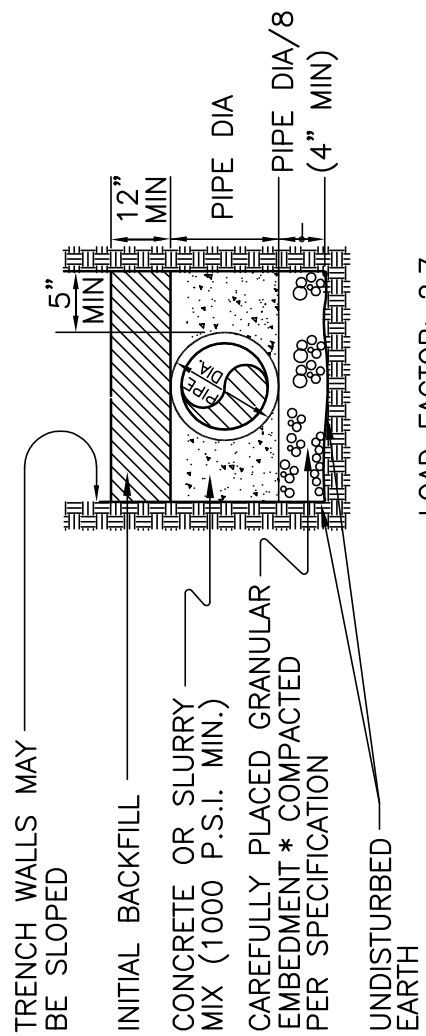
S-10



LOAD FACTOR: 4.5

NOTE: THIS TYPE OF CONSTRUCTION SHOULD BE DESIGNED BY A REGISTERED STRUCTURAL ENGINEER, AND MAY YIELD HIGHER LOAD FACTORS THAN INDICATED.

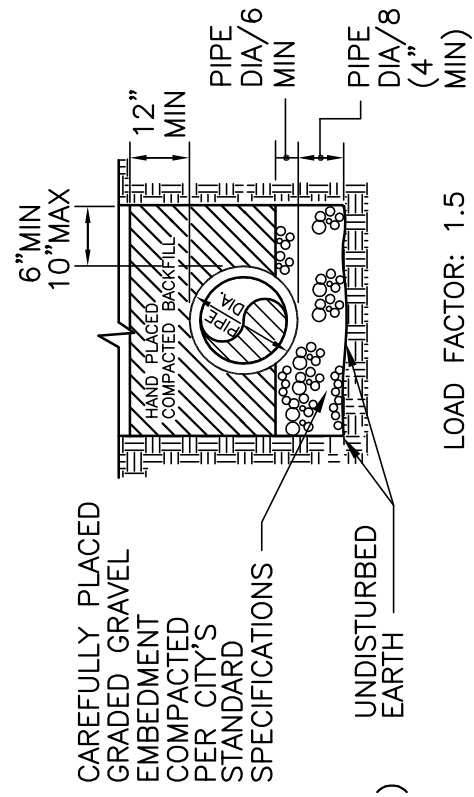
CLASS A-IV
CONCRETE ENCASEMENT



LOAD FACTOR: 2.7

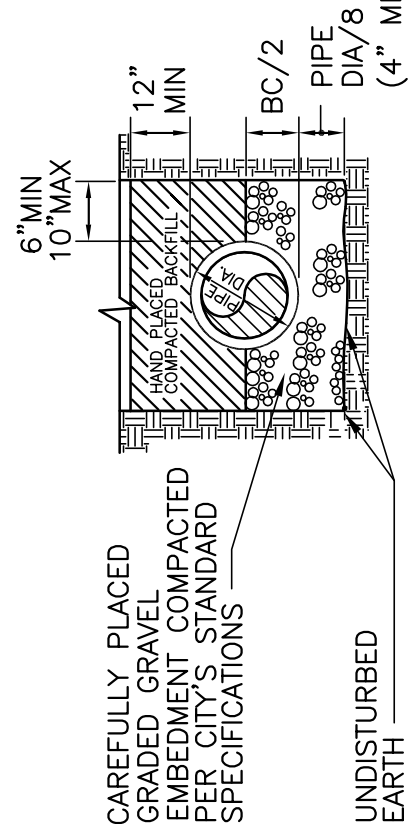
NOTE: THIS TYPE OF CONSTRUCTION REQUIRES THE CONCRETE TO EXTEND FROM THE PIPE TO THE TRENCH WALL. CAUTION: NOT RECOMMENDED WHERE NATIVE SOILS ARE EXPANSIVE.

CLASS A-III - SIDECRDLING



LOAD FACTOR: 1.5

CLASS C



LOAD FACTOR: 1.9

CLASS B

BEDDING DETAILS
NO SCALE

REVISIONS	DATE	INITIAL

CITY OF POMONA PUBLIC WORKS DEPARTMENT		
PIPE BEDDING AND TRENCH BACKFILL		
DRAWN BY:	S-10	
CHECKED BY:		
APPROVED BY:		
		2 OF 3

BACKFILL NOTES

NOTES

1. MATERIAL FOR COMPACTED BACKFILL WILL CONSIST OF SUITABLE JOB EXCAVATED MATERIALS, IMPORTED SOILS, OR GRADED GRAVEL AS DEFINED IN THE PROJECT'S STANDARD SPECIFICATION FOR PIPE BEDDING.
2. TRENCH BACKFILL SLAG, PEA GRAVEL, CRUSHED ROCK, OR OTHER ALTERNATIVE MATERIALS WILL NOT BE ACCEPTABLE.
3. COMPACTION UNDER THE STREET AND STRUCTURES SHALL BE 95%.
4. ALL PIPELINES CARRYING RECLAIMED WATER SHALL BE CLEARLY MARKED BY PIPE COLOR (PURPLE) OR BY PLACING IN BACKFILL PURPLE IDENTIFICATION TAPE. SAID TAPE SHALL BE NOT LESS THAN ONE FOOT OR MORE THAN TWO FEET ABOVE TOP OF PIPE.

BEDDING DETAIL NOTES

NOTES

1. SLAG, PEA GRAVEL, OR OTHER ALTERNATIVE MATERIALS WILL NOT BE ACCEPTABLE IN LIEU OF GRANULAR EMBEDMENT.*
2. TRENCH SHORING & 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 SPECIFICATION FOR PIPE BEDDING AND TRENCH BACKFILL.

*GRANULAR EMBEDMENT:

COARSE GRAINED NATIVE SOILS 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.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

PIPE BEDDING AND
TRENCH BACKFILL

DRAWN BY:

CHECKED BY:

APPROVED BY:

S-10

3
OF
3

REVISIONS

DATE

INITIAL



Attachment A
City of Pomona
Approved Materials List for Municipal Sewers

**CITY OF POMONA
APPROVED MATERIALS LIST FOR MUNICIPAL SEWER**

SUBJECT	SPEC. REF.	MANUFACTURER (Series/Model No.)	ADDITIONAL REQUIREMENTS
A. Sewer Pipe¹			
(1) Vitrified Clay Extra Strength Pipe and Fittings	²207-8 ASTM C 780	Pacific Clay Pipe Gladdin & McBean Mission Clay	Plain End & Bell and Spigot Type Pipe
(2) PVC Sewer Pipe and Fittings – Gasket Joints, 4 thru 15 inches Diameter	²207-17 ASTM D 3034 SDR-35	J-M Certainteed Carlton Pacific Western Plastics Vinyltech Diamond Plastics Corp.	Green Bell
(3) PVC Sewer Pipe and Fittings – Gasket Joints, 18 thru 30 inches Diameter	²207-17 ASTM F 679 "T-1" only	J-M Carlton Certainteed Pacific Western Plastics	
B. Sewer Laterals			
(1) Vitrified Clay	²207-8	Gladdin & McBean Mission Clay	Plain End & Bell and Spigot Type Pipe
(2) PVC	²207-17 ASTM D 2751	J-M Certainteed Pacific Western Plastics Vinyltech	
(3) ABS	²207-15 ASTM D 2751	Colby Standard Plastics	
C. Sewer Fittings			
(1) Vitrified Clay	²207-8	Gladdin & McBean Mission Clay	Plain End & Bell and Spigot Type Pipe
(2) PVC	²207-17	Vassallo Multi-Fitting G.P.K. J-M	
(3) ABS	²207-15	U-Brand	
D. Pre-Cast Manhole Bases	ASTM C 478	Mar-Con Products	
E. Sewer Rehabilitation Products³			
(1) PE Solid Wall	500-1.3	Chevron Plexco Phillip Driscopipe	Reno, NV plant Watsonville, CA plant
(2) Cured-In-Place	500-1.4	Inliner-Fabric tube: polyester felt, Resin: Dow Derakane 411 vinylester	Houston, TX plant
(3) Profiled PVC	500-1.5	Insituform-Fabric tube: Polyester felt Resin #1: Shell Epon 9215 epoxy Resin #2: Interplastics VE8319 vinylester	Memphis, TN plant
(4) Deformed Solid Wall PE	500-1.7	Danby Hydroconduit Uliner – Novacor resin	Toronto, Canada plant Roaring Springs, TX plant Houston, TX plant

SUBJECT	SPEC. REF.	MANUFACTURER (Series/Model No.)	ADDITIONAL REQUIREMENTS
(5) CCFRPM	500-1.8	Hobas American Plastics AMLiner Insituform Nupipe	Birmingham, NY plant Waco, TX plant Gepps Gross, South Australia Plant
(6) Folded Solid Wall PVC	500-1.10	Rib Loc	Manufacturing Plant Site: Terre Hill Composites, Division of Terre Hill Concrete Products, Terre Hill, Pennsylvania
(7) Machine Spiral Wound PVC	500-1.13	Product: MultiPlexx Liner System by Terre Hill Composites	Resin: Manufactured by Resolution Performance Products
(8) MultiPlexx Liner System, Type PVCP	Add: 500-2.5 Cured-In- Place Manhole Rehabilitation	MultiPlexx Liner System: Type/Model PVCP 20-28 ≥ 88 mils consisting of : PVC Liner: 20 mils PVC Polyester Fleece Backing: 10 oz/yd ² Fiberglass Backing: 18 oz/yd ² Resin: EPON 9215 at 0.0005 gallons per square foot of manhole area Epoxy: Application to substrate surface of manhole to be rehabilitated.	Installers: Tejon Constructors, Inc.
(9) Raven 405 Epoxy Lining System	Add: 500	Product: Raven 405 Epoxy Liner System by Raven Lining Systems, Inc. Raven 405 is a solvent-free 100% solids, extra high-build epoxy which can be applied over 200 mils in a single application. Light blue is the standard color when applied. Theoretical coverage averages 40 ft ² per gallon at 40-mil thickness. Product shall be applied by an applicator approved and certified by Raven Lining Systems.	Raven 405 Epoxy is manufactured by Raven Lining Systems, Inc. Plant is located at 1024 North Lansing Avenue, Tulsa, Oklahoma 74106
F. Miscellaneous			
(1) Flexible Couplings		Smith-Blair 441 Rockwell APAC (331, 323, 335), (CDC-EC) DFW Plastics, Inc.	
(2) Transition Gaskets	ASTM D 1869	Newby Rubber, Inc.	
(3) High-Deflection Couplings 4 thru 12 inches diameter		Certainteed	
(4) Flexible Saddles (Wye)		DFW Plastics, Inc.	

¹ PVC pipe shall be furnished in 12-½ foot maximum laying lengths, with specific approval needed from the City Water/Wastewater Operations Manager for 20-foot lengths or longer.

² References are to the 2006 Edition of the Standard Specifications for Public Works Construction and the latest versions of the ASTM Specifications.

³ A limitation is placed on the sealing and bonding methods and processes for lateral connections of the pipe rehabilitation methods included in this list. The limitation will continue on each method until a proven, permanent sealing and bonding method compatible with the liner material and having structural integrity equal to the liner material is available. In the interim period the City will determine the sealing and bonding method of its choice for laterals on City projects. For projects where no lateral connections are needed, this limitation may not apply.

Attachment B
California Department of Health Services
Guidance Memo No. 2003-02: Guidance Criteria for the
Separation of Water Mains and Non-Potable Pipelines

Memorandum

Date: April 14, 2003

To: Regional and District Engineers

From: David P. Spath, Ph.D., Chief (*Original signed by Dave*)
Drinking Water and Environmental Management
601 North 7th Street, MS 216
Sacramento, CA 95814
(916) 322-2308

Subject: **GUIDANCE MEMO NO. 2003-02: GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES**

The purpose of this memo is to update guidance dated April 5, 1983 for consistency with proposed 2003 regulations. Should there be any modification to the proposed Water Works Standards that may impact the content of this guidance, the guidance will be amended accordingly.

GUIDANCE: CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES

BACKGROUND

When buried water mains are in close proximity to non-potable pipelines, the water mains are vulnerable to contamination that can pose a risk of waterborne disease outbreaks. For example, sewers (sanitary sewer mains and sewage force mains) frequently leak and saturate the surrounding soil with sewage due to structural failure, improperly constructed joints, and/or subsidence or upheaval of the soil encasing the sewer. If a nearby water main is depressurized and no pressure or negative pressure occurs, that situation is a public health hazard that is compounded if an existing sewer is broken during the installation or repair of the water main. Further, failure of a water main in close proximity to other pipelines may disturb their bedding and cause them to fail. In the event of an earthquake or other disaster, simultaneous failure of all pipelines could occur.

The most effective protection against this type of drinking water contamination is adequate construction and separation of non-potable pipelines and water mains. The Waterworks Standards (Title 22, Chapter 16, Section 64572) provide separation criteria for new construction. However, when these criteria cannot be met, the risk of contamination can be reduced by increasing the structural integrity of pipe materials and joints, and ensuring minimum separation requirements are met. Therefore, the following guidance details construction criteria for the installation of water mains and non-potable pipelines to minimize the risk of contamination of drinking water.



DEFINITIONS

- **COMPRESSION JOINT** - A push-on joint that seals by means of the compression of a rubber ring or gasket between the pipe and a bell or coupling.
- **CONTINUOUS SLEEVE** - A protective tube of high-density-polyethylene (HDPE) pipe with heat fusion joints or other non-potable metallic casing without joints into which a pipe is inserted.
- **DISINFECTED TERTIARY RECYCLED WATER** - Wastewater that has been filtered and subsequently disinfected in accordance with Section 60301.230, Chapter 3 (Water Recycling Criteria), Title 22, California Code of Regulations.
- **HOUSE LATERAL** - A sewer line connecting the building drain and the sanitary sewer main serving the street.
- **SUPPLY LINE** - Pipelines conveying raw water to be treated for drinking purposes in accordance with Section 64572 ©, **proposed** Water Works Standards.
- **WATER MAIN** – Means any pipeline, except for user service lines, within the distribution system in accordance with Section 64551.70, **proposed** Water Works Standards.
- **RATED WORKING WATER PRESSURE** - A pipe classification system based on internal working pressure of the fluid in the pipe, type of pipe material, and the thickness of the pipe wall.
- **SANITARY SEWER MAIN** - A gravity sewer conveying untreated municipal wastewater.
- **SEWAGE FORCE MAIN** - A pressurized sewer conveying untreated municipal wastewater.

APPLICABILITY

Note that the construction criteria presented in this document apply to house laterals that cross above a water main, but not to those house laterals that cross below a water main.

Water mains or non-potable pipelines that are 24-inches in diameter or larger may pose a higher degree of public health concern because of the large volumes of flow involved. Therefore, installation of water mains or non-potable pipelines 24-inches in diameter or larger should be reviewed and approved in writing by the Department on a case-by-case basis prior to construction.

In no case, should water mains and non-potable pipelines conveying sewage or other liquids be installed in the same trench.

REGULATORY REQUIREMENTS

Any new development project in which all the underground facilities are being constructed for the first time must comply with the following regulatory requirements:

Existing requirements:

Section 64630.(Title 22 CA Code of Regulations) Water Main Installation“

(c) Water mains shall be installed at least:

- (1) Ten feet (3 meters) horizontally from and 1 foot (0.3 meters) higher than sanitary sewer mains located parallel to the main.
- (2) One foot (0.3 meters) higher than sanitary sewer mains crossing the main.
- (3) Ten feet (3 meters), and preferably 25 feet (7.5 meters), horizontally from sewage leach fields, cesspools, seepage pits and septic tanks.

(d) Separation distances specified in (c) shall be measured from the nearest outside edges of the facilities.

(e) Where the requirements of (c) and (d) cannot be met due to topography, inadequate right-of-way easements, or conflicts with other provisions of these regulations, lesser separation is permissible if:

- (1) The water main and the sewer are located as far apart as feasible within the conditions listed above.
- (2) The water main and the sewer are not installed within the same trench.
- (3) The water main is appropriately constructed to prevent contamination of the water in the main by sewer leakage.

(f) Water mains shall be disinfected according to AWWA Standard C601-92 before being placed in service.

(g) Installation of water mains near the following sources of potential contamination shall be subject to written approval by the Department on a case-by-case basis:

- (1) Storage ponds or land disposal sites for wastewater or industrial process water containing toxic materials or pathogenic organisms.
- (2) Solid waste disposal sites.
- (3) Facilities such as storage tanks and pipe mains where malfunction of the facility would subject the water in the main to toxic or pathogenic contamination.

Although the following requirements have not yet been adopted, they should be within the next two years and should be used as guidance for future construction.

Proposed requirements as of the date of this document:

Section 64572. Water Main Separation

(a) New water mains and new supply lines shall be installed at least 10 feet horizontally from, and one foot vertically above, any parallel pipeline conveying:

- (1) Untreated sewage,
- (2) Primary or secondary treated sewage,
- (3) Disinfected secondary-2.2 recycled water (defined in section 60301.220),
- (4) Disinfected secondary-23 recycled water (defined in section 60301.225), and
- (5) Hazardous fluids such as fuels, industrial wastes, and wastewater sludge.

(b) New water mains and new supply lines shall be installed at least 4 feet horizontally from, and one foot vertically above, any parallel pipeline conveying:

- (1) Disinfected tertiary recycled water (defined in section 60301.230), and
- (2) Storm drainage.

(c) New supply lines conveying raw water to be treated for drinking purposes shall be installed at least 4 feet horizontally from, and one foot vertically below, any water main.

(d) If crossing a pipeline conveying a fluid listed in subsection (a) or (b), a new water main shall be constructed perpendicular to and at least one foot above that pipeline. No connection joints shall be made in the water main within eight horizontal feet of fluid pipeline.

(e) The vertical separation specified in subsections (a), (b), and (c) is required only when the horizontal distance between a water main and pipeline is eleven feet or less.

(f) New water mains and new supply lines shall not be installed within 100 horizontal feet of any sanitary landfill, wastewater disposal pond, or hazardous waste disposal site, or within 25 feet of any cesspool, septic tank, sewage leach field, seepage pit, or groundwater recharge project site.

(g) The minimum separation distances set forth in this section shall be measured from the nearest outside edge of each pipe.

ALTERNATIVE CRITERIA FOR CONSTRUCTION

Water Mains, and Sewers and Other Non-potable Fluid-carrying Pipelines

When new water mains, new sanitary sewer mains, or other non-potable fluid-carrying pipelines are being installed in existing developed areas, local conditions (e.g., available space, limited slope, existing structures) may create a situation in which there is no alternative but to install water mains, sanitary sewer mains, or other non-potable pipelines at a distance less than that required by the regulations [existing Section 64630 (proposed Section 64572)]. In such cases, through permit action, the Department may approve alternative construction criteria. The alternative approach is allowed under the proposed regulation Section 64551(c):

“A water system that proposes to use an alternative to the requirements in this chapter shall demonstrate to the Department how it will institute additional mitigation

measures to ensure that the proposed alternative would not result in an increased risk to public health.”

Appropriate alternative construction criteria for two different cases in which the regulatory criteria for sanitary sewer main and water main separation cannot be met are shown in **Figures 1 and 2**.

- **Case 1** - New sanitary sewer main and a new or existing water main; alternative construction criteria apply to the sanitary sewer main.
- **Case 2** - New water main and an existing sanitary sewer main; alternative construction criteria may apply to either or both the water main and sanitary sewer main.

Case 1: New Sanitary Sewer Main Installation (Figures 1 and 2)

Zone Special Construction Required for Sanitary Sewer Main

- A Sanitary sewer mains parallel to water mains shall not be permitted in this zone without prior written approval from the Department and public water system.
- B If the water main paralleling the sanitary sewer main does not meet the Case 2 Zone B requirements, the sanitary sewer main should be constructed of one of the following:
1. High-density-polyethylene (HDPE) pipe with fusion welded joints (per AWWA C906-99);
 2. Extra strength vitrified clay pipe with compression joints;
 3. Class 4000, Type II, asbestos-cement pipe with rubber gasket joints;
 4. PVC sewer pipe with rubber ring joints (per ASTM D3034) or equivalent;
 5. Cast or ductile iron pipe with compression joints; or
 6. Reinforced concrete pressure pipe with compression joints (per AWWA C302-95).
- C If the water main crossing above the sanitary sewer main does not meet the Case 2 Zone C requirements, the sanitary sewer main should have no joints in Zone C and be constructed of one of the following:
1. HDPE pipe with fusion-welded joints (per AWWA C906-99);
 2. Ductile iron pipe with hot dip bituminous coating and mechanical joints (gasketed, bolted joints);

3. A continuous section of Class 200 (DR 14 per AWWA C900-97) PVC pipe or equivalent, centered over the pipe being crossed;
 4. A continuous section of reinforced concrete pressure pipe (per AWWA C302-95) centered over the pipe being crossed; or
 5. Any sanitary sewer main within a continuous sleeve.
- D If the water main crossing below the sanitary sewer main does not meet the requirements for Case 2 Zone D, the sanitary sewer main should have no joints within four feet from either side of the water main and should be constructed of one of the following:
1. A continuous section of ductile iron pipe with hot dip bituminous coating; or
 2. One of the Zone C options 1, 3, 4, or 5 above.

Case 2: New water mains Installation (Figures 1 and 2)

Zone Special Construction Required for Water Main

- A No water mains parallel to sanitary sewer mains shall be constructed without prior written approval from the Department.
- B If the sanitary sewer main paralleling the water main does not meet the Case 1 Zone B requirements, the water main should be constructed of one of the following:
1. HDPE pipe with fusion welded joints (per AWWA C906-99);
 2. Ductile iron pipe with hot dip bituminous coating;
 3. Dipped and wrapped one-fourth-inch-thick welded steel pipe;
 4. Class 200, Type II, asbestos-cement pressure pipe;
 5. Class 200 pressure rated PVC water pipe (DR 14 per AWWA C900-97) or equivalent; or
 6. Reinforced concrete pressure pipe, steel cylinder type, per AWWA (C300-97 or C302-99 or C303-95).
- C If the sanitary sewer main crossing above the water main does not meet the Case 1 Zone C requirements, the water main should have no joints in Zone C and be constructed of one of the following:
1. HDPE pipe with fusion-welded joints (per AWWA C906-99);

2. Ductile iron pipe with hot dip bituminous coating;
 3. Dipped and wrapped one-fourth-inch-thick welded steel pipe;
 4. Class 200 pressure rated PVC water pipe (DR 14 per AWWA C900-97); or
 5. Reinforced concrete pressure pipe, steel cylinder type, per AWWA (C300-97 or C301-99 or C303-95).
- D If the sanitary sewer main crossing below the water main does not meet the requirements for Zone D Case 1, the water main should have no joints within four feet from either side of the sanitary sewer main and should be constructed as for Zone C.

Water Mains and Pipelines Conveying Non-potable Fluids

When the basic separation criteria cannot be met between water mains and pipelines conveying non-potable fluids, the requirements described above for sanitary sewer mains should apply. This includes the requirements for selecting special construction materials and the separation requirements shown in Figures 1 and 2. Note that not all construction materials allowed for sanitary sewer mains will be appropriate for other non-potable fluid lines. For example, certain plastic lines may not be appropriate for the transport of some fuel products. The selection of compatible materials of construction for non-potable fluids is a decision to be made by the project engineer.

Water Mains and Sewage Force Mains

- Sewage force mains shall not be installed within ten feet (horizontally) of a water main.
- When a sewage force main must cross a water main, the crossing should be as close as practical to the perpendicular. The sewage force main should be at least one foot below the water main.
- When a new sewage force main crosses under an existing water main, and a one-foot vertical separation cannot be provided, all portions of the sewage force main within eight feet (horizontally) of the outside walls of the water main should be enclosed in a continuous sleeve. In these cases, a minimum vertical separation distance of 4 inches should be maintained between the outside edge of the bottom of the water main and the top of the continuous sleeve.
- When a new water main crosses over an existing sewage force main, the water main should be constructed of pipe materials with a minimum rated working pressure of 200 psig or the equivalent.

Water Mains and Tertiary Treated Recycled Water or New Supply Lines

The basic separation criteria for water mains and pipelines conveying tertiary treated recycled water or supply lines are a 4-foot horizontal separation where lines are running parallel and a 1-foot vertical separation (water line above recycled or supply line) where the lines cross each other.

When these criteria cannot be met, the Zone A criteria apply where lines are running parallel, and the Zone C and Zone D criteria apply where the lines cross each other as shown on Figures 1 and 2. For these situations, the Zone "P" criteria are in effect and prohibit construction less than 1 foot in parallel installations and less than 4 inches in vertical (crossing) situations.

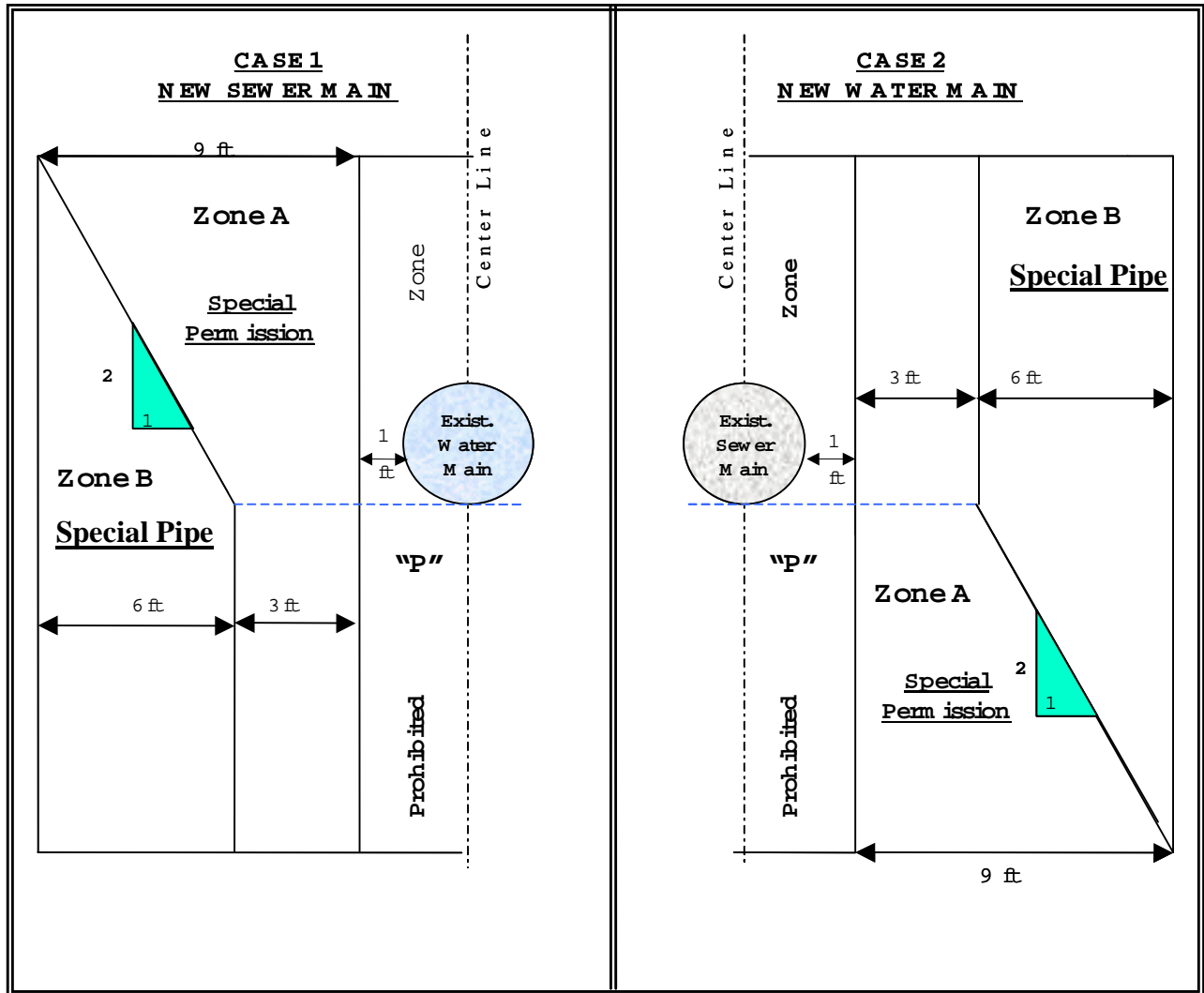
For tertiary treated recycled water and new supply lines, the Zone B criteria (requirements for special pipe) do not apply as the basic separation criteria is a four-foot horizontal separation criteria for parallel lines. The tertiary treated recycled water lines should be constructed in accordance with the color-coding, and labeling requirements per Section 116815, California Health and Safety Code of Regulations.

MISCELLANEOUS GUIDANCE

- More stringent requirements may be necessary if conditions such as high groundwater exist. HDPE or similar pipe may be required to provide flexibility to move without potential joint leaks.
- Sanitary sewer mains should not be installed within 25 feet horizontally of a low head (5 psig or less pressure) water main.
- New water mains and sanitary sewer mains should be pressure tested in accordance with manufacturer's specifications.
- When installing water mains, sewers, or other pipelines, measures should be taken to prevent or minimize disturbances of existing pipelines. Disturbance of the conduit's supporting base could eventually result in pipeline failure.
- Special consideration should be given to the selection of pipe materials if corrosive conditions are likely to exist. These conditions may be due to soil type and/or the nature of the fluid conveyed in the conduit, such as a septic sewage producing corrosive hydrogen sulfide.

NOTE: Dimensions are from the outside of the water main to the outside of the other pipeline, manhole, or sleeve.

FIGURE 1 PARALLEL CONSTRUCTION



Note: Zones identical on either side of center lines

Zones "P" is a prohibited zone, Section 64630 (e) (2) California Administrative Code, Title 22

FIGURE 2 CROSSINGS

