City of Lompoc
Utilities Department
Wastewater Division

Sewer System Management Plan

Initial Approval: July 2009
First Revision: June 2014
Second Revision: September 2014
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Fourth Revision: May 2023
Fifth Revision: July 2025

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ABBREVIATIONS / ACRONYMS / DEFINITIONS

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BMP	Best Management Practice
CAD	Computer-aided Design
CCTV	Closed-circuit television
CITY or City	City of Lompoc
CFR	Code of Federal Regulations
CIP	Capital Improvement Program or Capital Improvement Projects
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management Systems
CWEA	California Water Environment Association
Division -	City of Lompoc Wastewater Division
ERP	Enforcement Response Plan
FSE(s)	Food Service Establishment(s)
FOG	Fats, Oils, and Grease
FY	Fiscal Year (July 1 to June 30)
GIS	Geographic Information Systems
GPS	Global Positioning System
I/I or I & I	Inflow / Infiltration
LWCD	Lompoc Wastewater Collection Division
LRWRP	Lompoc Regional Wastewater Reclamation Plant
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
Cal OES	California Office of Emergency Services
PM	Preventive Maintenance
PMP	Preventive Maintenance Program
POTW	Publicly Owned Treatment Works
RWQCB or Regional Water Board	Central Coast Regional Water Quality Control Board
SERP	Spill Emergency Response Plan
SOP/SMP	Standard Operating Procedure or Standard Maintenance Procedure
SSO	Sanitary Sewer Overflow and any sewer spill or overflow of sewage
SSMP	Sewer System Management Plan
SSS WDR	Sanitary Sewer Systems Waste Discharge Requirements
SUO	Sewer Use Ordinance
SWRCB or State Water Board	State Water Resources Control Board
VSFB	Vanderberg Space Force Base
VVCSD	Vandenberg Village Community Services District
WWTP	Wastewater Treatment Plant or Waste Water Treatment Plant
Collections	The process of managing the movement of sewage discharges from the point at which it leaves the user to where it enters the WWTP
Director	The City of Lompoc Public Utilities Director or designee
Enrollee(s)	Entities or designated representative(s) that own or operate a sanitary sewer system greater than one mile in length that collect and/or convey wastewater to a Public Owned Treatment Works
Pretreatment Program	The identification of Users to ascertain if on-site pretreatment measures are required
Satellite Member Agencies	The Vandenberg Village Community Service District and Vandenberg Space Force Base
User	Any non-residential person or entity contributing, causing, or permitting the contribution of wastewater to the sewer system

Sewer System Management Plan
Element 1: Goals and Introduction

1.0 REGULATORY REQUIREMENT

The goal of the SSMP is to provide a plan and schedule to properly manage, operate and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that occur.

The SSMP must also include a narrative introduction that discusses the regulatory context and the SSMP update schedule as well as provide an overview of the sewer system assets.

Element 1.0: Goals and Introduction

1.1 REGULATORY CONTEXT

The City of Lompoc (City) first developed an Infiltration/ Inflow and Spill Prevention Plan for managing its collection system in response to Waste Discharge Requirement Order No. 01-87 issued by the Central Coast Regional Water Quality Control Board (Regional Water Board) on May 18, 2001. The 2001 regulation was replaced by the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems ,Order No. 2006-003-DQW issued by the State Water Resources Control Board (State Water Board) on May 2, 2006. The 2006 regulation required the City to develop and implement a system-specific Sewer System Management Plan (SSMP). The City's first version of the SSMP was adopted in July 2009. The SSMP addressed proper and efficient management as well as spill response and reporting procedures.

The City's SSMP has been revised several times over the years to address revised regulations, such as a requirement to add a Monitoring and Reporting Program in 2013, and to keep the document reflective of current City procedures which also evolved as he program matured.

This current version of the SSMP, Version 5, complies with requirements in the Sanitary Sewer Systems WDR Order No. 2022-0013-DWQ (SSS WDR), issued by the State Water Board on December 6, 2022, and effective June 5, 2023. Element 6 of the SSMP and the City's Spill Emergency Response Plan (SERP) were updated in May 2023;the remaining elements were subsequently updated in July 2025 to comply with an August 2025, deadline stipulated by the 2022 SSS WDRs.

1.2 ORGANIZATION OF SSMP

The SSMP is based on the mandatory elements specified in the 2006 Order. These elements are:

Element 1. Goals and Introduction
Element 2. Organization
Element 3. Legal Authority
Element 4. Operation and Maintenance Program
Element 5. Design and Performance Provisions
Element 6. Spill Emergency Response Plan
Element 7. Sewer Pipe Blockage Control Program
Element 8. System Evaluation, Capacity Assurance, and Capital Improvements
Element 9. Monitoring, Measurement, and Program Modifications
Element 10. Internal Audits
Element 11. Communication Programs

Each of these elements is addressed in the remainder of this SSMP. Each element includes the requirements for that element as described in the Order as well as any appendices containing supporting information.

1.3 DEVELOPMENT AND IMPLEMENTATION OF SSMP

The City's Wastewater Division Collections Section began preparation of its initial SSMP in August of 2007. City staff prepared the SSMP to cover the sanitary sewer collection pipes and four lift stations the City owns and operates. In addition to the City's system, the City has two satellite member agencies who convey sewage to the treatment plant: Vandenberg Village Community Services District (VVCSD) and Vandenberg Space Force Base (VSFB). These agencies are incorporated into the SSMP as required. The City incorporated by reference many existing programs and documents to satisfy the requirements of the individual elements of the SSMP; other material was newly developed to meet the requirements.

The SSMP was first completed and submitted to the City's governing board, City Council, for approval at its July 21, 2009, public meeting. Updates were also made in 2014, 2022, and 2023. Moving forward, the 2022 SSS WDR requires that Internal SSMP Audits are conducted once every three years with certifications by City Council required once every six years.

1.4 SEWER SYSTEM ASSET OVERVIEW

The City of Lompoc is located in Santa Barbara County approximately 10 miles inland from the Pacific Ocean and 55 miles northwest of the City of Santa Barbara. It was incorporated in 1888 and its current population is estimated at 44,000. The VVCSD and VSFB satellite agencies contribute sewage from an estimated 10,000 more people. There are 8,675 residential sewer connections, 179 commercial connections, and 74 industrial connections in the City's jurisdiction.

The City uses a computer-aided design (CAD) program to track all underground utilities, including its sewer infrastructure. These maps can be printed and made available to State and Regional Water Board, if requested. The mapping system is discussed in detail in Section 4.1.

The total City sewer system is approximately 111 miles in length. The lengths of the various diameter piping sizes are detailed below in Table 1. In the next table (Table 2), the lengths of sewer collection pipes are broken down by age. There are approximately 2,200 maintenance holes on the Collection System.

Table 1-1. Size Distribution of Sewer Pipes

Pipe Diameter (inches)	Length (feet)	Length (miles)	% of System by Length
4	1,280	0.24	0.2
6	208,220	39.44	35.6
8	240,110	45.47	41.0
10	30,455	5.77	5.2
12	18,770	3.55	3.2
15	27,145	5.14	4.6
18	43,285	8.20	7.4
21	9,075	1.72	1.5
27	6,115	1.16	1.0
30	585	0.11	0.1+

36	595	0.11	0.1+
48	110	0.02	0.0+
56	80	0.02	0.0+
TOTAL	585,825	110.95	100.0

Table 1-2. Age Distribution of Sewer Pipes

Pipe Age	Length (feet)	Length (miles)	% of System by Length
2000-present	1105,944	20.06	18
1960-1999	369,054	69.9	63
1916-1959	1110,827	21.00	19
TOTAL	585,825	110.95	100

There are four lift stations in the sewer collection system. The first lift station has two submersible 5-hp BJM shredder pumps with float control that convey sewage collected from the River Park under the Santa Ynez River to connect to the northeastern portion of the collection system. A second submersible pump lift station with 2 bubbler-controlled 6.2-hp Gorman-Rupp pumps lifts the sewage from the northern portion of the collection system to be pumped to maintenance hole 18-507 across the 'H' street bridge. A third submersible shredder pump lift station with float control at River Bend Park, 900 McLaughlin Road, pumps to maintenance hole 26-706, 900 Canfield Ave. A fourth submersible shredder pump lift station with float control at Ken Adams Park pumps to maintenance hole 18-518, 2400 Hancock Road.

The first pump lift station includes a 100-kW Chevy 454 V-8 natural gas emergency engine/generator. For the second, third, and fourth lift stations, the City maintains Honda 5 KW portable generators at the maintenance yard for backup power.

The City is not responsible for the maintenance of any private infrastructure, nor any portion of sewer laterals. There are no structures diverting stormwater to the sewer system.

1.5 GOALS DISCUSSION

Providing safe, responsive, and reliable sewer service is a key component to fulfilling the Wastewater Division's mission statement:

We, the employees of the Wastewater Division of the Utilities Department of the City of Lompoc, will provide our customers, the citizens of Lompoc, Vandenberg Space Force Base, and Vandenberg Village Community Services District, with safe, efficient, and reliable collection and treatment of the communities' wastewater. We will work to meet or exceed all regulations by operating our plant in a most efficient manner. We will accomplish this in a work environment that promotes teamwork and professionalism.

In support of this mission the Wastewater Division has developed the following goals for the operation and maintenance of its sanitary sewer system. This document outlines responsibilities, provides scheduling frequencies for the Division work elements, and provides procedures and guidelines for maintenance and cleaning activities.

A. Perform all operations in a safe manner to avoid personal injury and property damage.

B. Prevent public health hazards.

C. Prevent damage to public and private property.

D. Train appropriate personnel to perform regular duties as well as to implement an Overflow Emergency Response Plan.

E. Prevent, reduce, and mitigate sanitary sewer overflows.

F. Minimize inconveniences by responsibly handling interruptions in service.

G. Protect the large investment in collection systems by maintaining adequate capacities and extending useful life of the infrastructure.

H. Use funds available for sewer operations in the most effective manner.

I. Convey wastewater to treatment facilities with a minimum of infiltration, inflow, and exfiltration.

J. Provide adequate capacity to convey peak flows.

K. Apply appropriate pretreatment practices to protect the sewer system and wastewater facilities.

L. Communicate with all parties interested and affected by the SSMP.

This SSMP supplements and supports the Division's existing sanitary sewer Operations and Maintenance Program and goals by providing high-level, consolidated guidelines and procedures for all aspects of the sewer system management. The SSMP contributes to the proper management of the collection system and assists the Division in minimizing the frequency and impacts of SSOs by identifying known problem locations and providing guidance for appropriate maintenance, capacity management, and possible emergency response.

The City will strive to:

1. Continued Preventive Maintenance practices on the collection system to decrease SSOs.

    a. At a minimum, clean all sewer mainlines every 18 months.

    b. Continue with monthly and quarterly preventive maintenance inspections on 'Enhanced Maintenance' segments.

    c. Conduct video condition assessment of each sewer mainline every ten years and continuously identify areas for repair.

    d. Conduct appropriate analysis/evaluation of SSO utilizing historical maintenance and activity data and records and provide recommendations to reduce future risks.

2. Identify collection system blockages due to fats, oils, and grease (FOG) and develop strategies to decrease backups.

3. Operate all lift stations at peak efficiency and perform weekly inspection and preventive maintenance.

4. Maintain records of the sanitary sewer system and respond to inquiries.

5. Conduct periodic safety meetings with Collections personnel for working conditions in the public right of way.

Sewer System Management Plan
Element 2: Organization

2.0 REGULATORY REQUIREMENT

The SSMP must identify organizational staffing responsible and integral for implementing the Plan through an organization chart or similar narrative documentation that includes:

a. The name of the Legally Responsible Official;

b. The names and telephone numbers for management, administrative, and maintenance positions for implementing specific elements;

c. Organization lines of authority; and

d. Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, county health officer, county environmental health agency, and State Office of Emergency Services.).

Element 2.0: Organization

This SSMP element identifies the organizational structure of the City of Lompoc Wastewater Division has set for the management, operation, and maintenance of the sanitary sewer collection system and discusses the role of the SSMP in supporting the goals in Element.

2.1 GOVERNANCE AND APPLICABLE STAFF

Lompoc City Council

A five-member governing body voted into office by the citizens of Lompoc that sets policy and direction for the City.

Lompoc City Manager

Under policy direction of the City Council, plans, organizes, and administers the operations of the City departments including the Utilities Department; serves as the Chief executive officer of the City Council.

Utilities Director

Under administrative direction, plans, organizes, directs, and reviews the overall operation of the Utilities Department, which includes the Wastewater Division and its Collection system; serves as staff advisor to the City Manager on utility operations; communicates with various individuals, groups, and organizations regarding City utilities services. The Director also is responsible for the Water, Electric, and Solid Waste service provided by the City.

Information Systems/GIS

The Information Systems Division plans, assigns, designs, and reviews the technology systems installed in the City. Information technology systems include local area networks, wide area networks, Geographic Information Systems (GIS), and oversight of equipment and computer programs utilized in the Utilities Department.

City Engineering (Public Works Department)

Provides engineering services, including design, contract administration, and inspection of public works construction, including that for sewers, and related facilities for Collections.

Wastewater Manager

Under the Utilities Director's direction, plans, organizes, supervises, and directs activities of the Wastewater Division; responsible for managing the wastewater treatment facility and the wastewater collection system and is designated as the **Legally Responsible Official (LRO)** for the SSMP. As the Legally Responsible Official, the Wastewater Manager is the person responsible for reporting SSOs to other agencies as required.

Wastewater Collection Supervisor

Under direction of the Wastewater Manger, schedules, supervises, and participates in the construction, maintenance, and repair of sewer mains, service laterals, lift stations, maintenance holes, and equipment; implements SSMP. The Wastewater Collection Supervisor will document and report SSOs to the Wastewater Manager.

Wastewater Senior/Collection Worker

Under supervision of the Wastewater Collection Supervisor, the Sr. Collection Worker and Collection Workers perform construction, repairs, and maintenance of sewer mains, service laterals, lift stations, maintenance holes, and equipment, as well as provide 24-hour emergency response.

Chemist

Under direction of the Wastewater Manager, supervises the operation of and personnel at the wastewater plant laboratory, as well as the Water Resources Protection Technician; interprets and implements Federal, State, and Local pretreatment regulations for wastewater discharges; and develops and provides periodic reports required by various agencies.

Water Resources Protection Technician

Under general supervision of the Laboratory Director, implements the pretreatment program of all wastewater discharges to ensure conformance to Federal, State, and Local regulations.

City Attorney

The City Attorney provides support and advice on an as-needed basis on legal and regulatory matters relating to Wastewater Collections issues.

2.2 REPORTING RELATIONSHIPS

Table 2-1 below provides the names and contact information of personnel directly involved in the implementation of the SSMP.

2-1 Names and Contact Information (As of July 2025)

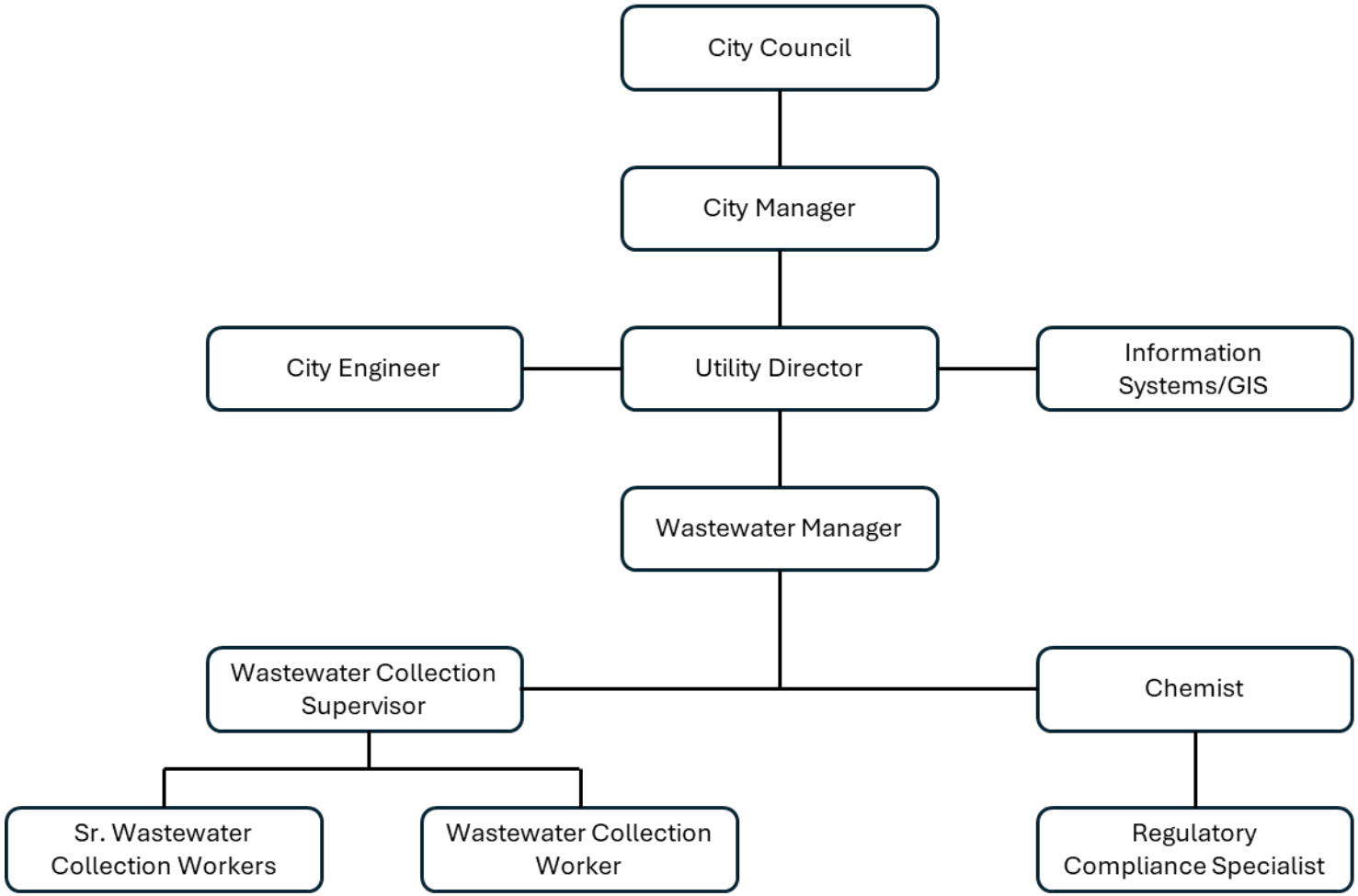
NAME	OFFICE	EMAIL
Michael Luther, Utility Director	(805)875-8272	m_luther@ ci.lompoc.ca.us
Dong Hyun Chon, WW Manager and LRO	(805)875-8405	d_chon@ci.lompoc.ca.us
Dorin Marrs, WW Collection Supervisor	(805)875-8408	d_marrs@ci.lompoc.ca.us
Todd Zarkovacski, Sr. WW Collection Worker	(805)875-8416	t_zarkovacski@ci.lompoc.ca.us

Abraham Carmona, WW Collection Worker	(805)875-8416	a_carmona@ci.lompoc.ca.us
Mason Sagpang, WW Collection Worker	(805)875-8416	m_sagpang@ci.lompoc.ca.us

A City organizational chart focused on the Utility Department is shown on the following page. Additional information on spill reporting responsibilities is included in Element 6: Spill Emergency Response Plan.

UTILITIES DEPARTMENT

PARTIAL ORGANIZATIONAL CHART



Sewer System Management Plan
Element 3: Legal Authority

3.0 REGULATORY REQUIREMENT

The SSMP must include copies or an electronic link to the Enrollee's current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority to:

a. Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that may cause blockages;
b. Collaborate with storm sewer agencies to coordinate emergency spill responses, ensure access to storm sewer systems during spill events, and prevent unintentional cross connections of sanitary sewer infrastructure to storm sewer infrastructure;
c. Require that sewer system components and connections be properly designed and constructed;
d. Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee;
e. Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures; and
f. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

Element 3.0: Legal Authority

The City of Lompoc has a comprehensive Sewer Use Ordinance (SUO) identified as Chapter 13.16 of the City of Lompoc Municipal Code. The SUO is the document under which the City regulates wastewater discharges in accordance with State and federal laws. The City is in the process of updating its SUO; a revised version is expected to be adopted by City Council by the end of this year, 2025. The discussion in the sections below is reflective of the current SUP; the SUO is available on the City of Lompoc website at: https://www.cityoflompoc.com/government/lompoc-municipal-code. The website is maintained up-to-date and the revised SUO will be posted once it is adopted.

3.1 SEWER USE ORDINANCE: GENERAL PROVISIONS

The overall objectives of the SUO, applicable abbreviations and definitions, and basic sewage connection/disconnection requirements are included in Article 1 of the SUO, General Provisions, Sections 13.16.010 through 13.16.150.

3.2 SEWER USE ORDINANCE: WASTEWATER DISCHARGE PERMITS

Individual or general permits for use of the City's sewage system are required of most Users discharging or intending to discharge into the city sewage system. Wastewater discharge permit applicability, issuance, and contents are described in…Article 2 of the SUO, Wastewater Discharge Permits, Sections 13.16.160 through 13.16.230.

3.3 SEWER USE ORDINANCE: DISCHARGE PROHIBITIONS AND LIMITATIONS

Illicit discharges into the sanitary sewer system (including Infiltration and Inflow from collection systems and laterals, storm water, unauthorized debris, etc.) receive constant attention. Legal authority to prevent and control illicit discharges and prohibit discharge of certain pollutants, substances, and toxic materials is described specifically in Article 3 of the SUO, Discharge Prohibitions and Limitations, in Sections 13.16.240 through 13.16.340.

Wastewater collection systems of Satellite Member Agencies are included in these prohibitions by reference. The two Satellite Member Agencies that contribute flow to the Lompoc collection system are the Vandenberg Space Force Base (VSFB) and Vandenberg Village Community Services District (VVCSD). The City maintains service/contract agreements with each.

The point of connection for VSFB is at coordinates:

Latitude 34.66126023 – Longitude 120.4824822.

The point of connection for VVCSD is at coordinates:

Latitude 34.66121731 – Longitude 120.4840945.

Infiltration and Inflow

Infiltration is the seepage of ground water into the service connection through defective or cracked pipes, pipe joints and connections. Inflow is water discharged into the service connections from such sources as roof leaders, cellars, yard and area drains, foundation drains, cooling water

discharges, drains from springs and swampy areas, surface runoff, street wash waters, or drainage. Both are mitigated by inspections and maintenance.

Storm water cross connections to sanitary sewer

The City of Lompoc has no cross connections for storm water entry or combined sewers, so no mitigation is necessary.

Unauthorized debris

Video inspections are regularly scheduled to identify material (unauthorized debris) that could cause stoppages by getting hung up on roots or settling out in a sewer.

3.4 SEWER USE ORDINANCE: FACILITIES REQUIREMENTS (PRETREATMENT)

If the Director finds that it is necessary to eliminate, remove, or treat wastes at the User site, pretreatment measures may be required prior to User discharge into the City sewer system. Traps/interceptors that capture discharged materials such as oil, hair, grease, etc., will generally be required if such is the case. Surcharges may be imposed if discharges exceed permitted limits. Additional information is contained in Article 4 of the SUO, Facilities Requirements, Sections 13.16.350 through 13.16.390.

3.5 SEWER USE ORDINANCE: FEES AND CHARGES

The City can recover costs for various extraordinary services relating to pretreatment requirements. Fees may include reimbursements for activities such as operating the City's Pretreatment Program, issuing permits, inspections, etc. Changes may be incurred if actual discharges exceed permitted concentrations. Fees and charges can only be imposed if adopted by resolution or ordinance, however. The adoption of Wastewater Fees and Charges is presented in Article 5 of the SUO, Fees and Charges, Sections 13.16.410 through 13.16.420.

3.6 SEWER USE ORDINANCE: VIOLATIONS

Discharging wastewater which causes interferences, obstruction, or damage to the sewer system is a violation and the User is subject to responsibility for costs incurred as a result of such discharge, in addition to potentially applicable fees and fines. Actions and remedies related violations are contained in Article 6 of the SUO, Violation, Sections 13.16.430 through 13.16.470.

3.7 SEWER USE ORDINANCE: ENFORCEMENT

Enforcement by the City of Violations will generally be in accordance with the City's Enforcement Response Plan, the result of which can be disconnections. Consequences and liability for violations are contained in Article 7 of the SUO, Enforcement, Sections 13.16.480 through 13.16.500.

3.8 SEWER USE ORDINANCE: OTHER JURISDICTIONS

Two other local jurisdictions (VVCDS and VSFB) convey their wastewater to the POTW for treatment and disposal. Interjurisdictional agreements contain the conditions under which the City is able to regulate, including monitoring, constituents of sewage delivered. Further discussion

can be found in Article 8 of the SUO, Other Jurisdictions, Section 13.16.510. The City is not responsible for maintenance of the satellite agencies' collection systems.

There are no other jurisdictions governing the stormwater infrastructure within the City limits.

3.9 SEWER USE ORDINANCE: FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

Having a FOG Pretreatment Control Program to manage FOG discharges into the sewer system is necessary to reduce or eliminate blockages and overflows. This is generally accomplished by onsite pretreatment devices such as grease traps/interceptors. Article 9 of the SUO, Fats, Oils, and Grease Control Program, Sections 13.16.520 through 13.16.610 covers the City's authority to implement its FOG Control program.

3.10. PROPER DESIGN AND CONSTRUCTION OF SEWERS AND CONNECTIONS

All construction or alteration of any building sewer, sanitary sewer, public sewer, side sewer, or other facility requires approval by the City. This approval is accomplished by requiring an Encroachment Permit and/or Building Permit. The permits require that the work be done in accordance with City standards or as specifically approved by the Director of Public Works or his/her designee. Lompoc Municipal Code, Chapter 13.16 states it is the responsibility of private and public utilities connected to the City's wastewater system to ensure that wastewater discharge to the wastewater system is in strict compliance with all contractual agreements and all applicable laws, regulations, standards, and limitations.

3.11 ACCESS FOR MAINTENANCE, INSPECTION, AND REPAIRS TO PUBLICLY OWNED ASSETS

Lompoc Municipal Code, Chapter 13.16 states all Users shall allow authorized representatives and agents of the City to enter the premises in order to carry out inspections, records examination, etc. The City does not have any easement agreements in place at this time.

Sewer System Management Plan
Element 4: Operation and Maintenance Program

4.0 LEGAL REQUIREMENT

The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system.

a. Collection System Map

An up-to-date map(s) of the sanitary sewer system, and procedures for maintaining and providing State and Regional Water Board staff access to the map(s). The map(s) must show gravity line segments and manholes, pumping facilities, pressure pipes, and valves, and applicable stormwater conveyance facilities within the sewer system service area boundaries.

b. Preventive Operation and Maintenance Activities

Requirement: Describe routine preventive operation and maintenance activities by staff and contractors, including a scheduling and data collection system for preventive O&M activities. The scheduling system must include inspection and maintenance activities, including higher frequency activities in known problem areas (including areas with tree root problems), and regular visual and CCTV inspections of manholes and sewer pipes.

c. Training

Requirement: Provide training on a regular basis for staff in sanitary sewer system operations, maintenance and require contractors to be appropriately trained. The training must cover the requirements of the 2022 SSS WDR, SERP procedures and practice drills, skilled estimation of spill volume for field operators, and electronic CIWQS reporting procedures for staff submitting data.

d. Contingency Equipment and Replacement Inventories

Requirements: Provide an inventory of sewer system equipment, including the identification of critical replacement and spare parts.

Element 4 Operations and Maintenance Program

4.1 COLLECTION SYSTEM MAPS AND INFORMATION

Wastewater Collections, with the assistance of the City's Geographical Information Systems (GIS), strives to maintain accurate electronic records of the inventory of sewer assets as well as all work performed on those assets. This section describes the software programs utilized to maintain this information.

Information Management

A computer-aided design (CAD) program is used for construction design work and to print citywide underground utility map books. Map books are sets of over 50 Grids that display parcels and streets along with sewer and storm assets. Each sewer maintenance vehicle carries citywide underground map books. Maps are referenced for maintenance activities as well as for determining how storm drains can be blocked in the event of a sewage spill. These maps can be printed and made available to State and Regional Water Board, if requested. **Appendix 4-A shows one sample page from the underground map book.**

CAD Sewer Layer Structure

Sanitary sewer collection system information is maintained in a Master CAD sewer file (Sewer.dwg). This drawing file contains the following layers:

SS-MANHOLES: point features identifying the location of sewer manholes, abandoned manholes, cleanouts, wet-wells, valves, and plugs.

SS-MAINLINES: line features identifying the location of sewer gravity mainlines, force mains.

SS-LATERALS: line features representing sewer service laterals.

SS-PUMP LIFT STATIONS: polygon features identifying the location of sewer pumping station buildings.

In CAD, information pertaining to sewer features (such as manhole number, rim and invert elevations, mainline size, and length) is displayed as text annotation layers. CAD feature layers (non-text layers) are exported into an ArcSDE Geodatabase (geodatabase) as GIS feature classes. In GIS, these features have the CAD text information stored as data in layers attribute tables along with other pertinent data.

GIS Computer Mapping Program

GIS is a computer mapping system that links graphic features on a map to databases of related information. The City has converted all of its sanitary sewer assets into a GIS system. While CAD is used primarily for design work, GIS is utilized for storage/retrieval of asset information. **Appendix 4-B was created using GIS software.**

ArcSDE Sewer Layer (Feature Class) Structure

The City is in the process of acquiring a new GIS software package, ArcGIS, which allows for mobile data entry from field locations. Currently, sanitary sewer collection system information is

maintained in an ArcSDE Geodatabase that contains the following sewer GIS layers and attributes data:

SS-MANHOLES: point features identifying the location of sewer manholes, clean-outs, wet-wells, valves and plugs [data fields: ObjectID, Shape, CAD Handle #, Layer, LegacyID, OldID, Location, Neighborhood, FacilityID, Condition, Condition Date, Warranty Date, Cleaning Area, Notes, Rim Elevation, Channel Elevation, Interior Drop, Access Diameter, MH Location, Install Date, Latitude, Longitude].

SS-MAINLINES: line features identifying the location of sewer gravity mainlines, force mains, and force mains [data fields: ObjectID, Shape, CAD Handle #, Layer, LegacyID, Length, FacilityID, Location, Condition, Condition Date, Warranty Date, Cleaning Area, Diameter, Material, Install Date, SSML Location].

SS-LATERALS: line features representing sewer service lines - not an exact representation of the location of the lateral in the filed – but a line providing linkage between the parcels, with ownership information, and the receiving sewer mainline [data fields: ObjectID, Shape, CAD Handle #, Layer, LegacyID, Length, FacilityID, Location, Condition, Condition Date, Warranty Date, Cleaning Area, Material, APN, Street #, Street Name, Zip code, Year Structure Built, Install Date, ROW vs. Easement, Cleanout Type, Tap Type, Tap Location].

SS-PUMP LIFT STATIONS: polygon features identifying the location of sewer pumping station buildings, as well as data regarding pumps and maintenance information [data fields: ObjectID, Shape, CAD Handle #, Layer, Pump station Name, Wet well CAD Handle#, Station Type, LegacyID, Location, FacilityID, Condition, Condition Date, Warranty Date, Pipe Inlet Diameters, Discharge/Force main Diameter, Pump Capacity, Total Dynamic Head, Date Station Built, Pump #1 #2 & Information, Pump #1 #2 & Install Date, Pump #1 #2 & Rebuild Date, Pump #1 #2 & Model #, Pump #1 #2 & Serial #].

SS-BASINS: polygon layer for the City's 6 major sewer basins.

SS-SUBBASINS: polygon layer outlining small sub-sections within each sewer basin.

SS-CLEANINGAREAS: polygons further dissecting sub-basins. Cleaning areas identify how the collection system operates and flow is carried from peripheral lines to major trunk lines for maintenance crews to effectively clean pipe networks. Polygons are snapped to the outside boundaries of parcels served at each small network to identify property owners within each cleaning area.

Admins (Alpha)

The City utilizes Admins (Alpha) computerized maintenance management program for planning and scheduling preventive maintenance work and for tracking maintenance history on sewer assets. This application provides access to information pertinent to each asset (pipe diameter, length, material, etc.) as well as to maintenance activities (work orders).

The primary functions of Alpha are:

- Maintain service request and maintenance history for each collection system asset
- Produce and regularly update the maintenance schedule based on feedback from the operators
- Generate reports that support data analysis and decision making

- Indicate line segments or structures that may be candidates for replacement or rehabilitation under the capital improvement program

The City has been actively evaluating multiple CMMS solutions to replace Alpha, which is an older software that is not easy to keep up-to-date. As part of this effort, the City has been reviewing and verifying the capabilities of several platforms, including Munis, CityWorks, and MaintenanceX. The primary goal is to ensure compatibility and seamless integration with the existing GIS system, Alpha. The evaluation process is ongoing, and we are working to determine which software best meets the operational needs of the Wastewater Collection Division and aligns with the City's broader asset management goals.

Map Update and Maintenance Procedures

Keeping the sewer collection system maps up-to-date is an ongoing effort with all modifications coordinated through the appropriate department. The following routine actions are part of the program.

Field personnel note any discrepancies or errors on field maps. These notes are submitted to the Collection Supervisor and GIS Manager for verification and map updates. The master underground utilities CAD map is modified and updated underground utilities map book pages are distributed. CAD updates are transferred to the GIS system, attribute information is updated and associated maps (Sewer Cleaning District Maps, etc.) are reprinted reflecting new information.

In-house CAD drawings for all capital improvement and system rehabilitation projects are sent to the Collection Supervisor as part of project closeout. The master underground utilities CAD map is modified and updated underground utilities map book pages are distributed. The GIS Manager transfers the CAD updates into the GIS system and updates GIS layer attribute information. Associated maps are re-printed reflecting new information and capital improvement details are entered into the system.

Developers submit “as-built” drawings of final sewer system construction to the City Engineer. These drawings are submitted to the GIS Manager for map updates. The master underground utilities CAD map is modified and updated underground utilities map book pages are distributed. CAD updates are transferred to the GIS system, attribute information is updated and associated maps are re-printed reflecting new information. Improvement details are entered into the system.

CAD Standards

To ensure that all plan information, whether generated within the GIS Department or by consultants, can be seamlessly incorporated into maps, staff developed a set of CAD standards. The standards condition CAD work to be performed utilizing a copy of the CAD project file “legend.dwg.” This drawing file and associated plot style table files contain standardized map layer attributes, legend, and title blocks for submitting project plans & profiles.

The GIS Manager performs the edits to the master CAD underground utility map files when changes occur. This procedure facilitates the proper transition of edits into the GIS sewer layer files.

4.2 PREVENTIVE OPERATIONS AND MAINTENANCE OVERVIEW

The Wastewater Collection Section of the Wastewater Division employs several maintenance approaches for the sewer collection system. Citywide mainline cleanings, ongoing preventive maintenance of target areas, use of CCTV inspections of mainlines, along with coordination with Pretreatment efforts and activities to minimize FOG entering the collection system all support the goals and objectives of Wastewater Collections. Wastewater Collections is responsible for these collection system management goals:

1. Proper maintenance, operations, and management of all parts of the wastewater collection system.

2. Provision of adequate capacity in the collection system to convey peak flows.

3. Minimize the frequency of sanitary sewer overflows (SSOs).

4. Mitigate the impact of SSOs.

Objectives of Wastewater Collection preventive maintenance program include:

1. Perform preventive maintenance on the collection system to minimize preventable SSOs.

   a. Clean all sewer mainlines within the identified required maintenance period.

   b. Continue with monthly and quarterly preventive maintenance hydro cleaning for identified sewer mainline target areas.

   c. Conduct a video condition assessment of each sewer mainline as required and continuously identify areas requiring enhanced maintenance.

   d. Refer mainlines with repeat non-scheduled maintenance to Wastewater Collection Supervisor for evaluation.

   e. Conduct appropriate analysis/evaluation of SSOs within the City's collection system utilizing historical maintenance and activity data and records and provide recommendations to reduce future risk.

2. Identify collection system blockages due to fats, oils, and grease (FOG) and develop strategies to minimize backups.

3. Operate all lift stations at peak efficiency and perform preventive maintenance on equipment at all sanitary sewer lift stations.

4. Maintain records of the sanitary sewer system and respond to inquiries.

5. Assist with the development of a capital improvement program directed at maintaining the current sewer assets, improving system reliability and providing adequate future capacity.

Table 4-1 Equipment dedicated to Sewer Collection System

Quantity	Equipment	Purpose
2	Generators	Backup power for pump stations
1	CCTV Truck	Transport Mainline CCTV Camera
1	CCTV Mainline Camera	Repair and Preventive Maintenance
2	½ ton Trucks	Emergency Response & Daily Activities
1	Tractor 4X4	All Purpose
1	Air Compressor	Emergencies
1	Trailer Pump	Emergencies
2	Combo Vactors	PM & Emergencies to Collection System

Table 4-2 Personnel for the maintenance of the Sewer Collection System

FTE	Title	Duties
1.0	WW Collection Supervisor	Oversee Sewer Operations, Maintenance Programs, Pump Crew, Repair Crew and Emergency Response; Documentation/Record Keeping
2.0	Sr. WW Collection Worker	Preventive Maintenance, Pump Station, Inspection, CCTV and related duties
1.0	WW Collection Worker	Preventive Maintenance, Pump Station, Inspection, CCTV and related duties

4.3 CITYWIDE SEWER CLEANING

One goal of Wastewater Collections is to clean each and every sewer mainline within an identified required time period. A maintenance program was developed to send crews out for mainline cleaning in the most effective way, to track these efforts and document the problems found in the system.

The Wastewater Collection section divided the collection system into six major sewer basins as shown in **Appendix 4-C**, then further divided into Sub-basins/cleaning areas**(Appendix 4-D)** that identify how pipe networks converge into trunk lines and flow is carried to the WWTP.

Cleaning areas are logical boundaries identifying small areas of the collection system that can be cleaned within a few days. The maps also follow flow so that crews can clean outlying pipes and work down as mainlines converge into trunk lines. These Basins, Sub-basins and cleaning areas boundaries were created in a GIS program and are currently GIS layers.

Individual cleaning area maps, **(Appendix 4-E)**, are utilized to manage crew activities and ensure proper and thorough mainline cleaning.

A target cleaning frequency for each collection system sub-basin can be found in **Appendix 4-F.**

Preventive Maintenance Cleaning Of Enhanced Areas

Wastewater Collections has an enhanced preventive maintenance (PM) program for identified problem areas on the collection system. The Wastewater Collection Supervisor maintains an up-to-date list of hot spots and other high priority assets that are maintained on a monthly or quarterly basis.

Sewer Mainline Cleanings

Sewer mainline cleaning schedules were developed over the years through historical knowledge and data of repeat blockages as well as historical knowledge and experience of staff. The Wastewater Collection crew meets routinely, to discuss the effectiveness of certain types of cleanings, discuss whether the frequency of cleaning is appropriate at each location, and identify if other problem areas have surfaced that should be added to the PM list. Crews are able to evaluate the effectiveness of PM cleaning and increase or decrease the length of time between cleanings based on field knowledge and experience as well as with the assistance of (CCTV) inspections.

After CCTV, it is determined if rehabilitation or replacement of a line may be necessary, or may present an opportunity to remove it from the PM list. At this point, the Collection Section will evaluate findings and handle the rehabilitation or replacement if necessary.

Cleaning Procedure

Wastewater Collection staff are trained on proper line-cleaning procedures. Various cleaning methods are used to ensure thorough cleaning of sewer mainlines, including hydro jet. The appropriate cleaning tools are regularly reviewed.

4.4 PUMP LIFT STATION MAINTENANCE

The Wastewater Collection staff is in charge of the operations and maintenance of the four sewage-pumping lift stations. Of the four pump lift stations, Uplands and River Park lift stations are dual pump lift stations. River Bend Park and Ken Adams Park are single pump lift stations. Wet well operations are set to limit pump starts and stops. Power outages occur infrequently and average about three a year. The Uplands stationary gen-set is exercised weekly, and the River Park, River Bend Park, and Ken Adams Park portable gen-set is exercised monthly.

Pump stations are thoroughly inspected weekly as part of the sewer maintenance pump station preventive maintenance program. Inspection records are kept at the WW Collection Supervisor office. Work activities are developed and prioritized based on these inspections and completed prior to the next inspection.

Table 4-3 Preventive maintenance inspections cover the following:

LUBRICATION	INSPECTION	LEAK CHECKS	EXERCISE	HOUSEKEEPING
Valves	Sump Pumps	Fuel/Oil Lines	Motors	Clean Interior
Locks & Padlocks	Backflow	Valves	Valves	Clean Exterior
Latches & Hinges	Controls/Alarms	Seals		Debris Pick-up
	Wet Well	Lubricants		Lights
	Exhaust Systems	Air Systems		

The Wastewater Collections utilizes an Auto Dialer and Inspection system to monitor pump run-times. Alarms sent to the Wastewater Collections include high wet well level and power failure.

4.5 SEWER MAINTENANCE STAFF TRAINING

Collection staff are required to complete various types of training as listed below. Collection staff must hold the appropriate California Water Environment Association (CWEA) Certifications. Trainings on SSO volume estimation are accomplished through CWEA workshops. Other trainings, including regarding updates to the SSMP and SERP are held on as-needed basis.

Table 4-4 Wastewater Collection Staff Training List

CORE	EQUIPMENT	OPERATIONS
Customer Service	Combo Vactor/Flusher	Confined Spaces
Sexual Harassment	Chainsaw	Gas/Air Monitors
Cultural Diversity	Forklift	Shoring
Commercial Drivers License	Tractor With attachments	Traffic Control
CWEA Certifications	Mower	USA Locating
	CCTV	SSO Prevention
	Dump Truck	NIMS
		NASSCO PACP (as required)

LIFT STATIONS	EMERGENCY	MEDICAL TRAINING
Electrical Training	Hazmat	Blood Borne Pathogen
Pump Repairs/ Troubleshooting	Emergency Response Plan	First Aid Training CPR and AED

4.6 EQUIPMENT INVENTORY

Certain critical replacement parts are maintained in inventory so that acquisition delays can be avoided and emergencies effectively dealt with. Those parts and equipment relating to collections that have been identified as critical for planned and unplanned maintenance include:

- A second vactor/flusher truck
- Large diameter pipe replacement sections and fittings
- A bypass portable diesel fuel pump capable of serving the longest runs between access points

ELEMENT 4 APPENDICES

Appendix 4-A Master Storm Drainage System Map

Appendix 4-B Wastewater Collection System Grid

Appendix 4-C Basins

Appendix 4-D Sub basins/Cleaning Areas

Appendix 4-E Cleaning Area Map (example)

Appendix 4-F Frequency of Basin Cleanings (example)

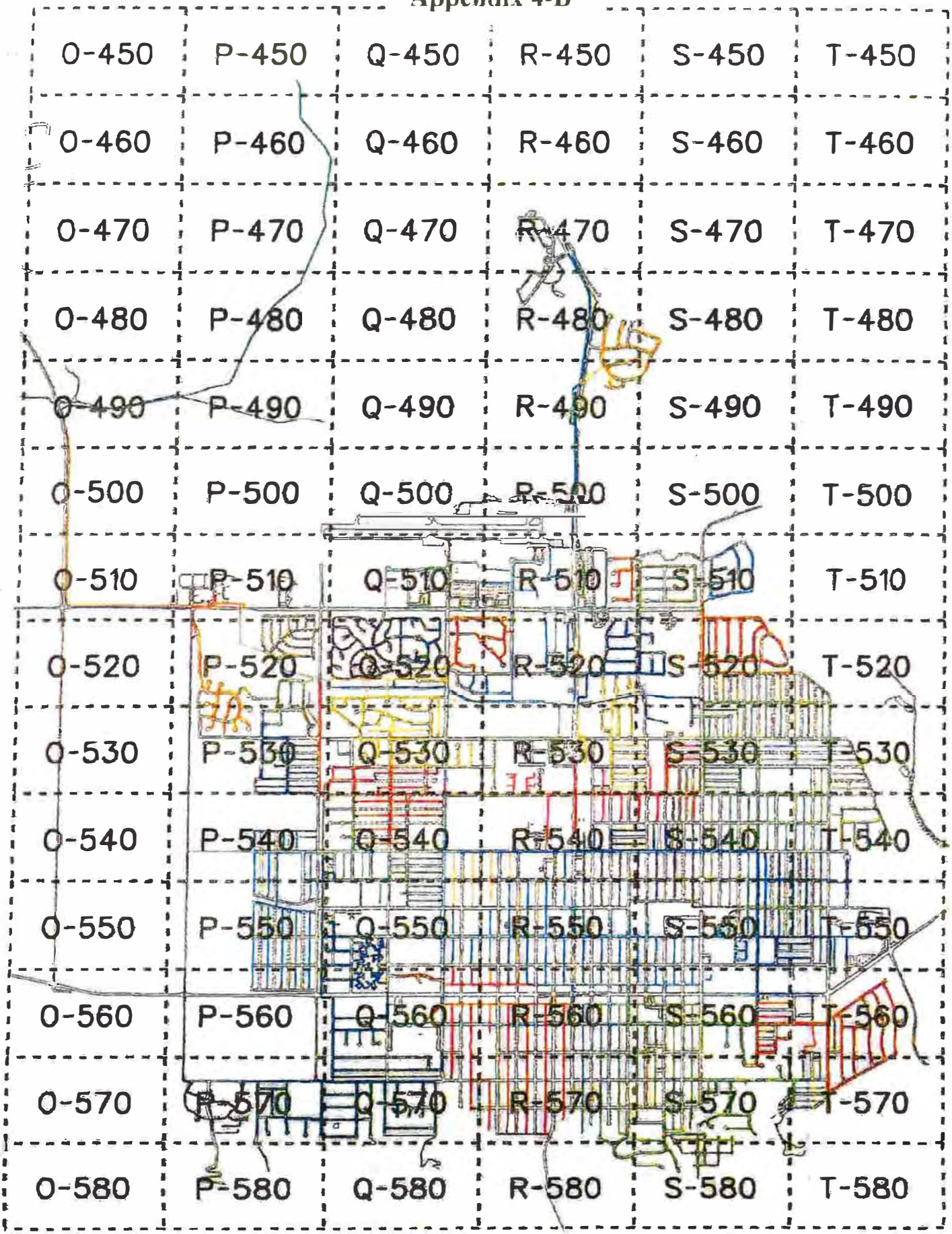
Appendix 4-G Historical Log (example)

Appendix 4-A

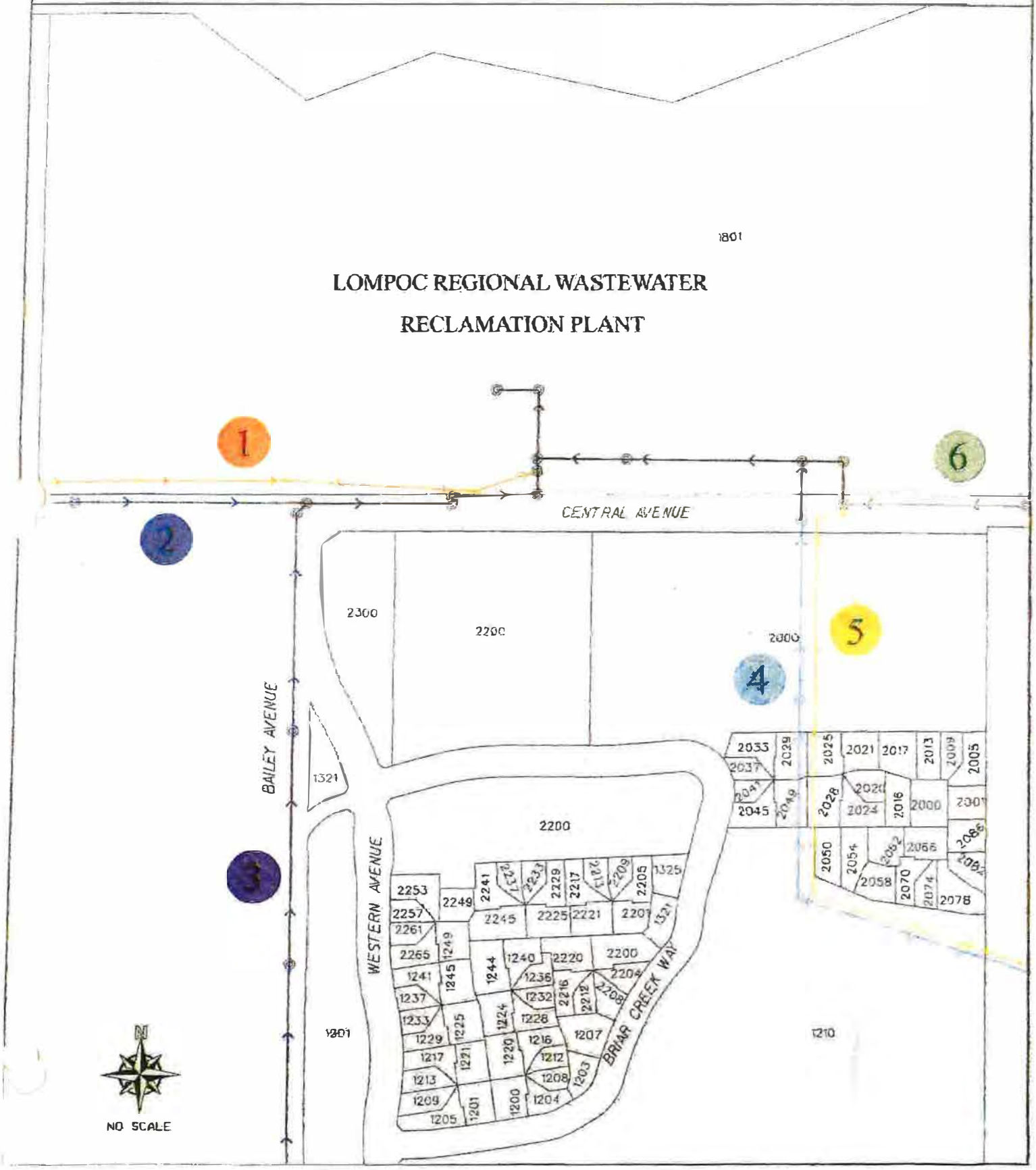
CITY OF LOMPOC
MASTER STORM DRAIN
SYSTEM MAP

WASTEWATER COLLECTION GRID

Appendix 4-B



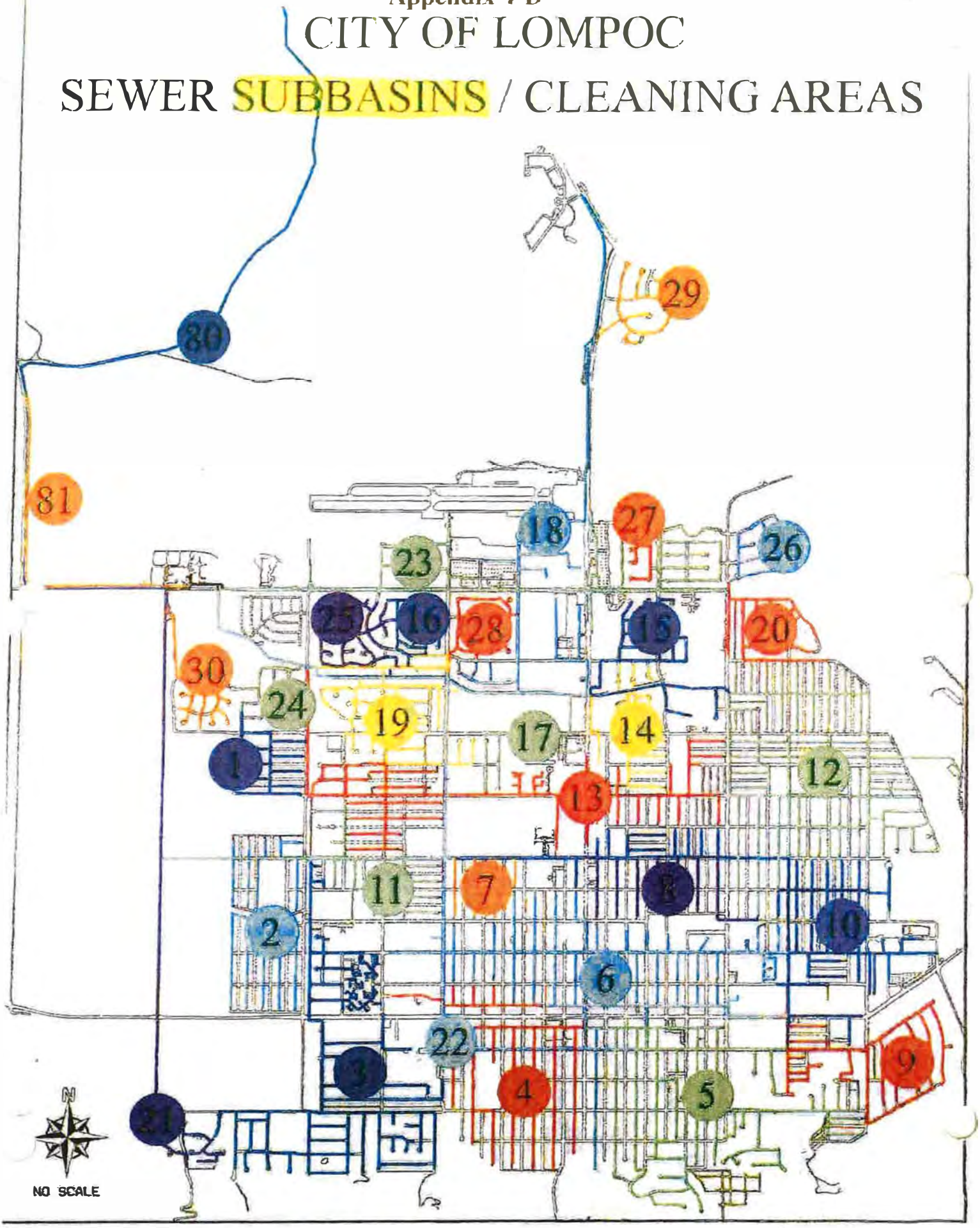
CITY OF LOMPOC
SEWER BASINS
Appendix 4-C



Appendix 4-D

CITY OF LOMPOC

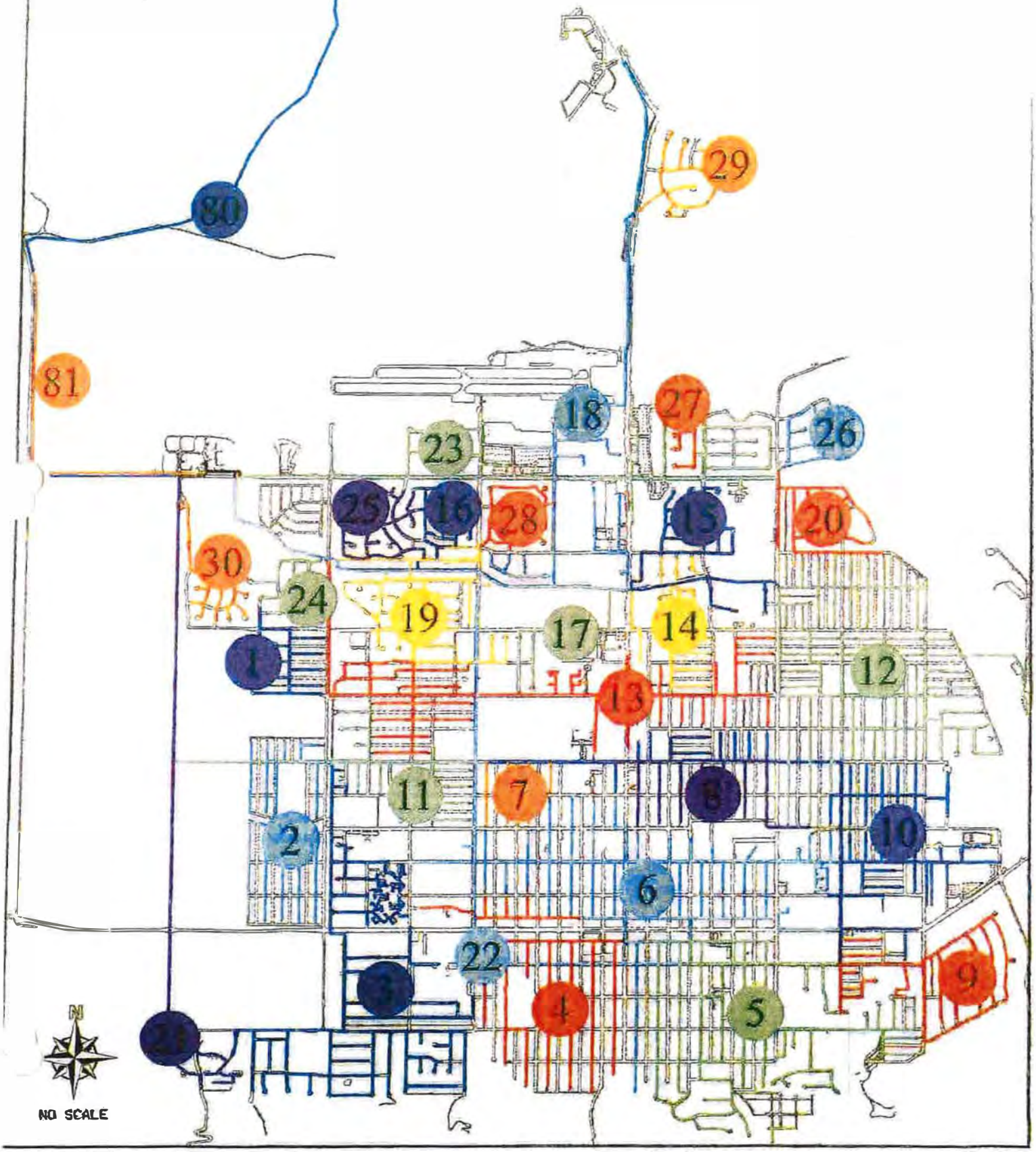
SEWER SUBBASINS / CLEANING AREAS



Appendix 4-E

CITY OF LOMPOC

SEWER SUBBASINS / CLEANING AREAS



APPENDIX 4-F

[SEGMENT] FREQUENCY OF BASIN CLEANINGS 4/2/86

SEWER LINE SEGMENT

Tabs: 2=MAINT 3=MANHOLE 4=TVCODES 5=INSPECTION 6=STXREF 9=MENU

MANHOLE INFORMATION

MANHOLE	TYP	RIM ELEV	INV ELEV	DEPTH	ADDRESS	LOC
DOWNSTREAM [01-107]	S	.00	.00'	11.50'	1550 WEST LEMON & NORTH AVE.	A
UPSTREAM.. [01-109]	M	.00	.00'	10.08'	N.X ST.BETWEEN W.N.AVE.& LEMON	S

LINE SEGMENT INFORMATION

PIPE TYPE.....	C	INSTALLATION DATE.....	
LINE LENGTH.(ft).....	335	SLOPE:	.000 %
LINE DIAMETER.(in).....	8	VIDEO TAPE REF #.....	001
INSPECTION FREQUENCY.(yrs)	10	CLEANING FREQUENCY.(mo)..	12
LAST INSPECTION DATE.....	11-JAN-10	LAST CLEANING DATE.....	04-JUN-14
SPECIAL INSTRUCTIONS.....			

APPENDIX 4-G

HISTORICAL LOG (EXAMPLE)

DATE: 16-SEP-14 CITY OF LOMPOC PAGE: 339
TIME: 09:20:04 SEWER MAINTENANCE HISTORY LISTING REPORT: MNT_HSTRY.REP

JOB#	DPG-MH/ TYP CD	UPG-MH/ FLUSH	SCHED DAT/ CMPLT DAT	MAINTENANCE PROBLEMS/
4,935	03-533	03-541	13-APR-90	
	RC	2	02-APR-90	VERY GREASY. USED BUZZ BOMB NOZZEL.
2,892	03-533	03-541	17-MAR-89	
	RC	1	28-FEB-89	GREASY
-30,95	03-533	03-541	29-AUG-14	
	RC	1	02-JUL-14	
32,249	03-534	03-535	23-JUN-11	
	RC	1	23-MAY-11	removed 1 bucket grit
30,141	03-534	03-535	23-JUL-09	
	RC	1	02-JUL-09	
28,013	03-534	03-535	01-FEB-08	
	RC	1	10-MAR-08	
26,081	03-534	03-535	30-AUG-06	
	RC	1	09-AUG-06	
23,779	03-534	03-535	26-APR-04	
	RC	1	24-MAR-04	

Sewer System Management Plan
Element 5: Design and Performance Provisions

5.0 REGULATORY REQUIREMENT

The SSMP must identify design, construction standards, and specifications for the installation of new sanitary sewer systems, pump stations, other appurtenance, rehabilitation and repair of existing sanitary sewer systems, as well as the procedures and standards for inspecting and testing the installation of new sewers, pumps, other appurtenance, rehabilitation, and repair projects.

Element 5.0: Design and Performance Provisions

5.1 STANDARDS FOR INSTALLATION, REHABILITATION, AND REPAIR

The City of Lompoc has adopted Standard Specifications for Public Works Construction, the "Green Book" and City standards as our standard specifications for public works construction. **Construction details are shown on Appendices 5-A, 5-B, 5-C, and 5-D.**

Improvement Plans

Improvement plans shall be on 24" x 36" standard plan sheets. Drawings and specifications including "as builts" prepared by contractors for City projects become the property of the City and shall have the standard City title block located in the bottom right-hand corner. Layout sheets shall be on plan and 3-line profiles. Approval signature shall be City Engineer/Public Works Director.

Sanitary Sewer Standards

1. Design criteria (PVC SDR 35)
    a. Coefficient of friction "n" = 0.013
    b. Minimum velocity = 2 feet per second
    c. Maximum velocity = 10 feet per second

Land Use	Peak Design Flow Factor
Single family	0.0065 cfs/acre
Multi-family	0.0115 cfs/acre
Commercial	0.0065 cfs/acre
Light industrial	0.0080 cfs/acre
Heavy industrial	0.0100 cfs/acre
Other	determined individually

Design shall include the full peak flow for the contributory area

2. Desired Slopes of Collector Lines

Size	Slope (min)
8"	0.44%
10"	0.33%
12"	0.26%
15"	0.19%
18"	0.12%
21"	0.10%
24"	0.08%
27"	0.068%

3. Lateral Sizing
    a. Laterals serving single family residence – 4"
    b. Laterals serving multi family residence – 4" to 6"
    c. Minimum cover at property line – 3 feet
    d. Cleanout required downstream of building

4. Preferred Minimum Sizing for Sanitary Sewer Mains
    a. Residential areas – 8”
    b. Commercial and industrial areas – 8”

5. Easements – minimum 10 feet wide

6. Normal location in alley/street

7. Maintenance Hole spacing – 500 feet apart

8. Minimum cover over main – 4 feet

9. Maintenance Holes to be concentric

10. Minimum clearance of 1’ shall be maintained between the sewer and crossing pipes

11. Allow 0.2-foot drop around a 90-degree bend in manhole

12. Change direction or size only at a manhole

13. Minimum radius 300’ with approval by City Engineer

14. Flushing starters are required on all dead-end lines – whether in a cul-de-sac or at a dead-end street except where terminated at a maintenance hole. Flushing starters shall be located as necessary from a maintenance hole. Lines shall be constructed through the development to upstream properties shall include capacity for the upstream area.

15. Avoid drop manholes

5.2 STANDARDS FOR INSPECTION & TESTING OF NEW, REHABILITATED, AND REPAIRED FACILITIES

Inspection and Testing standards are located in the City Standards.

5.3 DESIGN AND PERFORMANCE STANDARDS GOALS

Update Design and Performance Standards as needed. (For example, the switch to PVC SDR35 pipe material from vitrified clay pipe is reflected in this SSMP revision.)

ELEMENT 5 APPENDICES

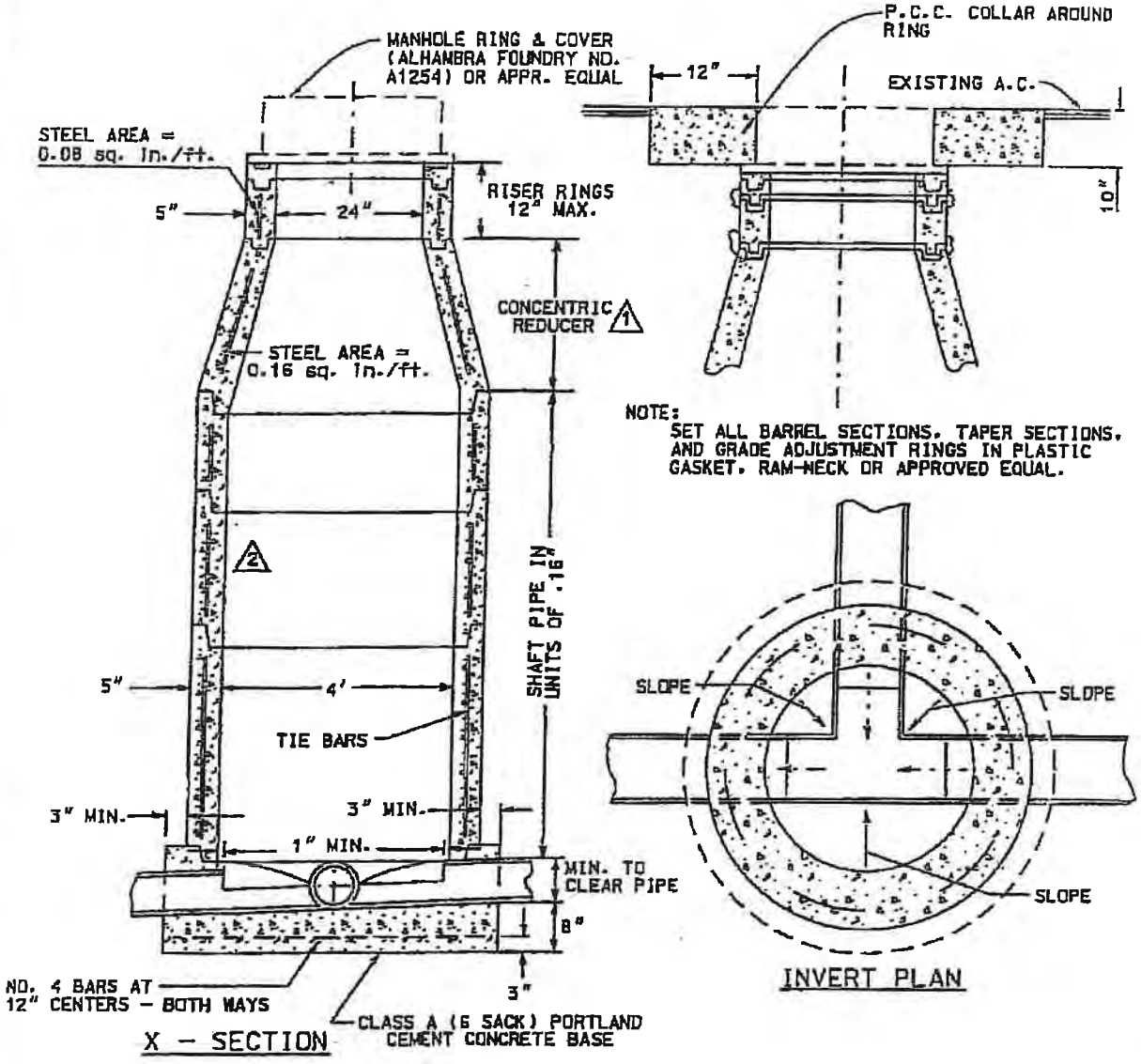
Appendix 5-A Standard Ring. Cover. Pipe. (R.C.P.) Maintenance Holes

Appendix 5-B Standard Sewer Details Lateral for Deep Sewers

Appendix 5-C Standard Sewer Lateral

Appendix 5-D Shallow Manholes

Appendix 5-A



NOTES:

1. HEIGHT OF SHAFT PIPE AND RISER RINGS TO BE MADE OF STANDARD UNITS.
2. ALL UNITS REINFORCED SINGLE CAGE.
3. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE 4000 P.S.I.
4. MORTAR SHALL BE 1 PART CEMENT TO 2 PART SAND.
5. LAY PIPE THROUGH MANHOLE.

APPROVED LAWRENCE McPHERSON 7/1390
CITY ENGINEER R.C.E. 21157 DATE

MARK	REVISIONS	APPR.	DATE
1	CHANGE TO CONCENTRIC REDUCER	KM	10/06
2	REMOVE STEPS	KM	10/06

CITY OF LOMPOC

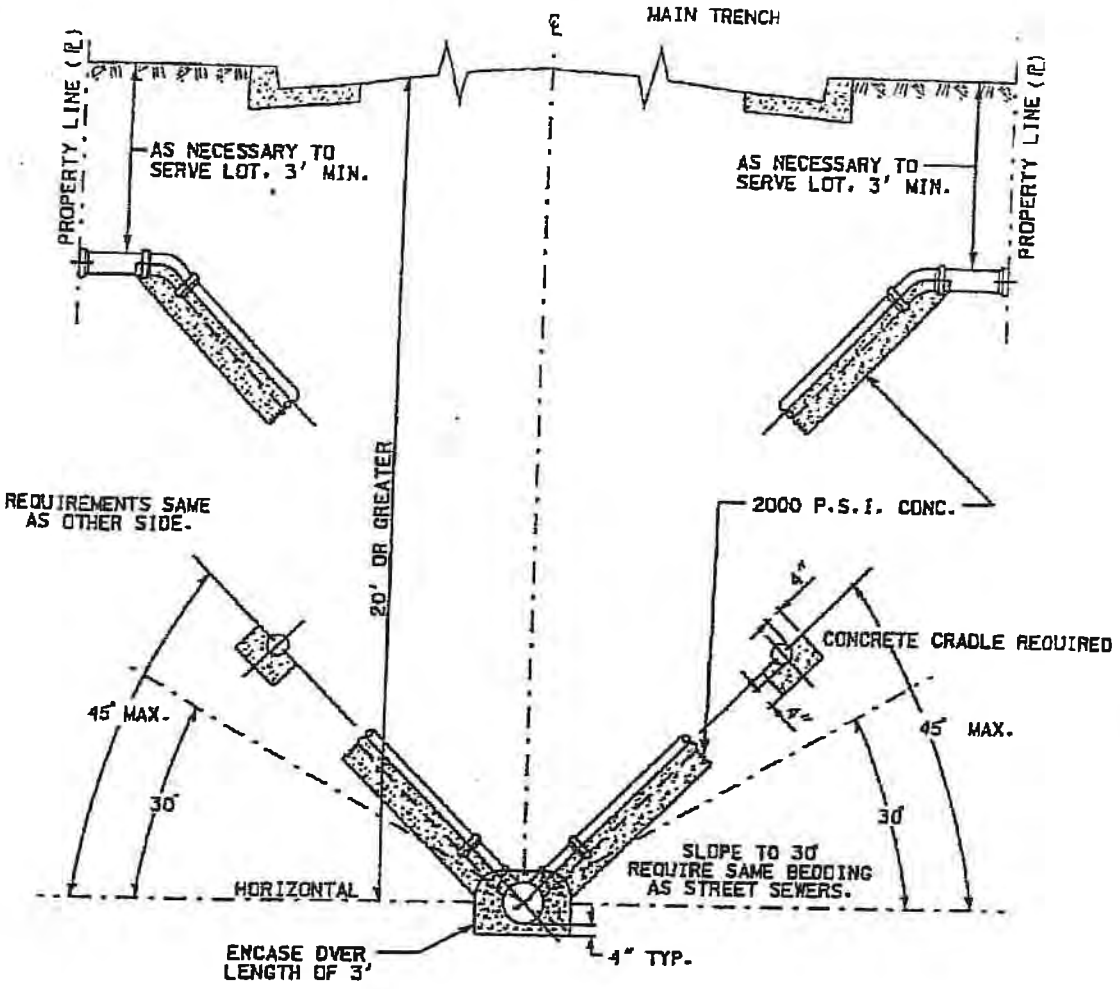
Engineering Division

STANDARD R.C.P. MANHOLES

STANDARD DRAWING NO. 300

Resolution No. 3967(90) SHEET 1 OF 1

Appendix 5-B



ELEVATION

NOTES:

1. 4" FOR FAMILY DWELLING.
2. 6" FOR MULTIPLE DWELLINGS.
3. CLEAR WATERMAINS PER STD. DWG. 413.
4. SEE STANDARD DRAWING FOR ALTERNATE DESIGN.
5. ALL WORK TO CONFORM TO STANDARD SPECIFICATIONS.
6. NO SERVICE TOPS. (1)

APPROVED	JIM DIXON		7/3/84
	CITY ENGINEER R.C.E. 24658		DATE
1	NO SERVICE TOP LATERALS	CH	10/06
MARK	REVISIONS	APPR.	DATE

CITY OF LOMPOC
Engineering Division

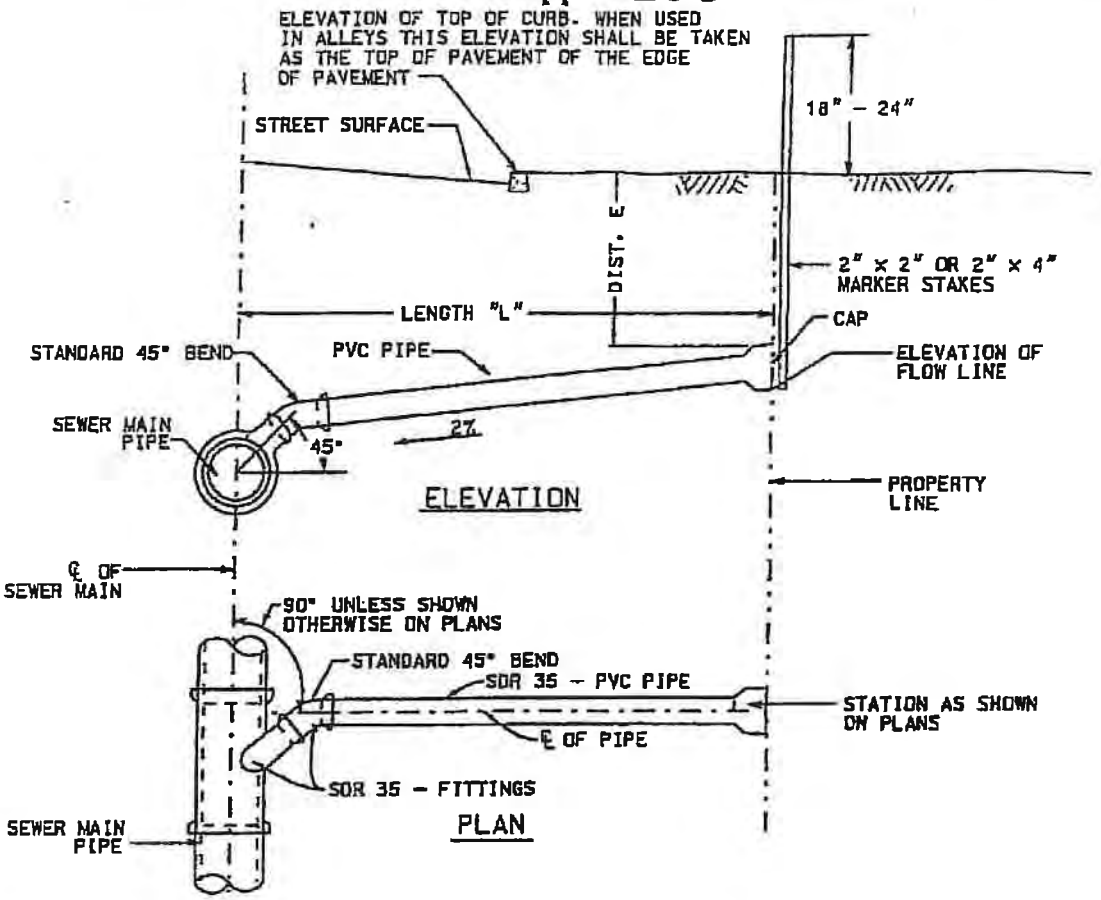
STANDARD SEWER DETAILS
LATERAL FOR DEEP SEWERS

STANDARD DRAWING NO. 302

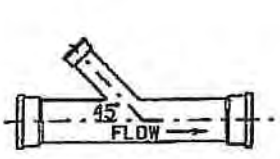
Resolution No. 3366(84)

SHEET 1 OF 1

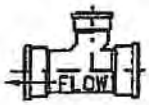
Appendix 5-C



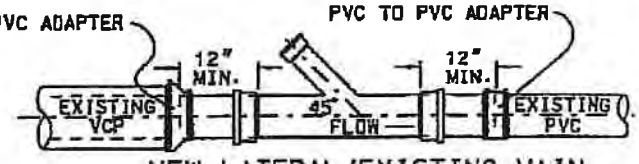
1. THE LENGTH "L" IS SHOWN ON THE IMPROVEMENT PLANS.
2. THE STATION OF THE POINT OF INTERSECTION OF THE CENTERLINE OF THE SEWER CONNECTION PIPE AND THE PROPERTY LINE IS SHOWN ON THE IMPROVEMENT PLANS.
3. THE INLET OF THE SEWER CONNECTION PIPE SHALL BE CLOSED BY A CAP MADE FOR THAT PURPOSE.
4. THE DISTANCE "E" IS TO BE 3' UNLESS OTHERWISE SPECIFIED.
5. AN "S" SHALL BE PLACED ON TOP OF CURB AT LATERAL CROSSING FOR FUTURE LOCATION.



PVC WYE



PVC TEE/WYE



NEW LATERAL/EXISTING MAIN

1

APPROVED	LAWRENCE McPHERSON CITY ENGINEER R.C.E. 21157		7/13/90 DATE
1	DELETE SHEET 1 – VCP PIPE	KM	10/06
1	DELETE SADDLE OPTION	KM	10/06
MARK	REVISIONS	APPR.	DATE

CITY OF LOMPOC

Engineering Division

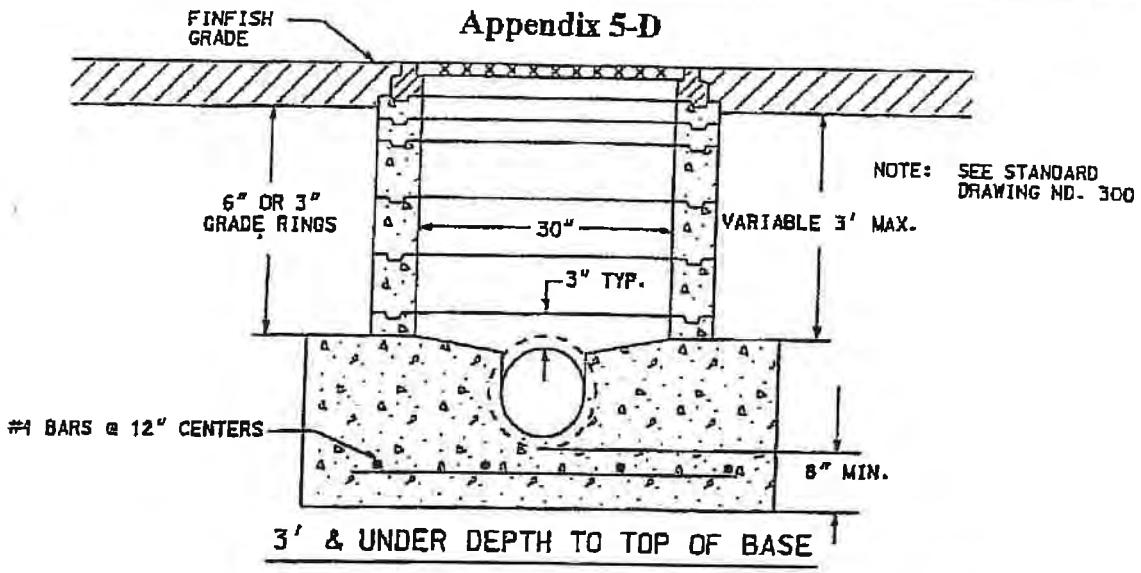
STANDARD SEWER LATERAL

STANDARD DRAWING NO. 305

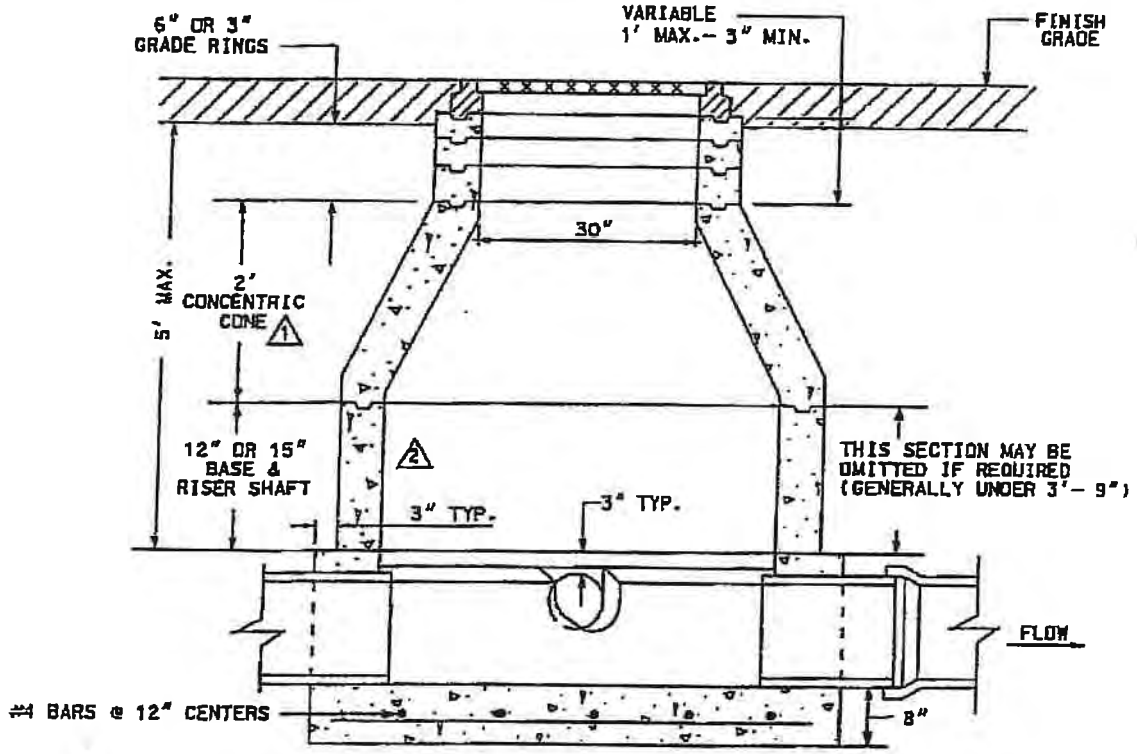
Resolution No. 3967(90)

SHEET 2 OF 2

Appendix 5-D



3' & UNDER DEPTH TO TOP OF BASE



3' TO 5' DEPTH TO TOP OF BASE

APPROVED	LAWRENCE McPHERSON		7/13/90
	CITY ENGINEER R.C.E. 21157		DATE
1	CHANGE TO CONCENTRIC REDUCER	KM	10/06
2	REMOVE STEPS	KM	10/06
MARK	REVISIONS	APPR.	DATE

CITY OF LOMPOC
Engineering Division

SHALLOW MANHOLES

STANDARD DRAWING NO. 306

Resolution No. 3967(90)

SHEET 1 OF 1

Sewer System Management Plan
Element 6: Spill Emergency Response Plan

6.0 REGULATORY REQUIREMENT

The SSMP must include an up-to-date Spill Emergency Response Plan (SERP) to ensure prompt detection and response to spills to reduce spills volumes and collect information for prevention of future spills. The SERP must include procedures according to the requirements in the 2022 SSS WDRs (Attachment D, Section 6). Some of the information provided in the SERP includes the following:

a. Procedures to ensure prompt notification to appropriate regulatory agencies, health agencies, Regional Water Board, Water suppliers, etc., of all SSOs that potentially affect public health or reach waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP.

b. A program to ensure an appropriate response to all overflows.

c. Procedures to ensure that staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained.

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

e. A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

Element 6.0: Spill Emergency Response Plan

This SSMP element serves as the Spill Emergency Response Plan (SERP) for the City of Lompoc Wastewater Division. It establishes actions related to responding to sanitary sewer overflows including notification, clean-up, and post-spill requirements. The effectiveness of the SERP and review of the plan are conducted annually with updates to the SERP completed on an as-needed basis. This SERP was revised in May 2023 to comply with requirements provided in Order No. WQ 2022-0103-DWQ.

6.1 AUTHORITY

This Spill Emergency Response Plan (SERP) was initially prepared pursuant to Element 6.1 of WDR 2006-0003-DWQ, as amended in State Water Resources Control Board Order No. WQ 2013-0058-EXEC, adopted August 6, 2013, to facilitate proper incident reporting procedures. The 2006 Order and 2013 amendments were superseded by Order No. WQ 2022-0013-DWQ (2022 SSS WDRs), issued on December 6, 2022, and effective June 5, 2023.

6.2 GENERAL

The Spill Emergency Response Plan (SERP) is designed to ensure every report of a sewage overflow incident is immediately dispatched to the appropriate Wastewater Collection personnel for confirmation. Quick response will minimize the effects of the overflow with respect to impacts on public health, beneficial uses, water quality of surface waters, and customer service. Having an up-to-date SERP should ensure a reduction in spill volumes as well as assist in the collection of information for prevention of future spills. The SERP further includes provisions to ensure safety pursuant to the directions provided by the State Department of Environmental Conservation and that notification and reporting is made to the State Water Resources Control Board and Santa Barbara County Environmental Health, when applicable.

For purposes of the SERP, “confirmed sewage spill” is also sometimes referred to as “sewer overflow,” “overflow,” or “SSO.” This plan continues to be updated periodically to accommodate State amendments to monitoring and reporting programs. The SERP was updated in May 2023 according to the requirements stipulated in Attachment D Section 6 of the 2022 SSS WDRs.

Objectives

The primary objectives of the SERP are to protect public health and the environment, satisfy regulatory agencies and waste discharge permit conditions (which address procedures for managing sewer overflows), and minimize risk of enforcement actions against the City of Lompoc, the sewer system owner.

Additional objectives of the SERP are as follows:

- Protect collection system and Wastewater Treatment Plant personnel;
- Protect the collection system, wastewater treatment facilities, and all appurtenances;
- Protect private and public property beyond the collection and treatment facilities;

- Protect water ways.

Organization Elements of SERP

The key elements of the SERP are addressed individually as follows:

Section 6.3 – Overflow Response Procedure

Section 6.4 – Public Advisory Procedure

Section 6.5 – Regulatory Agency Notification Plan

Section 6.6 – Outreach, Training, and Education

Section 6.7 – Maintenance of SERP

6.3 OVERFLOW RESPONSE PROCEDURES

The Overflow Response Procedure (**Appendix 6-D)** presents a strategy for Wastewater Collection personnel to mobilize labor, materials, tools, and equipment to correct or repair any condition which may cause or contribute to an un-permitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land, or buildings. **Appendix 6-F lists measures taken to minimize or avoid SSOs.**

Receipt of Information Regarding an SSO

An overflow may be detected by anyone, not just employees. The City of Lompoc Wastewater Collections has a responsibility to act based on received phone calls or reports of possible sewage overflow from the Wastewater Collection System, and/or a private service lateral spilling off of private property to public property or easement, and to provide immediate response to investigate and/or correct reported sewer overflows.

Generally, telephone calls from the public reporting possible sewer overflows are initially received at one of the public offices identified in **Appendix 6-E**.

1. The dispatcher obtains relevant information available regarding the possible overflow which may include:

    a. Time and date call was received;

    b. Specific location;

    c. Description of problem;

    d. Time possible overflow was noticed by the caller;

    e. Caller's name and phone number;

    f. Observations of the caller; and

g. Other relevant information that will enable the Wastewater Collection personnel to quickly locate, assess, and stop the overflow.

The dispatcher notifies the Wastewater Collection Section and may record initial information in a Sewage Overflow Report **(Ref. Appendix 6-B)** or Complaint Log for convenience in preparing a report.

2. The Wastewater Collection Supervisor, or designee, directs Wastewater Collections personnel to confirm the possible overflow. Until verified, the report of a possible spill will not be referred to as a "sewer overflow." Once a sewer overflow is verified, the Wastewater Collection Supervisor shall complete the Sanitary Sewer Overflow Report found in **Appendix 6-B**. If it is determined that 1,000 gallons or more reached or are likely to reach surface waters, the Wastewater Department Manager or designee shall provide the information orally to the California Office of Emergency Services (CalOES) within 2 hours of confirming the spill. The caller will receive an "OES Control Number." All spills, regardless of volume, are electronically reported into the California Integrated Water Quality System (CIWQS) according to the requirements stipulated in the MRP—as summarized in **Appendix 6-A**. The Wastewater Department Manager or designee is also responsible for reviewing, updating, and certifying the final CIWQS SSO Reports. Reports are regularly submitted as required in the MRP even when no spills occur.

Dispatch of Wastewater Collections Personnel to Site of Sewer Overflow

Failure of any element within the wastewater collection system that threatens to cause or causes an SSO must trigger an immediate response to isolate and correct the problem. Personnel and equipment must be available to respond to any SSO locations. A summary of the Sewer Overflow Response Tracking Protocol is included in **Appendix 6-D**.

1. <u>Dispatching Wastewater Collection Personnel</u>

   When Wastewater Collection personnel receive notification of a potential sewer overflow the Wastewater Collection Section sends personnel with appropriate resources required.

2. <u>Personnel Instructions</u>

   a. Dispatch collection personnel by telephone or radio. Assign appropriate personnel, materials, supplies, and equipment needed.

   b. The dispatcher must verify that the entire message has been received and acknowledged by the collection personnel who were dispatched. All personnel being dispatched to the site of an SSO need to proceed immediately to the site of the overflow. Report any delays or conflicts in assignments immediately for resolution.

   c. If the Wastewater Collection Supervisor or designee has not received findings from the field crew within a reasonable period of time, the Wastewater Collection Supervisor contacts the response personnel to determine the status of the investigation.

3. Additional Resources

   The Wastewater Collection Supervisor or designee receives and conveys to appropriate parties requests for additional personnel, material, supplies, and equipment for personnel working at the site of the sewer overflow.

4. Preliminary Assessment of Damage to Private and Public Property

   The Wastewater Collection personnel shall use reasonable discretion in their actions with private and public property owners. Wastewater collection must be aware that the City of Lompoc could face increased liability for any further damages inflicted to private property during such assistance. The Wastewater personnel shall take appropriate still photographs and/or video footage; if possible, of the sewer overflow impacted area that document the nature and extent of impacts.

5. Field Supervision and Inspection

   a. The Wastewater Collection Supervisor or designee visits the site of the sewer overflow to ensure the provisions and objectives of the SERP and other directives are met.

   b. The Wastewater Department Manager or designee is responsible for verbally notifying CalOES and the City of Lompoc Environmental Coordinator is responsible for health in a timely manner as per the MRP.

6. Coordination with Hazardous Material Response

   a. Upon arrival at the scene of a sewer overflow, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the Wastewater Collection crew shall immediately contact the Wastewater Collection Supervisor or designee for guidance before taking further action.

   b. Should the Wastewater Collection Supervisor or designee determine the need to alert the Hazardous Materials Response Team, personnel will wait for the Hazardous Materials Response Team response.

   c. Upon arrival of the Hazardous Materials Response Team, the Wastewater Collection personnel shall take direction from the lead authority of that team. Only when that authority determines it is safe and appropriate for Wastewater Collection personnel to proceed shall containment, clean-up activities, and correction under the SERP re-commence.

Overflow Containment, Correction, and Clean-Up

This section describes specific actions to be performed by the Wastewater Collection personnel during an SSO. The objectives of these actions are:

- To protect public health, environment, and property from sewage overflows and restore surrounding areas as soon as possible;

- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles, or use of natural topography (e.g., hills, berms);

- To promptly notify the CalOES in cases where 1,000 gallons or more reached or may reach surface waters or groundwaters (such as from stormwater infiltration facilities) and provide preliminary overflow information and potential impacts;

- To collect and properly dispose of spilled sewage and clean contaminated areas;

- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters; and

- To minimize the City of Lompoc exposure to any regulatory agency penalties and fines.

Under most circumstances, the City of Lompoc can handle all response actions with its own Wastewater Collection personnel. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system. In addition, the Wastewater Division works closely with other departments—such as the Stormwater Division, to ensure coordination during emergencies.

Circumstances may arise when the City of Lompoc could benefit from the support of private-sector construction assistance where large diameter pipes require shoring and dewatering. The City of Lompoc may also choose to use a private contractor for open excavation operations that might exceed one day to complete.

1. Responsibilities of Wastewater Collection Personnel upon Arrival

It is the responsibility of the first personnel arriving at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the maximum extent possible. Should the overflow not be the responsibility of the City of Lompoc but there is imminent danger to public health, public or private property, or to the quality of waters of the State, then the Wastewater Collection Supervisor or designee takes prudent emergency action until the responsible party assumes responsibility and provides actions.

Upon arrival at an SSO, the Wastewater Collection personnel perform the following:

a. Determines the cause of the overflow, e.g., sewer line blockage, pump lift station mechanical or electrical failure, sewer line break, etc.;

b. Identifies and requests assistance or additional resources to correct the overflow or to assist in determination of its cause;

c. Takes immediate steps to stop the overflow, e.g., relieves pipeline blockage, manually operates pump lift station controls, repairs pipe, etc.; extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property onto public property or easement);

d. Provides appropriate barricades to control public and traffic access as needed, and;

e. Requests additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow.

2. Initial Measures for Containment

Wastewater Collection personnel initiate measures to contain the overflowing sewage and recover sewage which has already been discharged, minimizing impact to public health or the environment. They further:

a. Determine the immediate destination of the overflow, e.g., storm drain, street curb gutter, body of water, streambed, etc.;

b. Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and

c. Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc.

3. Additional Measures under Potential Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, set up a portable by-pass pumping operation around the obstruction. This may include:

a. Taking appropriate measures to determine the proper size and number of pumps required to effectively handle the sewage flow;

b. Implementing continuous or periodic monitoring of the by-pass pumping operation as required; and

c. Addressing regulatory agency issues in conjunction with emergency repairs.

4. Clean-Up

Clean sewer overflow sites thoroughly after an overflow, generally using current Santa Barbara County Environmental Health Department guidelines. No readily identified residue (e.g., sewage solids, papers, rags, plastics, and rubber products) should remain. Clean up of spill area and storm drain system should be conducted in a manner that does not inadvertently impact beneficial uses in the receiving water.

Additional clean-up procedures may include:

a. Digital photos taken of the area before and after cleanup;

b. Thoroughly flushing the area with water and clean-up of any sewage or wash-down water; solids and debris are to be collected and transported for proper disposal;

c. Securing the overflow area to prevent contact by the public until the site has been thoroughly cleaned; and

d. Where sewage has resulted in ponding, pumping the pond dry and disposing of the residue in accordance with applicable regulations and policies.

5. Photographs and Visual Monitoring
   - Photos have to be time stamped (use timestamp on cameras and/or enable location and time stamp data in digital files)
   - Photos are required for the following:
     - Spill appearance point(s) – take at least one photo of active overflow. Under prolonged spill conditions, take photos at different times to show potential changes in discharge rates throughout the duration of the spill.
     - Spill entry point into the storm drain system
     - Location of discharge into the surface water
     - Warning signs, beach closure signage
     - Extent of the spill spread
     - Impacts to surface waters (water bank erosion, floating debris, water surface sheen, fish kills, etc.)
     - Location(s) of the clean-up
     - Sampling location(s), if sampling is conducted.
   - Visual monitoring:
     - Take notes on visual observations such as impacts to surface waters (water bank erosion, floating debris, water surface sheen, fish kills, etc.)
     - Estimate spill travel time from appearance point to final destination in the receiving water.

6. Sampling

If an estimated 50,000 gallons or more reach surface waters, follow procedures in the Water Quality Monitoring Plan for ammonia and bacteria monitoring **(Appendix 6-G).**

Sanitary Sewer Overflow Reporting

The Sanitary Sewer Overflow Report Form **(Appendix 6-B)** compiles information required to be reported to the California Integrated Water Quality System (CIWQS). The website for reporting SSOs is: http://ciwqs.waterboards.ca.gov/.

If **1,000 gallons or more** reach surface water, groundwater, or drainage channel, Wastewater Collections shall notify the California Office of Emergency Services (CalOES) within two (2) hours from the time of becoming aware of the spill. The SSO Report Form shall be completed along with CIWQS online reporting according to the reporting requirements provided in **Appendix 6-A**.

Depending on the SSO Classification, CIWQS reporting procedures are as follows:

Category 1 (all spills that reach surface waters without being fully recovered):

- Submit draft report within 3 business days of becoming aware of SSO.
- Finalize report and certify within 15 calendar days of the end of the SSO.
- If more than 50,000 gallons reached surface waters, an SSO Technical Report will be developed and submitted within 45 calendar days of the end of the SSO.

Category 2 (spills of 1,000 gallons or more that do not **reach surface waters or that are fully recovered):**

- Submit draft report within 3 business days of becoming aware of SSO.
- Finalize report and certify within 15 calendar days of the end of the SSO.

Category 3 (spills equal or greater than 50 gallons, but **less than 1,000 gallons that do not reach surface waters or that are fully recovered):**

- Submit certified report within 30 calendar days of the end of month in which the SSO occurred.

Category 4 (spills less than 50 gallons that do not reach surface waters or that are fully recovered):

- Submit the number of spills and the total volume within 30 calendar days after the end of the month in which the Category 4 SSOs occurred.
- Upload and certify a report with details from all Category 4 spills from throughout the calendar year by February 1st of the following year.

Sewer overflow reporting information includes the following:

1. Determination if the sewage overflow reached surface waters or groundwater, i.e., overflows where sewage was observed flowing towards surface waters or stormwater infiltration facilities, respectively; or there was obvious indication (e.g., sewage residue) that sewage flowed to surface waters or infiltration facilities that reach groundwaters;

2. Determination that the sewage overflow had not reached surface waters by describing conditions at the sewage overflow, which support this determination;

3. Determination of the start time of the sewer overflow by the best one of the following methods:
   a. Date and time information received and/or reported to have begun and later substantiated by Wastewater Collection personnel;
   b. Visual observation;

4. Determination of the stop time of the sewer overflow by the best one of the following methods:
   a. When the blockage is cleared or flow is controlled or contained; or
   b. The arrival time of the Wastewater Collection personnel, if the overflow stopped between the time it was reported and the time or arrival;

5. Direct visual observations of the overflow;

6. Determination of the volume of the sewer overflow; and

7. Photographs of the event such as spill appearance point, spill entry point into the storm drain system, location of discharge into the surface water, impacts to surface waters, sampling location(s), warning signs, beach closure signage, and location of the clean-up.

Customer Satisfaction

The Wastewater Collection Supervisor or designee may follow up in person or by telephone with the entity reporting the overflow. The cause of the overflow and its resolution may be disclosed.

Post-Spill Debrief

The Wastewater Department Manager or designee shall conduct a spill debrief meeting monthly, in months when spills occurred, or more often if deemed necessary, with all Collection System

staff to go over recent spill events. The debrief may review spill response activities and discuss what worked, what did not work, any missed regulatory requirements (notifications, sampling, etc.), and improvements moving forward. Staff will also discuss final corrective action(s) completed or planned, such as enforcement taken on parties responsible for illicit discharge or actions taken/needed to prevent repeated spill occurrences at a particular location. When necessary, contractors may be invited to participate in these meetings. If needed, the SERP will be modified to improve existing procedures based on lessons learned.

6.4 PUBLIC ADVISORY PROCEDURES

This section describes the actions the City of Lompoc will take, in cooperation with the California Office of Emergency Services, Regional Water Quality Control Board, and/or the Santa Barbara County Environmental Health, to limit public access to areas potentially impacted by un-permitted discharges of pollutants to surface water bodies from the Wastewater Collection System.

Temporary Signage

The Santa Barbara County Environmental Health has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

The Wastewater Division Manager or designee and City elected official shall determine if posting of a confirmed overflow is necessary.

Other Public Notification

The Wastewater Division Manager or designee and/or the City Manager or designee shall determine the need for further public notification.

6.5 REGULATORY AGENCIES NOTIFICATION PLAN

General

Notification of regulatory agencies shall take place in accordance with the current MRP (Attachment E1 of the 2022 SSS WDRs). A summary of these reporting requirements can be found in **Appendix 6-A**.

Immediate Notification

If the overflow results in a discharge greater than or equal to 1,000 gallons to a drainage channel, surface water, groundwater, or in a location where it probably will be discharged to surface water or groundwater (such as a stormwater infiltration facility), Wastewater Collections shall notify CalOES, obtain a notification control number, and provide information related to the discharge as requested by CalOES within two (2) hours after becoming aware of the discharge. In turn, CalOES will notify the Regional Water Quality Control Board, and the City of Lompoc Environmental Coordinator. Substantive changes in the quantity or impact of the discharge must be made to CalOES until a certified CIWQS report is made.

Secondary Notification

Wastewater Division Manager or designee may contact other agencies, as necessary, as well as other interested and possibly impacted parties. **See Appendix 6-E for additional contact information.** It includes local agencies as well as other City departments. Contacts for wastewater and collections specifically are listed under number 41.

6.6 OUTREACH, TRAINING AND EDUCATION

Training and educational activity occurs under various City programs. It includes formal classroom training, and informal on-the-job and hands-on training. Training is facilitated by both City staff and by outside training workshops. Training courses are added and existing courses are modified to stay current with the rapidly changing technology and requirements, and may include computer-aided and online training. Collection crew is cross-trained so that critical tasks can be done without interruption even if the crew members change. Task proficiency is a requirement for all job positions and promotions, and training records are maintained to monitor completed classes. The City Collection Crew provides operational training on sewer cleaning, equipment, and vehicle operation.

Safety training is an integral part of the City's program. Every staff member receives formal training. Collections personnel are trained in traffic management, confined space entry, and in hazard communication, as required by regulations.

The City prepares employees to respond to major emergencies and disasters, and has established an operation center and emergency response teams. Collection crew are made aware of and follow the Spill Emergency Response Plan (SERP), and are appropriately trained. Emergency SERP training exercises are conducted periodically and documented.

In the case that the City may use a contractor for emergency repairs or SSO assistance, it provides the contractor with its SERP. The contractor must provide documentation that its employees or subcontracted employees engaged in the work are familiar with the SERP and have been adequately trained.

Specific Outreach and Communications to the public relating to sewer spills is minimal and no public training takes place. These topics as they relate to interfacing with the general public are addressed in SSMP Element 11.

6.7 MAINTENANCE OF SERP

As required by the 2022 General Order, an effectiveness assessment and review of the SERP is to be conducted on an annual basis. The SERP will be updated as needed based on yearly review and assessment results. Possible amendments may include:

A. Change in procedures;

B. Change in contact personnel; or

C. Changes due to regulatory requirements.

ELEMENT 6 APPENDICES

Appendix 6 – A	Sanitary Sewer Overflow Reporting Instructions
Appendix 6 – B	Sanitary Sewer Overflow Report Form
Appendix 6 – C	Sewer Overflow Notice Action Flow Chart
Appendix 6 – D	Sewer Overflow Response Tracking Protocol
Appendix 6 – E	Emergency Phone Numbers
Appendix 6 – F	Suggested Criteria for Demonstrating How a Sewer Overflow was Unavoidable
Appendix 6 – G	Water Quality Monitoring Plan

APPENDIX 6 – A

Sanitary Sewer Overflow Reporting Instructions

SSOs where 1,000 gallons or more reach surface water or groundwater must be reported within two (2) hours to CalOES at (800) 852-7550

CIWQS Online Database address is http://ciwqs.waterboards.ca.gov

Category 1 SSO - **Any** spill that reaches surface water

1. **If 1,000 gallons or more reach or threaten to reach surface water**, call CalOES within two (2) hours to receive an OES Control Number - (800) 852-7550.
2. For all spills that reach surface waters, regardless of volume:
   - Complete the Sanitary Sewer Overflow Report Form **(Appendix 6-B)**
   - Enter data into the CIWQS online SSO Database within three (3) business days of becoming aware of the spill
   - Certify report by Legally Responsible Official within 15 calendar days of SSO end date.
3. If 50,000 gallons or more reach surface waters:
   - Follow the Water Quality Monitoring Plan **(Appendix 6-G)**
   - Report all monitoring results and develop a Technical Report within 45 days of SSO end date.

Category 2 SSO - Spills equal to or greater than 1,000 gallons that **do not** reach surface water

1. **If 1,000 gallons or more reach or threaten to reach waters of the State (i.e., groundwater)**, call CalOES within two (2) hours to receive an OES Control Number - (800) 852-7550.
2. Complete the Sanitary Sewer Overflow Report Form
3. Enter data into the CIWQS online SSO Database within three (3) business days of becoming aware of the spill
4. Certify report by Legally Responsible Official within 15 calendar days of the spill end date.

Category 3 SSO - Spills equal to or more than 50 gallons but less than 1,000 gallons that **do not** reach surface water

1. Complete the Sanitary Sewer Overflow Report Form
2. Submit Certified Spill Report into the CIWQS online SSO Database within 30 calendar days after the end of the month in which the spill occurred (e.g., a spill that occurred between May 1st and May 31st, would be reported by June 30th).

Category 4 SSO - Spills less than 50 gallons that **do not** reach surface water

1. Complete the Sanitary Sewer Overflow Report Form

2. Submit the number of Category 4 spills and the total volume from Category 4 spills into the CIWQS online SSO Database within 30 calendar days after the end of the month in which the spills occurred (e.g., spills that occurred between May 1st and May 31st, would be tallied in a monthly report due June 30th).
3. Upload and certify a report with details from all Category 4 spills from throughout the calendar year by February 1st of the following year.

SSO REPORT FORM: APPENDIX 6 – B

City of Lompoc Sanitary Sewer Overflow Report Form

[1] Information **required** for Category 1 [2] Information **required** for Categories 2, 3, and 4
** Information **required** for Category 1 if estimated spill volume ≥ 1,000 gallons and spill reached or threaten to reach surface water or stormwater drainpipe

Initial Contact Details

Reporting Party _____

Address:_____Telephone:_____

Physical Location Details

[1, 2] Spill Location Name: _____

[1, 2] GPS Latitude: _____deg_____ min *or* _____decimal degrees
[1, 2] GPS Longitude: _____deg_____ min *or* _____decimal degrees

Street Number: _____
Street Direction: □ North □ South □ East □ West □ Other _____
Street Name: _____
Street Type: _____Suite or Apartment: _____
Cross Street: _____

City: □ Lompoc □ Other _____ State: □ CA Zip: □ 93436 □ Other_____
[1, 2] County: □ Santa Barbara □ Other _____

Spill Location Description:
_____
_____
_____

[1, 2] Regional Water Quality Control Board: □ Central Coast Region 3 □ Other:_____

Spill Details

[1, 2] Spill Appearance Point: □ building or structure □ force main or pressure sewer □ gravity sewer
□ manhole □ other sewer system structure □ pump station □ other (explain):
_____
_____
_____

[1, 2] Did the spill discharge to a drainage channel and/or surface water? □ Yes □ No

[1, 2] Did the spill discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system? □ Yes □ No

[1, 2] Private lateral spill? □ Yes □ No Name of responsible party (for private lateral spill only, if known):
_____

[1, 2] Final spill destination: □ beach □ building or structure □ other paved surface □ storm drain □ street/curb and gutter
□ surface water □ unpaved surface □ other (explain):
_____

[1, 2] Estimated spill volume: _____ gallons
[1, 2] Estimated volume of spill recovered: _____ gallons
[1] Estimated volume of spill that reached surface water, drainage channel, or not recovered from storm drain: _____ gallons
Estimated current spill rate (if applicable): _____ gallons

[1, 2] Estimated spill start date / time: _____
[1, 2] Date and time Wastewater Collections Section was notified of or discovered spill:
_____

[1, 2] Estimated Collections personnel arrival date / time: _____

[1, 2] Estimated spill end date / time: _____

[1, 2] Spill cause: □ debris □ flow exceeded capacity □ grease deposition / FOG □ operator error
□ pipe structural problem / failure □ pump station failure □ rainfall exceeded design □ root intrusion □ vandalism

□ other (explain):
_____
_____
_____

If spill caused by wet weather, choose size of storm:
□ 1 year □ 2 year □ 5 year □ 10 year □ 50 year □ 100 year □ >100 year □ unknown
Diameter of sewer pipe at the point of blockage or spill cause (if applicable): _____ inches
Material of sewer pipe at the point of blockage or spill cause (if applicable): _____
Estimated age of sewer pipe at the point of blockage or spill cause (if applicable): _____
Description of terrain surrounding the point of blockage or spill cause (if applicable):
□ flat □ mixed □ steep

[1, 2] Spill response activities (check all that apply): □ cleaned-up (mitigated effects of spill) □ contained all or portion of spill
□ inspected sewer using CCTV to determine cause □ restored flow □ returned all or portion of spill to sanitary sewer system
□ other (specify):
_____
_____
_____

[1] Spill response completion date: _____

Visual inspection results from impacted receiving water:
_____
_____
_____

[1] Health warnings posted? □ Yes □ No
[1] Name of impacted beach (es) (n/a if not applicable): _____
[1] Name of impacted surface water(s) (n/a if not applicable): _____

[1] Is there an ongoing investigation? □ Yes □ No

[1] When 50,000 gal or more reach surface water, water quality samples analyzed for: □ ammonia (required) □ E. coli (required) □ other chemical indicator(s) (optional): _____
□ no water quality samples taken □ not applicable to this spill □ other (specify): _____

[1] Water quality sample results reported to: □ County Health Agency □ Regional Water Quality Control Board
□ none of the above □ no water quality samples taken □ other (specify):
_____

[1,2] Spill corrective actions taken: □ added sewer to preventive maintenance program □ adjusted schedule / method of preventive maintenance □ enforcement action against FOG source □ plan rehabilitation or replacement of sewer □ repaired sewer □ other (specify):_____
_____
_____

Dates of previous SSOs at same location: _____

Photos

Photos have to be time stamped (use timestamp on cameras and/or enable location and timestamp for digital files). Photograph the following:
- ❑ [1,2] Spill appearance point(s) – take at least one photo of the active overflow. Under prolonged spill conditions, take photos at different times to show potential changes in discharge rates throughout the duration of the spill.
- ❑ [1,2] Spill entry point into the storm drain system, if spill reached a storm drain
- ❑ [1]Location of discharge into the surface water
- ❑ [1]Warning signs, beach closure signage
- ❑ [1,2] Extent of the spill spread
- ❑ [1]Impacts to surface waters (water bank erosion, floating debris, water sheen, fish kills, etc.)
- ❑ [1,2] Location(s) of the clean-up
- ❑ [1]Sampling location(s), if sampling conducted.

Notification Details

**OES Control Number: _____

**OES Called Date / Time: _____

[1] County Health Agency and Environmental Coordinator notified: □ Yes □ No

[1] County Health Agency notified Date / Time (required if "yes," above): _____

Other Agency Notified: _____

Form Completion

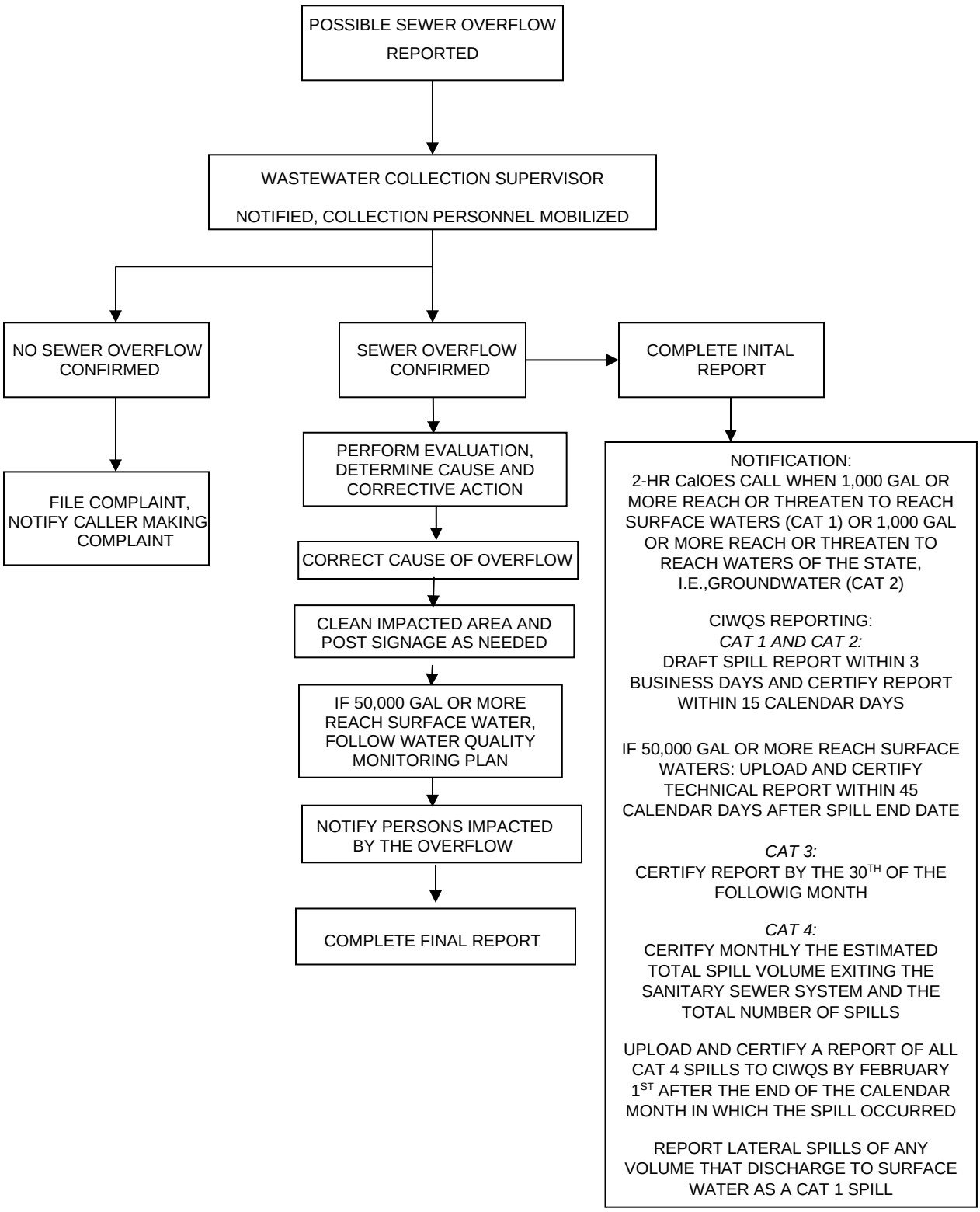
Name of Person Completing Form:_____Title:_____

Signature: _____Date:_____

APPENDIX 6 – C

SEWER OVERFLOW ACTION PLAN FLOW CHART

WASTEWATER COLLECTION SYSTEM



APPENDIX 6 – D

SEWER OVERFLOW (SSO) RESPONSE TRACKING PROTOCOL
CITY OF LOMPOC WASTEWATER SYSTEM

Step	Event
1	Report of possible SSO received by a dispatcher.
2	Dispatcher enters received information into Sewer Overflow Report.
3	Dispatcher contacts Wastewater Collection Supervisor or designee, which then deploys collections personnel to confirm reported SSO.
4	Maintenance personnel reports back to the Sewer Collection Supervisor reporting significance of the overflow.
5	Sewer Collection Supervisor or designee completes initial Overflow report. If the overflow will affect a drainage channel, surface water, or groundwater the Sewer Collection Supervisor or designee shall notify CalOES and the Environmental Coordinator orally within two (2) hours of becoming aware of the discharge.
6	Data from Overflow Report are entered into permanent record on file at the Wastewater Division.

APPENDIX 6 – E

ADDITIONAL CONTACT INFORMATION

1. **Administration (City of Lompoc) ..... (805) 875-8212**
2. Airport ..... (805) 875-8268
3. **Building Department ..... (805) 875-8220**
4. California Office of Emergency Services (CalOES) ..... (800) 852-7550
5. Cal-Trans Representative, Chris Diaz
   - Office ..... (805) 688-6649
   - Cell ..... (805) 459-7580
   - Danny Lopez, Lead Worker ..... (805) 459-0472
   - Emergency Closure for Traffic Lanes ..... (805) 549-3212
6. Goetz & Associates ..... (805) 735-8000
   (All properties listed below)
   - Chestnut Grove, Cypress Planned, Cypress Woods
   - Foot Hill Estates, Glen Ellen, Linda Vista
   - Lompoc Village (Gate #5468), Stonebrook (Gate #5652)
   - Villa De Casitas, Villa de Las Flores
   - Walnut Meadows, Winchester Village
7. City Attorney ..... (805) 875-8251
8. City Clerk ..... (805) 875-8242
9. Community Development ..... (805) 875-8279
   A. Crown Laurel (Key Sign Twice) ..... (1425)
10. Level 3 Communications
    - Fiber Line Office ..... (877) 453-8353
    - Fiber Hotline ..... (800) 336-9193
    - 6AM – 8PM
11. Economic Development ..... (805) 875-8232
12. Electric ..... (805) 875-8011/(805) 875-8012
13. **Engineering ..... (805) 875-8269**
    A. Environmental Coordinator ..... (805) 875-8275
14. **Santa Barbara County Environmental Health ..... (805) 681-4944**
15. **Fire ..... (805) 736-4513/(805) 875-8050**
16. Human Resources ..... (805) 875-8205
17. Information Systems ..... (805)875-8290
18. Landfill ..... (805) 736-9042

APPENDIX 6 – E

ADDITIONAL CONTACT INFORMATION

19. Library ..... (805) 736-3477

20. Lompoc Unified School District
(Contact one of the school district personnel below, in the order listed. These numbers are also listed with the school office)
    - Operations Supervisor ..... (805) 736-2371 ext 3173
    - Operations Supervisor ..... (805) 736-2371 ext 3174
    - Sprinkler Mechanic ..... (805) 736-0227

21. Lompoc Valley Community Center ..... (805) 735-3001/(805) 735-3002

22. Mission Hills Community Services District
    - District Cell Phone – On Call ..... (805) 588-2833
    - District Telephone ..... (805) 733-1945
    - Field Supervisor, Rick Young ..... (805) 588-2833
    - General Manager, Mike Garner ..... (805) 733-4366

23. Parks & Recreation ..... (805) 875-8100

24. Planning ..... (805) 875-8288

25. Police ..... (805) 736-2341/(805) 875-8102

26. Public Works ..... (805) 875-8269

27. Purchasing ..... (805) 875-8001

28. Pretreatment (Wastewater)
    - **Water Resources Protection Technician ..... (805) 875-8403/(805) 315-7117**
    - **Chemist ..... (805) 875-8415/(805) 455-6078**

29. Regional Water Quality Control Board ..... (805) 549-3688
    - Fax ..... (805) 788-3584

30. Solid Waste ..... (805) 875-8024

31. State Office Of Emergency Services ..... (916) 845-8510
    - Fax ..... (916) 845-8511

32. Stormwater ..... (805) 875-8275

33. Streets ..... (805) 875-8021

34. Transit – COLT Bus Service ..... (805) 736-7666/(805) 875-8266

35. Trees ..... (805) 875-8034

36. UTI (for Verizon)
    - After hours & weekends ..... (805) 451-1198
    - Local Customer Operations ..... (805) 733-8329

APPENDIX 6 – E

ADDITIONAL CONTACT INFORMATION

37. Union Pacific R & R (Fiber Optic Communications Line)
    Signals or Crossings 1 (800) 848-8715
    24 hr Emergency 1 (800) 892-1283

38. Utility Connections (City Treasurer) ..... (805) 875-8246

39. USA DIG ALERT ..... 811 *or* 1 (800) 227-2600

40. Water ..... (805) 736-1617

41. Wastewater/Sewer ..... (805) 736-5083
    Wastewater Collections Supervisor ..... (805) 315-7098/(805) 736-7393
    Senior Wastewater Collection Worker ..... (805) 315-7013/(805) 736-1037
    Wastewater Collection Worker ..... (805) 315-7064/(805) 736-6963

42. Vine by Vintage,401 West Pine Avenue (Gate #0519) ..... (805) 735-3675
    (Woodstone Apartments)
    After hours ..... (805) 291-7794

Appendix 6 – F

OVERVIEW OF SOME MEASURES TO AVOID SEWER OVERFLOWS

A. Proper Collection System Maintenance and Operations Program

- Cleaning of pipes (grease, root deposits)
- Sealing or maintenance of deteriorating sewers
- Remediation of poor/substandard construction (short term)
- Sewer replacement or rehabilitation program (long term)
- Proper maintenance and operations of pump stations
- Inspection of private lateral connections

B. New Wastewater Disposal System Construction

- Use latest technology and standards in constructing new wastewater disposal system improvements
- Perform proper construction inspection/quality assurance procedures.

REVISED MAY 2023

CITY OF LOMPOC

Sanitary Sewer Overflow Water Quality Monitoring Plan

PREPARED BY:

LARRY WALKER ASSOCIATES
science | policy | solutions

PREPARED FOR:

City of LOMPOC

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APPENDIX

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A. PROJECT MANAGEMENT

A.1 PROJECT ORGANIZATION

This monitoring program will be conducted under the direction of the City of Lompoc (the City) with guidance provided by Larry Walker Associates (LWA). FGL Environmental will serve as the primary laboratory, but alternatives might be used due to logistics and timing. The Project Contact list is provided in **Table 1.**

Table 1. Project Contact List

Name	Water Quality Monitoring Role	Phone Number	Email
Dorin Marrs	Monitoring Coordinator	805.875.8408	D_Marrs@ci.lompoc.ca.us
Julie Moore	Chemist / Monitoring Advisor	805.875.8406	jmoore@ci.lompoc.ca.us
Denise Conners	Regulatory Consultant, LWA	530.753.6400	DeniseC@LWA.com
Kelly Dunnahoo	Laboratory Director, FGL	805.392.2000	KellyD@FGLinc.com

A.2 BACKGROUND

In 2006, the State Water Resources Control Board (State Water Board) adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSS WDRs), Order No. 2006-0003-DWQ. The Monitoring and Reporting Program (MRP) established monitoring, record keeping, reporting, and public notification requirements. On September 9, 2013, Order No. WQ 2013-0058-EXEC became effective . This order clarified and expanded requirements of the original MRP and defined new sanitary sewer overflow (SSO) categories. The 2006 SSS WDRs and 2013 amendments were superseded by Order No. WQ 2022-0103-DWQ, issued on December 6, 2022, and effective June 5, 2023. The SSO category definitions, as well as the notification, monitoring, and technical reporting requirements per the 2022 SSS WDRs are shown in **Figure 1**.

This monitoring plan addresses water quality monitoring requirements for Category 1 SSOs that are greater than or equal to 50,000 gallons. As defined by Order No. WQ 2013-0058-EXEC, and revised in May 2023 to meet the requirements in the 2022 SSS WDRs.

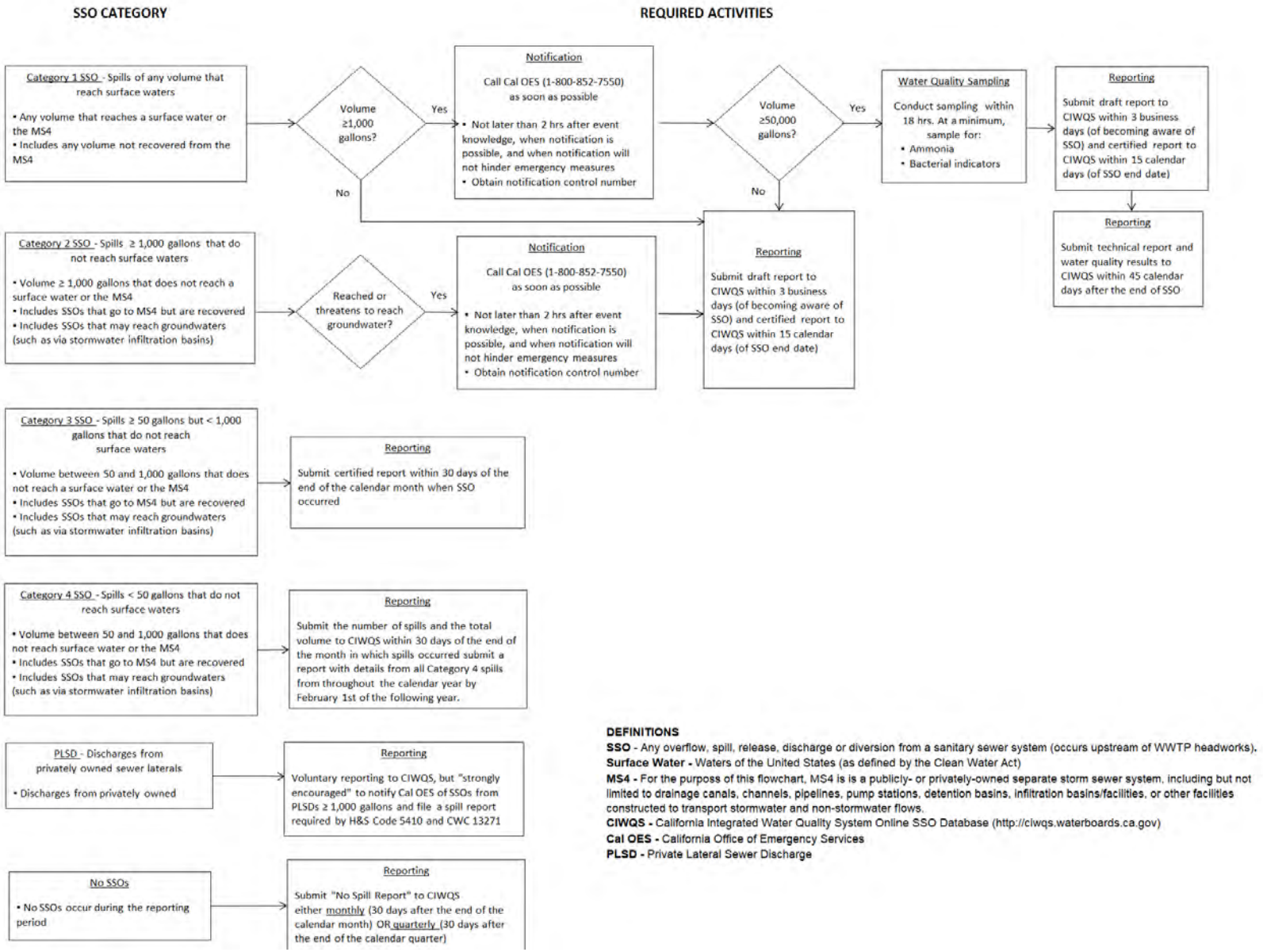

Figure 1. SSO Action Flow Chart (Based on Order No. WQ 2022-0103-DWQ)

B. DATA GENERATION AND ACQUISITION

B.1 SAMPLING PROCESS DESIGN

B.1.1 Sampling Event Timing

The Monitoring Coordinator will determine when the field crew will be mobilized to sample the receiving water. Sampling is required for all spills where 50,000 gallons or more reach surface waters. Sampling must be conducted within 18 hours of City staff becoming aware of such a spill. The monitoring coordinator will target daylight sampling, but sample timing may be shifted due to safety and logistical concerns.

Sampling will not be conducted if there are any concerns regarding field crew safety. These concerns may include heavy rain events, which compromise access points through flooding and swift currents. Thunderstorms will also be avoided when lightning is occurring. Sampling will only be conducted if there are at least two members of the field crew team available.

B.1.2 Monitoring Site Locations

Upon notice of a Category 1 SSO, the Monitoring Coordinator will determine where the field crew will sample. The Monitoring Coordinator will be responsible for determining the sampling locations and provide a detailed description to the Field Crew. At a minimum, sampling will occur at the following locations:

- a point where the SSO enters the surface water body
- a point upstream of the entry point, and
- at least one point downstream of the entry point where the spill is expected to be fully mixed with the receiving water.

If monitoring in the receiving water is not safe or feasible, samples may be collected at a point in the storm drain system.

Upon arrival at the monitoring sites, the Field Crew will determine the best locations to sample by assessing the hydrology of the receiving water and any safety precautions. The Field Crew should look for locations where the receiving water can easily be entered or sampled mid-channel by a grab pole. Once the sampling site location is selected, but before sampling starts, the Field Crew will record the latitude and longitude of the sampling location into the Field Form (**Appendix A**).

B.2 EQUIPMENT PREPARATION

The Field Crew shall maintain a sampling kit with the necessary supplies to conduct a monitoring event. **Table 2** lists the equipment and supplies that will be included in the sampling kit.

Table 2. Monitoring Equipment List

Equipment
Storm Kit • Spare batteries for field meter (6) • Spare samples labels • Pencils (2) and waterproof pens/markers (2) • Diagonal clippers • Electrical tape • Cable ties (assorted sizes) • Utility knife • Zip-lock baggies (assorted sizes) • Powder-free nitrile gloves • Rubber bands, heavy duty • Camera • Duct tape • GPS Device SSO Water Quality Monitoring Plan Log books/ Field forms Chain-of-custody forms New sample bottles Intermediate containers Flow meters Coolers and ice Cellular phone Any necessary safety gear Grab pole Umbrella Paper towels Trash bags

B.2.1 Sampling Containers

The Field Crew will maintain a supply of sampling bottles for at least 4 events. The Field Crew will order bottles directly from the laboratory and will reorder bottles if they are unused for six (6) months. **Table 3** includes the required bottle types, sample volumes, and preservatives for ammonia and *E. Coli* samples.

Table 3. Constituents to be Analyzed, Sample Volume Required, and Sample Type

Constituent	Optimum Vol. (mL)	Optimum Vol. (mL)	Collection Method	Bottle Type	Preservation
Ammonia as N	500	200	Direct Fill	500 mL Plastic	H_2SO_4, <6° C
E. coli	100	100	Direct Fill	100 mL Sterile Plastic	<10° C

B.2.2 Field Meter Calibration

All field meters will be properly calibrated and maintained by the Field Crew. Calibrations will be performed according to the methods and frequency recommended by the equipment manufacturer. When calibrating the instruments, the Field Crew will document all pertinent information in a Calibration Log (**Appendix B**) and keep it with the rest of the project documentation.

B.3 WATER QUALITY MONITORING

The Field Crew will be responsible for the following tasks upon arrival at the monitoring location:

1. Determine best sampling locations and record latitude and longitude readings for the upstream, SSO entry point, and downstream sampling sites. If monitoring in the receiving water is deemed infeasible, samples may be collected at a point in the storm drain system.
2. Collect water quality samples in the following order: first at the SSO entry point, second at the downstream site(s), and third at the upstream monitoring site.
3. Complete all field forms and prepare the samples for delivery to the laboratory.

The following sections outline the necessary steps the Field Crew must take when performing the above actions.

B.3.1 Sample Collection Methods

Sample collection methods will vary depending on the surface water and the safety of the Field Crew. Clean, powder-free, nitrile gloves will be worn for all bottle handling. The direct fill sample collection method is the preferred sampling method, since it does not use an intermediate container. In cases where the direct fill method cannot be used due to accessibility or safety an intermediate bottle and a grab pole can be used.

B.3.1.1 Direct Fill Sample Collection

The direct fill sample collection method will be used in cases where the surface water can be entered safely by the Field Crew. Field Crew will wear waders and ensure that the water level and velocity of the surface water are low enough to provide a safe entry and sampling environment.

Ammonia and bacteriological sample bottles will be filled by direct submersion to approximately mid-depth as follows.

1. Wade to approximately the area of the water body with the highest flow rate and face upstream. This will most likely be midstream, but can be in a different portion of the stream, depending on the hydrology.
2. Submerge the sample bottle with its cap on to approximately mid-depth at a location of significant flow (avoid stagnant water). Hold the bottle upright under the surface while it is still capped.

3. Open the lid carefully just a little to let water run in. Fill the bottle and screw the cap tightly while the bottle is still underneath the surface.
4. Remove bottle from stream and place on ice.

B.3.1.2 Intermediate Container Sample Collection

If the flow, water level and/or access point are deemed unsafe then an intermediate bottle attached to a grab pole will be used for sample collection. A clean, new intermediate bottle will be used for each sampling event and sampling site.

Ammonia and bacteriological sample bottles will be filled by intermediate container sample collection as follows:

1. Attach the intermediate bottle to an expandable pole using tape or cable ties and remove lid.
2. Submerge the intermediate bottle, attached to expandable pole, to approximately mid-depth at a location of significant flow (avoid stagnant water).
3. Remove bottle from water and empty contents. Repeat this twice more.
4. Once the intermediate bottle is properly rinsed, return it to approximately mid-depth at a location of significant flow (avoid stagnant water).
5. Using the intermediate bottle, fill the bacteriological sample container and then the ammonia bottle. Ensure that neither bottle overflows and that the preservative stays in the sample container.
6. After bottle fills, replace bottle lid, remove bottle from pole, and place on ice.

B.4 SAMPLE HANDLING AND CUSTODY

The Field Crew will ensure that all samples are collected and submitted to their respective labs by the maximum hold times listed in **Table 4**. If timing or logistics prevent a hold time being met, the Field Crew will contact the Monitoring Coordinator.

Table 4. Constituent Hold Times and Analytical Methods

Constituent	Analytical Method	Maximum Hold Times	Analytical Lab
Ammonia (as N)	SM 4500-NH3-G	28 days	FGL Environmental
E. coli	SM 9223-B/E	8 hours	FGL Environmental

B.4.1 Sample Bottles

The Field Crew will label all sample bottles with a waterproof label, which will contain the agency name, sample collection date, analyte, analysis method, station number and name and Field Crew names. The analytes and analysis methods are shown in **Table 4** and the station identification protocols are shown in **Table 5**.

Table 5. Site Names for Sample Handling

Station Number	Station Name
RSW-001U	Surface Water Upstream
RSW-001	Surface Water Point of Entry
RSW-001D	Surface Water Downstream 1
RSW-XXXD[1]	Surface Water Downstream XXX[1]
DSC-001	Storm drain system, if receiving water cannot be safely sampled.

1 Additional downstream monitoring sites will be labeled in sequential order starting from the SSO surface water point of entry.

Example sample bottle label:

Direct Fill Sample Bottle Label

City of Lompoc

Station Number - ____

Analyte – Analysis Method _____

Date & Time:_____ Collected by:_____

B.4.2 Transport

All samples will be kept on ice from the time of collection to the time of receipt by laboratory personnel. It is imperative that all samples be analyzed within maximum holding times (see **Table 4**). Samples will be shipped/delivered as specified in **Table 6**.

Table 6. Analytical Laboratories

Analytical Laboratory	Analysis	Shipping Method
FGL Environmental 3442 Empressa Dr, Ste D San Luis Obispo 805-783-2940	Ammonia and bacterial	Hand delivered
FGL Environmental 853 Corporation St Santa Paula, CA 93060 805-392-2000	Ammonia and bacterial	Shipped

B.4.3 Chain of Custody Form

Chain of Custody (CoC) forms will be filled out by the Field Crew for all samples submitted to the laboratories. CoCs will contain the following information:

- Sampler name
- Address (where the results will be sent)
- To whom the laboratory results are being sent
- Sample collection date and time
- Sample location
- Analysis method requested
- Sample container type and number
- Comments/special instructions
- Samples relinquished by (signature, print name, date)
- Samples received by (signature, print name, date)

Example lab specific CoCs are included in **Appendix C.**

C. REPORTING

A Category 1 SSO in which 50,000 gallons or greater are spilled to a surface water requires multiple stages of notification and reporting. The City will adhere to the required timeline outlined in **Table 7**, which begins when the City becomes aware of an SSO. The specific requirements for notification and reporting are specified in the 2022 SSS WDRs and detailed in the City's Sanitary Sewer Management Plan.

Table 7. Notification and Reporting Timeline

Time Period	Requirement
< 2 hours	Notification to CalOES
Within 3 Business Days	Draft Category 1 SSO Report to CIWQS
Within 15 Calendar Days	Certified Category 1 SSO Report to CIWQS
Within 45 Days	Upload and certify SSO Technical Report with water quality results in CIWQS

APPENDIX

Appendix A - Field Forms

Appendix B - Calibration Logs

Appendix C - Chain of Custody Forms (COCs)

APPENDIX A

Field Forms

APPENDIX B

Calibration Logs

APPENDIX C

Chain of Custody Forms (COCs)

Sewer System Management Plan
Element 7: Sewer Pipe Blockage Control Program

7.0 REGULATORY REQUIREMENT

Each Enrollee shall evaluate its service area to determine whether a sewer pipe blockage program is needed to control fats, oils, and grease (FOG), rags and debris. If an Enrollee determines that a program is not needed the Enrollee must provide justification as to why it is not needed. The procedures must include, at minimum:

a. An implementation plan and schedule for public education outreach program that promotes proper disposal of FOG and other pipe-blocking substances;

b. A plan and schedule for the disposal of pipe-blocking substances 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 substances generated within a sanitary sewer system service area.

c. The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages

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 ordinances.

f. An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and.

g. Implementation of source control measures for all sources of FOG reaching the sanitary sewer system for each section identified above.

Element 7: Sewer Pipe Blockage Control Program

This SSMP element discusses the Sewer Pipe Blockage Control Program that the City of Lompoc Wastewater Division has in development for the management, operation and maintenance of the sanitary sewer collection system. Sections 7.1 through 7.7 provide a broad overview of the Program.

A key objective of Element 7 is to focus on compliance with regulations as opposed to punitive measures.

7.1 CHARACTERIZING SOURCES OF PIPE-BLOCKING SUBSTANCES

FOG can be a major cause of sewer line blockages leading to increased maintenance and possible SSOs, but the City's O&M efforts have prevented any FOG-related spills from occurring in our service area in recent years. Out of the seven spills that the City experienced from 2007 to 2024, none were found to be caused by FOG accumulation in the lines. Nevertheless, we are aware of locations where excessive FOG accumulation may be problematic if not addressed, such as areas with restaurants, around apartment complexes, and at certain automotive related facilities, as well as in establishments built between 1916–1950 with clay sewer lines.

A closed-circuit television (CCTV) deployed in the collection system identifies areas within the City that require more frequent inspection and maintenance because of potential FOG accumulation or roots intrusion. The City does not have a chemical root control program; areas with known root intrusion issues are maintained through more frequent cleaning (rodding and flushing).

Certain locations are flushed with greater frequency than other lines to reduce odor and greasy build-up in the lines. Lines with a history of build-up are generally flushed monthly or quarterly and are visually examined periodically. Lines with normal conditions or no history of blockages are flushed at intervals of 12 to 36 months.

7.2 LEGAL AUTHORITY

Regulatory requirements specific to the control of FOG discharges are specified in the City of Lompoc Municipal Code, Title 13, Chapter 13.16, Article 9: Fats, Oils, and Grease Control Program. Program areas authorized in the Lompoc Municipal Code include FOG-related discharge prohibitions; grease control device requirements, including maintenance requirements; identification of best management practices (BMPs); monitoring, reporting, and inspection, and notification, conditions; and enforcement.

The Director may approve deviations from FOG requirements as long as the deviations do not improperly or inappropriately excuse complying with the Lompoc Municipal Code Title 13, Chapter 13.16.

Additional regulatory controls applied generally to all collection system users and a wide range of prohibitions against pipe-blocking substances are identified in the City Municipal Code, Title 13, Chapter 13.16, Articles 1 through 9. Application of Article 9 provisions is intended to work in concert with the provisions of Articles 1 through 8. FOG users are not exempt from any of the regulatory requirements specified in Chapter 13.16.

7.3 FOG CONTROL PROGRAM

The City has determined a FOG Control Program is necessary to facilitate the maximum beneficial public use of the City of Lompoc's sewer services and facilities while preventing blockages of the sewer lines resulting from discharges of FOG to the sewer system. This section discusses the elements required to implement a successful FOG Control Program that complies with regulatory requirements. All FOG-discharging facilities are subject to the requirements of the FOG Control Program that shall be specified in Chapter 13.16, Article 9 of the City Municipal Code. Procedures for implementing the City's FOG Control Program shall be outlined in the City's Fats, Oils, and Grease (FOG) Pretreatment Program Policy. While the City maintains the legal authority to permit all FOG-discharging facilities, they may be, but are not routinely, issued individual wastewater discharge permits. FOG program staff do, however, regularly inspect FSEs to verify compliance with FOG Control Program requirements. Emphasis is placed upon FSEs because of the potential impact on the sewer system related to food preparation. This section provides a summary of the FOG Control Program.

On-site FOG Handling and Disposal Practices

FOG control devices. Unless the Director or his/her designee issues an exemption, the City of Lompoc Sewer System Ordinance requires any User that discharges more than a *de minimus* quantity of FOG from its facility into the sanitary sewer system to perform pretreatment to comply with the City's Pretreatment Program. Users are generally required to install, operate, and maintain a FOG discharge grease control device that is sufficient to remove FOG contained in wastewater discharges. Such devices shall be sized, configured, and connected in accordance with the most recent Uniform Plumbing Code and approved by wastewater pretreatment or collections personnel. Restaurants and other FSEs that discharge a *de minimis* amount of FOG, such as those engaged only in reheating, hot holding, assembly, or mixing of ready to eat food products, may be exempted from this requirement.

Best Management Practices (BMPs)

a. Food Service Establishments (FSEs). All FSEs and other entities that operate commercial kitchens, even if only on an occasional basis, are subject to the FOG ordinance and pretreatment requirements which include Best Management Practices (BMPs) designed to reduce the amount of FOG discharged into the sanitary sewer system. These BMPs include, but are not limited to, scraping plates prior to washing, using baskets in sink drains, and dry clean up of spills. FSEs, unless granted an individual written waiver by the Director or designee, shall implement BMPs.
   Outreach to FSEs includes providing educational materials relating to kitchen practices regarding the need and benefit of reducing or eliminating FOG-producing materials from entering an establishment's sewage connection by separating them out for removal from the FSE as garbage. All FSEs shall post the BMPs in a conspicuous area in the food preparation and dishwashing areas at all times and maintain documentation of annual training of employees regarding FOG control measures and the BMPs.
b. Other Non-residential Sewer Users. Certain other Users utilize products in their businesses that include materials that, if discharged to the sewer system, have the potential to contribute to FOG entering the sewer system. These include automobile service facilities that provide petroleum and grease-based products and services in the course of conducting their business, and cannabis businesses that include production facilities.

c. Residential Sewer Users. Residential areas also can contribute to FOG discharges, however, their share of FOG contribution to the sewer system is considered *de minimus* and no FOG control devices are required.

FSE Record-keeping Requirements

All FSEs and multiple FSE dischargers shall be required to keep all manifests, receipts, and invoices of all cleaning, maintenance, grease removal of/from the Grease Control Device, and disposal carrier and disposal site location records for no less than three years. FSEs and multiple FSE dischargers shall, upon request, make the manifests, receipts, invoices, and records available to any City of Lompoc representative. In addition, FSEs and multiple FSE dischargers shall maintain the following records, as applicable:

1. A logbook of Grease Control Device cleaning and maintenance practices.
2. A record of Kitchen Best Management Practices being implemented.
3. Copies of records and manifests of waste hauling interceptor contents.
4. A logbook of annual training of employees regarding FOG control measures and Kitchen Best Management Practices.
5. Records of sampling data and sludge height monitoring for FOG and solids accumulation in the FOG interceptors.
6. Any other information determined to be appropriate by the Director or designee to ensure compliance with the FOG Control Program.

FSE Grease Storage for Recycling

Disposal of yellow grease including waste cooking oil into the sanitary sewer is prohibited. It is recommended that all FSEs use a grease rendering service for yellow grease. Yellow grease should be stored in a labeled and color-coded container with a tight-fitting lid and reside in a secondary containment container for spills. The container should be stored away from floor drains. Several grease rendering companies currently serve the Lompoc area. While the City cannot endorse or recommend any particular grease rendering companies, a list of the companies serving the Lompoc area is available on the City website at: https://www.cityoflompoc.com/home/showpublisheddocument/1148/636655432427470000.

Pretreatment Program

Under the Code of Federal Regulations at Title 40 of the Code of Federal Regulations (CFR) Part 403, the City is required to implement a Pretreatment Program to regulate discharge from non-domestic sources in its service area. The FOG Control Program is considered to be a component of the City's Pretreatment Program. The Pretreatment Program is administered under the general direction of the Director and the supervision of the staff Chemist who serves as the lab director for the wastewater treatment plant. Title 13 Chapter 16 of the Lompoc Municipal Code provides the City with the necessary legal authority to implement the Pretreatment Program.

The City's Pretreatment Program uses an office database management system to track and monitor FSEs and other FOG producers. The database contains all Users that are subject to pretreatment. Information stored in the database includes: general facility information (e.g., name and description of facility, address, phone number, history, etc.), inspections, grease haulers and renderers used, corrective actions taken, and compliance status. The database also includes: previous FOG blockages, sanitary sewer overflows (SSOs), sewer repairs and

maintenance, cleaning frequencies, method of cleaning, suspected cause(s) of sewer problems, odor complaints and frequencies, and estimated costs of maintaining the sewer.

FOG Program Budget

The FOG Control Program is funded from Collections, Pretreatment, and Wastewater's Administrative budget. It is expected the expenditures spent on the FOG Program will remain fairly constant. The City budget includes both maintenance and capital funding for wastewater needs.

7.4 PROGRAM ADMINISTRATION

The City's Collection personnel maintain historical records of all SSOs, FOG related blockages, sewer repairs, maintenance, cleaning frequencies, site locations, and suspected cause of problems. It is used to help identify particular sewer system sections subject to blockages or with a past history of blockages so that specific preventive measures can be taken.

FSEs, automotive related industries and certain other FOG generating users are inspected regularly, with inspection frequencies being determined based on a variety of prioritizing factors. FOG-producing entities whose activities have resulted in special activities on the part of the City, including but not limited to issuance of notices of violation, increased cleaning frequency, or increased inspection frequency, are scheduled to be inspected more frequently. All users that are likely to have caused or contributed to FOG-related blockages or SSOs will be inspected promptly upon discovering the likely role of the user.

Present staffing is adequate to inspect facilities that discharge FOG to the sewer system. However, the ongoing establishment of local wineries and the emerging cannabis facilities may lead to additional staffing needs.

Inspection Procedures

All safety precautions shall be taken during each inspection. All inspectors shall have personal protective equipment (PPE) consisting of safety glasses, vests, gloves, hardhat, boots, and anything else required by site conditions available. Traffic cones shall be used when necessary. A gas monitor shall be used immediately prior to each inspection of a hydro-mechanical grease interceptor or gravity grease interceptors, as well as during the inspection. Additional PPE may be required depending on the inspection site.

Sampling equipment may include maintenance hole cover openers, sample containers, ice chest, cold packs, Sludge Judge®, paper towels, hand sanitizer, trash can, trash bags, towels, note pad, pen, chain of custody, and digital camera. Additional materials may be required where necessary.

Inspection Activities

Inspection activities may vary, depending on the reason for the inspection. Pretreatment personnel and/or other City representatives will first announce their arrival and may inspect the grease device manifests/logs. Inspection activities may also include inspection of any kitchen and all its grease removal devices, implementation of KBMPs, posted signs, and outside

grease removal devices. The inspection activities may also include interviewing the staff, reviewing training logs and materials, and providing educational materials.

Inspection Criteria

Operation and maintenance practices for grease control are evaluated by the City during each facility inspection. Primary City inspection criteria include, but are not limited to the following, as applicable:

1. Grease Control Device compliance which may include visual inspection or measurement of FOG to determine performance.
2. Grease Control Device compliance with minimum pumping frequency.
3. Review of receipts/manifests/service logs and invoices to assess compliance with the minimum pump frequency requirements.
4. And for FSEs:
   a.) Visual verification of Kitchen Best Management Practices being posted conspicuously in the food preparation and dishwashing areas.
   b.) Evidence that employees of the food service establishment have been trained once each calendar year regarding FOG Control measures and BMPs as well as a review of training log/documentation.

Follow-up Procedures

When a User is found to be in non-compliance with program requirements, a notice to comply or a notice of violation may be issued depending on the history and severity of the FOG problem. In most cases, Users will receive a notice to comply within a specific time frame. The inspector informs the User that a follow-up inspection will occur to verify the required action, e.g., pumping/cleaning, has been performed and equipment is operating in conformity with regulatory requirements. If a blockage is severe, the inspector or other City personnel may remain on-site until a pumping company arrives and the FOG problem is remedied.

7.5 OUTREACH, TRAINING, AND EDUCATION

*This section of Element 7 applies to the FOG Control Program**. Customer Communication of a more general nature is found in Element 11, Communication Program.***

Educating owners and managers of facilities with potential to discharge FOG is an important and effective way to reduce FOG from entering the sanitary sewer. The City develops and distributes educational brochures and posters with grease removal device information, benefits of using a grease rendering service, BMPs, adverse effects of FOG blockages, grease removal device sizing, and frequently asked questions.

Particular emphasis is directed toward assisting FSEs. Brochures and posters may be reviewed and distributed to all FSEs during inspections. City staff may also take the opportunity during inspections to educate the owner or manager of additional steps that can be taken to prevent FOG from entering the sewer.

To a lesser degree, residential areas also contribute to FOG blockages. The City may occasionally provide FOG brochures throughout the City to residents relating to FOG reduction efforts. This generally is accomplished with inserts included in utility bill mailings. In areas

where a sewer overflow is attributed to FOG buildup in the sewer pipes, the City canvasses the vicinity with door hanger type flyers notifying the neighbors of the event and reinforcing the message to avoid pouring these items down the drain while describing the continued negative impacts that this will likely have on the sewer system. Both mailers and door hangers typically provide information in English and Spanish.

7.6 ENFORCEMENT

An Enforcement Response Plan provides guidelines for City staff to detect, investigate, and respond to instances of User noncompliance encountered in its Pretreatment Program. The City implements and enforces its approved Pretreatment Program in accordance with the requirements of its NPDES permit, RWQCB requirements, and the federal pretreatment regulations specified at Title 40 of the Code of Federal Regulations (CFR) Part 403.

The City's authority for enforcement is specified in its Sewer Use Ordinance (SUO), Chapter 13 of the Lompoc Municipal Code, which incorporates applicable local, California, and Federal pretreatment regulations. The purpose of the SUO is to regulate wastewater to protect public health and safety, City facilities and personnel, and the environment.

All nondomestic dischargers into the City sewerage system, including both commercial and industrial facilities, including FSEs and other potential FOG-discharging facilities, are considered Users subject to the requirements and enforcement procedures outlined therein. Users violating conditions of the SUO; other municipal requirements such as wastewater discharge permit provisions; and City, State, and Federal requirements and policies governing wastewater disposal must resolve instances of noncompliance in a timely manner.

Accordingly, the Enforcement Response Plan was developed to provide consistent, timely, fair and equitable enforcement responses; to eliminate economic advantages for violations; and to ensure that the City recovers expenses attributable to violators. In addition to potentially applicable fines, he City may apply wastewater fees for reimbursement costs for extra work conducted on behalf of the Users for monitoring/inspecting, review of accidental discharges, and non-compliance issues deemed necessary for the City to implement wastewater pretreatment requirements. Users who continually fail to comply with pretreatment requirements could be subject to the enforcement remedies specified in the Lompoc Municipal Code Title 13, Chapter 13.16. In general, enforcement actions are meant to focus the efforts of dischargers on correcting violations and are intended as restorative, not punitive, measures.

Sewer System Management Plan
Element 8: System Evaluation, Capacity Assurance, and Capital Improvements

8.0 LEGAL REQUIREMENT

The SSMP must include procedures and activities for: routine evaluation and assessment of system conditions; capacity assessment and design criteria; prioritization of corrective actions; and a capital improvement plan. At a minimum, the following is required:

a. System Evaluation and Condition Assessment
The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;
- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
- Prioritize the condition assessment of system areas that:
  - Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
  - Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;
  - Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;
- Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and
- Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

b. Capacity Assessment and Design Criteria
The Plan must include procedures to identify system components that are experiencing or contributing to spills caused by hydraulic deficiency and/or limited capacity, including procedures to identify the appropriate hydraulic capacity of key system elements for:

- Dry-weather peak flow conditions that cause or contribute to spill events;
- The appropriate design storm(s) or wet weather events that causes or contributes to spill events;
- The capacity of key system components; and
- Identify the major sources that contribute to the peak flows associated with sewer spills.
- The capacity assessment must consider:
- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;

- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;
- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;
- Increases of erosive forces in canyons and streams near underground and above-ground system components due to larger and/or higher-intensity storm events;
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and
- Necessary redundancy in pumping and storage capacities.

c. Prioritization of Corrective Action

The findings of the condition assessments and capacity assessments must be used to prioritize corrective actions. Prioritization must consider the severity of the consequences of potential spills.

d. Capital Improvement Plan

The capital improvement plan must include the following items:

- Project schedules including completion dates for all portions of the capital improvement program;
- Internal and external project funding sources for each project; and
- Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects; and Interagency coordination with other impacted utility agencies.

Element 8.0: SYSTEM EVALUATION, CAPACITY ASSURANCE, AND CAPITAL IMPROVEMENTS

8.1 SYSTEM EVALUATION AND CONDITION ASSESSMENT

Use of closed-circuit television (CCTV) as an inspection tool has identified City sewer mains that require close attention. Most of the issues are a result of sewer mains having been emplaced in natural bedding with considerable external loading that, over a period of several decades, had resulted in deteriorating line condition. Most of these are located on the south side of the City system, and many date from 1916. Root intrusion is also an issue in some areas. In all, approximately 21 miles of City sewer mains (pre-1960) are currently identified as being in need of rehabilitation or replacement.

The CCTV inspection is performed by Wastewater Collections. At a minimum, information from the CCTV inspection is to be documented and is utilized in prioritizing mainline repair projects. To provide consistency in data collection, review of pipe conditions, and better understanding of the collection system, the Wastewater Collections staff implemented a program for CCTV inspections using a standardized National Association of Sewer Service Companies rating system. Staff conducting and/or evaluating the ratings have completed Pipeline Assessment and Certification Program training. The CCTV inspection identifies lines that need more frequent follow-up inspection periods.

In addition to the programmed area for condition assessment, the following locations are added to the annual CCTV program:

- Lines with more than three service requests within the past year;
- Lines under roadways scheduled for rehabilitation; and
- Lines identified by field personnel as problem locations.

These added lines are re-inspected as needed regardless of the date of a previous CCTV inspection to ensure there is up-to-date information on problem lines. Ongoing collaboration between Wastewater Collection and GIS staff ensure CCTV projects identify an inclusive list of pipes and rehabilitation efforts are suitably prioritized.

8.2 CAPACITY ASSESSMENT AND DESIGN CRITERIA

The City of Lompoc collection system is largely built out, as few new areas are being annexed for development. Infiltration and inflow (I&I) is still a concern, but was likely more of a problem prior to upgrading a separate storm drain system beginning in the 1970s.

The City is undergoing a Wastewater Master Plan, including a collection system hydraulic model. The goal is to have the wastewater master plan complete by the end of our current contract term which is February 28, 2026. The budget for this task is $150,000. The scope includes a manhole sewer survey followed by demographic review/flow projection analysis, development of a sewer collection system hydraulic model (AquaTwin software), lift station capacity evaluation, and recommendations for capital improvement projects to address deficiencies found through the hydraulic modeling. In preparation for this project, the City will contract directly with a sewer flow monitoring firm to provide wet weather flow data for use in the model.

The City's design criteria are codified in the Municipal Code. They are discussed in detail in Element 5. Design and Performance Provisions. Current installation criteria offer considerable

improvements over past practices. Fewer joints are needed with durable PVC pipe, and use of designed bedding enhances stability.

8.3 PRIORITIZATION OF CORRECTIVE ACTION

The City dedicates a significant portion of the Wastewater Collection annual budget for rehabilitation and repair. This funding is in addition to any major line replacement or pump lift station upgrades addressed through the Capital Improvement Program (CIP). Funding has been established to make prioritized line repairs identified in the annual CCTV condition assessment of the collection system.

This program prioritizes the repair of structural defects to ensure the system can consistently provide service and also prioritizes repair of defects such as protruding taps and roots that cause backups and SSOs. The City-wide sanitary sewer rehabilitation program receives funds annually from sewer use fees. The funds are used for spot-repair, slip-lining or full-line replacement.

8.4 CAPITAL IMPROVEMENT PLAN

The City has a two-year business plan (Budget) that includes a Capital Improvement Program (CIP). Individual CIP projects run independently and therefore can begin before and continue beyond the budget cycle. The two-year CIP will only identify funds being newly allocated to existing projects.

Managing capital investment in sanitary sewer rehabilitation, inflow/infiltration improvements and capacity upgrades requires a long-term conceptual planning document. This planning document is officially budgeted and approved by the City Council. It identifies probable long-term financial needs and future projects. This CIP projection is used to develop sewer rates and plan for the issuance of revenues necessary to finance the projected Capital Improvement Program. It is important to fund projects over time in a sustainable way, making sound infrastructure investments for the future. To ensure the overall financial health of the Wastewater Division, multiple successive rate increases have been approved by Lompoc City Council in recent years. The revenue generated helps fund future City sewer main projects.

The CIP identifies an ongoing commitment of funds for inflow and infiltration reduction in addition to significant funding identified for the sewer system. Projects in the current budget (FY 2025-26, and FY 2026-27) include $8,672,000 for collection system and wastewater treatment improvements. Projects in the current budget (FY 2025-26, and FY 2026-27) include $8,672,000 for collection system and wastewater treatment improvements. The collection system projects are detailed in the table below. The projects have been planned and designed through joint coordination between operation and maintenance staff, and engineering staff/consultants. Coordination with outside utility agencies is not necessary to complete these projects.

CIP projects for sewer rehabilitation and replacement consist of individual improvements and small repair projects that run cradle-to-grave (and therefore can begin before and continue beyond the budget cycle) and receive funds annually. Current CIP projects that target overall sewer rehabilitation and replacement, projects that address inflow and infiltration, and projects aimed at increasing mainline capacity where deficiencies were identified in a Citywide CCTV study and the current Wet Weather Capacity Analysis. The CIP will be updated once the Wastewater Master Plan is complete later in FY 2025-26.

Table 8-1. Collection System Capital Improvement Projects

Project	Description	Timeline /Phase / Budget
Wastewater treatment and collection system master plan study	Wastewater treatment/collection master plan study to identify current issues, regulatory compliance requirements, solution recommendations, technology evaluations, cost estimations, prioritizations for the aeration system, wastewater treatment plant energy optimization, biosolids handling improvements, SCADA system improvements, wastewater collection system improvements, lift station evaluations, and rate impact analysis	FY2026: Master plan development $350,000
West Central Ave. sewer pipeline and manhole replacement	About 2 million gallons of wastewater from the City of Lompoc flow through the west Central Ave. sewer pipelines and manholes. It contains a high concentration of H2S, which results in the corrosion of sewer pipelines and manholes. Corroded manholes will be repaired using manhole coating technology, which includes preparing the interior surface of the manhole, applying an epoxy primer, and adding a polyurethane lining.	FY2026: Design/ permitting $200,000 FY2027 Pipeline and manhole replacement $800,000
Floradale Monitoring Station Improvement	Approximately 0.7 MGD flow through the Floradale station (VAFB & VVCSD combined), which accounts for about 25% of the total WWTP flow. The Floradale monitoring station is over thirty years old, undersized, inadequate and potentially unsafe. Project calls to combine the Floradale monitoring station into the headworks building or construct a new building for it that includes an adequate ventilation system, improved access to the sampling point, a larger area for the equipment calibration station, a better flow rate monitoring system, and a dedicated parking space.	FY2026: Design/ permitting $50,000 FY2027 Construction and equipment $450,000
Uplands Sewer Lift Station	The Uplands Sewer Lift Station has been in service for 22 years, with only one pump upgrade made over ten years ago. It serves Hancock College, the Uplands residential area, and any future developments to the north. Installing a larger wet well will provide more storage to manage peak wet weather flows. Currently, the station is performing at a high level, but the need for redundancy is increasing. With upgraded equipment, we will be able to maintain this high standard of service. This pump station is located north of the Santa Ynez River on H St. The project will include new submersible pumps, larger capacity wet well, valve & control systems, chemical storage/feeding, alarm system, and an emergency Diesel Generator.	FY2026: Design/ permitting $20,000 FY2027 Construction and equipment $600,000

River Park Sewer Lift Station	The River Park Lift Station is over twenty-five years old with the last partial upgrade done in approximately 2005. The proximity of this Lift Station to the Santa Ynez River creates an environmental issue if it should fail and discharge into the river. With the future upgrade/expansion of the campgrounds, this will put an added strain on the Lift Station which increases the possibility of a failure of the system. The Lift Station needs to be improved to assist with the safe transportation of the wastewater from this site to the Wastewater Plant. This is a submersible sewage pump station with duplex pumps, located within River Park. The project would update this pump station with larger pumps, a wet well, valves, and chemical storage/feeding and control systems.	FY2026: Design/ permitting $20,000 FY2027 Construction and equipment $450,000

Sewer System Management Plan
Element 9: Monitoring, Measurement and Program Modifications

9.0 LEGAL REQUIREMENT

The SSMP must include an Adaptive Management section that addresses Plan-implementation effectiveness and the steps for necessary Plan improvement, including:

a. Maintaining relevant information that can be used to establish and prioritize appropriate SSMP activities.

b. Monitoring the implementation and, where appropriate, measuring the effectiveness of each element of the SSMP.

c. Assessing the success of the preventive maintenance program.

d. Updating program elements as appropriate based on monitoring or performance evaluations.

e. Identifying and illustrating SSO trends including frequency location and volume.

9.0 MONITORING, MEASUREMENT & PROGRAM MODIFICATIONS

The Lompoc Wastewater Collection Division (LWCD) strives toward proper maintenance, operations, and management of the sanitary sewer collection system. Efforts focus on little or no SSO frequency and impact, improving collection system reliability, and providing capacity in the system to convey peak flows. The following information refers to what data is collected on a daily basis and how that data is used to analyze sewer collection system performance, structural and maintenance related problems, crew productivity, and overall success of maintenance and capital improvement programs.

9.1 DATA COLLECTION

LWCD utilizes ADMINS (Alpha) program software, which provides the means to capture, retrieve, and track all collection system maintenance activities. "How-To" documents have been created for data entry with examples specific to Lompoc's collection system. Staff are trained on use of this program with administration and quality control provided by the Information Systems/Geographical Systems administrator.

Sewer crew daily records provide information that assists staff in analyzing the sanitary sewer collection system. Included on crew daily log and work order sheets are: location of work; pipe or manhole ID#; length of pipe worked on, whether activities were part of an emergency response or preventive maintenance;Citywide cleanings and/or "Enhanced Maintenance" repetitive cleaning); structural or maintenance problems discovered in the pipe and their severity; whether additional follow-up is needed; staff names; equipment and material used; and start and end times.

LCWD staff enters all information into the ADMINS program. Maps displaying structural and maintenance deficiencies in the collection system have been useful for understanding the various dynamics of the collection systems in different areas of the City. Using this visual display of information; together with frequent discussions between management, crew, engineering, and IS/GIS; LWCD updates maintenance activities as appropriate.

Contractors are sometimes utilized in addition to internal staff for completing targeted and City-wide condition assessment projects. Closed-circuit television (CCTV) is used to identify problems within sewer pipes and provide an overall condition rating of each pipe.

CCTV is used to capture the structural and maintenance condition of pipes within a sewer basin. All CCTV information is to be entered into the Admins program. Reports are created to analyze CCTV data and condition scores. Such reports are useful for determining specific rehabilitation methods as well as coordinating repairs with other public works efforts such as road rehabilitation and reconstruction. Maintenance hole condition assessments/inspections are completed in conjunction with mainline condition assessment projects and separately as necessary.

LCWD has a vehicle with CCTV capabilities. This vehicle is utilized for taking videos of pipes under roadways slated for rehabilitation or reconstruction, spot-checking maintenance cleaning efforts, and to quickly identify causes of blockages.

9.2 DATA REPORTING

Performance indicator information is generated on a quarterly and annual basis. Some of the criteria tracked are:

- Sewer Odor Complaints
- Sewer Mainline Blockages
- Sewer Emergency Calls
- Emergency Response within two hours
- Sewer Mainlines Repaired

Reported data suggests consistent workload for sewer maintenance. Recent repairs can be attributed to better communication between sewer maintenance and CCTV inspection.

9.3 SANITARY SEWER OVERFLOWS

LCWD tracks detailed information pertaining to sanitary sewer collection system overflows (SSOs). SSOs have been very infrequent on the City sewer mains. Through 2024, there have been seven such incidents recorded since the City started tracking SSOs in 2007. **Additional information regarding how the City manages its SSO response program can be found in Element 6 of this SSMP.**

Sewer System Management Plan
Element 10: Internal Audits

10.0 REGULATORY REQUIREMENT

The SSMP shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply with section 5.4 (Sewer System Management Plan Audits) of the 2022 SSS WDR. Section 5.4 states that, at a minimum, these audits must occur every three (3) years and a report must be prepared and uploaded to CIWQS. The audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements in the 2022 SSS WDR, including identification of any deficiencies in the SSMP and steps to correct them.

Element 10.0: INTERNAL AUDITS

The Program Audits section of the SSMP exists to measure compliance with prior individual SSMP Element planned activities. Since the inception of the SSMP, information related to Collections has been informally analyzed in order to identify deficiencies and improve program performance, however these activities have not been formalized in a manner consistent with SSMP requirements.

10.1 PURPOSE AND USE

This element requires periodic operational or quality audits, as opposed to financial audits. It requires an evaluation of the effectiveness of WW Collections in meeting its intentions as stated in the individual elements of the SSMP. A useful definition of this type of audit from the book, Fundamentals of Quality Auditing (Parsowith) is “A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.” In a sense the SSMP audit creates a “report card” that measures actual performance against planned performance. The audits are required at least every three years and, as required, will be kept on file with the WW Manager as well as made available to regulators through uploads to the electronic database CIWQS.

10.2 CORRECTIVE MEASURES

A procedure has been put in place to ensure that audit requirements are met in the future. Two actions have been put in place to ensure that periodic audits take place as required:

1. Oversight responsibility for the timely completion of periodic audits has been made the responsibility of the Wastewater Manager.

2. A “recall file” that specifies the required dates and materials relating to audit requirements has been created.

Sewer System Management Plan
Element 11: Communication Program

11.0 REGULATORY REQUIREMENT

The Plan must include procedures for the Enrollee to communicate with:

- The public for:
    - Spills and discharges resulting in closures of public areas, or that enter a source of drinking water, and
    - The development, implementation, and update of its Plan, including opportunities for public input to Plan implementation and updates.
- Owners/operators of systems that connect into the Enrollee's system, including satellite systems, for:
    - System operation, maintenance, and capital improvement-related activities.

ELEMENT 11.0: COMMUNICATION PROGRAM

This section highlights the communications and outreach plan that the City developed for its SSMP. Additional outreach activities specifically relating to SSMP Element 6, Overflow Emergency Response Plan, and SSMP Element 7, Fats, Oils, and Grease (FOG) Control Program are described therein.

The City of Lompoc's primary "customers" are the residential, industrial, and commercial customers that connect to the sewers located within Lompoc. In addition, two "satellite systems" contribute flow to the City of Lompoc sanitary sewer collection system. These contributing systems (or Member Agencies) are Vandenberg Village Community Service District and Vandenberg Space Force Base. The customers of the satellite systems are the residential, industrial, and commercial customers that connect to the collector sewers located within the service areas of each of the contributing systems.

11.1 COMMUNICATIONS WITH MEMBER AGENCY SATELLITE SYSTEMS

In addition, the Wastewater Manager and Supervisors regularly attend the monthly Sanitation Agency Managers Association meetings, where they meet with neighboring agencies to discuss ongoing issues and share information. In the event of an emergency, neighboring agencies contact the Wastewater Collection Supervisor or the on-call crew directly, ensuring effective and reliable communication.

11.2 COMMUNICATIONS WITH AND OUTREACH TO RESIDENTIAL, INDUSTRIAL, AND COMMERCIAL CUSTOMERS AND THE GENERAL PUBLIC

The City provided a link at the public website where the public is encouraged to view and comment on SSMP sections. The website provides a list also referred to in all other outreach efforts.

The City of Lompoc conducts public outreach and education for residents and businesses related to sanitary sewer overflows, preventing grease blockages, Best Management Practices for grease handling, and other topics as provided at community events related to SSO.

11.3 SPECIFIC OUTREACH: FOG MITIGATION

The City inspects service facilities for compliance with the City Code. Educational materials are distributed during these inspections as needed. The City also conducts Plan Checks for all new and remodeling restaurants and other food service facilities to determine proper grease removal device sizing, if warranted.

The City may distribute informational flyers to residential and business property owners and tenants describing the negative impacts of discharging fats, oils, and grease into the sanitary sewer system as needed. In areas where a sewer overflow is attributed to FOG buildup in the sewer pipes, the City canvasses the vicinity with door hanger type flyers notifying the neighbors of the event and reinforcing the message to avoid pouring these items down the drain while describing the continued negative impacts that this will likely have on the sewer system. Both mailers and door hangers typically provide information in English and Spanish. **Additional discussion of customer outreach related to FOG is covered in Section 7.5.**

11.4 COMMUNICATION WITH AND OUTREACH TO LAND DEVELOPERS, CONSULTANT ENGINEERS, CONTRACTORS

The City has disseminated information, in meeting and/or by flyers, to land developers, consultant engineers, and plumbing contractors regarding the need and methods to reduce SSOs. The City communicates and solicits input regarding the SSMP requirements with emphasis on design and construction practices that reduce sewer overflows.

Internally, the City communicates with various departments, such as Environmental Services, Public Works, Transportation, and Building and Code Enforcement regarding the overall SSMP, program audits, emergency response plan, FOG program, and design standards.

For Capital Improvement Projects, key stakeholders including engineering consultants and contractors are contacted. Potential issues of interest include design standard, capital program, and consulting and contracting opportunities.

11.5 OUTREACH TO PLUMBERS AND BUILDING CONTRACTORS

Plumbers and sewer contractors have access to all available City of Lompoc plans, specifications, and standard details. Information is available on construction standards, proper operations and maintenance activities, and effective measures for removing blockages.

11.6 COMMUNICATIONS WITH CITY ELECTED OFFICIALS

The SSMP is part of discussions with the City Council and the Utility Commission, particularly with respect to budget development. Presentations are made to both bodies when seeking periodic approval of the SSMP in accordance with prescribed time schedules.